

Modifying words
Dutch adverbial morphology in contrast

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List of abbreviations

Corpora and dictionaries

ALC	Archief Leeuwarder Courant
ANW	Algemeen Nederlands Woordenboek Corpus
BNC	British National Corpus
CGN	Corpus Gesproken Nederlands
DWB	Deutsches Wörterbuch
DWDS	Kerncorpus – das Digitale Wörterbuch der Deutschen Sprache des 20. Jahrhunderts
EWN	Etymologisch woordenboek van het Nederlands
INL	Instituut voor Nederlandse Lexicologie: historical dictionaries
MNW	Middelnederlands woordenboek
OED	Oxford English Dictionary
ONW	Oudnederlands woordenboek
VD	Van Dale
VMNW	Vroegmiddelnederlands woordenboek
WFT	Woordenboek der Friese Taal
WNT	Woordenboek der Nederlandsche Taal
38MWC	38 Miljoen Woorden Corpus

General

ADJ	adjective
ADV	adverb
AdvP	adverb phrase
ct.	century
COMP	comparative
CONJ	conjunction
DET	determiner
FDG	Functional Discourse Grammar
FG	Functional Grammar
INFL	inflected
Modf	modifying word
N	noun
n.d.	not dated
NP	noun phrase
PART	participle
PREP	preposition
PRON	pronoun
SUP	superlative
V	verb
VP	verb phrase

Languages and language periods

Af.	Afrikaans	
CD	Contemporary Dutch	(> 1970)
CE	Contemporary English	(> 1970)
CG	Contemporary German	(> 1970)
Dt.	Dutch	
EMD	Early Middle Dutch	(1200-1300)
EModD	Early Modern Dutch	(1500-1700)
EModE	Early Modern English	(1500-1700)
EModG	Early Modern (High) German	(1350-1600)
En.	English	
Fr.	French	
Fs.	Frisian	
Gm.	German	
Gmc.	Germanic	
Gt.	Gothic	
High Gm.	High German	
IE	Indo-European	
Lt.	Latin	
Low Gm.	Low German	
MD	Middle Dutch	(1200-1500)
ME	Middle English	(1100-1500)
MG	Middle (High) German	(1100-1350)
ModD	Modern Dutch	(> 1700)
ModE	Modern English	(> 1700)
ModG	Modern (High) German	(> 1600)
OD	Old Dutch	(< 1200)
OE	Old English	(< 1100)
OG	Old High German	(< 1100)
PGmc.	Proto-Germanic	
PIE	Proto-Indo-European	
West-Gmc.	West-Germanic	

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Part I

Preliminaries

1 Introduction

Dutch is assumed to have a category of adverbs (henceforth: ADV) which may be extended through word-formation patterns. In his recent handbook on Dutch word formation, Booij (2002: 133-134) lists the adverbial suffixes in (1.1).

(1.1) -(e)lijk, -(e)lings, -erwijs, -gewijs, -halve, -iter, -tjes, -waarts, -weg

ADV formation with the Dutch adverbial suffixes in (1.1) may be illustrated by the examples in (1.2), where ADV are derived from adjectives (henceforth: ADJ) and nouns (henceforth: N). Notice that a linking element -s- may be inserted, e.g. *groepsgewijs* ‘in groups’. It is a peculiarity of Dutch orthography that long vowels are spelled with two letters in closed syllables (e.g. *normaal* ‘normal’) but with one letter in open syllables (e.g. *normaliter* ‘normally’); I shall maintain this spelling when I segment words into morphemes.

(1.2)	recent _{ADJ}	‘recent’	:	recent-elijk _{ADV}	‘recently’
	blind _{ADJ}	‘blind’	:	blind-elings _{ADV}	‘blindly’
	redelijk _{ADJ}	‘reasonable’	:	redelijk-erwijs _{ADV}	‘reasonably’
	groep _N	‘group’	:	groep-s-gewijs _{ADV}	‘in groups’
	fatsoen _N	‘decency’	:	fatsoen-s-halve _{ADV}	‘for decency’s sake’
	normaal _{ADJ}	‘normal’	:	normal-iter _{ADV}	‘normally’
	gewoon _{ADJ}	‘common’	:	gewoon-tjes _{ADV}	‘rather common’
	huis _N	‘house’	:	huis-waarts _{ADV}	‘to home’
	simpel _{ADJ}	‘simple’	:	simpel-weg _{ADV}	‘simply’

Dutch adverbial morphology represents a poorly investigated domain. In contrast, there are detailed and well-founded descriptions of the adverbial suffixes in English and German. Moreover, detailed diachronic descriptions of English and German adverbial suffixes are available. The basic information we get on Dutch adverbial suffixes is unsystematic and intuitive rather than supported by a sufficient amount of attested data. This particularly holds true for historical aspects. However, the relevance of diachrony for understanding synchronic phenomena has been stressed ever since Ferdinand De Saussure introduced the concepts of ‘synchrony’ and ‘diachrony’: “the synchronic structure of language bears the indelible marks of old as well as ongoing diachronic change” (Givón 1979: 43). Specifically for the study of word formation, diachrony is essential for instance for understanding the polysemy of a derivational suffix, as was already observed by Von Wartburg (1923). Word-formation change and the diachronic study of word formation in general deserve much more attention than they have gotten so far (Scherer 2006, Trips 2009) and this is particularly true for Dutch.

The central purpose of this dissertation is to provide a detailed and empirically founded description of the Dutch adverbial suffixes which integrates synchronic and diachronic aspects. Suffix descriptions should tell us more about the origin of the suffix, about the properties of its input and output lexemes and its productivity. For the purpose of this dissertation, I follow a syntagmatic morpheme-based approach to morphology, assuming that words have structure, that complex words may be segmented into morphemes, and that the addition of a morpheme corresponds to an addition of some kind of meaning (compare Haspelmath 2002: 165-167). The suffix descriptions are prepared on the basis of qualitative analyses of attested language data from corpora and dictionaries. A contrastive approach is used as a heuristic and explanatory instrument. The descriptions of Dutch suffixes explicitly profit from the information available on English and German adverbial suffixes.

A basic problem in existing accounts of Dutch adverbial morphology is the status of the complex output words as either ADV or ADJ. From a diachronic perspective, it has been argued that a syntactic shift is taking place whereby derived ADV develop adjectival properties. In the attested contemporary

Dutch example in (1.3), the ADV *recentelijk* ‘recently’ (highlighted in bold face) formed with the adverbial suffix *-(e)lijk* is used as a prenominal attribute and inflected.¹

(1.3)	Uit	een	recent-elijk-e		brief (...)	blijkt	dat	deze
	out	a	recent-ADV-INFL		letter	appears	that	this
	instantie	weinig	gecharmeerd	is	van	reclame	aan	lantaarnpalen.
	instance	little	charmed	is	of	publicity	on	lampposts

‘A recent letter (...) shows that this authority doesn’t like the idea of ads on lampposts very much.’

At the same time, Dutch ADJ may be used adverbially without special marking as illustrated by *recent* ‘recent(ly)’ in (1.4).

(1.4)	Toen	Victor	haar	had	leren	kennen	had	ze	recent	de	kaap
	when	Victor	her	had	learn	know	had	she	recent	the	cape
	van	de	veertig	gerond.							
	of	the	forty	rounded							

‘When Victor got to know her she had just turned forty.’

In order to deal with the notorious ADV/ADJ overlap, I shall propose a different approach, integrating elements from functional linguistics and prototype theory. A meaning-based approach has the advantage that it is cross-linguistically valid. In this way, Dutch may be involved in ongoing discussions on word formation and the function of modification in the European languages. Together with reference and predication, modification constitutes one of the basic functions of human language, and word formation may be viewed as a strategy to give formal expression to modification and its subfunctions. For instance, adding *-erweise* to an ADJ in German, e.g. *erstaunlich* ‘surprising’, results in an evaluation by the speaker in (1.5).²

(1.5)	Arbeitslose	machen	erstaunlich-erweise	den	kleinsten	Teil
	unemployed	make	surprising-ADV	the	smallest part	
	meiner	Kunden	aus.			
	of.my	clients	out			

‘Surprisingly enough, the unemployed represent the smallest proportion of my clients.’

It has been argued that from a diachronic perspective, a functional shift has taken place cross-linguistically whereby complex words became increasingly associated with attitudinal and discourse-related subfunctions of modification, such as the evaluation in (1.5). On an empirical basis, I shall provide further evidence from Dutch for this functional shift.

In addition, I shall show that the investigated Dutch suffixes may be used to modify the meanings of their base words in various ways. This is a property shared with genetically related derivational suffixes in German, but it is in contrast with English, where adverbial morphology (in particular, the marker *-ly*) first and foremost serves a grammatical function. I shall argue on the basis of an investigation of the syntactic uses of their derived words that only a portion of the Dutch suffixes in (1.1) may be considered as Dutch adverbial morphology.

¹ Examples (1.3) and (1.4) are taken from the ANW corpus of contemporary Dutch, see chapter 6.

² Example (1.5) is taken from the DWDS Kerncorpus of contemporary German, see chapter 6.

Outline

This dissertation is organised in three main parts. Part I includes the preliminaries, part II represents the collection of suffix descriptions and part III is the synthesis.

Part I

... started with **chapter 1** which is the present introduction. In **chapter 2** I present the research domain of Dutch adverbial morphology and the problems concerned with it in more detail. It will become clear that a basic problem in existing accounts of Dutch adverbial morphology is the status of the complex output words as either ADV or ADJ. The roots of this notorious ADV/ADJ overlap in Dutch shall be explained in **chapter 3**. In this chapter I present the background of the ancient distinction between ADV and ADJ as distinct parts of speech which Dutch grammar writing has not managed to free itself from. The framework used in this study is presented in **chapter 4**. I propose a meaning-based approach to deal with the ADV/ADJ overlap. This includes an integrated approach to Dutch ADV and ADJ as ‘modifying words’ on the basis that modification is their prototypical function in human communication. In **chapter 5**, I give an overview of the international discussion concerning the diachrony of word formation and modification. I explain the functional and syntactic shift referred to in the international literature. Finally, in **chapter 6**, I present the methodology used in this dissertation. I provide information on the sources of the empirical data, the procedure for the qualitative analysis as well as my conventions for presentation.

Part II

... constitutes the core of this dissertation, namely the collection of suffix descriptions: eleven chapters represent descriptions of individual suffixes which can be read as case studies. Descriptions are organised into a synchronic and a diachronic part and rounded off by a conclusion. The Dutch suffixes in (1.1) will be described as well as two additional word-formation morphemes, *-matig* and *-technisch*. They are treated in the **chapters 7-17** in alphabetical order. Inventories of attested language data corresponding with each chapter are included in the appendix at the end of this dissertation.

Part III

... is the synthesis, in which I bring together the main findings from the descriptions in part II. Thus, in **chapter 18**, I formulate conclusions on the status of Dutch adverbial morphology, the properties of the output words, the relation between word formation and modification (including functional and syntactic change) and aspects of the comparison of Dutch, English and German. The dissertation is rounded off with some final remarks.

2 Dutch adverbial morphology

In Dutch, adjectives can be used adverbially without any morphological marking. Nevertheless, there are a few processes for the creation of adverbs. (...) None of these processes is very productive, however.

Geert Booij (2002: 133)

2.1 Introduction

It is a characteristic of Dutch that unmarked ADJ may be used adverbially. Dutch shares this property with for instance German, Afrikaans and Frisian. However, Dutch is assumed to have a category of ADV which may be extended through word-formation patterns. As indicated in chapter 1, Booij (2002: 133-134) lists the Dutch adverbial suffixes in (2.1).

(2.1) -(e)lijk, -(e)lings, -erwijs, -gewijs, -halve, -iter, -tjes, -waarts, -weg

Dutch adverbial morphology and its history constitute a poorly investigated domain. This chapter brings together synchronic and diachronic observations from the literature and identifies some shortcomings and problems concerned with them. From this summary the main descriptive tasks of this dissertation shall be inferred. In section 2.2, I give an overview of the existing literature on Dutch adverbial morphology. In section 2.3, I will present the adverbial suffixes under investigation and what the literature teaches us on their origin. Then, in 2.4, I collect the information given in the literature on the productivity of the suffixes and on the input constraints. In section 2.5, the syntactic valency and the meaning of complex output lexemes are discussed. In section 2.6, the Dutch adverbial suffixes are compared with their equivalents in other West-Germanic languages and what is known about them. This chapter is rounded off with a summary and outlook.

2.2 Overview of the literature

The field of word formation “studies the patterns on which a language forms new lexical units, i.e. words” (Marchand 1969: 2). So far no specialised monograph has been published on the formation of Dutch ADV. The only scholarly work on Dutch ADV as a part of speech are an essay by Willem Bilderdijk (1820) and a dissertation produced by Herman Roose (1964). The latter investigated an inventory of lexemes, including derived ADV, but he did not pay attention to ADV-formation patterns. Information on Dutch ADV formation can be collected from overviews of Dutch morphology (1), grammars of Dutch (2), dictionaries of Dutch (3), books covering the history of Dutch (4). Specialised papers on Dutch adverbial suffixes are listed in (5).

(1) Overviews of Dutch morphology

- The first handbook on Dutch word formation was published by de Haas/Trommelen (1993). It has a chapter with basic information on adverbial suffixes which is based on dictionary material. Booij (2002) prepared a *Morphology of Dutch* in which he devoted a short section to adverbial suffixes.
- *Algemene Nederlandse Spraakkunst (ANS)*, the reference grammar of contemporary Dutch, has a chapter on ADV formation. The version in the first edition by Geerts et al. (1984) is almost entirely reproduced in the second edition by Haeseryn et al. (1997).

(2) (Older) grammars of Dutch

Grammars of Dutch published throughout the centuries provide us with information on Dutch adverbial morphology in older phases of Dutch.

- In grammars of Old Dutch (< 1200) and Middle Dutch (1200-1500) basic information can be found on ADV-formation patterns in the oldest phases of Dutch, e.g. Quak/van der Horst (2002), Stoett (1923) and Bouman (1948).
- For information on Early Modern Dutch (1500-1700) we may consult Weijnen (1965) who includes a short section on ADV formation in the 17th century (henceforth: ct.). In the earliest grammars of Dutch, e.g. Spiegel (1584), adverbial morphology remained implicit (see chapter 3). Christiaan Van Heule (1625, 1633) only discussed the use of the adverbial suffix *-(e)lijck*. Allard Lodewijk Kók (1649) was the first to distinguish explicitly between primary ADV (“*eerstelingen*”) and derived ADV. Kók (1649) stated that ADV are derived from N, verbs (henceforth: v) and pronouns (henceforth: PRON) which he illustrated by means of examples with *-(e)lijck*. We may assume that he was aware of other ADV-formation strategies since he discussed the combinability of *waarts* (which he considered an ADV) with a preposition (henceforth: PREP) or an ADV to form a new word (e.g. *op-waarts* ‘upwards’, *elder-waarts* ‘elsewhere’).³
- Various grammars inform us on adverbial morphology in the Modern Dutch period (> 1700). Arnold Moonen (1706) treated adverbial morphology only implicitly, only paying explicit attention to *-(e)lijck*. Petrus Weiland (1805), too, treated ADV formation unsystematically discussing *-(e)lijck*, *-tjes* and *-wijze*. Willem Bilderdijk (1826) devoted a short section to ADV formation including *-(e)lijck*, *-s*, *-waarts* and intuitions on their origin. Willem Gerard Brill (1871) included more extensive chapters on the formation of Dutch ADV. He pointed at traces of ADV formation with *-e* (see chapter 3). As other possibilities for ADV formation, he discussed *-(e)lijck*, *-(e)ling(s)*, *-gewijze* (implicitly also *-erwijze*), *-jes*, *-waart(s)*, and the original genitive ending *-s*. He tried to determine the historical origin of these suffixes.⁴ Cornelis Herman den Hertog (1903-1904) treated *-halve*, *-(e)lijck* and their origin.
- The historical grammar of Dutch by Van Loey (1970) includes a section on ADV formation with the suffixes *-e*, *-(e)lijck*, *-(e)ling(e)*, *-tjes/-kine*, *-s* and *-waarts*. The grammar by De Vooy (1967) additionally treats *-wijze/-gewijze*, *-halve*, *-weg* and their origin.

(3) Dictionaries of Dutch

Dictionaries of Dutch provide an important source of information on Dutch ADV and adverbial morphology. Particularly the historical dictionaries have gotten too little attention of Dutch morphologists (van Santen 2011: 194).

- *Van Dale Groot woordenboek van de Nederlandse Taal (Van Dale)* is generally considered as the leading dictionary of standard Dutch in the Netherlands and Belgium (see 6.2.2). It mainly covers contemporary Dutch but it looks back over the past 150 years. The adverbial suffixes get their own entries, in which further derived lexemes are mentioned for illustration.
- The historical dictionaries of Dutch, particularly *Woordenboek der Nederlandsche Taal (WNT)*, have more extensive entries on individual adverbial suffixes (see 6.3.2 on the historical dictionaries). In *WNT* we find information on etymology but also many formal and semantic aspects. These properties are illustrated by numerous attested examples.

³ Original quotation (Kók 1649: 56): “Wat de Ghe-daante der By-woorden be-langt, wainighe zijn onder de zelve *Eerstelingen*; maar zy spruiten meest-ten-deel óft van Naam-woorden; als, *lichtlijck* van *licht*, *snellijck* van *snel*, enz. ja zelfs de Naam-woorden worden dik-wijls zelve voor By-woorden ghe-bruikt; als, *haast* voor *haas-tighlijck*, *schoón* voor *schoonlijck*, enz. óft van Werk-woor-den; als, *schielijck* van *schieden* óft *ghe-schieden*, enz. óft van Deel-woorden; als, *ghe-leerdelijck*, van *ghe-leert*, *be-vesti-ghendlijck* van *be-vestighende*, *Weezendlijck* van *weezende*, enz. óft van Voor-zetsels; als, *boven*, *be-neden*, enz. Daar-en-boven worden de By-woorden t'zaám-ghe-zet met Naam-woorden; als, *eêr-tijdts*, enz. óft met By-woorden; als, *Eêr-ghisteren*, *elder-waarts*, enz. óft met Voor-zetsels; als, *op-waarts*, *onder-waarts*, *voor-waarts*, *after-waarts* enz.”

⁴ Notice that he also treated *-matig* under ADJ formation.

- The dictionary *Etymologicum teutonicae linguae* by Cornelius Kiliaan (1599) provides an overview of 16th ct. Dutch vocabulary which gives us an impression on the Early Modern Dutch stock of (simplex and complex) ADV and their semantic interpretation.
- Specifically on the origin of Dutch adverbial suffixes one may consult the articles on individual suffixes in the monumental etymological dictionary of Dutch (*EWN*) by Philippa et al. (2003-2009). It starts from existing sources like WNT but it completes or corrects this information with new observations. Van der Sijs (2002) included an overview on ADV formed with -s and their first recording in her chronological dictionary of Dutch.

(4) Textbooks covering the internal history of Dutch

There are several textbooks which cover the internal history of Dutch (often in combination with its external history) but none of them is specialised in word formation. I mention some work which treats ADV formation.

- The origin of the so-called adverbial -s is treated by van Bree (1996). There are a few scattered observations in van den Toorn et al. (1997). Van der Sijs (2005) pays attention to the emergence of ADV-formation patterns in her concise history of Dutch.
- Van der Horst (2008) published a monumental history of Dutch syntax in which he includes sections on adverbial morphology from Old Dutch until contemporary Dutch. For each linguistic period he gives an overview of available patterns, observations with respect to productivity (see section 2.4 on this notion) and intuitions concerning developments and trends involving adverbial morphology, using existing literature and sets of collected examples.

(5) Papers on Dutch adverbial suffixes

There is hardly any scholarly work on more specific properties and developments concerning Dutch adverbial suffixes.

- Stoett (1895) discussed diachronic aspects of the suffix *-(e)lijk* covering both ADV and ADJ formation. Royen (1948a) treated some phenomena involving derived ADV. Being particularly interested in inflection, he collected many attested examples for derivatives and their syntactic uses. In addition, Royen (1948b) published a short article on attributive use of *gewijs*-derivatives.
- Schultink (1962) included sections on deadjectival *-iter*, *-(e)lijk* and *-tjes* in his monograph on the morphology of ADJ. He formulated synchronic observations on the contribution of these suffixes to adjectival base words and on the productivity (see section 2.4) of each pattern.
- Paardekooper (1991) published a scholarly paper on historical aspects of deadjectival derivation with *-(e)lijk*. Van de Velde (2005) published a paper on the diachrony of *-erwijs* including its formal differentiation from *-gewijs* and an important semantic shift. In Hüning/Diepeveen (2009) we provided an investigation of the suffix *-weg* including synchronic and diachronic observations on its properties. In Diepeveen (2011a) and Diepeveen (*submitted*), I discuss various Dutch adverbial suffixes in contrast with equivalents in English and German. In Diepeveen (2011a) I include *-erwijs* and *-(e)lijk* and in Diepeveen (*submitted*) I include *-gewijs*, *-matig* and *-technisch*.

2.3 Adverbial suffixes and their origin

2.3.1 Dutch adverbial suffixes

Derivational processes have as their basic function to enable the language user to make new lexemes (Booij 2007: 51). Thus, adverbial suffixes enable language users to create new ADV. In the introduction I listed the Dutch adverbial suffixes from Booij (2002). In the literature we find deviations to this list. De Haas/Trommelen (1993) do not include *-(e)lings*. They even express their doubt as to whether *-gewijs*, *-erwijs*, *-weg*, *-halve* and *-waarts* are true derivational suffixes. Without

further explanation, they keep the option open that the output lexemes are compounds. The suffixes *-erwijs* and *-gewijs* are noted to have a variant ending in schwa: *-erwijze/-gewijze* and they are sometimes treated together, e.g. in ANS (1997). However, it has been argued that formally, they are two different suffixes (Van de Velde 2005). Mind that ANS (1997) and van der Sijs (2002) refer to *-wijs/-wijze* as a variant for *-gewijs/-gewijze*.

Van der Sijs (2002) and Van der Horst (2008) further include the suffix *-s* among the list of Dutch adverbial suffixes. It is also known as ‘adverbial *-s*’ for differentiation from other functions (e.g. plural marker, see *broer-s* ‘brothers’). In fact, Booij (2002: 133) analyses *-tjes* as a sequence of the diminutive suffix *-tje* and the adverbial *-s*. Likewise, *-waarts* and *-(e)lings* have been analysed as historical sequences (see 2.3.2). One could add the adverbial suffix *-zijds* (e.g. *mijn-er-zijds* ‘from my part’) to this set (Van Dale 2005). Further adverbial suffixes have been pointed at in the literature. De Haas/Trommelen (1993) mention *-wille* (e.g. *mijn-ent-wille* ‘for my sake’) and *-wege* (e.g. *zijn-ent-wege* ‘in his name; for his sake’). Van der Horst (2008) includes *-erhand* (e.g. *stormend-erhand* ‘by storm, with a rush’) and *-matig* (e.g. *beroep-s-matig* ‘by virtue of one’s profession, professionally’). The suffix *-matig* shall be included in my investigation and so will *-technisch*, which has never before been discussed in the literature as a Dutch suffix. The latter items are included since the related German suffixes, *-mäßig* and *-technisch*, have drawn special attention of scholars during the past 50 years, see section 2.6.2. I will argue that in Dutch, too, *-technisch* exhibits suffix-like features. Thus, the items included in my dissertation are summed up in (2.2).

(2.2) *-(e)lijk, -(e)lings, -erwijs, -gewijs, -halve, -iter, -matig, -technisch, -tjes, -waarts, -weg*

2.3.2 The origin of adverbial suffixes

The origin of the Dutch adverbial suffixes is fairly well documented in the literature. The following sources of Dutch adverbial suffixes have been identified: reinterpretation of a former case ending (1), reanalysis of a former suffix sequence (2), grammaticalisation of a former right constituent (3) and suffix borrowing (4). These diachronic processes are typically driven by the mechanism of analogy.

(1) Reinterpretation of a case ending

Earlier phases of Dutch used case to express functions like time and place (see section 3.3.1). As words with certain case endings were often used adverbially, the endings could start a life of their own: through analogy, they were applied more and more and they were perceived as suffixes for word formation. For the adverbial suffix *-s* it has been shown that it has its origin in the genitive of time and place (van Bree 1996, van der Sijs 2002). As the case system broke down, *-s* became a derivational suffix.⁵ This happened in Dutch, English and German independently (Royen 1942: 37, Jespersen 1952).⁶ That reinterpretation has taken place is particularly visible when the morpheme is added to words where it does not constitute the regular case ending, e.g. in German *nacht-s* ‘at night’ (Henzen 1965: 231). The adverbial *-s* became very productive both in Dutch and German and was added to many existing adverbial expressions including complex ADV (e.g. those formed with *-(e)ling* and *-vaart*). A similar process of reinterpretation has been proposed for the dative ending *-en* which became productive for ADV derivation in Middle Dutch (van der Sijs 2002, van der Horst 2008). Today, only remnants remain, e.g. *heden* ‘today’, *morgen* ‘tomorrow’, *gisteren* ‘yesterday’.

⁵ It can be argued that the change from an inflectional ending to a derivational suffix is a case of *degrammaticalisation*: a more grammatical item develops into a less grammatical item. On grammaticalisation, see (3) below; on the grammatical-lexical distinction, see section 4.2.4.

⁶ Royen (1948a: 49, 67) however adds that many *s*-ADV in Dutch were borrowed from German, e.g. *minstens* ‘at least’, *hoogstens* ‘at the most; at best’, *overigens* ‘anyway; for the rest’.

(2) Reanalysis of a suffix sequence

Reanalysis may lead to a sequence of suffixes becoming a suffix: “a morphological structure [[[x]A]B] can be reinterpreted as [[x]AB]” (Booij 2007: 272). Suffixes which often follow each other may melt together in a suffix which starts a life of its own. The literature reports that Dutch *-waarts* and *-(e)lings* are the result of reanalysis of the combinations *-waart-s* and *-(e)ling-s*. Likewise, *-tje-s* is analysed as a sequence of the diminutive suffix and the adverbial *-s* (van Bree 1996: 165). It has been stressed often that the adverbial suffix *-s* had a very productive period in which it was added to many existing complex ADV. When these *s*-sequences emerged and when they were reanalysed into single suffixes (*-waarts*, *-(e)lings*, *-tjes*) has thus far not been empirically determined.

(3) Grammaticalisation of a word

Another main source for suffixes is *grammaticalisation*, a process of linguistic change which involves a development from lexical elements to grammatical elements or from ‘less’ to ‘more’ grammatical (e.g. Heine/Kuteva 2002, Hopper/Traugott 2003, Himmelmann 2004, Brinton/Traugott 2005; see 4.2.2). In a gradual process leading towards greater grammaticality, autonomous words may lose their semantic content and become bound elements. A path of grammaticalisation has been reconstructed for deadjectival ‘manner ADV’ which are considered an innovation of the ancient Indo-European languages. A typical example is the development of the adverbial suffix *-ment(e)* in the Romance languages (e.g. Booij 2007: 262). The starting-point is a structure with free lexical morphemes which functions as an adverbial modifier, e.g. Latin [ADJ + N]-syntagmas in the ablative: *clara mente* ‘with a clear mind’. The right component in this syntagma is the semantic head which is modified by the lexeme to its left. In a process of *univerbation*, a syntactic syntagma may merge into a word-like unit (Motsch 2004: 49). Thus, the phrase *clara mente* becomes a word, *claramente*. Through a semantic shift (typically metaphor or metonymy) the combination of its components receives a new, more abstract interpretation: ‘in a clear manner’. The right morpheme loses its original literal meaning and acquires a more general, abstract meaning (*bleaching*). Through analogy, the new interpretation of *claramente* may serve as a model for further combinations. If *-mente* occurs in a large number of combinations, the original free morpheme has advanced to suffix status.

A similar path of grammaticalisation has been assumed for several Dutch adverbial suffixes. For a reconstruction of this path for *-erwijs*, see Van de Velde (2005). For *-erwijs/-gewijs* and *-(e)lijk* the process may have taken place in pre-Dutch times, since the other Germanic languages share a related pattern. Thus it has been claimed that the Gothic adverbial suffix *-leiko*, which forms the basis of Dutch *-(e)lijk* and English *-ly*, developed out of possessive exocentric compounds (*bahuvrihi*) (see chapter 7 on *-(e)lijk*). Although grammaticalisation can also be assumed for *-weg* in Dutch, its path has thus far not been reconstructed apart from a first attempt by Hüning/Diepeveen (2009).

(4) Borrowing

Like the other Germanic languages, Dutch acquired a set of non-native suffixes (Booij 2007: 65-66). Suffix borrowing from another language does not occur directly but through a process which consists of lexical and structural borrowing (e.g. Matras 2007, Booij 2007). First of all, sets of words are borrowed from another language. When language users discover a recurrent form-meaning pattern in these borrowed words, this may give rise to a new morphological pattern to coin words which do not exist in the other language. Factors for determining whether a non-native suffix has emerged, are creative use of the pattern with native base words and its acceptance (Heinold 2009). It has been assumed that the adverbial suffix *-iter* is one of several derivational suffixes which Dutch borrowed from Latin. To confirm that *-iter* has become a Dutch suffix, we may look for evidence whether *-iter* can be used to coin new Dutch words which have no counterpart in Latin (compare Schultink 1962). An investigation will be carried out in chapter 12 on *-iter*.

We may expect that borrowing between Dutch, English and German is facilitated by their genetic closeness. Suffix borrowing from German has been proposed for Dutch *-matig*, e.g. van der Sijs (2005) refers to borrowing via bible translations from German in the 16th-17th ct. Although German influence is generally agreed on, other scholars suggest that *-matig* may have emerged in Dutch independently (Decroos/Leuschner 2008). Not only the origin of *-matig* requires further investigation, so does *-technisch* and its relation with German *-technisch*.

Table 2.1 gives an overview of the sources of the investigated suffixes as found in the literature. Recall that *-technisch* is absent in the literature, hence the question mark in the table.

Table 2.1. Documented origin of Dutch suffixes investigated in this dissertation.

REINTERPRETATION OF CASE ENDING	REANALYSIS OF SUFFIX SEQUENCE	GRAMMATICALISATION	BORROWING
-s	-tjes -waarts -(e)lings	-erwijs/-gewijs -halve -(e)lijk -weg	-iter (< Latin) -matig (< German) ? -technisch (< German)

Although the source of most of the investigated suffixes has been identified in the literature, empirical research is required to determine the details on and the precise chronology of their emergence.

2.4 Scope and productivity

Adverbial suffixes are morphological means for the formation of complex ADV. In the literature we find some statements on the *productivity* of Dutch adverbial suffixes. A word-formation pattern may be called ‘productive’ if “this pattern can be extended to new cases, can be used to form new words” whereas it is ‘unproductive’ when “it is not used for coining new words” (Booij 2007: 68; see section 4.2.2 in chapter 4 on the notion of productivity in this dissertation). The notion ‘degree of productivity’ of a word-formation pattern “refers to the degree to which the structural possibilities of a word-formation pattern are actually used” (Booij 2007: 68). We may consider the productivity of adverbial suffixes synchronically (2.4.1) and from a diachronic perspective (2.4.2). Closely related to productivity are the “number and type of constraints” which are imposed on the word-formation pattern, i.e., the *scope* of the pattern (Kastovsky 1986: 585). We are particularly interested in input constraints on the base words of adverbial suffixes (2.4.3).

2.4.1 Productivity

The literature on adverbial morphology in contemporary Dutch starts with a general remark: the use of adverbial morphology is rare (de Haas/Trommelen 1993: 321) and none of the suffixes is very productive (Booij 2002: 133-134). Table 2.2 gives an overview of the statements on the (degree of) productivity of individual Dutch adverbial suffixes. Question marks indicate that the suffix is discussed, but there are no observations on its productivity. A hyphen indicates that this particular suffix is not discussed by the author.

Table 2.2. Documented productivity of Dutch adverbial suffixes and *-matig*.

	DE HAAS/ TROMMELEN 1993	ANS 1997	VAN DER SIJS 2002	VAN DER HORST 2008
-(e)lijk	unproductive	archaic	-	unproductive
-(e)lings	-	unproductive	productive	possibly productive
-erwijs	?	?	productive	possibly productive
-gewijs	productive	only productive in distributional meaning	productive	possibly productive
-halve	?	?	productive	?
-iter	unproductive	limitedly productive	-	-
-matig	-	limitedly productive	-	?
-s	-	unproductive	unproductive	possibly productive
-tjes	productive	?	productive	limitedly productive
-waarts	?	?	productive	possibly productive
-weg	productive	?	-	limitedly productive

As table 2.2 shows, there is firm agreement among scholars that adverbial *-(e)lijk* is unproductive. It is labelled in the literature as ‘obsolete’ and ‘archaic’. There is some agreement that *-erwijs*, *-gewijs*, *-tjes*, *-waarts* and *-weg* may be productive, but the degree of productivity is unclear. There is disagreement whether or not *-iter*, *-(e)lings* and *-s* are productive. There is only one clear statement on *-halve*. In sum, there is much unclarity on the (degree of) productivity of the Dutch adverbial suffixes. This has everything to do with the fact that indicators for synchronic productivity have never been investigated systematically using a large corpus of contemporary Dutch.

2.4.2 Productivity from a diachronic perspective

Productivity is a dynamic notion: from a historical perspective, word-formation patterns may become productive, lose productivity and become unproductive or extinct. As far as Dutch adverbial suffixes are concerned, there is general agreement that (deadjectival) *-(e)lijk* lost its productivity and became obsolete. Observations on changes in productivity of the other adverbial suffixes are scattered throughout the literature; they have only been made somewhat more systematically by van der Horst (2008).

2.4.3 Scope

The scope of a word-formation pattern is characterised by the input constraints imposed on its base words. These may be syntactic class requirements, morphological, semantic, phonological, or stratal constraints (Booij 2007: 64). Base-driven restrictions involve the morphological structure of the input or the semantic type. A very general phonological constraint in Dutch is that sequences with (almost) adjacent identical sounds are avoided (Booij 2007: 64). There are also general stratal constraints: non-native suffixes are mostly restricted to non-native base words (Booij 2007: 67). Native suffixes may usually be added both to native and non-native base words. Input constraints specifically concerning adverbial suffixes in the literature are mostly limited to observations on syntactic class requirements. Some basic input constraints on morphological complexity (simplex or complex base words) were provided by de Haas/Trommelen (1993) but these are not based on the systematic inspection of a large corpus of contemporary Dutch. I bring together their information with the more basic information from ANS (1997) in table 2.3.⁷ ‘SIM’ refers to simplex base words and ‘COM’ to

⁷ Mind that I only include deadjectival/deadverbial *-(e)lijk* in this dissertation.

complex base words; when there is no specification on the potential complexity of the base words, the two columns in the table are merged into one.

Table 2.3. Documented input categories of Dutch adverbial suffixes and *-matig*.

	ADJ		ADV		N		V	PRON	PREP
	SIM	COM	SIM	COM	SIM	COM			
-erwijs	-	✓	-	-	-	-	✓	-	-
-gewijs	-	-	-	-	✓	✓	-	-	-
-halve	-	-	-	-	✓	✓	-	✓	-
-iter	-	✓	-	-	-	-	-	-	-
-(e)lijk	✓	✓	-	-	-	-	-	-	-
-(e)lings	✓		-	-	✓		✓	-	-
-tjes	✓	(✓)	✓	-	-	-	-	-	-
-waarts	-		-	-	✓	✓	-	-	✓
-weg	✓	(✓)	-	(✓)	-	-	-	-	-
-matig	-		-	-	✓		-	-	-

We may infer from the overview in table 2.3 that the most common input categories for the adverbial suffixes are ADJ and N. The suffixes *-erwijs*, *-iter*, *-(e)lijk*, *-(e)lings*, *-tjes* and *-weg* may take an adjectival input. For *-erwijs* and *-iter* this input needs to be morphologically complex (e.g. *mens-elijk-erwijs* ‘in a human manner’, *norm-al-iter* ‘normally’), while *-tjes* and *-weg* prefer simplex input ADJ (e.g. *fijn-tjes* ‘finely’, *dom-weg* ‘stupidly’, but *rust-ig-jes* ‘calmly’, *los-jes-weg* ‘loosely’). The suffix *-(e)lijk* takes both (e.g. *vals-elijk* ‘falsely’/*her-haald-elijk* ‘repeatedly’). For *-(e)lings* (e.g. *blind-elings* ‘blindly’) there is no specification in the literature on the complexity of the base words, as indicated by the merged columns in table 2.3. The suffixes which may take a nominal input are *-gewijs*, *-halve*, *-waarts*, *-(e)lings* and *-matig*. The former three are flexible: they take both simplex and complex input N (e.g. *reeks-gewijs* ‘in rows’/*steek-proef-gewijs* ‘at random’), *rijk-s-halve* ‘from the state’/*leef-tijd-s-halve* ‘by virtue of one’s age’). For *-(e)lings* and *-matig* (e.g. *zijde-lings* ‘indirectly’, *doel-matig* ‘efficiently’) there is no specification on complexity in the literature. Verbal base words range from stems (*rak-elings* ‘skimming’) to present participles (*spelend-erwijs* ‘by playing’). Only *-halve* may be added to PRON (e.g. *mijn-ent-halve* ‘as far as I am concerned’) and only *-waarts* to PREP (e.g. *op-waarts* ‘upwards’).⁸ Last but not least the literature suggests that *-tjes* may be added to existing ADV (e.g. *even-tjes* ‘for a while’), without any specification on their complexity. This also applies to *-weg* if one considers *tjes*-derivatives (e.g. *los-jes* ‘loosely’) as ADV, as this is done by de Haas/Trommelen (1993), but not by ANS (1997), who treats them as ADJ. The differentiation between ADV and ADJ is a very basic problem which I will address in 2.5.1.

Table 2.4 summarises stratal constraints in the literature. ‘Gmc.’ refers to Germanic base words while ‘non-Gmc.’ refers to non-Germanic (typically, French or Latin) base words; question marks indicate an unclear status.

⁸ For *-waarts* de Haas/Trommelen (1993) refer to ‘postpositional phrases’ as an additional input category, e.g. *stroom-af-waarts* ‘lit. stream-down-wards; downstream’; see chapter 16 on *-waarts*.

Table 2.4. Documented stratal input constraints of Dutch adverbial suffixes and *-matig*.

	ADJ/ADV		N		V	
	Gmc.	non-Gmc.	Gmc.	non-Gmc.	Gmc.	non-Gmc.
-(e)lijk	✓	✓	-	-	-	-
-(e)lings	✓	?	✓	?	✓	?
-erwijs	✓	(✓)	-	-	-	-
-gewijs	-	-	✓	✓	-	-
-halve	-	-	✓	✓	-	-
-iter	-	✓	-	-	-	-
-tjes	✓	-	-	-	-	-
-waarts	-	-	✓	-	-	-
-weg	✓	(✓)	-	-	-	-
-matig	-	-	✓	?	-	-

We may infer from table 2.4 that the assumedly borrowed suffix *-iter* is the only item which is exclusively added to non-Germanic base words. The native suffixes are by definition added to Germanic base words, but *-(e)lijk*, *-gewijs* and *-halve* freely allow non-Germanic base words (e.g. *summier-lijk* ‘concisely’, *processie-gewijs* ‘in a parade’, *fatsoen-s-halve* ‘for decency’s sake’). According to the literature, the suffixes *-weg* and *-erwijs* are only exceptionally added to non-Germanic base words (e.g. *brutaal-weg* ‘insolently’, *normal-erwijs* ‘normally’), and *-tjes* and *-waarts* not at all. For *-(e)lings* and *-matig* we have no direct observations from the literature (they are not treated by de Haas/Trommelen 1993). The literature is also very scarce when it comes to changing input constraints throughout the history of Dutch. Only basic information may be found in the articles in the historical dictionaries (e.g. WNT).

2.5 The output lexemes

2.5.1 Adverbs or adjectives?

Derivational suffixes in languages like Dutch, English and German are generally assumed to have a category-determining role. This means that the suffix determines the lexical category of the output word (Booij 2007: 53). The input category may stay the same or it may be changed. English adverbialisation by *-ly* is a category-changing pattern. Adding *-ly* to *beautiful* determines that the complex output word *beautiful-ly* is an ADV. This includes a change in syntactic valency: the output derivative may only be used adverbially. Until now, Dutch adverbial suffixes, too, have been treated as category-determining patterns. This implies that the output lexemes of the derivational pattern are classified as ADV. This is opposed to ‘adjectival’ suffixes, which create ADJ. The ADV-ADJ distinction in Dutch standard grammar is based on morphosyntactic criteria (see section 3.2). ADV are defined as invariable words which are used adverbially. This definition is problematic if one considers the morphosyntactic properties of output lexemes of certain derivational suffixes. For lexemes formed with adverbial suffixes, the literature reports on predicative uses and on attributive uses including inflection. Table 2.5 gives an overview of potential syntactic uses for the output derivatives as found in ANS (1997). This overview was prepared on the basis of explicit statements as well as implicit information inferred from the examples provided in the grammar.

Table 2.5. Documented morphosyntactic valency of output lexemes of Dutch adverbial suffixes and *-matig*.

	ADVERBIAL	PREDICATIVE	ATTRIBUTIVE	INFLECTION
-(e)lijk	✓	-	✓	✓
-(e)lings	✓	-	-	-
-erwijs	✓	-	-	-
-gewijs	✓	-	✓	?
-halve	✓	-	-	-
-iter	✓	-	-	-
-tjes	✓	✓	✓	-
-waarts	✓	-	✓	✓
-weg	✓	-	-	-
-matig	✓	-	✓	✓

ANS (1997: 739) mentions for *gewijs*-derivatives their ‘use as an ADJ’ and for *waarts*-derivatives an ‘adjectival valency’; attributive and predicative use is further mentioned for *tjes*- and *(e)lijk*-derivatives.⁹ Conversely, adjectival suffixes are interpreted as creators of ADJ, e.g. *-matig* in ANS (1997) while the output derivatives may be used adverbially. This, in turn, is apparently a reason for van der Horst (2008) to include *-matig* among the adverbial suffixes. These observations can be completed by further findings in the literature. De Haas/Trommelen (1993: 354), too, mention attributive use for *gewijs*-derivatives, adding that it is thus not clear in which category to classify the output lexemes. The Dutch standard dictionary Van Dale (2005) considers *-gewijs* as a morpheme for both ADV formation and ADJ formation. The same confusion holds for *tjes*-derivatives. ANS (1997: 737) argues that since deadjectival *tjes*-derivatives may be used predicatively they may be classified as ADJ, whereas the deadverbial types, e.g. *even-tjes* ‘for a while’, are ADV.

ANS (1997) and de Haas/Trommelen (1993) point out that the attributive and predicative instances of the output lexemes lead to classificational difficulties. This problem is rooted in the part-of-speech differentiation between ADV and ADJ in Dutch.

2.5.2 Semantic interpretation

In the existing literature, Dutch adverbial suffixes have only been treated as category-determining patterns. However, apart from its category-changing role, derivation may have a modifying role, i.e., it may be used to create semantic subcategories (Booij 2007: 59). This modifying role has previously been illustrated for adjectival suffixes, e.g. adding *-ish* in English, e.g. *old-ish*, weakens the meaning of the base word without a change in (syntactic) category (Booij 2007: 60).

The semantics of the output lexemes of Dutch adverbial suffixes have not been described very well in the existing literature. Van Dale (2005) provides meaning descriptions of each suffix. De Haas/Trommelen (1993) and ANS (1997) provide some paraphrases of the meanings specific suffixes may contribute, but these are rather poor and not worked out in detail. Table 2.6 gives a short overview. When various columns are merged into one, this indicates that the interpretation is shared by the sources.

⁹ We cannot be sure about inflection on *-gewijs* since it has a variant *-gewijze* ending in a schwa (see chapter 10 on *-gewijs*).

Table 2.6. Documented meanings of Dutch adverbial suffixes and *-matig*.

	VAN DALE 2005	DE HAAS/TROMMELEN 1993	ANS 1997
-erwijs	'in v-ing manner'	'by v-ing'	(manner)
	'in accordance with what is ADJ'	'in ADJ manner, for ADJ reasons'	
-gewijs	'like N, in the manner of N'		
	'per N' (distributive)		
-halve	'by virtue of N, by (reason of) N'	'by virtue of N, for N'	
	'in view of N, for N'		
	'as far as PRON is concerned; on behalf of PRON'	-	
-iter	?	'in ADJ manner'	?
-(e)lijk	'in ADJ manner'	(diverse & unsystematic)	?
-(e)lings	'in the direction of N'	-	± 'in the manner of'
	'in the manner/form of N'		
	'in ADJ manner'		
	'in v-ing manner'		
-tjes	?	'rather ADJ'	(affective or ironic)
		= ADV (no new meaning aspect)	
-waarts	'to N, in the direction of N' (directional)		
-weg	'in ADJ manner'		'in ADJ manner' (+ negative value)
-matig	'in view of N, concerning N, with respect to N, according to N, in accordance with N'	-	'according to N, similar to N, in accordance with N'

We may infer from table 2.6 that deadjectival patterns are predominantly connected with specifications of manner: *-erwijs*, *-iter*, *-(e)lijk*, *-tjes*, *-weg* and deadjectival *-(e)lings*. It remains in the dark to what extent these suffixes are semantically comparable or different. The meaning contributions of *-(e)lijk* and *-tjes* are not at all clear. *ANS* (1997) refers to the addition of a connotation by *-tjes*, which it also signals for *-weg*. The contribution of *-matig* reported in the literature is very wide. Mind that Van Dale (2005) classifies many individual derived lexemes among different types of ADV. In these descriptions various other meanings crop up than the ones listed in the entry of a suffix.

The literature on semantic changes in ADV derivation throughout Dutch history is also very scarce. We may consult the historical dictionaries which include some observations (particularly *WNT*). Some recent semantic changes have been observed by van der Horst (2008) and *EWN*, although these are often based on (personal) intuitions rather than empirical data.

2.6 Dutch adverbial morphology in contrast

2.6.1 Adverbial suffixes in the West-Germanic languages

Since Dutch, English and German are genetically closely related, it is not surprising that they often share the same word-formation patterns, e.g., they share the adverbial suffixes *-(e)lijk/-ly/-lich* and *-gewijs/-wise/-weise*. Table 2.7 confronts the Dutch adverbial suffixes with genetically related suffixes in English (Marchand 1969, Quirk et al. 1985, Plag 2003), German (Ros 1992, Fleischer/Barz

1995, Heinle 2004, *Duden* 2009), Afrikaans (Donaldson 1993)¹⁰ and Frisian (Hoekstra 1998, Popkema 2006, *Woordenboek der Friese taal* (henceforth: *WFT*)).

Table 2.7. Native adverbial suffixes in Dutch and equivalents in West-Germanic languages.

Dutch	-erwijs/ze	-gewijs/ze	-halve	-(e)lijk	-(e)lings	-s	-tjes	-waarts	-weg
Afrikaans	-erwys(e)	-(ge)wys(e)	-halwe	-lik	-(e)lings	-s	-tjies	?	-weg
German	-erweise	-weise	-halben -halber	-lich	-lings	-s	?	-wärts	-weg
Frisian	-erwize	-(ge)wize	?	-lik	-(e)lings	-s	-tsjes	?	-wei
English	?	-wise	?	-ly	?	?	?	-ward(s)	(-way(s))

For German, further derivational patterns are recorded in the literature, including *-art*, *-dings*, *-ens*, *-falls*, *-hand*, *-hin*, *-(er)lei*, *-mals*, *-(er)maßen*, *-orts*, *-seits*, *-teils*, *-wegen*, *-wegs*, *-willen*. For English, further candidates are *-fashion*, *-fold*, *-like*, *-most* and *-style* (Marchand 1969 and Quirk et al. 1985). For Frisian, Hoekstra (1998) additionally includes *-oan* and *-ty* among the adverbial suffixes. It is striking that the non-native suffix *-iter* appears to be peculiar to Dutch.

Although the West-Germanic languages share several suffixes, the characteristics of these suffixes are obviously language-specific. Equivalent morphological patterns may display contrasts regarding the degree of productivity, input restrictions or output lexemes (Hüning 2009a: 68). The contrasts may be very subtle (Van Haeringen 1956: 60-61). The existence of the same pattern in Dutch and German does not guarantee systematic equivalences on the level of individual derived lexemes, see Hüning (2004) on the Dutch adjectival suffix *-achtig* and its German cognate *-haft*.

2.6.2 Overview of the literature

Language comparison is a method for revealing language-specific properties of equivalent word-formation patterns (Dressler 1981: 212). There is a vast literature on English and German adverbial suffixes which may be highly instructive for the description of their Dutch equivalents. See Diepeveen (2011a) and Diepeveen (*submitted*) where I demonstrate the fruitfulness of an approach to selected Dutch adverbial suffixes that incorporates contrastive observations. A collection of the main literature on adverbial suffixes in related West-Germanic languages is provided below. For more specific references I refer to the chapters on individual suffixes.

(1) Overviews of contemporary word formation

- A section on ADV formation in German is included in handbooks on German word formation, e.g. Fleischer/Barz (1995), Motsch (2004), Altmann/Kemmerling (2005), Lohde (2006). The German reference grammar *Duden* (2009) has a chapter on ADV formation.
- The handbooks on English word formation by Marchand (1969) and Plag (2003) have short sections on English adverbial morphology. English grammars have chapters on ADV formation, e.g. Quirk et al. (1985) and *The Cambridge Grammar of the English Language* by Huddleston/Pullum (2002). Stein (2007) is a dictionary of English suffixes.
- Frisian word formation is described by Pannekeet (1979), Hoekstra (1998) and in the Frisian grammar by Popkema (2006); each has a chapter on Frisian ADV formation. Further information on individual suffixes can be taken from the entries in *WFT*.
- Word formation in Afrikaans is treated by Donaldson (1993), who has a section on adverbial morphology, and less systematically in Raidt (1983) and Ponelis (1993).

¹⁰ Observe that Raidt (1983) lists Afrikaans *-tjies* and *-(e)lings* as adjectival suffixes; Ponelis (1993) lists Afrikaans *-(ge)wys(e)* as an adjectival suffix.

(2) Specialised work on adverbial morphology

- Ronca (1975) is a monograph on German adverbial morphology. Ros (1992) investigates adverbial and adjectival suffixes together. The history of German ADV formation is studied most systematically by Heinle (2004). She quantifies various historical aspects of (High) German adverbial morphology and provides a rich overview of morphosyntactic and semantic properties and developments. In Heinle (1987) she focuses on ADV formation in Old High German. Mähl (2004) is a monograph on ADV formation in Middle Low German. Some studies are devoted to individual adverbial suffixes in German, e.g. Starke (1973), Paraschkewoff (1976), Liu (2009) on *-weise*, Winkler (1995) and Schmid (1998) on *-lich*. Paraschkewoff (1967) investigates adverbial morphology in eastern Middle High German. Bentzinger (1992) focuses on adjectival suffixes in the Early and Late Modern High German period but he also includes some historical aspects of adverbial *-lich*. Another study of ADV derivation in Early Modern High German is carried out by Thomas (2002). The suffix *-mäßig*, normally treated as adjectival suffix, is studied by Seibicke (1963a-b), Inghult (1975) and in an unpublished paper by Bittner (1996). The suffix *-technisch* is studied by Kann (1974) and Ruge (2004). Kühnhold/Putzer/Wellmann (1978) is a monograph on ADJ formation but it includes many relevant suffixes.
- There is a monograph on English adverbial *-ly* by Opdahl (2000). Further work on *-ly* was prepared by Swan (1988, 1991, 1997), Nevalainen (1994a-b, 1997) and Tagliamonte/Ito (2002). In addition, there are various papers on *-wise*, e.g. Houghton (1968), Rahn (1969), Dalton-Puffer/Plag (2001) and Lindquist (2007). Pulgram (1968) treats both *-ly* and *-wise*. English and German adverbial suffixes have also been treated contrastively. Pounder (2001) focuses on the history of ADV marking with English *-ly* and German *-lich*. Lenker (2002) investigates English *-wise* diachronically in comparison with observations on German *-weise* and *-mäßig*.
- Hoekstra (1989) published a paper on Frisian temporal ADV derived by *-s*. An unpublished paper on Frisian *-wei* and *-wiis/-wize* in contrast with their Dutch equivalents is Boersma (2007).

2.7 Summary and outlook

Contrary to English and German, Dutch adverbial morphology represents a poorly investigated domain. In this dissertation the information on Dutch ADV formation scattered over various sources is brought together for the first time. Most of the information documented in the literature is based on intuition and introspection instead of being based on a sound empirical foundation. This gives rise to unclarity and disagreement on certain aspects since they have only been looked at superficially. The following aspects of Dutch adverbial morphology at least require closer inspection. Notice that synchronic and diachronic aspects are intertwined.

- (1) Synchronically, it is not clear which items should be classified among the set of adverbial suffixes. Some work still has to be done on establishing the details of their historical origin, i.e., how and when they became suffixes.
- (2) There is disagreement on the productivity of the adverbial suffixes in contemporary Dutch. Productivity and non-productivity of patterns are merely stated as facts without being verified by systematic corpus investigations and without any attempt of explanation.
- (3) Barely anything is known about the meaning conveyed by individual adverbial suffixes and the functions of their output lexemes. There are only scattered synchronic and diachronic observations.
- (4) The adverbial suffixes have been considered in isolation. There have been no attempts to explore the functional domain these suffixes encode and how the suffixes interact in the word-formation system, let alone how they interact with ‘adjectival’ suffixes. Historical observations, too, are limited to suffix-specific developments which are stated unsystematically.

The central aim of this dissertation is to provide a detailed description of the Dutch adverbial suffixes (and, additionally, *-matig* and *-technisch*) on a sound empirical foundation, using a contrastive approach. However, at the start of this dissertation, a major problem lies ahead of us: we need to clarify the distinction between ADV and ADJ in Dutch in comparison with English and German. This chapter started by stating that Dutch ADJ may be used adverbially without special marking which may be explained as the result of a diachronic process. In addition to this, derived words created with ‘adverbial’ suffixes are found to exhibit ‘adjectival’ properties. The roots of the notorious ADV/ADJ overlap in Dutch are explained in chapter 3 in comparison with English and German. To deal with the ADV/ADJ overlap, a meaning-based approach shall be proposed in chapter 4 which integrates elements from prototype theory and functional linguistics.

3 The category of adverbs

The adjective and the adverb are more alike than any other pair of part-of-speech categories (...).

Geoffrey K. Pullum & Rodney Huddleston (2002: 527)

3.1 Introduction

In chapter 2, I made clear that a basic problem in existing accounts of Dutch adverbial morphology is the status of the complex output words as either ADV or ADJ. Derived words created with ‘adverbial’ suffixes exhibit ‘adjectival’ properties. At the same time, Dutch ADJ may be used adverbially without special marking. This chapter explains the roots of this notorious ADV/ADJ overlap in Dutch.

In section 3.2, I give an overview of the basic criteria used for ADV/ADJ differentiation in the grammar of contemporary Dutch. I shall confront these with linguistic reality and point at some problems from a contrastive point of view. In sections 3.3 and 3.4, I provide a historical explanation for the discrepancy between the parts-of-speech distinction in Dutch grammar and linguistic reality. In section 3.3, I shall briefly describe the internal history of the category of ADV whereas in section 3.4 an overview is given of the history of the ADV/ADJ distinction in the Western grammatical tradition, with special attention for Dutch. This chapter is rounded off with a summary and outlook.

3.2 The classical definition of adverbs

The name ‘category’ is used as a label “for a set of entities that share one or more properties and that are, thus, to some extent similar” (van der Auwera/Gast 2011: 166). In a ‘classical’ or ‘Aristotelian’ model of categorisation objects are partitioned into categories on the basis of common properties. These properties serve as ‘necessary and sufficient conditions’ or defining criteria for category membership: the members of the category share the entire set of properties. When this model is applied to linguistic objects, they are partitioned into parts of speech on the basis of synchronic properties of a semantic, morphological and/or syntactic nature. However, the classical definitions of ADV and ADJ exhibit various areas of overlap. Particularly in Dutch and German, and – to a much lesser extent – in English, linguistic objects seem to belong to both categories.

3.2.1 Semantic properties

In ANS (1997) we find the identical semantic contribution in the definitions of ADV and ADJ, namely that these words mention “een nadere bijzonderheid”, i.e., they provide a specification. Within the individual parts of speech the grammar distinguishes various semantic classes. For ADV, ANS (1997) provides the semantic subclasses of location, direction, time, frequency, degree, quantifying, manner, modality, negation and connective ADV. It is added that the semantic classes of ADV are more or less parallel with the different classes of adverbial modifiers in the clause. Considering that it is nearly impossible to give a complete description of the meanings of Dutch adverbial modifiers (Stutterheim 1970: 278), we may infer that the potential members of the category of ADV are very heterogeneous. Among the subclasses of Dutch ADJ we also find a broad list including property words, geographical/person names, material names, situational ADJ, and ADJ indicating location, direction, time and modality. Other semantic classifications concern the dichotomies of absolute vs. relative, objective vs. subjective, qualifying vs. relational ADJ. The same semantic heterogeneity can be detected in English and German, e.g. Payne/Huddleston/Pullum (2010: 73).

When it comes to more specific semantic classes associated with the individual parts of speech, ADV and ADJ can obviously be associated with a variety of meanings and there is a considerable area of overlap, e.g. both parts of speech can be associated with the semantic classes of location, direction, time and modality. Thus, Dutch *misschien* ‘maybe’ in *Misschien is de bus al vertrokken* ‘Maybe the bus has already left’ is classified as a modal ADV, whereas *vermoedelijk* ‘probable, supposed’ in *de vermoedelijk-e_{INFL} dader* ‘the supposed wrong-doer’ is classified as a modal ADJ (ANS 1997). Likewise, *pas* ‘recently’ and *aanstonds* ‘directly’ are classified as time ADV, whereas *recent* ‘recent’ and *jaarlijks* ‘yearly’ are classified as time ADJ. There are similar areas of semantic overlap between ADV and ADJ in English and German which makes it difficult to establish a discrete distinction between the two parts of speech on the basis of semantic criteria.

3.2.2 Morphological properties

Morphological criteria for distinguishing parts of speech concern the possibility of a form’s combining with different types of inflectional morphemes (Hopper/Thompson 1984). Here, ANS (1997) refers to the formal heterogeneity of ADV. The category contains morphologically simplex lexemes like *hier* ‘here’ and *morgen* ‘tomorrow’, compounds like *hier-heen* ‘lit. to here, hither’ and *achter-af* ‘in retrospect’ as well as lexemes derived by adverbial suffixes, e.g. *hog-elijk_{ADV}* ‘highly’, *zacht-jes_{ADV}* ‘softly’. They only share their morphological invariability: they cannot be inflected. The invariability of ADV is opposed to ADJ, which can be inflected by the ending *-e* (schwa). In Dutch, ADJ inflect in prenominal position according to the following rule: ‘add the suffix *-e* to the adjectival stem unless the NP in which it occurs carries the features [indefinite], [neuter], and [singular]’ (Booij 2007: 269).¹¹ Thus: *het mooi-e_{INFL} meisje* ‘the beautiful girl’, *(de) mooi-e_{INFL} meisjes* ‘(the) beautiful girls’, but: *een mooi_∅ meisje* ‘a beautiful girl’. Moreover, Dutch ADJ can be graded (e.g. *mooi* ‘pretty’: *mooi-er_{COMP}* ‘prettier’: *mooi-st_{SUP}* ‘prettiest’).

However, ANS (1997) signals several problems with the morphological property of invariability for distinguishing ADV from ADJ in Dutch:

- (1) Some Dutch words classified as ADJ cannot be inflected or graded, e.g. *de open_∅ deur* ‘the open door’, *een houten_∅ plank* ‘a wooden board’, *m’n linker_∅ buurman* ‘my left neighbour’.
- (2) Some Dutch words classified as ADV are gradable, e.g. *vaak* ‘often’: *vak-er_{COMP}* ‘more often’: *vaak-st_{SUP}* ‘most often’; *graag* ‘gladly’: *liev-er_{COMP}* ‘rather’: *lief-st_{SUP}* ‘preferably’.
- (3) Some Dutch words classified as ADV can get the inflectional ending *-e* in attributive position, e.g. *een achteraff-e_{INFL} toevoeging* ‘lit. an afterwards addition’.¹² This property applies to certain derived ADV, e.g. *de respectiev-elijk_{ADV-e_{INFL}} hoofdstukken* ‘the respective chapters’, *een op-waarts_{ADV-e_{INFL}} druk* ‘an upward pressure’.
- (4) Some adverbially used words indicating degree may anticipate the inflectional ending of the following attributive ADJ (= *proleptic inflection*), e.g. *hel-e_{INFL} mooi-e_{INFL} plaatjes* ‘very beautiful pictures’, *een echt-e_{INFL} flink-e_{INFL} jongen* ‘a really fine chap’ (see section 3.3.5).¹³ This phenomenon is typical of informal Dutch.

¹¹ See Tummers (2005) on some intricacies involving ADJ inflection with neuter singular NPs and see section 3.3.5 below.

¹² According to Devos/De Muijnck/Van Herreweghe (1991: 198) examples like the latter occur more in the Netherlandic variety of Dutch.

¹³ Proleptic inflection is avoided when there is a difference in meaning, compare *ernstig_∅ zieke man* ‘seriously ill man’ vs. *ernstig-e_{INFL} zieke man* ‘serious ill man’.

A certain amount of morphological overlap can also be found in German (*Duden* 2009, Trost 2006).

- (1) Some German ADJ cannot be inflected or graded, e.g. *angst* ‘afraid’, *allein* ‘alone’.
- (2) Some German ADV are gradable, e.g. *oft* ‘often’ : *öft-er*_{COMP} ‘more often’ : *am öft-e-sten*_{SUP} ‘most often’; *wohl* ‘well’ : *wohl-er*_{COMP} ‘better’ : *am wohl-sten*_{SUP} ‘the best’.
- (3) Some German ADV get the inflectional ending in attributive position, e.g. *der auf-e*_{INFL} *Knopf* ‘the opened button’, *die zu-(n)-e*_{INFL} *Tasche* ‘the closed pocket’, *eine bald-e*_{INFL} *Rückantwort* ‘a quick reply’. These examples are typical of colloquial German and the latter is rejected by the prescriptive guide *Duden Richtiges und gutes Deutsch* (2007: 49); see also section 3.2.3). This includes derived ADV with *-weise*, e.g. *mit der stufen-weis*_{ADV-} *en*_{INFL} *Verbesserung* ‘with the improvement step-by-step’, *ein schritt-weis*_{ADV-} *er*_{INFL} *Abbau* ‘a gradual deconstruction’.

It seems that Dutch exhibits a slightly greater formal overlap than German, which has a class of localising ADJ marked by *-ig* which are only used attributively, e.g. *dort-ig* ‘there_{ADJ}’, *bald-ig*_{ADJ} ‘soon’ (Kühnhold/Putzer/Wellmann 1978, Eisenberg 2002, Trost 2006, and see section 4.2.2) which is missing in Dutch.¹⁴ Van Haeringen (1956: 59) already observed that the lesser degree of morphological differentiation in Dutch makes it some more flexible than German.

The most interesting point of similarity for Dutch and German is the absence of any fixed morphological marker of adverbiality. This is a contrast with languages like English, French and Russian (Devos/De Muynck/Van Herreweghe 1991: 84, Fleischer/Barz 1995: 279, a.o.). In English, the suffix *-ly* represents a formal characteristic which makes it possible to systematically distinguish ADV from unmarked ADJ, e.g. *beautiful*_{ADJ} : *beautiful-ly*_{ADV}. In Dutch and German, such systematic formal differentiation does not exist (see Aarts/Wekker 1987: 256, Van Haeringen 1956, Paraschkewoff 1974, Pounder 2001, a.o.). The same holds for Frisian and Afrikaans. For instance, Frisian *linich* ‘limber(ly)’ is used predicatively in *De kat is linich* ‘The cat is limber’ and adverbially in *De kat klattere linich yn ‘e beam* ‘The cat climbs limberly into a tree’ (Hoekstra 1998: 162). Compare Afrikaans *fluks* ‘quick(ly)’ in *Jan is fluks* ‘Jan is quick’ and *Jan werk fluks*_ø ‘Jan works quickly’ (Ponelis 1979: 275).

Contrary to Dutch and German, English does not have prenominal inflection on ADJ. English ADJ are gradable, but so are ADV, so this is no distinguishing feature (Pullum/Huddleston 2002: 532). There are only a few English ADV that are homonymous with ADJ, e.g. *She is a hard worker* : *She works hard*_ø (Pullum/Huddleston 2002: 566); included are well-established items like the intensifiers *very*, *pretty*, *full*; focalisers, e.g. *even*, *just*, *right*; time or place specifications, e.g. *late*, *long*, *near*, *still* (Nevalainen 1997: 175).¹⁵ This is a limited class and moreover, there is often a significant meaning difference, compare *very kind* (~ ‘kind to a large extent’) and *this very room* (~ ‘this particular room’). The formal overlap between ADJ and ADV in English is slightly greater (1) in informal style and in non-standard speech, e.g. *That’s real nice of you* and (2) with comparatives and superlatives, e.g. *They are singing louder than usual* (Pullum/Huddleston 2002: 567, 569). Observe semantic and functional differentiation between the suffixed and the suffixless form in *hard-ly* vs. *hard*, *late-ly* vs. *late*. I refer to Opdahl (2000) and Tagliamonte/Ito (2002) for details on dual-form ADV (e.g. *real/real-ly*) from empirical research and on language-internal as well as extralinguistic parameters determining the choice between the zero-form and the *ly*-form. For diachronic observations, see section 3.3.3.

¹⁴ However, Trost (2006: 263) refers to a very recent trend to use ADJ like *heut-ig* ‘today, present’ predicatively. This use is not yet conventionalised.

¹⁵ Pullum/Huddleston (2002) classify lexemes like *hard*, *fast*, *early* in both the ADJ and ADV categories.

3.2.3 Syntactic properties

Syntactic properties of a part of speech concern the use of words in a sentence. ANS (1997) defines ADV syntactically as words which may be independently used adverbially in or with a sentence, with an ADJ (e.g. *een erg lastige kwestie* ‘a very annoying matter’), or with another ADV (e.g. *vrijwel nooit* ‘almost never’). However, ANS (1997) also signals several problems with the syntactic property of adverbial use for distinguishing ADV from ADJ in Dutch:

- (1) Many Dutch words usually classified as ADJ can be used adverbially without any morphological marking, e.g. *Hij werkt hard_∅ door* ‘He keeps working hard’.
- (2) Some Dutch words classified as ADV can be used as a postmodifying attribute, e.g. *die herrie hier* ‘that noise here’, *de optocht gisteren* ‘the parade yesterday’.¹⁶
- (3) Certain Dutch words classified as ADV can be used as a premodifying attribute, e.g. *een achteraff-e_{INFL} toevoeging* ‘lit. an afterwards addition’. The same holds true for words derived by the adverbial suffixes *-gewijs*, *-(e)lijk*, *-tjes* and *-waarts*, e.g. *een sprong-s-gewijze_{ADV} ontwikkeling* ‘a jumpy development’, *de respectiev-elijk_{ADV-e_{INFL}} hoofdstukken* ‘the respective chapters’, *net-jes_{ADV} werk* ‘decent work’, *een op-waarts_{ADV-e_{INFL}} druk* ‘an upward pressure’.
- (4) Some Dutch words classified as ADV can be used predicatively, e.g. *Is ze hier?* ‘Is she here?’, *Zijn de kinderen boven?* ‘Are the kids upstairs?’. Predicative use is also found for words derived by the adverbial suffix *-tjes*, e.g. *Ik vind het maar pover-tjes_{ADV}* ‘I find it rather poor’, *’t Is hier fris-jes_{ADV}* ‘It’s cold here’; ANS considers these deadjectival *tjes*-derivatives as ADJ.

ANS (1997) identifies these problems by postulating that it is sometimes not clear whether we are dealing with ADJ which may be used as ADV, or with ADV which may be used as prenominal attributes. Comparable overlaps can be identified for German, see Duden (2009):

- (1) Many German words classified as ADJ can be used adverbially without any marking, e.g. *Anna arbeitet sorgfältig_∅* ‘Anna works meticulously’.
- (2) In German we find words classified as ADV in the postmodifying position, e.g. *die Frau dort* ‘that woman over there’, *der Ausflug gestern* ‘the trip yesterday’.
- (3) Certain German words usually classified as ADV are used as premodifying attributes and inflected, e.g. *eine bald-e_{INFL} Rückantwort* ‘a quick reply’, *das beinahe Zustandekommen* ‘the almost realisation’ (both rejected as colloquialisms by Duden *Richtiges und gutes Deutsch* 2007: 49). The same use is found for derived ADV with *-weise*, e.g. *mit der stufenweis_{ADV-en_{INFL}} Verbesserung* ‘with the improvement step-by-step’, *ein schritt-weis_{ADV-er_{INFL}} Abbau* ‘a gradual deconstruction’ (see 5.3.1 and chapter 10).
- (4) There are predicatively used ADV in German, e.g. *Die Kinder sind barfuß* ‘The kids are barefooted’ and words derived by adverbial suffixes are found in predicative position, e.g. *Unser Hund ist ganz ander-s_{ADV}* ‘Our dog is completely different’, *Das Spiel ist auswärts_{ADV}* ‘Lit. The game is outside; It is an away game’ (Eisenberg 2002: 67).

¹⁶ These cases are only problematic if one considers postnominal attributes as adjectival rather than adverbial modifiers, as this is done in ANS (1997).

In English, the distinction between ADJ and ADV is more clearcut. A high proportion of ADV are formed by suffixation of *-ly* and these ADV are restricted to adverbial use. Thus, *ly*-ADV have no predicative function and they cannot be used as prenominal attributes: “no *-ly* adverb modifies nouns. This is the hallmark modifying function from which adverbs are absolutely excluded” (Pullum/Huddleston 2002: 563). Conversely, the unmarked ADJ are restricted to attributive and predicative use. English does have syntactic overlaps between ADJ and ADV, but these seem to be restricted to temporal and spatial lexemes, see Quirk et al. (1985), Brinton (2002) and Payne/Huddleston/Pullum (2010).¹⁷

- (1) Some English temporal and spatial/directional ADV may be used postmodifyingly, e.g. *that man there, the meeting yesterday*. Payne/Huddleston/Pullum (2010) describe a new ‘postmodifying adverb construction’, which also occurs with derived temporal and spatial ADV with *-wise*, *-wards* and *-ways*, e.g. *the capability of rotation clock-wise_{ADV} and counterclock-wise_{ADV}, the meal after-wards_{ADV}, the lolling side-ways_{ADV} of her head*. However, there are also postmodifying examples of some *ly*-ADV with other functions, e.g. *the use temporary-ly_{ADV} of Australian troops to defend Ceylon, the support financial-ly_{ADV} of the local community*. Qualifying ADV shun this position (see section 4.4.4).
- (2) English temporal ADV and a few spatial ADV may be used attributively, e.g. *the then chairman, an outside toilet* (Brinton 2002). This also holds true for some directional ADV formed with *-wise* and *-ways*, e.g. *the clock-wise_{ADV} rotation, side-ways_{ADV} movement*.
- (3) English ADV are not used in predicative position (Pullum/Huddleston 2002: 527) except for temporal and spatial ADV, e.g. *The sentence is below, The basket is outside, The meal was after-wards_{ADV}, The final blow was just recent-ly_{ADV}*.

3.2.4 Conclusion

A careful investigation of the Dutch reference grammar ANS (1997) shows that a discrete parts-of-speech distinction between ADV and ADJ in Dutch is problematic due to considerable areas of overlap in the semantic, morphological and syntactic domain. Dutch ADV and ADJ have overlapping semantic functions and syntactic uses as well as overlapping morphological properties. Purely morphosyntactic criteria are also problematic from a cross-linguistic point of view since morphosyntactic properties may be language-specific: English has a formal characteristic for ADV with the suffix *-ly*, whereas Dutch and German do not. In turn, Dutch and German may inflect ADJ in prenominal position, which is not possible in English.

The problematic ADJ/ADV distinction in Dutch is discussed by Roose (1964), in the margins by Van Haeringen (1956) and De Schutter/Van Hauwermeiren (1983) and by myself in Diepeveen/Van de Velde (2010), Diepeveen (2011b), Diepeveen (2012) and Diepeveen (*in press*). For German, there is a vast literature on the category of ADV and its unclear status, e.g. by Schwarz (1982), Sommerfeldt (1993), Hoffmann (2007) and a collection of papers by Schmöe (2002). Issues concerning the ADJ/ADV distinction in English are treated in the grammars by Quirk et al. (1985) and Pullum/Huddleston (2002); they were recently discussed by Payne/Huddleston/Pullum (2010).

In the next section I shall provide a historical explanation for the problematic ADV/ADJ-distinction in Dutch and German and for how it came to a divergence from English.

¹⁷ Mind that Pullum/Huddleston (2002) and Payne/Huddleston/Pullum (2010) classify temporal and spatial lexemes as PREP and not as ADV.

3.3 History of adverbs

3.3.1 Adverbs in the ancient Indo-European languages

There is evidence that the category of ADV was barely present in Proto-Indo-European and that its development can be connected with the formal and functional reduction of case (Ramat 2002: 21).¹⁸ Proto-Indo-European had a strong case system with eight cases. Syntactic cases (e.g., the nominative) indicated the function of an element in the sentence, whereas semantic case expressed functions like LOCATION or INSTRUMENT. The locative and the instrumental (i.e., the later dative case) and the ablative are the main ‘adverbial’ cases, compare the Latin ablative *vere* ‘in the spring’. However, other cases like the genitive and nominative could be used for modifiers as well (Cuzzolin/Putzu/Ramat 2006, Ramat 2002). Compare the Latin accusative *diem noctemque* ‘day and night’ (Kienpointner 2010). Early Germanic used genitive case on N and PRON to indicate PLACE, TIME or MODALITY.

As the Proto-Indo-European case system weakened, significant changes occurred which particularly involved the ‘adverbial’ cases (Cuzzolin/Putzu/Ramat 2006: 32). Their functions were taken over by alternative strategies. First of all, a system of locative markers (PREP and ADV) came into existence, e.g. Gothic *þar* and *hēr*, which represent some of the oldest ADV in early Germanic (they survive today in English *there/here*, in Dutch *daar/hier* and in German *da/hier*). In addition, original case endings developed into word-formation suffixes (see section 2.3.1 on this process). For instance, the Latin adverbial suffixes *-ē(d)* and *-ō(d)* as in *certē* and *meritō* ‘rightly’ originate in the ablative case (Ramat 2002: 22). In Proto-Germanic, the instrumental ending *-o* was reinterpreted as an adverbial suffix, e.g. Gothic *spraut-o* ‘quickly’ (Heidermanns 1996). Thus, the ancient Indo-European languages developed a formally recognisable category of lexical modifiers which we can refer to as ADV and which are morphologically distinct from the category of ADJ.¹⁹

3.3.2 The loss of adverb marking in West-Germanic

The ancient West-Germanic languages used the suffix *-o* for marking adverbial use on adjectival base words (see 3.3.1). Compare Old High German *still-o_{ADV}* ‘silently’, *hart-o_{ADV}* ‘hard’, and consider Old Dutch *ferr-o_{ADV}* ‘far’ in (3.1) (for the conventions on presentation of the examples, see section 6.3.5).

(3.1) OD/901-1000/ONW/ferro

Gehori unsig got nereando unsa, tohopa Allero endo erthon in an seuui **ferro**.
‘Hear us God, our saviour, hope of all the ends of the earth and far at sea.’

In the 12th and 13th ct., there were important changes in the morphological system as a result of phonetic reduction in unstressed final syllables. The ancient systems of ADJ inflection and ADV marking through affixation were strongly affected by these changes. In the early Middle Ages, the adverbial ending *-o* got reduced to *-e*, compare Old English *hlud-e_{ADV}* ‘loud’, *heard-e_{ADV}* ‘hard’, Middle High German *still-e_{ADV}* ‘silently’, *hart-e_{ADV}* ‘hard’, and consider Old Dutch *lang-e_{ADV}* ‘long’ in (3.2).

¹⁸ The number of lexemes reconstructed for Proto-Indo-European which can be considered as ADV is limited and they do not share an ADV formation suffix (Ramat 2002: 22). Ramat (2002: 19) refers to some loose Indo-European morphemes which have previously been treated as case endings but which could be treated as derivational suffixes since they cannot clearly be related to the reconstructed case system.

¹⁹ A morphologically definable category of ADJ did not exist in Proto-Indo-European, but it is a novelty of Proto-Germanic (Van de Velde 2009b: 1029).

- (3.2) OD/1151-1200/ONW/lango
 Sancta Maria thigede tho zo godo. **lange** aneren gebede.
 ‘Saint Mary begged then to God for a long time in her prayer.’

The result of this reduction was that there was no difference between deadjectival ADV and inflected ADJ since both ended in *-e*, e.g. Old English *mild-e* ‘mild(ly)’, *nīw-e* ‘new(ly)’ (Weřna 1996: 43, Nevalainen 1997: 146). Sometimes the unaccented final *-e* was even dropped completely in adverbial position. Middle English results of this are unmarked forms like *fast*, *far* and *hard* which survive as ADV today and which are fully established in standard English (see section 3.2.2 and Nevalainen 1994). In German, the omission of the final *-e* resulted in the forms *still* ‘silently’, *hart* ‘hard’ and so on. A few lexemes have kept the form with *-e* as a variant in present-day German, e.g. *lang(-e_{ADV})* ‘long’ (Duden 2009: 569).²⁰ Stoett (1923: 76) refers to the confusing situation in Middle Dutch where the adverbial marker *-e* is sometimes present, e.g. *Recht-e_{ADV} opten Paeschedach* ‘directly on Easter Day’, and sometimes omitted, e.g. *Recht-∅ doe men dese stat gewonnen hadden* ‘directly when this town was won’. ADV marked with *-e* are still found in Dutch up till the 16th ct., but they disappeared in the following ct. (van der Horst 2008). This results in present-day unmarked forms like *ver* ‘far’, *lang* ‘long’, *hard* ‘hard’, *stil* ‘silently’.

The loss of the adverbial *-e* caused another formal overlap: there was no longer a difference between deadjectival ADV and uninflected ADJ. This overlap manifested itself particularly with ADJ in predicative position since these also gave up their original word-final *-e*. English gave up inflection of predicative ADJ from the earliest Middle English (Weřna 1996: 93), in German the ending in predicative position was occasionally omitted in Middle German and completely gone in the Modern period (Finck 1899: 52). Due to this overlap, the morphological criterion of formal marking could no longer be used for differentiating ADV from ADJ in predicative position. This situation was parallel in Dutch, English and German.

3.3.3 To a new marker: the regularisation of English *-ly*

The literature provides indications that there came tendencies to restore the ancient system of ADV marking through affixation. Since Middle English reduced and omitted final *-e* as an inflectional marker, it could have cultivated the *-e* as a derivational suffix for ADV marking, but this did not happen: instead, English cultivated *-lice*. Originally, this was a sequence of the adjectival suffix *-lic* with an adverbial *-e*, e.g. *luf-lic_{ADJ}-e_{ADV}* ‘lovely’, which was reanalysed as an adverbial suffix *-lice*, e.g. *dēop-lice_{ADV}* ‘deeply’ (Weřna 1996: 43-44, Pounder 2001: 319). Already in Old English, the unaccented final *-e* in *-lice* was sometimes left out (Pounder 2001: 306). The unpalatalised *-lic* spread in the North whereas in the South it transformed to *-ly* (Weřna 1996: 100). The southern variant *-ly* became the principal suffix for ADV marking in Middle English.

For a long time, the English adverbial suffix *-ly* was still competing with the unmarked ADJ. Observe further that in Middle English *-ly* was still used to some extent for ADJ formation (Pounder 2001: 317). However, its functions as a creator of ADJ were limited if one compares them with Gm. *-lich* (Pounder 2001: 316 and see below). The expansion of *-ly* for denominal ADJ derivation was restricted through extensive borrowing of Latin and Romance ADJ, e.g. *royal* and *paternal*, which superseded older native forms, e.g. *king-ly* and *father-ly* (Marchand 1969: 331). Deadjectival ADJ derivation with *-ly* as in *good-ly* and *sick-ly*, too, lost productivity since Middle English and it was extinct in Modern English (Marchand 1969: 330). Hence, it was comparatively easy for *-ly* to become associated with ADV marking.

²⁰ In German, another factor was involved in establishing the overlap between ADV and ADJ, namely the assimilation of forms with and without *Umlaut*, e.g. *harte/herte* ‘hard’, see e.g. Finck (1899).

In Middle English and Early Modern English, adverbialising *-ly* was freely attached to derived ADJ with native and foreign suffixes, e.g. *-some, -ful, -ward, -able, -al, -ent, -ive* (Pounder 2001: 318). There are even many attestations of *-ly* attached to ADJ ending in *-ly*, e.g. *friend-ly-ly*; these are found up to the 17th ct. (Pounder 2001: 318). This shows that the pattern of ADV marking with *-ly* had practically no restrictions in the Middle English and Early Modern English period. From the 16th ct. onwards, the tendency for the ADJ to be simplex, and for the ADV to be suffixed with *-lic* or its southern variant *-ly* grew stronger (Nevalainen 1994a). It has been shown in the literature that standardisation processes and prescriptive grammar played a crucial role in this development: 17th and 18th ct. grammarians encouraged the use of adverbial *-ly* and criticised the use of suffixless ADV (Pulgram 1968, Nevalainen 1994a, Pounder 2001). An example of such criticism is Swift who stated that “[a]djectives are sometimes employed as adverbs, improperly, and not agreeably to the Genius of the English language” (quoted by Tagliamonte/Ito 2002: 240). English grammarians were mainly driven by the motivation that English should be as grammatically explicit and rich as the most excellent language, Latin, which had a formal marker for distinguishing ADV from ADJ (Pulgram 1968: 388).

The overall tendency in Modern English is a rise in the occurrence of adverbial *-ly* and a decline in the occurrence of suffixless ADJ for adverbial use, as shown by Nevalainen (1997) and Tagliamonte/Ito (2002). In Early Modern English, suffixless ADV continued to be formed but since the beginning of Modern English, this strategy was almost extinct, i.e., no new suffixless ADV emerged (Nevalainen 1994a: 257, Brinton/Traugott 2005: 134). The suffix *-ly* managed to fully develop itself as a fixed marker of adverbiality. It became obligatory especially in British English, where the zero form was heavily stigmatised – except for highly frequent and well-established *fast, hard*, etc. which were inherited from Middle English (see above) and temporal ADV like *daily* (Pounder 2001: 307). The adverbial suffix *-ly* is more widespread today than it was in Early Modern English (Nevalainen 1994: 243). Non-suffixed forms, e.g. *he talks loud₀* or *that is real₀ nice*, are restricted to regional language (particularly in North America) and social groups or they may be reserved for specific functions (Pullum/Huddleston 2002: 567, 569, see Tagliamonte/Ito 2002 for details and see section 3.2.2).

At the same time, there has been a diachronic tendency for *ly*-ADV in English to be avoided as prenominal attributes (Tourbier 1928). This corresponds with a more general tendency to avoid ADV as prenominal attributes. Brinton (2002) shows that apart from a few exceptions (e.g. *the then practice*), temporal ADV which used to be common as prenominal attributes in Early Modern English are rarely used this way in contemporary English. From these observations we may infer that the English adjectival and adverbial category have become more strictly separated over time (compare Brinton/Traugott 2005: 136).

3.3.4 Regularisation of adjective inflection in German

Dutch and German, too, found an alternative adverbial marker in the native suffix *-(e)lijk/-lich*. However, it has been shown in the literature that German abandoned systematic suffixation with *-lich* on adverbially used words (e.g. Pounder 2001). For Dutch, too, it has been suggested that adverbial *-(e)lijk* became extinct; I refer to chapter 7 on *-(e)lijk* for discussion and investigation. Instead, there is evidence for a different strategy of formal distinction in the ADJ/ADV domain which involves the regularisation of inflection on attributively used ADJ (see e.g. Paraschkehoff 1974, Härd 1976, Pounder 2001).

Middle English had already given up adjectival inflection entirely (Wetna 1996).²¹ In contrast, Middle High German and Middle Dutch kept inflection intact in attributive position. Pounder (2001) describes a striking contrast between English and German prescriptive activities. Whereas English prescriptive grammar was concerned with regularising ADV marking with *-ly*, German prescriptive

²¹ Except for comparison by means of the endings *-er/-est*, which is still intact.

grammar aimed at a regularisation of ADJ inflection. While there was free variation between inflected and uninflected ADJ in older phases, German grammarians in the standardisation period encouraged the use of inflected forms in prenominal attributes (e.g. *ein schön-er Mann* instead of the variant *ein schön-ø Mann* ‘a handsome man’). Pounder (2007: 284) illustrates this by work of the German grammarian Johann Christoph Adelung in the 18th ct., who recommended full suffixation of ADJ in attributive position in order to distinguish them clearly from ADV and who criticised the use of bare forms.

Between 1600 and 1800 the German system was regularised: prenominal attributive modifiers were inflected more consistently (Pounder 2001: 314). Obligatory inflection of attributive ADJ was completely established in formal German writing by the 19th ct. (Pounder 2001: 313). From a historical perspective, prenominal inflection in German became more and more systematic. Obligatory inflection of attributive ADJ resulted in a new formal distinction in the ADJ/ADV domain. The outcome in Modern German is such that the morphological boundary is situated between variable attributive ADJ on the one hand, and invariable predicative ADJ and (qualifying) ADV on the other (Härd 1976: 15).

3.3.5 Dutch between German and English?

The previous developments and observations show that Dutch, English and German ADV used to have a formal characteristic, allowing for a common definition of the category on the basis of morphosyntactic criteria. However, due to processes of reduction, this system was lost, resulting in a formal overlap between predicative ADJ and adverbials. An alternative adverbial marker was found in the native suffix *-(e)lijk/-ly/-lich*. This marker was successful in English, causing the formal overlap between predicative ADJ and adverbials to disappear. However, it was shown in the literature that German abandoned the use of systematic suffixation with *-lich* on adverbially used words. The formal overlap between predicative ADJ and adverbials was maintained. Instead, German regularised inflection on ADJ which are used as prenominal attributes. From a contrastive perspective, the result is that “English shows identical forms for attributive and predicative adjectives, but a different form for the adverb, whereas German shows identical forms for predicative adjectives and adverbs, but a different form (or rather different forms) for the attributive adjective” (Kufner 1969: 58).

Finck (1899) and Van Haeringen (1956) already postulated that English diverges from Dutch and German in the ADV/ADJ domain, suggesting that Dutch and German exhibit parallel developments. Indeed there is evidence in the literature for a historical process of regularisation of prenominal inflection in Dutch, similar to German (see Diepeveen/Van de Velde 2010). Two tendencies described in the literature show that this may still be an ongoing process.

- (1) Overgeneralisation of the attributive ending *-e* (schwa) on prenominal ADJ. It is a well-known fact that learners of Dutch have difficulties applying the system of prenominal inflection (see section 3.2.2): they overgeneralise the ending *-e* in contexts where the grammar does not require it, e.g. **een mooi-e_{INFL} meisje* ‘a beautiful girl’ (Booij 2007: 269). Weerman (2003) shows that overgeneralisation also occurs with young children learning Dutch as their mother tongue as well as in the Surinam variety of Dutch. He believes that these are indicators of the overall vulnerability of the schwa-less attributive ADJ which could eventually even lead to the rule: ‘add schwa to the ADJ in attributive position’.
- (2) The phenomenon of *proleptic inflection* in degree ADV which anticipate the inflectional ending of the following inflected attributive ADJ, e.g. *hel-e_{INFL} mooi-e_{INFL} plaatjes* ‘very beautiful pictures’ (see 3.2.2). It must be a relatively young phenomenon. In the 19th ct. grammarians merely prescribed that the degree modifier should be uninflected (e.g.

Petrus Weiland 1805). In the 20th ct., Royen (1948a: 83) and Rijpma/Schuringa (1951: 115) paid attention to the phenomenon of proleptic inflection. Today it still gets the label ‘predominantly informal Dutch’ (ANS 1997). However, Weerman (2005) provides evidence that it is also frequent in written contemporary Dutch.²²

Both phenomena (1) and (2) reflect a tendency to provide all elements in attributive position with a final schwa. This is remarkable if one considers the overall deflection in Dutch (Weerman 2005).²³ In Diepeveen/Van de Velde (2010) we argued that the regularisation of prenominal inflection in Dutch in combination with some other factors indicate that Dutch is developing the same formal differentiation between attributive and non-attributive modifiers as German. The result of this parallel process is presented in table 3.1 (adapted from Diepeveen/Van de Velde 2010).

Table 3.1. Formal differentiation in the adjective/adverb domain in English, Dutch and German.

	Attributive use	Predicative use	Adverbial use
English	ADJ		ADJ + <i>-ly</i>
Dutch/German	ADJ + inflection	uninflected ADJ	

We may infer from table 3.1 that for this part of the grammar, Dutch is not situated between German and English but it should be grouped with German (see Diepeveen/Van de Velde 2010).

3.4 History of the classical approach

Different criteria have been used throughout time for partitioning lexical items together into parts of speech. In this section I do not intend to provide a complete overview on parts-of-speech classification but I aim to point at some significant steps in the Western European grammatical tradition with consequences for the ADV/ADJ distinction in Dutch. Sections 3.4.1-3.4.3 are predominantly based on Dibbets (1995), Ruijsendaal (2010) and Lyons (2004 [1968]). Sections 3.4.4-3.4.7 are predominantly based on Härd (1976) for German and Ruijsendaal (2010) for Dutch. I further refer to Michael (1970) for English grammatical categories until 1800, to Hoffmann (2007) and Forsgren (2008) for historical aspects of ADV in German grammar and to Kärnä/Matthaios (2007) for a historical overview incorporating various languages.

3.4.1 Greek and Latin grammar

The earliest grammarians did not yet define a class of ADV. Neither did they draw a sharp distinction between N, V and ADJ which have, since the Middle Ages, constituted the three major parts of speech.

²² There is also evidence for proleptic inflection in Frisian and Afrikaans, e.g. Frisian *it hiel-e_{INFL} moai-e_{INFL} widske* ‘the very beautiful cod’ (Popkema 2006: 199) and Afrikaans *’n verskriklik-e_{INFL} besig-e_{INFL} stad* ‘a terribly busy town’ (Kotzé 2009: 130). Interestingly, in Afrikaans, an uninflected attributive ADJ is more prone to trigger an inflected degree modifier than an inflected attributive ADJ, e.g. *’n geweldig-e_{INFL} skrande_Ø student* ‘an enormously smart student’ is much more common than *’n geweldig_Ø skrande_Ø student*. The schwa is added either to the attributive ADJ or to the premodifier of degree, but it is unlikely that it is added to both (Kotzé 2009: 130). Phonological factors seem to play a role here (see next note).

²³ This may not be so remarkable if we consider that Afrikaans, where deflection is even stronger, maintained ADJ inflection in a unique system (see Raidt 1968 & 1983, Lass 1990, Kotzé 2009 for the details). In this system the morphological and phonological structure of the ADJ determines whether an inflectional schwa is added in attributive position (Kotzé 2009). Thus, there are two classes of ADJ: the ones that always take schwa in attributive position and the ones that never do (Booij 2007: 269). In predicative position there is no schwa.

The Greek scholars Plato (428/427-348/347 BC) and Aristotle (384-322 BC) described a wide category of *v* and regarded ADJ as a subclass. The primary criterion for partitioning ADJ with *v* was of a functional nature, namely the consideration that these lexemes typically function for predication, as opposed to *n*, which are characteristically used for naming the subject of the predication. In the Post-Aristotelian period, parts of speech were distinguished on the basis of the morphological criterion of inflection. Grammarians then preferred to partition ADJ with *n* since both are inflected for number and case in Greek.

The Greek linguist Dionysius Thrax (170-90 BC) was the first to define a class of ADV. He used mainly semantic criteria for his classification of parts of speech but inflection was also included. ADV were defined by Thrax as “an indeclinable part of speech used to amplify or qualify a verb” (Michael 1970: 73). He subclassified the category in as many as 28 semantic types. The influential Latin grammarians Donatus (4th ct.) and Priscian (6th ct.) followed Thrax’ classification. Donatus’ definition of ADV was based on their subordination vis-à-vis the *v* (*adjecta verbo*), whereas Priscian pointed at the invariability of the ADV (*adverbium*). Priscian compared the semantic relation between *adverbium* and *verbum* with the one between *nomen adjectivum* and *nomen substantivum*: there is a similar modification relation. The Greek prefix *epi-* and the Latin prefix *ad-* can be translated as ‘attached to and modifying’. Like Thrax, both Donatus and Priscian provided an extensive semantic subclassification of ADV with around 20 types.

Late roman grammar developed a pedagogical model based on the concept of the *trivium*. This concept refers to the unity of the first three of in total seven profane arts: *ars grammatica* ‘grammar, the art of correct saying’, *ars dialectica* ‘dialectic, the art of correct reasoning’ and *ars rhetorica* ‘rhetoric, the art of correct speaking’. In the trivium model, grammar was a mere instrument which should provide the working materials for the arts of dialectic and rhetoric. Medieval grammarians remained faithful to the trivium model. As a consequence, the 1488 work *Exercitium puerorum grammaticale* (written by an unknown Dutchman) held on to the definitions of Donatus and Priscian. A Dutch translation of the name ADV was first used in the 1477 *Teuthonista: bijwoord* directly translates Latin *adverbium*, reflecting the close functional-semantic connection with the *v* (*woord*; the current name *werkwoord* was introduced later).

3.4.2 The first grammars in the vernacular

In the 16th ct., the humanist period, the first grammars in the vernacular emerged all over Europe, e.g. a German grammar by Laurentius Albertus and an English grammar by William Bullokar. Laurentius Albertus provided a definition of ADV in which he referred to the morphological marker *-lich*.²⁴ The 16th ct. grammars were all conceived in the trivium tradition, i.e., the method of description was entirely in accordance with Latin grammar. Parts-of-speech classifications followed the Latin example and represented the view that ADJ should be grouped with *n* and the ADV were defined as modifiers of *v*. Dutch grammars in this tradition were prepared by Radermacher (1) and Spiegel (2).

(1) Johan Radermacher

The tradition of Dutch trivium grammar starts with Johan Radermacher’s *Voorreden vandn <sic> noodich ende nutticheit der Nederduytscher taelkunste* which was published in 1568 (see Dibbets 1995). This work was the first preparation of a Dutch grammar. Radermacher initially wrote a definition for ADV (*bywervich woort*) as a modifier of the *v* (*wervich woort*) including a reference to

²⁴ Original quotation (Laurentius Albertus in Dibbets 1995: 295): “Adverbiorum derivativorum communissima terminatio *lich* est, quae nominibus adiectivis subiungitur: als *prachtig, Pomposus, prächtiglich pomposè* (...). Saepè requirit numerus et gravitas orationis, ut adverbis in *lich* syllabam *en* annectas.”

the morphological marker *-lyken*.²⁵ Radermacher then crossed out the entire definition in his manuscript, to replace it by another, more elaborate one. Interestingly, in the final definition, Radermacher left out his morphological remark on *lyken*.

(2) Hendrik Laurensz. Spiegel

Twe-spraack vande Nederduitsche letterkunst by Hendrik Laurensz. Spiegel (1584) is probably the oldest published complete grammar of Dutch, printed by the famous Christoffel Plantyn. It was conceived as a trivium grammar in the form of a written dialogue. The idea behind it was that the Dutch language had a dominant position, comparable with Latin and Greek, but it had been in decay and could be restored through a good Dutch trivium. Through this Dutch trivium, the mother tongue not only became a true object of study, but it could also be put into use as a metalanguage for all the sciences. The *Twe-spraack* contains some information on parts of speech, although this is rather limited and unsystematic. Spiegel still partitioned ADJ with N and gave a semantic definition of the ADV (*bijwoord*) as a modifier of the v.²⁶ There is some reference to syntactic information since Spiegel says that the ADV is placed near the v, but no morphological information is included.

3.4.3 Prescriptive grammar in the 17th century

In the 17th ct., prescriptive activities for the vernacular led to further grammars in the trivium tradition, although they started to diverge somewhat from their Latin examples. Until the 17th ct., grammars had been restricted to orthography and pronunciation; morphology served to help interpret and produce texts. In the second half of the 17th ct., the study of grammar started to free itself from the study of dialectic and rhetoric. School grammar and scientific grammar developed into different directions and in the school grammars there was a movement away from the trivium tradition. Scientific grammars started to include independent observations of Dutch morphology. Important is further the role of syntax: before, there had been no larger unit in grammar than the phrase. The 17th ct. signifies the birth of the constituent in grammar. Specifically for ADV, the insight was gradually accepted that ADV may modify other elements than v.

(1) Christiaan Van Heule

Influenced by Spiegel's *Twe-spraack* and various Dutch-English and English-Dutch grammar books, the grammarian Christiaan Van Heule published his *Nederduytsche grammatica ofte spraec-konst* (1625). He later revised his work as *De Nederduytsche spraec-konst ofte taelbeschrijvinghe* (1633). Van Heule's Dutch grammar was still based on the model of Latin school grammar. He paid much attention to the parts of speech and described them more extensively and systematically than Spiegel. Van Heule (1625) followed the classical way of partitioning the ADJ (*by-voeglik woort*) with the N according to a syntactically motivated definition. Van Heule originally also followed the classical view that the ADV (*bywoort*) only modifies v.²⁷ Interestingly, Van Heule (1625) referred to the formal overlap between ADJ and ADV in Dutch: he described the transposition from ADJ to ADV postulating that some ADJ do not change form (e.g. *goed, zuyver, klaer*) according to "the Greek pattern", while

²⁵ Original quotation (Radermacher in Dibbets 1995: 294): "<Een> bywervich woort is, dwelc byt wervighe ghevoecht, vervult desselven beteekening oft verandert se, of vermindert se, als <te weten> die gheminlyken <meestal> einden met dese syllaben *Lyken*. als blydelyken, fellyken *grammelyken*, oft."

²⁶ Original quotation (Spiegel 1584: 40): "*Bywóórd*, is een deel eender redene dat an óf by een wóórd ghezet zynde des zelfs betekenis verbroed, vervult, vermeerdert óf vermindert: dezer betekenissen zyn verscheiden."

²⁷ Original quotation (Van Heule 1625: 13): "Een by-voeglik woort is, welk doorzichzelf niet en bestaet, maer het welk tot een zelfstandig woort, gevougt wort, als Goet, Wit, Swart, Schoon. Bywoort is een woort dat by een Werkwoort gevougt wort / om eenige omstandicheyt van het zelve Werkwoort te verklaeren, de beteykeninge der Bywoorden is zeer verscheyden."

most ADJ, however, take the ending *lic*. In the cases where the ADV has the same form as the ADJ, Van Heule (1625) proposed to distinguish them on the basis of syntactic criteria.²⁸

In his 1633 revision, Van Heule, confusingly, used the name *bijwoord* for ADJ and provided a combined semantic and syntactic definition of ADJ. He still grouped ADJ together with N; in Dutch grammar writing, it would take until the end of the 18th ct. before ADJ were distinguished as a separate part of speech. Van Heule (1633) kept his original definition of ADV, but he carried out some changes. He introduced a supercategory of *help-woort* ‘help word’ in which he grouped ADV, PREP, conjunctions and interjections. He further added the morphological information that true ADV are not inflected although he did not give any criteria for what a “true ADV” may be. Van Heule (1625) already presented an extensive classification of semantic categories of ADV: place, time, manner, comparison and so on; in the 1633 revision, the number of classes was slightly reduced. On Van Heule’s discussion of the suffix *-(e)lijk*, see chapter 7.

(2) Allard Lodewijk Kók

As indicated before, 16th ct. grammarians gradually realised that ADV may modify other parts of speech than *v*, but it took until well into the 17th ct. before this view was generally accepted. The Dutch scholar Gerardus Joannes Vossius stated in his Latin grammar published in the mid 17th ct. that ADV may modify other parts of speech than *v*. This observation was taken over by the Dutch grammarian Allard Lodewijk Kók (1649) in his Dutch school grammar *Ont-werp der Neder-duitsche letter-konst*. Kók (1649) defined the ADV as an invariable word which modifies various parts of speech.²⁹ He later added the restriction that ADV mostly modify *v*, so that the traditional part of speech was intact. Kók (1649) was the first grammarian who explicitly discussed adverbial morphology, i.e., Dutch ADV formation (see chapter 2, section 2.2).

3.4.4 New approaches in the 18th century

In the 18th ct., the period of Enlightenment, linguistic knowledge increased and grammar writing developed further. Language regulations were extended with respect to etymology and syntax. An important development was the separation of morphology and syntax, although the latter was still mainly concerned with the structure of phrases and not with sentences. This knowledge was incorporated in the grammars. There is an important difference between treatments in grammars of Dutch like Moonen and Séwel (1) and the work on German grammar by Funk and Adelung (2).

(1) Arnold Moonen and Willem Séwel

In one of the leading Dutch grammars of the 18th ct., *Nederduitsche Spraakkunst*, Arnold Moonen (1706) conceived Dutch grammar along the classical Greek and Latin model, but his special attention for Dutch syntax indicates that he had moved away from the classical example. Nevertheless, the aim of grammarians like Arnold Moonen (1706) and Willem Séwel (1708, *Nederduytsche Spraakkunst*) was to bring Dutch to the same level as Latin. Since language usage of respected authors or *boni auctores* was perceived as authoritative, the grammars incorporated considerations based on their linguistic performance. Dutch grammar referred to the classical authors Pieter Corneliszoon Hooft

²⁸ Original quotation (Van Heule 1625: 59): “De Bywoorden kunnen van Byvouglücke woorden onderscheyden worden/ om dat de Byvouglücke woorden haer bequaemelic by Zelfstandige woorden vougen / het welk de Bywoorden niet en doen.”

²⁹ Original quotation (Kók 1649: 54): “By-woordt is een on-ver-anderlijk Woordt, welk by een Naam-woordt, Voor-naam, Werk-woordt óft Deel-woordt ghe-voeght wordt, om des zelfs om-standigheid óft Hoedaanigheid te be-tekenen.”

and Joost van den Vondel. Another important authority was the *State Bible* published in 1637. The effect of these authorities on Dutch grammar in the 18th ct. was strong. For instance, they persisted in separating between ADJ and qualifying ADV and they referred to the ending *-(e)lijk* for indicating adverbial use (van den Toorn et al. 1997: 417; see chapter 7 on *-(e)lijk*).

(2) Gottlieb Benedict Funk and Johann Christoph Adelung

The situation was different in German grammar writing. The end of the 18th ct. brought the insight that the model of Latin grammar could not be used for an adequate description of German. Gottlieb Benedict Funk used syntactic, morphological and logical criteria to come to the conclusion that in German the uninflected predicative ADJ is closely related to the ADV, both belong to the category of the *Beschaffenheitswort* 'situation word'. Johann Christoph Adelung followed Funk in his claims and stated that the close relation between the uninflected ADJ and the ADV in German cannot be analysed according to Latin grammar. On the basis of logical-semantic criteria, he differentiated between ADV (*Beschaffenheitswort* or *Umstandswort* 'circumstance word') and ADJ (*Eigenschaftswort* 'property word'). These new approaches by Funk and Adelung continued to be used in German grammars until approximately 1820, e.g. in the work by Karl Philipp Moritz. He described the relation between predicative and attributive use as derivational and assumed some sort of deep structure for predicative modifiers, a view which would later turn out central in generative transformational linguistics.

3.4.5 The historical approach in the 19th century

In the 19th ct., new linguistic theories emerged of which the most influential direction was the historical approach. For German grammar, the effect of the consideration of diachronic aspects was that the ideas of Funk and Adelung on defining ADJ and ADV were heavily criticised. The classical separation of predicative and attributive ADJ on the one hand, and ADV as modifiers of the predicate on the other, was restored, e.g. in the work by J.C.A. Heyse and Jacob Grimm. The latter not only separated German predicative ADJ from ADV on the basis of historical criteria but also by a comparison with other languages. Many German grammars remained faithful to historical principles until well into the 20th ct.

For Dutch grammar, the consideration of historical principles meant a continuation of the 18th ct. approach. The first Dutch grammar based on historical principles was *Hollandsche spraakleer* by Willem Gerard Brill first published in 1846 (see Brill 1871 for a later edition). He was also concerned with determining the origin of the adverbial suffixes. Brill's work has similarities with the *Nederduitsche Spraakkunst* by Petrus Weiland (1805), who had been inspired by Moonen and Séwel. Weiland's grammar became the reference point for many school grammars. Interestingly, even 19th ct. scholars who did not explicitly adhere to a historical approach kept the classical distinction between ADJ and ADV intact. Taco Roorda (1852) published a specialised work on Dutch parts-of-speech classification where he also extensively discussed the ADJ/ADV distinction. He kept the traditional approach of separating ADV from ADJ on the basis of the criterion of their syntactic use. The same holds true for Jacob Van Lennep (1865) who published a light-footed grammar book in which the reader is instructed to separate ADV from ADJ.³⁰

Willem Bilderdijk (1820) was the first to explicitly thematise the Dutch ADJ/ADV distinction in an essay. He stated that Dutch ADJ and ADV may formally overlap and share the function of modification ('*wijziging*'). However, on a syntactic basis, Bilderdijk (1820) proposed to separate ADV from ADJ on

³⁰ Van Lennep (1865) tried to help the reader by providing an illustration for each part of speech to facilitate memory. Interestingly, both ADV and ADJ were accompanied by an illustration of a hand with an index finger, to signify that these parts of speech 'point at' a quality.

the basis of their distribution of modifying V as opposed to ADJ; a view which Bilderdijk (1826) pursued in his grammar.³¹

3.4.6 The Neogrammarians and structuralism

By the end of the 19th ct., the Neogrammarians initiated a change in approach in German grammar writing. Their main representative, Hermann Paul, postulated that a separation of ADJ and qualifying ADV is no longer justified in Modern German. The formal criterion is invalid and the difference is not intuitively perceived (Paul 1920: 366). Paul's principles found many followers in the 20th ct. with the start of structuralism. In the structuralist approach, parts of speech are defined purely on the basis of common morphosyntactic properties, e.g. syntactic distribution or the ability to be inflected. Structuralists consider semantic criteria irrelevant for defining parts of speech (Taylor 2004 [1995]: 304). Particularly influential was the structuralist-empirical grammar *Die innere Form des Deutschen* by Hans Glinz first published in 1952 (see Härd 1976: 34). A follower of Paul, he criticised the classical separation of qualifying ADJ and ADV, which he deemed purely fictional and very far from linguistic reality. Glinz (1973: 193) argued in favour of a reorganisation of the classical categories in accordance with modern German structure. His views became generally accepted in German grammar, which started classifying *fleißig* 'diligent' in *Er arbeitet fleißig* 'he is working diligently' as an ADJ in adverbial position (Härd 1076: 41, Eroms 2000: 30).

3.4.7 Dutch school grammar

Dutch grammar followed the same developments as grammars in other languages, incorporating principles of new linguistic theories. As the Latin-based 'word grammar' was given up, the attention moved to the sentence as a unit of description. Thus, 20th ct. grammar took the sentence as its point of departure and no longer exclusively the word and its forms. One of the leading Dutch grammars following this programme was *Nederlandsche Spraakkunst* by Cornelis Herman den Hertog (1903-1904). This grammar was written as a (normative) school grammar and it influenced all following Dutch school grammars. Den Hertog based his descriptions on both formal and semantic criteria; thus, he defined ADV as invariable words which, used adverbially, give further specifications on the event, situation or property in the predicate or attribute. He separated qualifying ADV (e.g. *snel* 'quick' in *snel lopen* 'run quickly') from ADJ. Admitting that this separation was no longer intuitively perceived due to the formal overlap with uninflected ADJ, he encouraged language users to train their intuition. Gerrit S. Overdiep (1928) in his *Moderne Nederlandsche grammatica* also kept the classical separation but he assumed a double part of speech for predicative attributes. The adaptation, Overdiep (1949), continued to represent this view. Cornelis Gerrit Nicolaas de Vooy (1967) in his *Nederlandsche Spraakkunst* pursued the ideas of den Hertog; influenced by the historical approach, he kept the classical separation between qualifying ADV and ADJ intact. So did *Nederlandse Spraakkunst* by Rijpma/Schuringa (1951) which defined ADV as single words functioning as adverbials. Rijpma/Schuringa (1951: 118) admitted that it may be difficult to determine whether certain words are ADV or ADJ, but they still held on to the discrete differentiation. Their grammar served as an influential school grammar for many decades. Its adaptation in 1968 incorporated some changes in

³¹ Original quotation (Bilderdijk 1820: 121-122): "Zy [= bijwoorden] zijn ook van de adjectieven niet noodzakelijk onderscheiden door vorm of eenige affectie. (...) Maar zy worden van de adjectieven onderscheiden door hunne toepassing op een bloote WIJZIGING, in plaats van op een zelfstandig voorwerp. (...) Deze korte verklaring bevat inderdaad de algeheele en volkomen oplossing des geschilpunts. Zy geeft, naamlijk, een volkomen uitsluitel op de vraag: Welke is de aart en het onderscheid van adjectieven en adverbien? Beider aart naamlijk is een, en bestaat in wijziging uit te drukken; maar het adjectief wijzigt het substantif, het adverbium wijzigt het adjectief of het verbum. Zy beantwoordt ook de vraag, die het geschilpunt natuurlijk insluit: Of de veranderlijkheid en overanderlijkheid het onderscheidend kenmerk tusschen adjectieven en adverbien maken, ontkenner wijze. Adverbien zijn adjectieven die adjectieven of verba wijzigen (...)."

the treatment of qualifying ADV: *goed* 'good' is on morphological grounds an ADJ in the sentence *hij zong goed* 'he sang well' but it is syntactically used as an adverbial.

A 20th ct. Dutch grammar inspired by structuralism is *Beknopte ABN-syntaxis* by Petrus Cornelis Paardekooper (1963). He assumed a double part of speech, "bwbn" (ADVADJ), for words like *klein* 'small', *mooi* 'beautiful'; according to the syntactic context in which they are used, they should be classified as either ADV (*bw*) or ADJ (*bn*). Another grammar inspired by structuralism was *Nederlandse Grammatica* by Maarten C. van den Toorn (1973). Here, too, forms like *goed* 'good' in adverbial function were considered as ADV for syntactic reasons.

In the second half of the 20th ct., Dutch grammar was strongly influenced by the generative paradigm. Generative linguists typically defined parts of speech on the basis of syntactic structures; word meaning was irrelevant. Moreover, they treated categories as discrete units: category membership was an "all-or-none phenomenon" (Geeraerts 1989: 587). The generative approach had a long-lasting hegemony in Dutch grammar.

In the 1980s, the first complete, modern, scientific grammar of Dutch was published: the *Algemene Nederlandse Spraakkunst (ANS)* by Geerts et al. (1984). It was between descriptive and normative: it followed traditional school grammar (e.g. den Hertog) but it also incorporated the results of linguistic research (e.g. Paardekooper) (van der Sijs/Willemys 2009: 332). There was a thorough revision by Haeseryn et al. in 1997. The *ANS* (1997) is generally considered as *the* reference grammar of Dutch. As I stated at the beginning of this chapter, it points at the formal overlap between ADJ and ADV, but it still maintains two distinct parts of speech on the basis of morphosyntactic criteria.

3.5 Summary and outlook

It was shown in this chapter that the classical ADV/ADJ distinction in Dutch grammar does not correspond with linguistic reality. However, Dutch grammarians never broke with the ancient Greek and Latin tradition (Ruijsendaal 2010: 160). They still separate between ADV and ADJ as distinct parts of speech. Only their distinctive criterion shifted from a morphological to a predominantly syntactic one. This is partly due to structural developments in the language (particularly deflection). However, the linguistic reality in Dutch is a high degree of overlap which makes it difficult to force individual lexemes into either category.

Since Paul, German scholars have at abundance discussed the discrepancy between the classical parts-of-speech categorisation and linguistic reality, arguing that the classical approach cannot be maintained in Modern German. As far as Modern Dutch is concerned, the problem of the ADJ/ADV overlap was touched upon in work in the 20th ct., e.g. by Royen (1948a) and Van Haeringen (1956), whose observations focused on the status of the uninflected predicative ADJ. Roose (1964) is the first Dutch scholar who provided a more detailed account of the problem of the demarcation of the category of ADV (see chapter 4). Dutch grammars still adhere to the classical approach although they admit that a strict parts-of-speech distinction between ADJ and ADV is problematic (e.g. *ANS* 1997).

To be in accordance with linguistic reality, a new approach to ADV and to parts-of-speech categorisation in general is required. Synchronic and diachronic evidence point at a gradient view of the ADV/ADJ distinction (Ramat/Ricca 1994). On the basis of the semantic overlap between ADV and ADJ, chapter 4 will present arguments in favour of a meaning-based approach which integrates ADJ and ADV as 'modifying words'. This approach is not only in accordance with Dutch linguistic reality, it is also cross-linguistically adequate.

4 Framework: modification and word formation

The functional property of being modifiers is shared by both adjectives and adverbs. Functionally, the two categories can be distinguished only in that the former are basically noun modifiers, while the latter basically modify nonnominal constituents (...). However, the functional boundary between adjectives and adverbs is not always clearcut. (...) The point is then not to cancel the category Adverb (...) but to understand that linguistic categories (the traditional partes orationis) are not isolated compartments with no links or overlaps.

Paolo Ramat & Davide Ricca (1998: 187,189)

4.1 Introduction

In chapter 3, I provided evidence that a discrete distinction between a category of ADV and ADJ in Dutch is problematic due to a high degree of overlap on the semantic, morphological and syntactic domain (see section 3.2). This problem was discussed from a synchronic and a diachronic perspective. In the present chapter I propose a different approach to the ADV/ADJ overlap, integrating elements from functional linguistics and prototype theory. This approach has implications for our understanding of the category of ‘adverbial morphology’.

In section 4.2, I present the theoretical concept of prototypicality which my study will refer to. This is based on the idea that linguistic categories have fuzzy borders and that they are best defined within a scalar approach. This approach will be applied to the ADV/ADJ distinction, to aspects of the lexical/grammatical distinction in morphology and to morphological productivity. In section 4.3, I introduce notions of functional linguistics on the basis of which I postulate a category of ‘modifying words’. The universal function of ‘modification’ is further discussed in section 4.4 together with its semantic-functional subcategories. Each subcategory is accompanied by the central strategies of linguistic encoding in contemporary Dutch in comparison with English and German as documented in the literature. The focus is on single words (ADV/ADJ) but further lexical strategies are also included. In the final section, 4.5, I sum up the main findings concerning the role of word formation as a strategy for encoding modification.

4.2 Prototypicality

4.2.1 Prototype theory and the gradient view

We have seen in section 3.2 that the classical or Aristotelian model of categorisation partitioned objects into categories on the basis of common properties. In this model, category membership is an “all-or-none phenomenon” (Geeraerts 1989: 587): the members of a category share the entire set of properties and these are not shared by other objects. This model has turned out to be an idealisation (van der Auwera/Gast 2011: 171). It cannot deal with borderline cases which do not share all the properties and it cannot account for transition phenomena, i.e., objects which seem to belong to more than one category.

The classical model of categorisation was challenged radically by the advent of the cognitive sciences in the second half of the 20th ct. (van der Auwera/Gast 2011: 171). Prototype theory was developed in the 1970s with an entirely new view on categorisation. The theory has psycholinguistic origins and is based on categorisation as a cognitive phenomenon. It owes much to pioneering work on human categorisation by the cognitive psychologist Eleanor Rosch. Backed up by empirical evidence, prototype theory states that categories are internally structured: they have central, representative

instances or ‘prototypes’ and they have less central, peripheral or marginal instances. Category members exhibit different degrees of (proto)typicality (van der Auwera/Gast 2011: 174): the prototype of a category exhibits the maximum number of attributes whereas peripheral members may have only one attribute in common. For instance, swallows and ostriches are both members of the conceptual category BIRD, but a swallow is a more typical bird than an ostrich. Prototype theory not only includes a rethinking of the internal structure of a category but also of the boundaries of a category and the relationship between categories (van der Auwera/Gast 2011: 173). Thus, gradience is not only observed within categories but also between categories: prototype theory assumes that categories may have fuzzy boundaries (Brinton/Traugott 2005: 16). As such, objects may belong to more than one category.

Studies have revealed that prototype effects occur not only in the cognitive domain, but also in linguistic structure (Lakoff 1994: 57, 67). Conceptual categories and linguistic categories are structured in a similar way: linguistic categories, too, have representative and marginal members and fuzzy boundaries (Geeraerts 1989, Lakoff 1994, Taylor 2004 [1995]). Prototype effects occur at all levels of language: phonology, morphology, syntax and semantics. Prototype theory, then, can be used to characterise linguistic categories. According to Geeraerts (1989: 588) and Taylor (2004 [1995]: 293), there has been a growing interest for and a rapid extension of prototype theory in linguistics since the early 1980s. There have been various applications of the theory. By adhering to prototype theory, linguists reacted against earlier structural and transformational approaches. Functional linguists have often used the concept of prototypicality in their definition of formal categories (cf. Newmeyer 2007: 142). Prototype theory has further been used in lexical semantics, where it provides a framework for a polysemy-oriented treatment of lexical meaning (van der Auwera/Gast 2011: 176). Finally, including findings from the cognitive sciences, prototype theory also “has become one of the cornerstones of cognitive linguistics” (Geeraerts 1989: 591).

Prototype theory has been widely used for parts-of-speech classification. The prototype approach to parts of speech starts from the assumption that not all items display the semantic, morphological and syntactic properties of the part of speech to the same degree (Sommerfeldt 1993: 9). Thus, each part of speech has a centre and a periphery and the category may have fuzzy boundaries (Ramat/Ricca 1994: 292). Ideas on fuzzy borders of parts of speech already existed long before prototype theory was established in linguistics (van der Auwera/Gast 2011: 177). Scholars adhering to the prototype approach are Lyons (1977), Croft (1984), Hopper/Thompson (1984) and Ramat/Ricca (1994). In section 4.4.2 I present prototype-inspired definitions of ADV and ADJ.

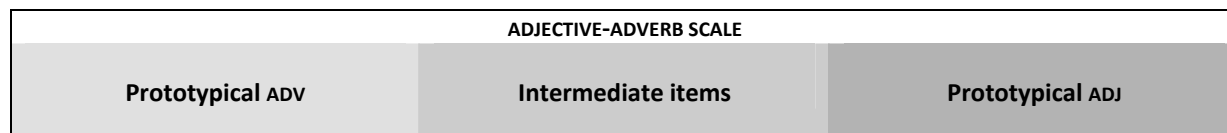
Prototype theory is very useful for defining morphological categories (compare Dressler 1989: 9). A notorious problem in morphology is the lexical-grammatical distinction. Certain linguistic elements may exhibit both lexical and grammatical features and cannot appropriately be dealt with if a strict separation is maintained (e.g. Kristoffersen 1992, Keizer 2007, 2008). The prototype approach starts from the assumption that lexical and grammatical items constitute a linguistic continuum with central and peripheral categories. The boundaries between them are fuzzy. The gradient distinction can be postulated for adverbs and adjectives (4.2.2), for lexemes and suffixes (4.2.3) as well as for derivation and inflection (4.2.4). The diachronic process of grammaticalisation, a linguistic change from ‘contentful’ to ‘functional’, from ‘less’ to ‘more’ grammatical, presupposes a gradient notion of grammaticality (see section 2.3.2). In addition, the functions of word formation constitute a continuum from lexical to grammatical (4.2.5) and so does productivity (4.2.6).

4.2.2 Adverbs and adjectives: a gradient distinction

A prototype approach to parts of speech enables a differentiation between adverbial and adjectival words which allows for borderline cases. Following a prototype approach, the ADV/ADJ distinction is viewed as a scale, allowing for some words to be ADV, for other words to be ADJ, and for the rest to

have a mixed status. Many linguists agree that both synchronic and diachronic evidence support a scalar view of the ADV/ADJ distinction (e.g. Ramat/Ricca 1994). Parts of speech are in a constant process of change (Hengeveld 1992a: 69). Thus, it has been suggested in the literature that ADV develop adjectival properties like attributive use and inflection (see chapter 5). A prototype approach can account for such diachronic developments: it allows transitional items. The scalar approach to ADV and ADJ is represented in figure 4.1.

Figure 4.1. Scalar approach to the adverb/adjective distinction.



In the next sections, I shall give an overview of the main ideas on a gradient ADV/ADJ distinction found in Dutch linguistics (1), in English and German linguistics (2), and finally, I shall refer to some approaches in a cross-linguistic perspective (3).

(1) Ideas on a gradient adverb/adjective distinction in Dutch linguistics

Although prototype theory was never really established in Dutch linguistics when it comes to parts-of-speech differentiation, some ideas on gradience and fuzzy borders have been formulated with respect to Dutch ADJ and ADV. I discuss Roose (1964) and De Schutter/Van Hauwermeiren (1983).

Herman Roose (1964) devoted his dissertation to the parts-of-speech distinction in Dutch, particularly the problem of ADV (see Diepeveen *in press*). He formulated some fundamental ideas on Dutch ADV and parts of speech in general. His main observation is that the classical category of ADV in its traditional form, as it had been described in Dutch grammars, cannot be maintained. Roose argued that ADJ and ADV in Dutch cannot be described independently of one another and instead he proposed an integrated approach. He prepared a classification of 200 lexemes into seven subclasses: (1) ADJ or 'property words' (e.g. *lang* 'long'); (2) 'relatumwords' (e.g. *hier* 'here'); (3) 'words determining relations' (e.g. *zelfs* 'even'), (4) 'iteration words' (e.g. *nogmaals* 'again'), (5) 'frequency words' (e.g. *vaak* 'often'); (6) 'particles' (e.g. *misschien* 'maybe'); (7) PREP. This differentiation is based essentially on morphosyntactic properties: their syntactic use, their combinatory possibilities, their possibility to inflect. Importantly, Roose suggested that the classes may have fuzzy borders, i.e., he allowed peripheral items which share some properties of one class and some of the other. Roose's work represents the first and the most complete attempt to restructure the traditional class of ADV in Dutch grammar, following the main insight that Dutch ADV and ADJ ought to be studied together in a meaning-based approach. Although he argued in favour of meaning-based definitions, his classes are in actual fact a mixture of semantic and morphosyntactic criteria.³²

In their functionally inspired grammar of Dutch, De Schutter/Van Hauwermeiren (1983) stressed that the strict separation between ADV and ADJ of traditional grammar cannot be maintained. They claimed that a part-of-speech distinction on the basis of syntactic distribution is problematic since members of both categories have attributive, predicative and adverbial uses. In addition, Dutch ADV do not get a special suffix like they do in English or Latin. Considering that ADV and ADJ share the same semantic characteristics, there is absolutely no reason to postulate two distinct parts of speech in Dutch. Rather, De Schutter/Van Hauwermeiren (1983: 117) assumed that parts-of-speech categories have fuzzy borders. They formulated some ideas on an integrated approach to Dutch ADV and ADJ.

³² Apart from the inconsistency between form and meaning, there are further methodological problems for which he has been criticised at the time he published his dissertation, see e.g. Kooij (1966), Thümmel (1967).

Although there have been attempts like the above to restructure the categories of ADV and ADJ in terms of a gradient part-of-speech distinction, Dutch grammar (e.g. ANS 1997) has not broken with tradition. It remained faithful to the classic separation between ADJ and ADV as distinct parts of speech which is predominantly motivated by their syntactic distribution (see chapter 3).

(2) Ideas on a gradient adverb/adjective distinction in English and German linguistics

In English linguistics (e.g. Payne/Huddleston/Pullum 2010), ADV and ADJ are usually treated as distinct categories. The notion of prototypicality is employed category-internally, e.g. by Quirk et al. (1985) who distinguished between 'central' and 'peripheral' ADJ and by Ramat/Ricca (1994) who investigated the scalarity of ADV. Similarly, Eichinger (2000), Eroms (2000) and Trost (2006) have been concerned with prototypicality effects within the German category of ADJ. Since the 1970s the prototype approach has found a wide application in German linguistics and today it is firmly rooted in grammars of German (Fuhrhop 2007: 6, *Duden* 2009: 574). Ideas on gradience between the categories of ADV and ADJ were already formulated long before the advent of prototype theory (see e.g. the overview in Härd 1976).

Since the 1970s, German linguists have dealt with the ADV/ADJ overlap in various ways. Some postulated a supercategory which integrates ADV and ADJ (e.g. Erben 1972). Others postulated a transit category of *Adjektivadverbien* to refer to borderline lexemes which have the adverbial function but which cannot be formally separated from ADJ (e.g. Paraschkewoff 1967, Härd 1976). Further linguists broke down the traditional categories of ADV and ADJ into more specific subcategories of ADJ, ADV, *adcopula* and (*modal*) *particles* (e.g. Zifonun et al. 1997, Eichinger 2007). The category of *adcopula* then includes words which can only be used predicatively. For further ideas, I refer to Sommerfeldt (1993) and Hoffmann (2007).

What these different approaches have in common, is that they distinguish ADV and ADJ only on the basis of their prototypical morphosyntactic properties. They usually agree that attributive use and inflection are central properties of prototypical ADJ, while predicative use and adverbial use are secondary. Prototypical ADV however are difficult to define (*Duden* 2009: 569). The syntactic property of adverbial use is for instance shared with ADJ and the morphological property of invariability with PREP and CONJ.³³ Notwithstanding the widespread use of the gradient distinction between ADV and ADJ, German linguists still hold on to a fairly strict distinction between adverbial and adjectival suffixes.

(3) Prototype approaches in a cross-linguistic perspective

The idea of prototypicality effects between parts of speech was welcomed by functional linguists and typologists, who are concerned with the universality of categories. From a cross-linguistic perspective, the definition of ADV of the Latin and English grammatical tradition is problematic. Purely morphosyntactic criteria for defining parts of speech are problematic since morphosyntactic properties are language-specific. Thus, the formal category of ADV may not be a universal category (see Hoffmann 2007: 255, Wierzbicka 2000: 285). Functional linguists and typologists have proposed different criteria for defining parts of speech. Ramat/Ricca (1994) evaluated different criteria for defining prototypical ADV: with semantic criteria (e.g. the meaning of MANNER), syntactic criteria (e.g. v modification), morphological criteria (e.g. morphological opacity) and frequency.³⁴ Wierzbicka (2000) used the criterion of lexical universals established on the basis of empirical cross-linguistic

³³ *Duden* (2009: 569) adds the syntactic property that they may be placed in front of the finite v, e.g. *Heute regnet es* 'Today it is raining'.

³⁴ In their view, prototypical ADV are synchronically opaque, i.e., they are no transparent word formations, e.g. English *perhaps* and Dutch *misschien* (both are the result of univerbation). Thus, English *ly*-derivatives and formations like German *unglücklich-erweise* 'unfortunately' are no prototypical ADV.

investigation. In her view, the concepts VERY and LIKE THIS (HOW) are universal concepts, i.e., these are the lexical prototypes for the category of ADV.

4.2.3 Lexemes and suffixes: a gradient distinction

In morphology a distinction is made between potentially free morphemes ('lexemes' or 'words', e.g. German *klein* 'small', *Mann* 'man') which have a lexical meaning of their own, and bound morphemes ('affixes', e.g. German *-isch*, *-lich*) which cannot function autonomously. It has been argued that some elements take a position in between these categories, e.g. German *-arm* 'poor (in)', *-frei* 'free (of)', *-haltig* 'containing', *-voll* 'full (of)'. These elements with a mixed status have been referred to as *semi-affixes* or *affixoids*. The former term was introduced in English morphology by Marchand (1969) for elements which are midway between words and suffixes. The German term *Halbaffix* was introduced by Fleischer in the 1970s (Ruge 2004; see Ros 1992: 51 ff. on the use of this category in German linguistics). In synchronic studies, semi-suffixes are peripheral elements which have too much lexical meaning to be classified as suffixes, but are too dependent to be classified as autonomous lexemes (Eichinger 2000: 157). Some scholars have reduced 'semi-suffixes' to a category which serves purely descriptive purposes (e.g. Meesters 2004). In contrast, diachronic studies gladly use the notion 'semi-suffix' to represent a transitional stage on the scale of grammaticality: semi-suffixes are elements which are on the way from a lexeme to a suffix in a process of *grammaticalisation* (on the notion of grammaticalisation, see e.g. Heine/Kuteva 2002, Hopper/Traugott 2003, Himmelmann 2004, Brinton/Traugott 2005 and see section 2.3.2).³⁵

At the same time, a number of arguments have been put forward to do without the notion of 'semi-suffixes' in diachronic study since it is an additional category which only causes confusion (e.g. Trips 2009: 26 and see references there). In this dissertation I shall distinguish between 'lexemes' and 'suffixes' as dynamic notions with an intermediate zone in between but I shall not use the category of 'semi-suffix'. Adopting a scalar view to grammaticality, I assume a continuum with prototypical lexemes on one end of the scale, prototypical suffixes on the other, and peripheral or transitional elements in between. The boundaries are fuzzy. Figure 4.2 illustrates the continuum, which may be seen as a cline from lexical to grammatical, with German examples.

Figure 4.2. The lexeme/suffix distinction as a gradient distinction.

'SUFFIXITY' CONTINUUM		
Prototypical lexemes	Intermediate items (semi-suffixes, affixoids)	Prototypical suffixes
<i>klein</i> 'small', <i>Mann</i> 'man',...	<i>-arm</i> 'poor (in)', <i>-frei</i> 'free (of)', <i>-haltig</i> 'containing', <i>-voll</i> 'full (of)'...	<i>-isch</i> , <i>-lich</i> ,...

4.2.4 Derivation and inflection: a gradient distinction

Morphology is usually split into the components of 'inflection' and 'derivation' or 'word formation'. Although this split has been based on a vast range of distinguishing criteria, it is widely recognised that inflection and derivation are closely related phenomena which cannot be strictly separated (e.g.

³⁵ A criterion which is used in the literature for assuming full suffix status is that the bound element no longer exists as an independent word. According to this criterion, German *-lich* is a suffix, but *-weise* is not, since *Weise* 'manner' still exists (see previous note). However, I believe that this criterion cannot be used independent of other criteria like semantics and productivity. For further discussion, see chapters 9 and 10 on German *-weise/-erweise* and Dutch *-gewijs/-erwijs*.

Bybee 1985, Dressler 1989, Haspelmath 1996, Rainer 1996, Brinton/Traugott 2005). Dressler (1989: 9) claims that particularly in cross-linguistic analysis most of the distinguishing criteria between inflection and derivation are of a prototypical nature. Prototype theory enables a scalar view of inflectional and lexical morphology as a linguistic continuum with central and peripheral categories.

One of the central factors for differentiating between inflectional and derivational morphemes is the amount of semantic change produced by the morpheme: “the greater the difference between the meaning of the derived word and the meaning of the base, the greater the likelihood that the affix is derivational” (Bybee 1985: 5). There are prototypical inflectional categories, prototypical derivational categories and intermediate or peripheral categories. Prototypical derivational categories include the formation of deadjectival N, e.g. *small* : *small-ness* (Dressler 1989: 6). Prototypical inflectional categories include plural marking with *-s*, e.g. *pig* : *pig-s*.

Adverbial morphology is normally treated as a prototypical derivational category, i.e., adverbial suffixes are prototypical derivational suffixes. However, there has been much discussion on the status of English adverbial *-ly*. I refer to Nevalainen (1997), Brinton/Traugott (2005), König/Gast (2007: 67) and Payne/Huddleston/Pullum (2010: 60ff.), among others, for this never-ending debate. On the basis of its systematic application as a marker of adverbiality and the fact that it lacks one single semantic content, Plag (2003) argues that *-ly* may be considered as inflectional. In this view, *-ly* is required by the syntax: it is attached to ADJ when they function adverbially. A related factor for differentiating between inflectional and derivational morphemes is productivity (Bauer 2003: 70; on productivity, see 4.2.6). Since *-ly* is a highly productive pattern (see Brinton/Traugott 2005: 134), this may be an argument to consider it as inflectional rather than derivational.

Nevalainen (1997: 182) argued that *-ly* is derivational since certain ADJ classes are excluded as input words on semantic grounds, e.g. colour terms. Payne/Huddleston/Pullum (2010: 72) considered *-ly* as derivational, stating that “[I]f adverbs form a distinct major category, then the relationship between adverb and adjective must be one of lexical word-formation”. If one presumes *-ly* has lexical content and forms new lexemes, *-ly* can indeed be considered derivational. Bybee (1985: 85) already observed that the principle that morphemes which change the word class are always derivational may be wrong. This corresponds with Haspelmath (1996) who prefers to treat *-ly* as “word-class changing inflection”. The differentiation between derivational or inflectional morphemes should also be based on diachronic observations (compare Cuzzolin/Putzu/Ramat 2006: 7). From a diachronic perspective, it can be argued that *-ly* is moving from the derivational to the inflectional end of the scale in a process of grammaticalisation (Brinton/Traugott 2005).

Figure 4.3 visualises the continuum which may be seen as a cline from lexical to grammatical. Basing on the concept of prototypicality, I shall assume at this point that synchronically, the amount of semantic change *-ly* effects is not large enough to consider it as prototypical derivation.

Figure 4.3. The derivation/inflection distinction as a gradient distinction.

LEXICAL-GRAMMATICAL CONTINUUM		
Prototypical derivation	Intermediate items	Prototypical inflection
<i>small</i> : <i>small-ness</i>	<i>beautiful</i> _{ADJ} : [<i>beautiful-ly</i> _{ADV}] _{ADV}	<i>pig</i> : <i>pig-s</i>

4.2.5 The functions of derivation: a gradient distinction

Word formation is assumed to have two central functions, one of which is basically lexical, the other basically grammatical (Kastovsky 1986: 594). The lexical function of word formation pertains to semantic transposition whereby a word is moved into another lexical class, e.g. *professor* : *professorship* (Marchand 1969: 228). In the German literature this lexical function is referred to as “modifizierende Umbildung” or *Modifikation* (e.g. Fleischer/Barz 1995, Erben 2006); I shall use the notion of *modification* for these semantic patterns. The syntactic function of word formation pertains to syntactic recategorisation (e.g. Plag 2003: 60), i.e., the processes of nominalisation, verbalisation, adjectivalisation, adverbialisation, whereby a linguistic element is moved into another syntactic category, e.g. *small*_{ADJ} : [*small-ness*]_N. In the German literature the category-changing function of word formation is usually referred to as *Transposition* (e.g. Fleischer/Barz 1995, Erben 2006). To avoid confusion with the notion of semantic transposition, I shall use the notion of *recategorisation* to refer to grammatical patterns. A central property of the word-formation process of derivation by suffixes is that the (rightmost) suffix determines the category of the complex word (Fleischer/Barz 1995). This does not necessarily imply that derivation changes the category of the input word.

On the basis of their central function, derivational morphemes are usually divided into two types: the pure semantic type and a type which has grammatical consequences (Brinton/Traugott 2005: 35). It is widely acknowledged that the distinction between ‘semantic’ and ‘grammatical’ derivational morphemes is not clear-cut. Bybee (1985: 84) points at differences in the amount of semantic change that derivational suffixes produce: “Large meaning changes are characteristic of derivational processes which do not change syntactic categories. (...) Derivations that change the syntactic category of a word make varying amounts of semantic change, depending on how much semantic content they contribute along with the category change” (Bybee 1985: 83). E.g., in the case of German *Bart*_N : [*bärt-ig*]_{ADJ}, the suffix *-ig* not only establishes a syntactic recategorisation of the base word from N to ADJ, but it also adds a semantic value in terms of possession: *bärt-ig* ‘with a beard’. However, in the case of German *dort*_{ADV} : [*dort-ig*]_{ADJ} ‘over there’ the invariable adverbial base is changed into an inflectible ADJ without any semantic change (Motsch 1992: 106; see section 3.2.2). Kastovsky (1986: 595) argues that the functions of word formation represent the opposite ends of a scale. I visualise this continuum in figure 4.4.³⁶

Figure 4.4. A gradient distinction of the functions of derivation.

CONTINUUM OF THE FUNCTIONS OF DERIVATION		
Lexical function	Grammatical function with meaning change	Grammatical function without meaning change
<i>rot</i> _{ADJ} ‘red’ : [<i>röt-lich</i>] _{ADJ} ‘reddish’	<i>Bart</i> _N ‘beard’ : [<i>bärt-ig</i>] _{ADJ} ‘with a beard’	<i>dort</i> _{ADV} ‘over there’ : [<i>dort-ig</i>] _{ADJ} ‘over there’

Particularly with regard to ADJ, derivational suffixes are on a continuum, compare Eichinger (2000: 87) who states that adjectival word formation is on the interface between recategorisation and modification: there are patterns which are prototypically syntactic and patterns which are prototypically semantic.

³⁶ The boundary between word formation with a grammatical function and inflection is fuzzy (see previous section): should En. *-ly* and Gm. *-ig* be considered as word-class changing inflection, or as derivation with a grammatical function?

When studying the semantics of word formation we need to differentiate between separate layers of meaning. The meaning contributed by the word-formation pattern is the *word-formation meaning* (Pounder 2000). Word-formation meaning applies to a class and it is fairly abstract and general. Paradigmatic relationships between complex words are essential for revealing systematic form-meaning correspondences (e.g. *huis* 'home': *huis-waarts* 'to home', *stad* 'town': *stad-waarts* 'to town'). In contrast, the meaning of a complex lexeme can be referred to as *lexical meaning*. The lexical meaning may be unique to a single formation. Word-formation meaning is more abstract and more general than lexical meaning (Pounder 2000: 100).

Booij (2007: 212) points out that meaning assignment to complex words is very dynamic and flexible. It is often difficult to capture the meaning contribution of derivational suffixes to the meaning of the complex word.³⁷ First of all, word-formation meaning may be characterised by primary semantic values as opposed to secondary values, referring to pragmatic effects (1). Further, there is no one-to-one correlation between derivational suffixes and meanings: we have to deal with polysemy (2) and synonymy (3) in word formation. Individual complex words, once they are formed, may exhibit idiosyncratic meanings (4). Last but not least, individual complex words may exhibit systematisation. All of these aspects of word-formation meaning have a diachronic dimension (see e.g. Trips 2009: 206) which will become apparent throughout this dissertation.

(1) Word-formation meaning: primary and secondary contributions of suffixes

Some scholars claim that suffixes do not have meanings in themselves but that they only acquire meaning in conjunction with free morphemes (e.g. Marchand 1969: 215). Others defend that derivational suffixes do bear meaning (e.g. Trips 2009). This is a controversial matter, but there is general agreement that "the meaning of a complex word is in principle a compositional function of the meaning of its base word and its morphological structure" (Booij 2007: 56). In this dissertation I interpret word-formation meaning in terms of **semantic values** that suffixes may contribute to the base word in the process of derivation. Essentially, word-formation meaning has a relational character, i.e., it is interpreted as a relation with the meaning of the base. For the semantic analysis of complex ADJ, Motsch (1992) pointed out that partly the same 'relations' can be assumed as for nominal compounds. Pounder (2000) proposed a basic distinction between primary and secondary word-formation meanings. These word-formation meanings are assumed to have cross-linguistic validity (Pounder 2000: 123).³⁸

Apart from Ronca (1975) and Ros (1992) I am not aware of any attempts to describe the semantic contribution of adverbial suffixes. They focus only on German and do not refer to crosslinguistically applicable semantic categories. Accounts of word-formation meanings for ADJ include e.g. Kühnhold/Putzer/Wellmann (1978) and Motsch (1992) for German and Warren (1984) and Pounder (2000) for English. Thomas (2002) set up a set of semantic categories applicable to ADJ in earlier stages of German. From these different accounts I collected a set of **primary word-formation meanings** which may be cross-linguistically applicable and relevant to the modifying words central to my dissertation. Table 4.1 gives a non-exhaustive overview provided with examples from German (predominantly Kühnhold/Putzer/Wellmann 1978, Motsch 1992 & 2004, Erben 2006) and English (predominantly Warren 1984, Plag 2003, Hamawand 2007).

³⁷ This differs from intermediate items (affixoids or semi-suffixes) which typically make the semantic relation with the base explicit, e.g. German *fett-arm* 'low-fat', *hand-förmig* 'hand-shaped', *lern-willig* 'willing to learn' (Eichinger 2000: 93,96).

³⁸ A principal question is whether there is a finite universal set of word-formation meanings. Pounder (2000: 100) hypothesises that this is the case, which implies that a catalogue of meanings can be established. This is a controversial point which cannot be discussed here.

Table 4.1. Selection of primary word-formation meanings.

CATEGORY	PARAPHRASE	EXAMPLES
AGENT	'by x'	Gm. <i>herzog-lich-er Befehl, transformation-ell-e Grammatik, fachmännisch-es Urteil</i> En. <i>editor-ial comment</i>
APPROXIMATION	'rather x'	Gm. <i>bläu-lich-e Rauchfäden, dümm-lich</i> En. <i>a purpl-ish birthmark</i>
CAUSE	'caused by x'	Gm. <i>krankheit-s-halber</i> En. <i>vir-al infection</i>
COMPLIANCE	'in accordance with x'	Gm. <i>fahrplan-mäßig-e Abfahrt, programm-gemäß beenden, wahrheit-s-getreu, konvention-ell-e Redensarten, zweck-haft-e Möbel, regul-är-e Arbeit, maßstab-gerecht-e Zeichnung</i> En. <i>norm-al behaviour</i>
DIRECTION	'to x'	Gm. <i>tal-wärts, seit-lich, rück-lings</i> En. <i>a wester-ly breeze, a home-ward journey, a home-bound train</i>
DISTRIBUTIVE	'x by x, per x'	Gm. <i>stufe-n-weise Verbesserung, bezirk-s-weise Impfung</i>
DURATION	'during x'	Gm. <i>die zweistünd-ig-e Vorlesung</i> En. <i>month-ly rental</i>
FORM	'in the form of x'	En. <i>cross-wise</i>
GOAL	'for x'	Gm. <i>ärzt-lich-e Ausbildung, in krieg-s-mäßig-er Ausrüstung, spaß-es-halber</i> En. <i>technolog-ical scholarships</i>
IDENTITY	'which/who is x'	Gm. <i>allegor-ische Figur, behelf-s-mäßig-er Tisch, das väter-lich-e Oberhaupt der Familie, katastroph-al-e Niederlage, form-ell-er Beitritt, flegel-haft-er Junge, attribut-iv-es Adjektiv</i> En. <i>professor-ial friends, a problem-atic situation</i>
INSTRUMENT	'by means of x'	Gm. <i>telefon-isch übermitteln, akte-n-mäßig beweisen, brief-lich-e Mitteilung, nomin-al-e Umschreibung, kultur-ell-e Veredelung</i> En. <i>chemic-al warfare, examine microscop-ically</i>
ITERATIVE	'occurring every x'	Gm. <i>die stünd-lich-e Ablösung, dienstäg-lich-er Kurs</i> En. <i>a dai-ly shower,, occasion-al change of pace</i>
MANNER	'in the manner of x'	Gm. <i>die schnellzüng-ig-e Verteidigung, irrtüm-lich auffassen, kunst-mäßig anwenden</i> En. <i>sarong-wise, loving-ly</i>
MATERIAL	'made of x'	Gm. <i>hölz-ern-e Tür, gold-en-e Teller</i> En. <i>wood-en door</i>
ORIGIN	'from x'	Gm. <i>das Frankfurt-er Würstchen, die zwang-s-mäßig-e Einführung, koloni-al-e Ware, alveol-ar-er Verschlusslaut</i> En. <i>rur-al visitors, west-ern democracy, Rom-an numerals</i>
POSSESSED	'with x'	Gm. <i>bärt-ig-er Mann, zuversicht-lich-e Mutter, konstitution-ell-e Monarchie, doktrin-är-er Sozialismus, schmack-haft, neid-isch</i> En. <i>industri-al area, ic-y street, roof-ed pergola, a power-ful person, an ambiti-ous athlete</i>
POSSESSOR	'of x'	Gm. <i>napoleon-isch-es Heer, väter-lich-es Haus, die famili-är-en Konventionen, korporat-iv-es Selbstbewußtsein</i> En. <i>wife-ly supremacy</i>
REFERENCE	'regarding x, related to x'	Gm. <i>mathemat-isch-es Genie, klang-lich gut, verfassungsrecht-lich-e Bedenken, die verfahren-s-mäßig-en Äußerlichkeiten, lern-technisch-e Schwierigkeiten, finanz-iell-e Restriktion, budget-är-e Maßnahme, qualitat-iv-er Unterschied</i> En. <i>weather-wise, a tradition-related question, an environment-al issue</i>
SIMILARITY	'like x, of the character of x'	Gm. <i>das schüler-haft-e Benehmen, väter-lich-er Freund, der trotteln-ig-e Mensch, der tyrann-isch-e Vater, die leder-n-e Haut, das ballad-esk-e Lied, tier-mäßig-e Zähne, explos-iv-e Reaktion, das gelatin-ös-e Nebenprodukt, der gripp-al-e Infekt, fischgräten-ähnlich, götter-gleich, treppen-artig</i> En. <i>snow-y white, monster-ish, mother-ly home-maker, Rom-an nose, metall-ic clang, child-like trust, Garbo-type hat, Kafka-esque, cowboy-style, a military-type bag, doggy-fashion</i>
SPATIAL LOCATION	'occurring in/on x'	Gm. <i>europä-isch-e Flüsse, seit-lich-e Tür, region-al-e Arbeitslosigkeit,</i>

		<i>station-är-e Behandlung</i> En. <i>pol-ar bear, a wester-n outskirts, a coast-al town</i>
TEMPORAL LOCATION	‘occurring at x’	Gm. <i>die nächt-lich-e Heimkehr, mittäg-lich-e Sonnenglut, ander-wärts</i> En. <i>nocturn-al adventure</i>
TENDENCY	‘inclined to x’	Gm. <i>klein-lich-er Mensch, zänk-isch, nasch-haft-es Mädchen</i> En. <i>a quarrel-some kid, a fashion-minded fanatic, an accident-prone driver, a forget-ful child</i>

Secondary word-formation meanings as defined by Pounder (2000) deal with expressive connotations. Included are e.g. PEJORATIVE connotation (e.g. English *-ish* may focus on an unfavourable feature: *a wolf-ish appetite* is an appetite that is ferocious and uncivilised, see Hamawand 2007), AMELIORATIVE connotation, REINFORCEMENT (intensification of an inherent positive or negative quality) and MITIGATION (downtoning effect) as well as more vague affective or emotional meanings. In addition, there may be an effect of IRONY. Last but not least a word-formation pattern may induce a **stylistic effect**, e.g. FORMAL/INFORMAL.

The semantic relation between a base word and a derived word may be so vague that it can barely be captured by one of the meanings expressed above. Vagueness can be considered a source for polysemy, see (2). The meaning contribution of a derivational suffix may be so vague that it differs per word. Consider the Dutch suffix *-ier* for the derivation of denominal person names: *juwelier* ‘jeweller’ denotes someone selling jewellery, while *scholier* ‘pupil’ denotes someone visiting a school (Booij/van Santen 1998: 134). Even one and the same derived word may have different interpretations, e.g. Dutch *muzikale aanleg* ‘talent for music’, *muzikale show* ‘show with music’, *muzikale scholing* ‘training for music’ (Booij/van Santen 1998: 134 and see relational ADJ in 4.4.3). We use extralinguistic factors for the interpretation of such words. This semantic vagueness may be a negative influence on the productivity of a morphological pattern (Booij/van Santen 1998: 134).

(2) Suffix polysemy

It is rarely the case that a derivational suffix may be associated with only one single meaning contribution like the German suffix *-esk*, which may only express the relation of SIMILARITY e.g. *clown-esk* ‘clownesque’ (Kühnhold/Putzer/Wellmann 1978), or the Dutch suffix *-en* for denominal derivation, which may only establish the relation of MATERIAL, e.g. *hout-en* ‘wooden’ (Heynderickx 2001). Derivational suffixes in contemporary language are often **polysemous**: one suffix may establish various related meaning contributions (Habermann 2002: 48).³⁹ This whole set of meanings may be referred to as the **semantic spectrum** of the suffix. For instance, the Dutch suffix *-achtig* for denominal derivation combines the relations of POSSESSED, e.g. *berg-achtig* ‘mountainous, hilly’ and SIMILARITY, e.g. *sherry-achtig* ‘sherry-like’ (van Santen 1984). Suffix polysemy is particularly large in the domain of ADJ (Erben 2006: 124).

Within the meaning spectrum of a suffix there are prototype effects. Rainer (2003) in his framework of semantic fragmentation (see chapter 5) argues that word-formation patterns may be split up into different semantic patterns including a prototype and a number of peripheral members, which are semantically connected. Prototypicality can be quantitatively determined, e.g. frequency data by Kühnhold/Putzer/Wellmann (1978) show that German *-bar* predominantly (in over 90% of the derived lexemes) expresses the relation of POSSIBILITY and *-haft* expresses SIMILARITY in over 70% of the lexemes.

³⁹ It may be difficult to determine whether we are dealing with two homonymous suffixes or with one polysemous suffix (Booij/Van Santen 1998: 142). When regular patterns of meaning relationships exist, this may be a reason to postulate suffix polysemy. In a diachronic study of meaning, polysemy is an essential concept, see Traugott/Dasher (2002: 11ff.), who deal with the polysemy/homonymy controversy.

(3) Suffix synonymy

It was already stressed that there is no one-to-one correlation between suffixes and meanings. Thus, Marchand (1969: 227) states that “[s]uffixes may be ‘synonymous’ in the same way as full words are, viz. they partially overlap semantically”. Likewise, Booij/van Santen (1998: 140) state that there may be suffix synonymy if a particular meaning is shared by two (or more) suffixes. It is widely agreed upon that absolute synonymy is exceptional. I shall also take the position in this dissertation that suffixes which may contribute the same semantic value (e.g. SIMILARITY or INSTRUMENT) are ‘semantically comparable’ rather than absolutely synonymous.⁴⁰

Semantically comparable native suffixes may have a different scope: there may be suffix-specific semantic and/or formal input preferences which keep them from being added to the same base word. E.g., for expressing the primary semantic value of INSTRUMENT in German, there is a clear distribution among the native suffixes according to their input conditions: *-isch* attaches to borrowed bases which chiefly denote a branch or discipline, *-lich* attaches to bases denoting a written or oral utterance, *-ig* typically attaches to bases denoting body parts (Kühnhold/Putzer/Wellmann 1978: 372).

However, semantically comparable native suffixes may be considered as **rival suffixes** if they can be added to one and the same base word. Thus, German *-ig* and *-artig* are rival suffixes when it comes to establishing the relation of SIMILARITY: both *leder-ig* and *leder-artig* ‘like leather’ exist (Pounder 2000: 124-125). However, scholars tend not to believe in true rivalry, e.g. Marchand (1969: 227-228): “No two [suffixes] combine alike formally or with the same intellectual or emotional connotation, though in particular cases two types are very neatly interchangeable”. Thus, there is a subtle semantic difference between German *leder-ig* ‘leathery’ and *leder-artig* ‘leather-like’. Van Santen (1984) states that there are always subtle differences between rival suffixes, which may only be of a stylistic nature.⁴¹

Semantically comparable suffixes and rival suffixes are best considered as a network in which there may be prototype effects. It has been shown in the literature that a particular word-formation meaning may be prototypically encoded by a certain suffix, and less prototypically by others. Consider for instance frequency data in Kühnhold/Putzer/Wellmann (1978) which show that more than 25% of the complex lexemes in which an IDENTITY relation is established, are formed by *-isch*. The second and third largest share have *-al/-ell* and *-ig*; other suffixes have only a minor share in encoding IDENTITY. Thus, the IDENTITY meaning in German is prototypically encoded by the suffix *-isch*. In this context the distinction between *system* and *norm* is relevant, see section 4.2.6.

A final, special case to consider are semantically comparable native and non-native suffixes. They typically have a different scope so that they are not normally added to the same base. There is a very basic formal input restriction that non-native suffixes only attach to non-native N (Heynderickx 2001: 30). The synonymous lexemes which the suffixes produce, may coexist, e.g. German *kommunal* ~ *gemeindlich* ‘municipal’, *professionell* ~ *beruflich* ‘professional’ and so on (Kühnhold/Putzer/Wellmann 1978: 259). Although the semantic content of the derived lexemes may be comparable, the non-native lexemes may evoke stylistic connotations which are absent for their native synonyms (Heynderickx 2001: 28), e.g. they are perceived as learned and are typical for formal speech.

⁴⁰ We may wonder if there are suffixes which share *all* their possible meanings, i.e., display the same polysemy. Marchand (1969: 227-228) rules out this possibility: “each one suffix has a different totality of semantic features.”

⁴¹ Instead of using the notion ‘rival suffixes’ some scholars prefer the notion of *minimal opposition*, stressing that the suffixes form a semantic minimal pair (Kühnhold/Putzer/Wellmann 1978: 259, Wellmann 1997: 66).

(4) Idiomatic words

The morphologist is interested in regularities in word formation, but individual complex words, once they are formed, may exhibit idiosyncratic properties: “When a word is newly coined it is formally and semantically transparent. In the course of time, it may (...) show a lack of semantic compositionality” (Trips 2009: 30). Due to a process of **idiomatisation**, the semantic contribution of the suffix may no longer be directly identifiable. There may be additional unpredictable meaning components in individual complex words (Booij 2007: 62), usually secondary meanings, e.g. a negative connotation. A diachronic perspective may be illuminating for tracing the semantic shift. The reverse process is known as **neutralisation**: the original secondary word-formation meanings or expressive values may disappear throughout time and cause formerly marked lexemes to become fully conventionalised (Klimaszewska 1983: 33). For instance, the Dutch *n* *lied-je* ‘song’, the diminutivised form of *lied* ‘song’, has been fully conventionalised.

A more radical phenomenon is that individual, established derived words may get semantically **demotivated** or **semantically opaque**. This means that the semantic relation between the complex formation and the base completely loses its transparency. **Idiomatic words** or idioms may be analysed as structurally complex, i.e., morphologically decomposable, but their meaning is noncompositional: they exhibit an intransparent semantic relation between their lexical meaning and the meanings of the components (Fleischer/Barz 1995: 18). E.g. Dutch *hartig* ‘savoury’ can structurally be analysed as ADJ derived by the suffix *-ig* from the *n* *hart* ‘heart’, but semantically, there is no association between *hartig* ‘savoury’ and *hart* ‘heart’. A diachronic perspective may be illuminating for tracing the semantic shift in the complex word.

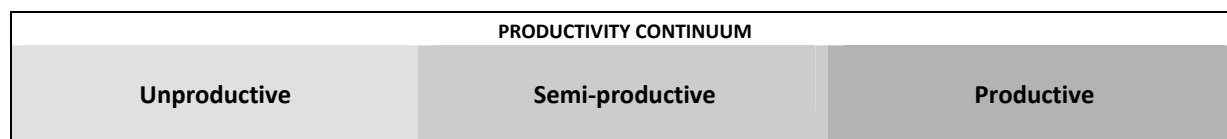
(5) Systematisation; pleonastic suffixes

In individual complex words, the suffix may be pleonastic. This may be due to a process called **systematisation**: a suffix is added which is strictly speaking superfluous, and hence a **pleonastic** addition (Booij 2007: 273). Pleonastic suffixation occurs when language users apply a morphological pattern in a uniform way following the tendency that sameness of meaning implies sameness of form. Dutch *-er* is used for creating denominal person names, e.g. *wetenschapp-er* ‘scientist’. In a case of systematisation, *-er* is often added to acronyms which already denote a person name, e.g. *UD-er* (< *Universitair Docent* ‘university teacher’) (Booij 2007: 273).

4.2.6 Productivity: a gradient phenomenon

In section 2.4 I introduced the notion of ‘productivity’. A word-formation pattern may be called ‘productive’ if “this pattern can be extended to new cases, can be used to form new words” (Booij 2007: 68). Most morphologists recognise that productivity is a gradable concept: it is no all-or-nothing matter but it constitutes a linguistic continuum with some morphological patterns being more productive than others (Plag 2003: 51). In other words, “[c]ompletely unproductive or fully productive processes thus only mark the end-points of a scale” (Plag 2003: 52). From a diachronic perspective, productivity is dynamic: a morphological unit may become productive, the productivity of a morphological pattern may increase, decrease, and go down to zero when the pattern becomes extinct (unproductive). Figure 4.5 illustrates the productivity continuum which may be seen as a cline from unproductive to productive.

Figure 4.5. Scalar approach to productivity.



In the following sections, I discuss various concepts related to productivity and the way they shall be handled in this dissertation. First of all, I mention some basic measures for productivity (1). Secondly, I discuss the application rate of a word-formation pattern and its scope as two aspects of productivity (2). Then, I shall introduce the notions of ‘system’ and ‘norm’ and their relation to productivity (3) as well as the distinction between productivity and creativity (4). Finally, I shall refer to the notions of ‘rules’ and ‘patterns’ (5).

(1) Determining productivity

In the past decades various approaches have been proposed to determine the (degree of) productivity of a morphological pattern. Statistical measures of productivity have been developed which are based on text corpora. The most basic (and also controversial) measure is based on the number of attested formations or types in a corpus (**‘realised productivity’**). However, the fact that there are many words formed with a given affix does not imply that speakers often use it to coin new words: high realised productivity does not tell us anything about the present potential of an affix to create new words (Plag 2003: 52). Hence, another measure of productivity is based on the number of hapaxes in a corpus (Baayen’s **‘rate of expansion’** or **‘expanding productivity’**). Categories which are expanding at a higher rate are more productive than categories which produce little new words or are not expanding at all (Baayen 2009). In other words: “Productive categories are characterized by the presence of large numbers of low-frequency forms, whereas unproductive categories tend to contain many high-frequency forms” (Baayen 2009: 904). An even better measure of productivity takes into account token frequency in the corpus, i.e., how often the derivatives are used (Plag 2003: 53). On how these measures are operationalised in this dissertation, see section 6.2.4.

(2) Application rate and scope

Essentially, Kastovsky (1986) distinguished between two central aspects to productivity: the scope of a morphological pattern and its rate of application. I will use the aspect of **application rate** as an informal notion covering different measures of productivity, including realised and expanding productivity; compare the previous section and see section 6.2.4. The aspect of **scope** of a morphological pattern pertains to the number and type of constraints imposed on the pattern which involve systematic restrictions at the syntactic, morphological, phonological, or semantic level (Kastovsky 1986). Thus we may assume a continuum of morphological patterns on the basis of the number of restrictions: patterns with a wide scope (few constraints) are more productive than patterns with a restricted scope. From a diachronic point of view, word-formation restrictions may change over time: they are dynamic (e.g. Scherer 2006: 13). There may be syntactic change in the input category, e.g. a denominal pattern develops into a deverbal one; there may be changes in the complexity of the input, e.g. the possibility to use a phrase as a base for derivation; and finally, there may also be changes concerning the semantics of the base. When structural and semantic conditions are lost and the scope is widened, this may enlarge productivity. Figure 4.6 visualises the relation between the rate of application, the scope of a pattern and productivity. From a diachronic point of view it may be seen as a cline from not productive to fully productive.

Figure 4.6. Productivity as a gradient phenomenon.

PRODUCTIVITY CONTINUUM			
APPLICATION RATE	Low	Intermediate	High
SCOPE	Restricted	Intermediate	Wide
PRODUCTIVITY	Unproductive	Semi-productive	Productive

(3) Productivity, system and norm

As pointed out by Plag (2003: 60) there is a difference between “on the one hand, the general possibility to apply a word-formation rule to form a new word, and, on the other hand, the opportunity to use such newly coined derivatives in speech”. Related with this distinction is the dichotomy between ‘system’ and ‘norm’. The notion of ‘norm’ was initiated by Eugenio Coseriu in the 1950s in the context of functional structuralism. It has found a wide application in the study of word formation, although with slightly diverging interpretations. Productivity is based on structurally well-formed complex words which are permitted by the language system.⁴² The **norm**, however, is based on the words or structures which are conventionalised in the language community, i.e., considered as ‘normal’ and ‘unmarked’ language use. The norm represents regularities of language use, which may from a diachronic perspective be understood as the ‘traditionalised linguistic performance’ (Willems 2001: 160,164). Like productivity, the norm is a dynamic phenomenon, which is partially coincidental and partially explainable (Burgschmidt 1977: 39). One factor which may play a role in norm changes is purism.

Obviously, the distinction between system and norm is particularly relevant for language comparison (see Willems 2001). Therefore, I will occasionally refer to norm regularities in this dissertation, which I interpret as conventionalised use in the language community. Observations on this point should be handled with care, since I have not investigated perceptions of native speakers systematically and am mostly only able to refer to personal intuitions on markedness.

(4) Productivity and creativity

Productivity is usually distinguished from morphological creativity. **Creativity** refers to “the intentional creation of new words in order to produce a special effect on the other” (Plag 1999: 13). As such, there is a lack of predictability in creativity, whereas predictability is present in productivity (Trips 2009: 28). The resulting new formations are typically noticed by other language users: they are perceived as unusual and they may have a humorous effect. However, in actual fact it may be difficult to distinguish between intentional and unintentional new formations. I shall only refer to *ad hoc*-formations when there is no doubt that a complex word is invented for a particular occasion, e.g. advertisements or poetry (Plag 2003: 54).

(5) Productivity, rules and patterns

Word-formation patterns can be represented as morphological rules, showing either regularities, or, in a generative sense, morphological operations (see Plag 1999: 18 for these different senses of ‘morphological rule’). In this dissertation, I shall not refer to morphological rules but I restrict myself to morphological patterns for describing the internal structure of complex words derived by

⁴² Notice that I will not use the dichotomy between possible and actual words. For a discussion of this dichotomy, see e.g. Plag (1999).

adverbial suffixes. For instance, (4.1) represents the word-formation pattern of adding a derivational suffix *-waarts* to an existing word of the category N (*huis* ‘house’, *stad* ‘town’, etc.), resulting in an ADV. The word-formation meaning is paraphrased as ‘to X’ (DIRECTION). I use the representation of patterns as the one in (4.1) to visualise the internal structure of derived words, irrespective of productivity.

(4.1) $[[X]_N waarts]_{ADV}$ ‘to X’

In morphology, word formation through regular morphological patterns is usually distinguished from the process of modelling words on an already existing lexeme. The latter process is referred to as analogy, or: “the process whereby one morphological form is changed under the influence of another” (Bauer 2003: 276). However, these processes cannot be strictly separated. As indicated in section 2.3.2, analogy may be the driving force behind the exploitation of a morphological pattern.

4.3 The functional approach

The functional approach to language was developed in the 1970s by Simon Dik. Since then, a whole spectrum of approaches has emerged; for a critical comparison of the main functional approaches and the way they handle a number of issues, I refer to Butler (2003). Most concepts I use are based on standard Functional Grammar (Dik 1997a-b), henceforth FG, and its successor Functional Discourse Grammar (Hengeveld/Mackenzie 2008), henceforth FDG.

4.3.1 Functional theory

Functional theory represents “the view that linguistic structure should be explained primarily in terms of linguistic function” (Croft 2003: 2). The basic assumption of functional theory is that all languages share the same communicative functions. The structures (lexical as well as grammatical) to realise these functions are language-specific. Linguists adhering to the functional paradigm concentrate on the ‘job’ of linguistic expressions in the communicative process and relate structural variation to the communicative needs of language users (Dik 1997a-b: 5, Rijkhoff 2010: 100, Hengeveld/Mackenzie 2008: 39-40).

Functional theory allows for generalisation across languages (Hengeveld 1992b: 29). Dressler (1981) explicitly argues in favour of a functional basis for cross-linguistic comparison. In order to adequately investigate cross-linguistic variation, contrastive studies need to be based on an independent criterion, the so-called *tertium comparationis* (Krzyszowski 1990, Lehmann 2005). A contrastive study with a purely formal basis “is doomed to failure” (Krzyszowski 1990: 4). If contrastive studies aim to be in accordance with theoretical expectations, they need to refer to meaning (Krzyszowski 1990: 16). Contrastive studies are best backed up by universal concepts from a theory in which meaning (semantic and pragmatic) is central. Meaning is not language-specific, since it is situated in the cognitive domain (Lehmann 2005: 4). Since the functional model explains linguistic form in terms of human cognition and communication, it is a suitable basis for language comparison.

In addition, functional theory provides a framework for diachronic language study. Functionalists assume that linguistic structure results from diachronic processes (compare Hengeveld/Mackenzie 2008: 27). They emphasise the explanatory value of diachronic change for form-function relationships (Butler 2003: 14), see e.g. Givón (1984: 41).

(...) it is a fundamental point in the functional-typological approach to language that language change (...) is the major - if not the main - mediating force in affecting the non-arbitrary pairing of structure and function. (...) quite often the naturalness or non-arbitrariness of a particular pairing of structure with function is derived from the particular history of the pairing, rather than from synchronic

functional explanations. And while diachronic change in syntax is most commonly motivated by functional considerations as well, to some extent what was originally natural for diachronic change may ultimately wind up being less natural in terms of synchronic pairing of function and structure. (Givón 1984: 41)

4.3.2 The functions of language

The basic assumption of functional theory is that all languages share the same communicative functions. Human language consists of ‘referential expressions’ (to refer to persons, objects and other entities one wants to talk about), ‘predicative expressions’ (to ascribe a property to the referent, to tell that it is in a certain state, or to predicate a relation between entities) and ‘modifiers’ (to give extra information, to extend a referential or predicative utterance by specifying an additional property of a referent or a situation (van Lier 2009: 467). Modifiers of referring expressions specify additional properties of the entities in the world which are being referred to. Modifiers of predicative expressions are further specifications of the property or relation expressed by the predicate.

In the languages of the world a large variety of linguistic structures can be discovered to express the basic functions of language.⁴³ Typically, single words are considered as the most basic forms used to express the universal functions of human language (van Lier 2009: 1). This is illustrated in table 4.2 with English examples.

Table 4.2. The communicative functions of language illustrated in English.

REFERENTIAL EXPRESSION		<i>the girl</i>
PREDICATIVE EXPRESSION		<i>the girl sang</i>
MODIFIER	of referring expression	<i>a beautiful song</i>
	of predicative expression	<i>the girl sang beautifully</i>

As table 4.2 shows, English formally differentiates between two subfunctions of modification by using different lexemes. Dutch, as shown by the examples in table 4.3, does not.

Table 4.3. The communicative functions of language illustrated in Dutch.

REFERENTIAL EXPRESSION		<i>het meisje</i>
PREDICATIVE EXPRESSION		<i>het meisje zong</i>
MODIFIER	of referring expression	<i>een mooi lied</i>
	of predicative expression	<i>het meisje zong mooi</i>

Does this formal difference between English and Dutch have consequences for the classification of their parts of speech? As explained in the following section, it depends on the distinctive criterion one chooses to use.

⁴³ Importantly, there is no one-to-one relation between function and form.

4.3.3 Parts of speech: a functional approach

Functional linguists proposed a universal definition of parts of speech on the basis of a functional criterion, although formal criteria are also involved. There have been different approaches. Essentially they recognise that not each category is relevant for the languages in the world, i.e., that languages differ with respect to their number of parts of speech. I briefly present Dik (1) and Hengeveld (2).

(1) Simon Dik

Dik (1997a) defined parts of speech on the basis of a functional criterion, namely their prototypical function in human communication. N are prototypically used to refer to an entity in the world whereas v prototypically occur with a predicative function, ascribing a property or a relation. An ADJ can be defined as “a predicate which is primarily used in attributive function” (Dik 1997a: 194). This is illustrated in table 4.4.

Table 4.4. Parts of speech and their prototypical functions according to Dik (1997).

	PROTOTYPICAL FUNCTION	EXAMPLE
N	referring expression	<i>the girl</i>
V	predicate	<i>the girl sang</i>
ADJ	attribute	<i>a beautiful song</i>

Apart from the primary uses of parts of speech, there are also secondary or derived uses (Dik 1997a: 196). These uses are often formally marked: English ADJ in predicative function require copula support of a copular v, e.g. *the song is beautiful*. Interestingly, Dik (1997a) did not define a category of (qualifying) ADV: he classified lexemes like English *beautifully* as ADJ which are used adverbially (see Butler 2003: 323). Thus, on the basis of a purely functional criterion, (qualifying) ADV cannot be separated from ADJ.

(2) Kees Hengeveld

Hengeveld (1992a) did not base his definition of parts on speech on the prototypical function of a class of lexemes, but on what he called the “distinguishing” function.⁴⁴ He classified languages into ‘parts-of-speech systems’ according to the correspondence between parts of speech and communicative functions. The distribution of English and Dutch parts of speech across the four main communicative functions can be taken from table 4.5 adapted from Hengeveld (2007: 36).

⁴⁴ Hengeveld deliberately avoided the notion of prototypicality, which he considered problematic.

Table 4.5. English and Dutch parts-of-speech systems according to Hengeveld (2007).

	PREDICATIVE EXPRESSION	REFERENTIAL EXPRESSION	MODIFIER OF REFERENTIAL EXPRESSION	MODIFIER OF PREDICATIVE EXPRESSION
English	V	N	ADJ	ADV
Dutch	V	N	'modifier'	

In languages with 'flexible' parts of speech, different communicative functions are combined into one part of speech.⁴⁵ As we can see in table 4.5, Hengeveld postulated that Dutch has a flexible category of 'modifiers': its members can be used for modification of both predicative expressions and referential expressions. In Dutch, NPs and clauses share the same lexical modifier. However, this isomorphism is absent in English (Rijkhoff 2008b: 28). English is classified as a language with a specialised system, since each communicative function corresponds with a particular part of speech in a one-to-one relation. Thus, Hengeveld assumes a category of (qualifying) ADV in English which is motivated essentially by a morphosyntactic criterion, namely the presence of the marker *-ly*. Dutch has no distinct category of (qualifying) ADV since it does not have such a marker.

Vogel (2007: 111) argues that Hengeveld's analysis of Dutch may be extended to German. Thus, German, too, combines both modifier functions in one part of speech. The same unmarked lexeme may occupy both functions.

4.3.4 Adverbs and adjectives as 'modifying words'

What we learn from the functional approaches to parts of speech by Dik and Hengeveld is first of all that languages may have lexemes which have modification as their prototypical function. I shall refer to these lexical modifiers as '**modifying words**'. This category is functionally defined and cross-linguistically valid. As Ramat/Ricca (1998: 187) point out, lexemes referred to as ADV and ADJ share the functional property of being modifiers. The boundary between ADV and ADJ is fuzzy, i.e., they constitute a continuum with central and peripheral items (see section 4.2.2). The categories of ADJ and ADV are formal categories: they may be distinguished only on the basis of formal (morphosyntactic) criteria, which are language-specific. For instance, in English, properties of prototypical ADV are adverbial use and the marker *-ly* while prototypical ADJ are unmarked modifying words used as prenominal attributes or predicatively. This is visualised in figure 4.6.

Figure 4.6. Proposal: the English adverb/adjective distinction.

MODIFYING WORDS		
Prototypical ADV	Intermediate items	Prototypical ADJ
used adverbially; marker <i>-ly</i>		used as prenominal attribute or predicatively
<i>beautifully, fortunately, recently, frankly, here, outside, maybe, always, very,...</i>	<i>fast, hard, long, afraid, asleep,...</i>	<i>beautiful, fortunate, recent, frank, green, happy, ugly,...</i>

⁴⁵ In the most flexible of all systems, one part of speech combines all the functions. Flexible languages are flexible not only in combining functions, but in other domains as well: thus, they admit predicative use of non-verbal predicates more freely than specialised languages (Hengeveld 1992a: 68).

In Dutch and German, there is no morphological marker for adverbial use but instead there is ADJ inflection (see sections 3.3.2 and 3.3.5). The difference between English as opposed to Dutch and German is presented in table 4.6.

Table 4.6. Proposal: English, Dutch and German linguistic system for modifiers.

	MODIFIER OF REFERENTIAL EXPRESSION	MODIFIER OF PREDICATIVE EXPRESSION
English	unmarked modifying word	modifying word marked with <i>-ly</i>
	<i>the beautiful-∅ song</i>	<i>she sings beautiful-ly</i>
Dutch & German	modifying word with inflectional ending	uninflected, unmarked modifying word
	<i>het mooi-e lied</i> <i>das schön-e Lied</i>	<i>ze zingt mooi-∅</i> <i>sie zingt schön-∅</i>

In Dutch and German, properties of prototypical ADV are that they may not be inflected and not used as prenominal attributes, while ADJ are highly flexible lexemes which may be used attributively, adverbially and predicatively and receive the obligatory inflectional ending in prenominal attributive position (see section 3.2.2). Contrary to English, predicative use is not a property of prototypical ADJ. The Dutch ADJ/ADV distinction can be represented as in figure 4.7.

Figure 4.7. Proposal: the Dutch adverb/adjective distinction.

MODIFYING WORDS		
Prototypical ADV	Intermediate items	Prototypical ADJ
not used as prenominal attribute; invariable		used as prenominal attribute; inflected
<i>hier, daar, waar, er, gisteren, misschien, buiten, ergens, zo, genoeg, bijna,...</i>	<i>heel, erg,...</i>	<i>mooi, groen, hard, vlug, gelukkig,...</i>

Following this proposal, prototypical 'adverbial' suffixes are grammatical patterns that create output lexemes which are prototypical ADV. Added to prototypical ADJ, these suffixes restrict morphosyntactic valency of the base word. Prototypical 'adjectival' suffixes create highly flexible modifying lexemes which may be used attributively, predicatively and adverbially and which require inflection in the prenominal attributive position.

4.4 Modification

The present section gives an overview of the functional category of modification. After introducing two basic distinctions, a section is devoted to individual modifier types.⁴⁶ For each type I provide a basic characterisation and information on the central lexical realisations. I shall focus on single-word expressions or ‘modifying words’. Thus, this section will inform us on the distribution of Dutch ADV and ADJ across modifier types in comparison with English and German.

4.4.1 Clause and NP modification

A distinction between predicate modifiers and sentence modifiers has been widely used in the literature. Sentence modifiers are usually understood as “those adjuncts by which the speaker evaluates the proposition expressed by the clause (...): evaluatives (e.g. German *erstaunlicherweise* ‘surprisingly’), evidentials (e.g. German *offensichtlich* ‘obviously’), epistemic adjuncts (e.g. German *wahrscheinlich* ‘probably’)” (Frey 2003: 166). The class of sentence ADV and its subclasses are discussed by various linguists for European languages within different theoretical frameworks, see e.g. Bartsch (1972), Bellert (1977), Kastovsky (1977), Quirk et al. (1985), Koktova (1986), Swan (1988), Ramat/Ricca (1998), Ernst (2000, 2002), Mittwoch/Huddleston/Collins (2002), Frey (2003), Bonami/Godard (2008), Taverniers/Rawoens (2010).

However, from a functional perspective, a strict distinction between sentence-level and predicate-level modifiers is problematic. Examples like *a **probably** unintentional slight, their **fortunately** quite rare misunderstandings, this **frankly** rather unsavoury character* show that so-called ‘sentence ADV’ may occur as modifiers of a constituent within NP structure, performing the same modifying function as they do on a sentence level (Pullum/Huddleston 2002: 583). To handle this parallel, Van de Velde (2007: 217) argues in favour of an integrative approach to clause and NP modification which is essentially meaning-based. Various linguistic theories, both formal and functional, have investigated similarities between clauses and NPs (see Rijkhoff 2008b: 13). The functional approach, particularly FDG, has claimed that “up to a point, noun phrases and clauses have the same underlying structure: they share the same kind of ‘layered’ organisation and accommodate the same kind of semantic modifier categories” (Rijkhoff 2008b: 13).

The parallel NP/clause model by Rijkhoff (starting from 1988 but elaborated within the framework of FDG, e.g. Rijkhoff 2008a, 2008b) allows for identical treatment of modification within the NP and modification on a clause level. The original layered concept of the clause from FG is extended within FDG by putting forward a layered model of the NP. Thus, in FDG, a better account is possible of modifier types on the NP-level than in previous models (Hengeveld 2004: 373). There is both synchronic and diachronic evidence for parallels between NPs and clauses; Rijkhoff (2008b) shows that certain historical developments in language can be detected both at the clause level and at the NP level.

4.4.2 Descriptive and interpersonal modification

Lexical modifiers in the clause and in the NP can be associated with the two main levels in the FDG model, the representational level and the interpersonal level. The representational level pertains to

⁴⁶ I shall not treat connectives/conjuncts/linking adverbials (e.g. *however, nevertheless*), since they pertain to intersentential relationships and are not involved in the semantic structure of a single sentence (Ramat/Ricca 1994: 308, Ramat/Ricca 1998: 191). For a (diachronic) study of these ADV I refer to Lenker (2010). Also, I shall not discuss the use of modifiers to introduce further participants into the state of affairs, e.g. ‘Beneficiary’.

the description of the event, whereas the interpersonal level pertains to the exchange. Associated with these levels are the subfunctions of representational or descriptive modification (1) and interpersonal modification (2).⁴⁷ An important concept for this dissertation is the ‘polyfunctionality’ of linguistic forms within the domain of modification (3) and we wish to find out more about the relation between modifier types and morphological marking (4).

(1) Descriptive modifiers

At the representational level, descriptive modifiers “specify properties of spatio-temporal entities (...) in the *World of Discourse* in terms of the notions *Kind (Class), Quality, Quantity, and Location*” (Rijkhoff 2008b: 15). The speaker specifies descriptive properties of the state of affairs the referent is involved in, such as a quality (e.g. *quickly*) or a location in time and space (e.g. *yesterday, here*). In the NP, descriptive modifiers provide a description of a thing or event in terms of additional properties. At the same time, they help the hearer identify the entity which is being referred to. Thus, in the NP *those two black dogs in the garden*, the addressee gets information on the quantity of dogs (*two*), qualitative information on the dogs (*black*) and specifications on the location of the dogs (*those, in the garden*) (Rijkhoff 2008b: 16).

(2) Interpersonal modifiers

At the interpersonal level, interpersonal modifiers specify properties of the exchange itself, that is, the speaker expresses a “personal assessment of / attitude towards” a proposition “as regards the probability, possibility or desirability of the actual occurrence” of the event (Rijkhoff 2008b: 15). *Domain modifiers* specify the domain of application of the proposition (e.g. *logically, linguistically*).⁴⁸ *Modal modifiers*, referred to in FG as ‘content-oriented’ modifiers, are epistemic (e.g. *probably*), quotative (e.g. *allegedly*), evidential (e.g. *evidently*) or optative (e.g. *hopefully*) (Ramat/Ricca 1998: 191). *Evaluative modifiers* provide a subjective evaluation which may be event-oriented, e.g. *unfortunately* and participant-oriented, e.g. *wisely* (Ramat/Ricca 1998: 191). Together, modal and evaluative modifiers make up the class of *propositional modifiers*, since they specify an assessment of or attitude towards the proposition, but I shall mostly refer to its subtypes. Finally, *speech act modifiers* are either speech act-oriented or speaker/hearer-oriented modifiers which specify for instance the manner in which the speech act is performed or situate it in the ongoing discourse (Ramat/Ricca 1998: 192).

Table 4.7 gives an overview of the modifier subfunctions on the basis of Rijkhoff and Ramat/Ricca (1998) with English examples.⁴⁹ It may be difficult to draw a sharp distinction between the different subfunctions. There is too much diversity and flexibility to assume absolute and strict boundaries. This may be an argument for a scalar view of modification (Rijkhoff 2010: 106).⁵⁰

⁴⁷ For scopal or hierarchical relations among modifier types or the relative order in which they manifest themselves, I refer to Rijkhoff (2008a), among others.

⁴⁸ Ramat/Ricca (1998: 191) assume a subclass of domain adverbs among the descriptive modifiers, e.g. *traditionally*. I shall not do so in this dissertation.

⁴⁹ Rijkhoff refers to two further modifier types: *discourse-referential modifiers* and *attitudinal modifiers*. Discourse-referential modifiers specify the existential status of the referent (thing or event) in conversational space (Rijkhoff 2008a: 812). Attitudinal modifiers are defined as “expressions through which the speaker expresses SYMPATHY or SCORN for the referent” (Rijkhoff 2010: 103). These additional modifier types are not very well described and partly controversial. They will not be dealt with in this dissertation.

⁵⁰ Compare the prototype approach advocated by Hasselgård (2010) for English adverbials: “But rather than trying to find absolute boundaries between these classes, it would be better to view them as prototypes and the relationship between them as a continuum. The prototypical instances can be defined on the basis of semantic, syntactic and pragmatic criteria, but one needs to allow for fuzzy boundaries” (Hasselgård 2010: 302).

Table 4.7. Modifier subfunctions.

LEVEL	MODIFIER SUBFUNCTION		ENGLISH EXAMPLES
Descriptive modifiers	classifier		<i>polar, urban, bodily</i>
	qualifier		<i>black, big, quick/quickly, frankly, logically, wisely, seriously</i>
	quantifier		<i>often, rarely, almost, enormously</i>
	localiser	time	<i>then, earlier, yesterday, recently, subsequently</i>
		place	<i>here, outside</i>
Interpersonal modifiers	domain modifier		<i>linguistically, logically, economically</i>
	propositional modifier	modal	<i>probably, certainly, allegedly, evidently, hopefully</i>
		evaluative	<i>fortunately, amazingly, wisely, kindly</i>
	speech act modifier		<i>frankly, seriously, honestly, briefly, finally</i>

(3) Polyfunctional lexemes and a scalar approach to modification

As for the expression of modifier types, one should keep in mind that “particular in the case of lexical modifiers (...) there is no one-to-one relation between form and function. Especially relative clauses and adverb(ial)s are very versatile in that they are employed as qualifying, quantifying, and localizing modifiers” (Rijkhoff 2002: 223). Many individual ADJ and ADV are **polyfunctional** lexemes which can be associated with diverse modifier functions (Ramat/Ricca 1994: 309, Ramat/Ricca 1998: 193). Especially for English it is widely recognised that complex *ly*-ADV occur across modifier types (e.g. Brinton/Traugott 2005: 133, Payne/Huddleston/Pullum 2010). One and the same *ly*-ADV may be used for descriptive and interpersonal functions: *logically* may be a qualifying ADV or a domain ADV, *wisely* may be a qualifying ADV or an evaluative ADV, *seriously* may be a qualifying ADV or a speech-act modifier. This polyfunctionality is an argument in favour of a scalar view of modification. Individual lexical items may be ambiguous between two or more modifier functions. Factors like inflectional marking, syntactic positioning, or intonation patterns may be disambiguating.

Ramat and Ricca (1998) investigated predicate/sentence polyfunctionality of lexical modifiers for various European languages. Ramat and Ricca (1998) were particularly interested in finding out whether the European languages have a separate class of sentence ADV which have the basic function of sentence modifiers. They carried out a survey which shows that polyfunctionality of lexemes is widespread across the European languages, particularly the use of predicate-level ADV (descriptive modifiers) as sentence-level modifiers (domain modifier, modal or evaluative modifier, speech-act modifier), compare English *logically, wisely, seriously*. They found certain limitations, e.g. Dutch and German do not allow descriptive ADV like *seriously* and *frankly* as speech-act modifiers, but they resort to phrasal solutions (Ramat/Ricca 1998: 207); see section 4.4.10.

(4) Modifier types and morphological marking

Within the functionally defined layered organisation of the clause, Hengeveld (1997: 133) found that there may be formal differences between subclasses of modifiers: “Some languages indicate the different levels at which adverbs operate by formal means”. In Dutch and German, there are no separate qualifying ADV: they are identical in form to ADJ. Instead, these languages have a formal differentiation between ‘lower-level’ (i.e., descriptive) adverbial modifiers (*klug* ‘wisely’) and ‘higher-level’ (i.e., interpersonal) adverbial modifiers, e.g. attitudinal ADV (German *klug-erweise* ‘wisely’) and epistemic ADV (Dutch *mogelijk-erwijs* ‘possibly’) are formally marked. Similarly, Samuelsdorff (1998: 276) considers German *-erweise* as a derivational morpheme which derives an interpersonal modifier from an ADJ. In non-functional frameworks, too, it has been proposed that there might be a

correlation between distinct types of adverbial modifiers and derivational suffixes, e.g. Lang/Maienborn/Fabricius-Hansen (2003) on German:

This raises the question of whether in the field of adjuncts there are correlations between class membership and morphological marking (...) [I]n Class II and Class I [*sentence adverbials, frame and domain adverbials, JD*], lexical adjuncts are distinctly marked: e.g. as domain adjuncts *finanzmäßig* 'financially', *gesundheitlich* 'as to health', or as subject-oriented adjuncts *dummerweise* 'stupidly', *schwerlich* 'hardly', *sicherlich* 'certainly'. (Lang/Maienborn/Fabricius-Hansen 2003: 24)

Ramat and Ricca (1998) provided an empirical basis to these intuitions. By means of linguistic surveys among native speakers they have shown that the existence of special morphological devices for deriving sentence ADV (i.e., a separate class of sentence ADV) is rare in the European languages, but that such suffixes do occur in Dutch and German. Ramat/Ricca (1998: 204) refer to Dutch *-erwijs* (e.g. *begrijpelijk-erwijs* 'understandably'), German *-erweise* (e.g. *klug-erweise* 'wisely') and their counterpart *-vis* in Danish and Swedish (e.g. Danish *mulig-vis* 'possibly') as well as to adverbials formed with Dutch *genoeg* (e.g. *vreemd genoeg* 'oddly (enough)') equivalent to *nok* 'enough' in Danish and Norwegian (Swedish *nog*) (e.g. *venligt nok* 'friendly (enough)').⁵¹ These ADV are restricted to propositional functions. This corresponds with the observation by Hengeveld (1997: 133) that in Dutch, ADV of the highest levels (notably speech-act ADV) are absent. In general, "there is a stronger tendency for adverbs of higher levels to lack in a certain languages [*sic*] than for adverbs of lower levels" (Hengeveld 1997: 132-133). The language compensates this by means of other lexical strategies (see below).

The encoding of modifier functions in Dutch as opposed to English and German as reported in the existing literature will be described in the following sections. For each modifier type I provide a short description and inventorise what is known about its lexical encoding in Dutch, English and German comparatively. Following Ramat/Ricca (1998), the main interest of this overview shall be to find out to what extent Dutch has separate (morphologically marked) classes of lexemes associated with individual modifier functions (in comparison with English and German). We will get a first impression of the extent to which the adverbial suffixes in (1.1) may be associated with descriptive and/or interpersonal modifier types.

4.4.3 Classifying modifiers

Classifying modifiers have the function of categorising the entity being referred to. They specify the kind or class of entity, i.e., they answer the question: "What type of X?" (Warren 1984: 86). *Pepper sauce* is a kind of sauce and a *polar bear* is a kind of bear. In other words, it is the task of classifying modifiers to create subclasses of entities (Gunkel/Zifonun 2009: 205). Classifying modifiers are restrictive: they express a subconcept of the concept expressed by the head (Gunkel/Zifonun 2009: 209). The subclass is typically established in terms of a certain relation with a conceptual entity. E.g., a *polar bear* is a bear which is located in the arctic region. Many head-modifier relations are possible. In classifying denominal ADJ most basic suffix-base relation is REFERENCE; other frequent relations include AGENT, INSTRUMENT, SPATIAL LOCATION, TEMPORAL LOCATION, ORIGIN, CAUSE, MATERIAL, IDENTITY (e.g. Heynderickx 2001; for the use of these labels see section 4.2.5). There is some overlap with the relations expressed in qualifying modifiers (Warren 1984: 95, Heynderickx 2001: 110ff. and see chapter 5). Dutch, English and German use classifying modifiers in the NP adjacent to the head N (Rijkhoff 2008b: 24). The expression of classifying modification is typically associated with denominal derived ADJ, the so-called 'relational ADJ' (1), but there are other lexical strategies (2).

⁵¹ On *-vis* in Norwegian see further Kinn (2005).

(1) Relational adjectives

There are no primary modifying words for the classifying function, only derived ones (Eichinger 2000: 85 for German). The denominal ADJ used as classifiers are known in the literature as ‘relational ADJ’, a label coined by Charles Bally (see Schäublin 1972). This label refers to the head-modifier relation which is established between the conceptual entity denoted by the base N of the derived ADJ and the conceptual entity denoted by the head N, e.g. between the concepts of ‘pole’ and ‘bear’ in *polar bear* (Heynderickx 2001: 19). Relational ADJ have been studied for various European languages. Warren (1984) and Leitzke (1989), among others, studied English relational ADJ. Further English examples are: *musical critic, polar bear, urban area, diplomatic corps, woolen string, eastern region, bodily functions*. On Dutch relational ADJ or *relationele adjectieven*, see Heynderickx (2001). Dutch examples are: *tropische bloemen* ‘tropical flowers’, *wetenschappelijk medewerker* ‘academic fellow’, *binnenlandse handel* ‘domestic trade’, *muzikaal talent* ‘musical talent’, *cognitieve psychologie* ‘cognitive psychology’, *parlementaire commissie* ‘parliamentary commission’, *ministerieel besluit* ‘ministerial order’. On German relational ADJ (*Bezugsadjektive, Zugehörigkeitsadjektive*), see e.g. Hotzenköcherle (1968) and his student Schäublin (1972), Frevel (2005) and Frevel/Knobloch (2005). German examples are *vertragliche Bindung* ‘contractual obligation’, *tierische Fette* ‘animal fats’, *hormonale Störungen* ‘hormonal disorders’, *finanzielle Schwierigkeiten* ‘financial difficulties’, *kistenweiser Verkauf* ‘sale per box’. An interesting parallel concerning derived relational ADJ for Dutch and German is the fact that there exist many synonym pairs for the language user to choose from, e.g. next to non-native *episcopaal/episkopal* ‘episcopal’ there is the native synonym *bisschoppelijk/bischöflich*. According to Heynderickx (2001: 28), the non-native lexemes evoke stylistic connotations which are absent for their native synonyms. I could not discover such synonym pairs in English where the non-native ADJ are not stylistically marked.⁵²

Relational ADJ are usually presented as a separate subclass of ADJ associated with classifying modification. Reported morphosyntactic properties of the members of this subclass are that they do usually not admit comparison or quantifiers and are normally found in the attributive position (Warren 1984: 96, Rijkhoff 2008b: 24). Predicative position is ungrammatical or not semantically equivalent for established names, e.g. *polar bear* (Warren 1984: 96). A predicative construction is allowed if the ADJ is integrated in a structure with an explicative context, i.e., if the relation between the base N and the head N is made explicit, e.g. *het gesteente is vulkanisch van aard* ‘the rock is volcanic by nature’ (Heynderickx 2001: 63). Relational ADJ are assumed to constitute a morphologically expandable class in Dutch, English and German. There are various native and borrowed suffixes for denominal derivation: for Dutch relational ADJ, Heynderickx (2001) lists the suffixes *-aal, -aans, -air, -eel, -en, -er, -ief, -iek, -iel, -ig, -isch, -lijk, -ling* and *-s*; the main suffixes listed for English are *-al, -ar, -an, -ic, -en, -n, -ly* (Warren 1984) and finally, the main suffixes listed for German are *-al, -ell, -isch, -lich, -mäßig, -weise* (Schäublin 1972, Frevel/Knobloch 2005). It is striking that corresponding with German *-weise* and *-mäßig*, Dutch has the genetically related equivalents *-gewijs* and *-matig* in its language system, but these are not mentioned in the context of relational ADJ by Heynderickx (2001) or ANS (1997). It is worth investigating whether this constitutes a functional difference between the related languages.

Although relational ADJ are presented as a separate subclass of ADJ associated with classifying modification, we should be aware that many of its members are actually polyfunctional. Relational ADJ may in some environments require a ‘qualifying’ interpretation (Booij 2007: 212). In fact, many denominal ADJ are polyfunctional for classifying and qualifying functions (e.g. Dutch *muzikaal talent* ‘musical talent’ vs. *muzikaal kind* ‘musical child’, German *die plastische Kunst* ‘plastic art’ vs. *eine plastische Schilderung* ‘an expressive depiction’). The head N may be disambiguating, but mostly only the context determines the interpretation of the ADJ. Frevel/Knobloch (2005: 151) observe that even

⁵² Marchand (1969: 331) notes that older native derivatives like *kingly* were superseded by Latin and Romance words, e.g. *royal* and *regal*.

well-established qualifying ADJ in German are being reinterpreted as ‘relational’ (e.g. *häuslich* ‘homeloving’ → ‘domestic’). The suffixes listed above for deriving denominal ADJ may be associated both with classifying and qualifying modifiers. However, there may be morphological devices which are specialised in marking classifying modification. English has the suffix-like element *-related* (e.g. *a tradition-related question*, see Hamawand 2007) and German has the suffix-like elements *-bezogen* (Duden 2009) and *-technisch* (e.g. *lerntechnische Schwierigkeiten* ‘studying-related problems’, see Kann 1974, Kühnhold/Putzer/Wellmann 1978, Ruge 2004). It remains to be investigated whether Dutch has a suffix specialised in forming classifiers.

(2) Other lexical expressions

The adjectival classifier may build a lexical unit with the head N, e.g. German *Sozialarbeit* ‘social work’ and compare English *social work* and Dutch *maatschappelijk werk*.⁵³ The use of a N as a prenominal classifier is common in English, e.g. *pepper sauce, garden tools, government official* (Marchand 1969, Warren 1984, Quirk et al. 1985). Compare the Dutch compound *pepersaus* and the German compound *Pfeffersöße* which are each written in one word (but see English: *steamboat*).

In English, adnominal genitives are another strategy for classification, e.g. *today’s weather*, a construction which is impossible in Dutch (Aarts/Wekker 1987: 139). Adnominal genitives are also possible in German, e.g. *Schwierigkeiten der Anpassung* ‘problems of adapting’, *die Senkung der Preise* ‘the reduction in prices’ (Schäublin 1972). A prepositional construction may also be used for classification, e.g. *a house of worship*, German *Wein aus Frankreich* ‘wine from France’ (Rijkhoff 2008a: 793, Schäublin 1972: 84). Schäublin (1972) investigated the distribution of these different lexical strategies in German.

4.4.4 Qualifying modifiers

Qualifying modifiers are predicating: they describe or characterise a spatio-temporal entity or event by answering the question “What is X like?” (Warren 1984: 90). Being purely descriptive, qualifying modifiers represent non-restrictive modifications (Warren 1984: 91). They typically indicate a possessed attribute, i.e., a quality which the referent possesses, as in *wise man* or *cuddly bear* (Warren 1984: 88). Qualifiers may characterise the entity in terms of objective information, involving the semantic notions dimension (e.g. *big, long*), physical property (e.g. *hard, heavy*), colour (e.g. *black, blue*), age (e.g. *new, old*), speed (e.g. *slow, fast*), value (e.g. *good, expensive*) and human propensity (e.g. *jealous, sad*) (Rijkhoff 2010: 103). The qualifying modifier may depict either objectively verifiable information or someone’s subjective assessment (*comfortable chair, interesting dissertation, beautiful picture*) (Rijkhoff 2008b: 24, Warren 1984). The attribute may not only be an actual quality but also a state, an experience or a part, e.g. *icy street, long-tailed duck* (Warren 1984: 85). In addition, the reference of the head may be compared with another entity (person, animal, plant, inanimate object, substance, place, abstract concept...), e.g. *childish man, snowy white* (e.g. Warren 1984: 88). The qualities are typically gradable properties.⁵⁴ The qualifying modifier admits intensifiers and comparison (see e.g. Heynderickx 2001: 32ff., Teyssier 1968: 235). Qualifying is the basic function of quality ADJ (1) but also of qualifying ADV (2). There may be other lexical strategies (3).

⁵³ On phrases like *sociaal werk* ‘social work’ in Dutch in comparison with German, see e.g. Hüning/Schlücker (2010).

⁵⁴ There are exceptions: a number of qualifying ADJ are nongradable. For instance the ones expressing a binary opposition, like *dood-levend* ‘dead-alive’ *aanwezig-afwezig* ‘present-absent’ (Heynderickx 2001: 36).

(1) Quality adjectives

In the languages of the world there are specialised quality lexemes which are inherently qualifying. Qualifying is the basic function of ADJ (*the rich man*); if a language has ADJ, it is these elements which are typically used for the expression of qualifying modification (Rijkhoff 2002: 145). Dutch, English and German have a class of primary, simplex qualifying ADJ, e.g. *rijk/rich/reich*. These quality ADJ may be used as prenominal attribute and in different kinds of predicative constructions (e.g. with a copula when the referent is the subject, or postnominally as predicative attribute to the referent). For details, see e.g. Devos/De Muynck/Van Herreweghe (1991) and Aarts/Wekker (1987) on Dutch and English. Moreover, as pointed out before, Dutch and German use their quality ADJ in adverbial positions.

According to Teyssier (1968: 230), quality ADJ constitute an unlimited class which is extended by borrowing and through word formation. Derivation is the most common strategy in Dutch, English and German to expand the class of quality ADJ. They are typically derived from a nominal base (e.g. Dutch *muzikaal* 'musical', German *haarig* 'hairy') but a verbal base is common as well (e.g. Dutch *drinkbaar* 'drinkable', German *unwiderstehlich* 'irresistible'). There are both native and non-native suffixes. I already pointed out in 4.4.3 that the suffixes associated with relational ADJ or classifying modification may also derive quality ADJ (e.g. Dutch *-ig*). Many individual denominal ADJ can get either a qualifying or a classifying reading. In most cases, only the context is disambiguating as to which interpretation applies. Some denominal ADJ with polyfunctional suffixes have become fully idiomaticised and lost their ability to realise a classifying meaning. Some idiomaticised Dutch qualifying ADJ are *ludiek* 'playful' and *viriel* 'manly' (Heynderickx 2001: 129).

Some suffixes are exclusively associated with quality ADJ, e.g. Dutch *-achtig*, *-erig*, *-esk*, *-eus*, *-iaans*, *-loos* (*kinder-achtig* 'childish', *zand-erig* 'sandy', *clown-esk* 'clownesque', *mod-ieus* 'fashionable', *Hitler-iaans* 'Hitlerite', *kinder-loos* 'childless') (Heynderickx 2001: 29). These suffixes typically establish the head-modifier relation of SIMILARITY. Hüning (2004) shows that *-achtig* is the central suffix for expressing SIMILARITY; less central suffixes are *-ig* and *-erig* (compare ANS 1997).⁵⁵ However, occasionally there are synonym pairs, e.g. *freak-achtig/freak-erig* (Hüning 2004: 553). The non-native suffixes *-esk* and *-iaans* are peripheral (see Heynderickx 2001 and Meesters 2004).

English suffixes specialised in quality ADJ include *-esque*, *-ful*, *-ish*, *-ous*, *-y* (*carnival-esque*, *beauti-ful*, *child-ish*, *villain-ous*, *hair-y*) (Teyssier 1968: 230, Heynderickx 2001: 124). Further morphological means in English are *-like*, *-style*, *-type* and *-wise* (e.g. *child-like*, *cowboy-style*, *military-type*, *sarong-wise*); see Dalton-Puffer/Plag (2001). Fleischer/Barz (1995: 234-235) give an overview of Gm. word-formation patterns for encoding the head-modifier relation of SIMILARITY. Compositional components like *-ähnlich*, *-artig*, *-förmig*, *-gemäß*, *-gleich* make the relation concrete.⁵⁶ The main native suffixes for encoding the relation of SIMILARITY are *-haft* (e.g. *helden-haft* 'heroic') *-ig* (e.g. *milch-ig* 'milky'), *-isch* (e.g. *sklav-isch* 'slavish') *-lich* (e.g. *freund-lich* 'friendly') and *-mäßig* (e.g. *löwe-n-mäßig* 'leonine'). Borrowed suffixes used in Gm. are *-esk* (e.g. *clown-esk* 'clownesque'), *-al* (e.g. *koloss-al* 'colossal') and *-ös* (e.g. *skandal-ös* 'scandalous') (Fleischer/Barz 1995: 235). It has been shown in the literature that there is some synonymy in this niche, e.g. *riesen-haft/ries-ig* 'giant', *artikel-haft/artikel-artig/artikel-mäßig* 'as an article' (Fleischer/Barz 1995: 235) and *freak-haft/freak-ig/freak-mäßig* (Hüning 2004). In the niche of COMPLIANCE, Gm. has *-mäßig* and *-gemäß* but also the morphemes *-getreu* and *-gerecht*.

Dutch and German may form quality ADJ through a combination of compounding and *ig*-derivation (synthetic compounds), e.g. Dutch *driehoekig* 'triangular', *tweedelig* 'two-piece', *houtkleurig* 'wood-

⁵⁵ Observe that there are some regional differences; *-erig* is used more in the Netherlands (Hüning 2004: 548).

⁵⁶ To Inghult (1975), *-gemäß* is not a suffix since a word formed with *-gemäß* can always be paraphrased by a syntactic construction with independent *gemäß*, e.g. *zeitgemäß* = *der Zeit gemäß*.

coloured' (ANS 1997) and German *einarmig* 'one-armed', *mehrsprachig* 'multilingual' (Schäublin 1972: 94). Compare English lexemes with *-ed*: *blue-eyed*, *blonde-haired* (Quirk et al. 1985: 1553).

(2) Qualifying adverbs

Dutch, English and German have a small number of primary, simplex qualifying ADV, e.g. *hoe/how/wie*, English *well*, *fast*, Dutch/German *zo/so* 'like that', *graag/gerne* 'gladly' and *anders* 'differently'.⁵⁷ Some of these qualifying ADV may occur predicatively, e.g. German *Sabine ist anders* 'Sabine is different' (Zifonun et al. 1997: 54). For English, it has been noted that there are very few primary qualifying ADV: instead, they are predominantly formed through derivation (Ramat/Ricca 1994: 316,322). English has been claimed to have a morphological class of qualifying ADV (so-called 'manner ADV') constituted by lexemes derived from qualifying ADJ by the adverbial marker *-ly*, e.g. *frank-ly*. However, these *ly*-ADV are multifunctional: they may also function as evaluative or speech-act modifiers (see below). As Quirk et al. (1985: 647) point out, qualifying ADV may modify the VP (4.1) or they may function within an NP (4.2).

(4.1) He admitted his mistakes **frankly**.

(4.2) His **frankly** admitted mistakes were pardoned.

English further has complex qualifying ADV formed with the suffix *-wise* but it has already been shown that this suffix is also associated with another modifier type, namely domain modification (Dalton-Puffer/Plag 2001, Lenker 2002). English ADV formed with the suffix-like elements *-style* and *-fashion* can only be associated with qualifying modification (Hasselgård 2010: 219).

In Dutch and German, a formal class of qualifying ADV like the English *ly*-ADV is missing, as shown before: these languages use qualifying ADJ in adverbial position without extra formal marking. ADV expressing instrument may be formed in German with *-mäßig* and *-lich*, e.g. *kontraktmäßig/kontraktlich* (Kühnhold/Putzer/Wellmann 1978: 373).

ANS (1997) mentions a qualifying meaning for words formed with the adverbial suffixes *-erwijs*, *-gewijs*, *-(e)lings* and *-weg* (see table 2.6). First of all we may question whether these are ADV: I have shown in chapter 3 that the derived lexemes allow attributive use and inflection. Secondly, we may wonder whether these patterns still create new qualifying lexemes. Finally, it is questionable whether they can only be associated with qualifying modification; this requires further investigation.

(3) Other lexical expressions

In Dutch, English and German there are no specific lexical expressions for qualifying modification. For specifications of manner there is a periphrastic construction, *in (a) ADJ manner/way/style/fashion* (with a qualifying ADJ), compare Dutch *op (een) ADJ manier/wijze*, German *in einer ADJ Weise*, *auf eine ADJ Art* Other lexical strategies for expressing qualifying modification are relative clauses (headed by a stative or descriptive V; e.g., *the man who is rich*), prepositional phrases or qualifying NPs (headed by an abstract N; e.g., *the man with richness* or *she handled the situation with great skill*). Instrument is often expressed by a prepositional phrase, e.g. English *with NP* or *by NP* (Quirk et al. 1985).

4.4.5 Quantifying modifiers

In the classification by Rijkhoff, quantifiers are defined as modifiers which "specify quantitative properties of the referent (thing or event)", i.e., how much/many it is (Rijkhoff 2008b: 15,20-21). This

⁵⁷ Note that *anders* can historically be analysed as complex.

definition may be taken to include several notions of measurement, like specifications of frequency and degree.⁵⁸ Frequency specifications pertain to how often an event occurs. Degree modifiers typically quantify gradable qualities (*rather successful*). They can be reinforcing (intensifier, augmentative) and attenuating (moderators and diminishers). There are grammatical expressions of quantification, for instance aspect markers specifying frequency and suffixes for diminution (e.g. Dutch denominal *-tje*, English deadjectival *-ish* and *-y*, *yellowish*, *yellowy*); see chapter 5. Lexical strategies include quantifying ADV (1) and other lexical expressions (2).

(1) Degree adverbs and frequency adverbs

Dutch, English and German have a number of primary degree ADV, e.g. English *much*, *quite*, *rather*, *pretty*, *enough* and Dutch *erg*, *heel*, *vrij*, *hartstikke*, *genoeg*. English degree ADV were studied by Paradis (1997) and German degree ADV by Biedermann (1969). See Klein (1997) on Dutch degree ADV and de Swart (1991) on Dutch ADV of quantification. In English, degree modifiers display more monomorphemic ADV than derived ADV (Ramat/Ricca 1994: 322). The literature assumes that Dutch, English and German have some primary frequency ADV, e.g. English *twice*, *often*, Dutch *vaak* 'often', *genoeg* 'enough' (see ANS 1997). Degree ADV usually premodify a qualifying ADJ. In Dutch and English, they may also be preposed to the NP, e.g. *We had quite a successful party* (Devos/De Muynck/Van Herreweghe 1991). Postmodifying a qualifying ADJ, we find *enough* and its Dutch equivalent *genoeg* (Aarts/Wekker 1987: 245). This particular ADV is also found in a special use postmodifying ADV (Aarts/Wekker 1987: 260). In chapter 3, the phenomenon was introduced that degree ADV may be inflected in contemporary Dutch (*proleptic inflection*).

In English there is a fairly large group of derived degree and frequency ADV formed with *-ly*, e.g. *extremely*, *fairly*, *rarely* (see Paradis 1997). There is a certain polyfunctionality in English: primarily qualifying *ly*-ADV like *dreadful-ly* and *awful-ly* may be used as degree modifiers (Pullum/Huddleston 2002: 583). The Germanic languages further display some frequency ADV historically formed with *-s*, an original case ending, e.g. English *sometimes*, Dutch *telkens* 'each time', *eens* 'one time', *soms* 'sometimes', *doorgaans* 'usually', *dikwijls* 'often'. However, *s*-ADV can also be associated with localising functions and the pattern is claimed to be extinct (see chapter 2). All in all there does not seem to be a morphological class of quantifying ADV in Dutch. German may create them with *-weise*, e.g. Duden (2009) refers to the quantifying use in German *haufen-weise* 'in heaps'.

(2) Other lexical expressions

There are no special lexical expressions for quantity in Dutch, English and German. Frequency can be expressed with adverbial constructions (e.g. *every once in a while*), NPs (e.g. *ten times*, *every day*), prepositional phrases or clauses (Rijkhoff 2002: 214-215 and ANS 1997). ANS (1997) further refers to quantifying ADV formed with *maal* 'times' on the basis of numerals e.g. *tweemaal* 'twice', *duizendmaal* 'a thousand times'. Lexical expressions of degree include adverbial or adjectival phrases, NPs (e.g. *a little bit*) and prepositional phrases (e.g. *to a limited extent*).

4.4.6 Localising modifiers

The modification type of localising modification includes spatial and temporal specifications of an entity or a situation. As Haspelmath (1997: 1) points out, "[s]pace and time are the two most

⁵⁸ There is a vast literature on quantification in the world's languages (e.g. Aldridge 1982, Flückiger-Studer 1983, Bach 1995, Paradis 1997). However, quantification is a broad notion and there is no consensus on the use of the label "quantifier" (Paradis 1997: 12). Quantification may be reduced to number distinctions or the cardinality of the referent, which is grammatically expressed with number distinctions (singular/plural) or cardinal numerals. There may also be a broader interpretation which includes degree modification.

important basic conceptual domains of human thinking". When we talk about entities or situations, we usually locate them in space and time, that is, we specify the setting by answering the questions "where?" and "when?".⁵⁹

- **Spatial location** refers to indicators of where a person or an object is situated or where an event is taking place, where something comes from or where it is going (Becker 1994: 1). We tend to locate in a relativistic way: we determine the position of an entity or situation with respect to a reference entity or situation rather than absolutely, e.g., we establish a spatial relation between a book and a desk in stating that the book is on the desk (Svorou 1994: 8). People are not only interested in describing positions or static spatial arrangements, but also in changes in location (Svorou 1994: 24). Locating an entity in space involves orienting its movement, determining the direction of the motion. We perceive the movement of an entity as a changing position of the entity with respect to a stable environment or another moving entity (Svorou 1994: 24). Inherent in our perception of movement of an entity is a direction of this movement, mostly towards or away from us. Depending on the perspective we take, the movement of entities can be described with reference to its source, destination and/or path, e.g. *We went from Buffalo to New York via Albany* (Svorou 1994: 27). Movement may be described according to a system of absolute orientation points, e.g. the four-way system of 'east', 'west', 'north' and 'south' (Svorou 1994: 30). Environmental landmarks also play an important role in our assignment of directions.
- **Temporal location**, like spatial location, is established in a relativistic way. Thus, we locate a situation in time with respect to the moment of speech ('time deixis', Haspelmath 1997: 24) or with respect to a reference time, represented by another situation or by a canonical time period (Haspelmath 1997: 24). Languages may use *n* indicating 'canonical time periods' as measuring units or reference to locate situations (Haspelmath 1997). They represent time units (*day, month*), calendar unit names (*January, Sunday*) and qualitative periods (*spring, morning*). Observe that Rijkhoff (2008b: 27) only includes specifications of time position (e.g. *in January*) in the class of localising modification; specifications of time frequency are considered quantifiers and specifications of time duration are qualifiers, see above.

The domains of space and time are interrelated: "it is widely assumed that humans conceive of time in a way analogous to space" (Haspelmath 1997: 20). Scholars have claimed that the relationship is such that "spatial meaning is primary and temporal meaning is secondary" (Haspelmath 1997: 141). Children acquire spatial concepts before temporal relations and temporal concepts have a spatial basis (for references, see Svorou 1994: 120). Observe that the transfer from space to time is reflected in language: it is a widespread phenomenon in the languages of the world that spatial expressions are used to express temporal notions (Rijkhoff 2002: 223). More specifically, spatial notions are carried over to temporal ones through metaphorical extension (Haspelmath 1997: 21). For instance, certain PREP can be used in a spatial and in a temporal sense, as is the case for English *in* (Haspelmath 1997: 2).

Strategies for realising specifications of spatial or temporal location include locative ADV (1), locative ADJ (2) and further lexical expressions (3). A grammatical strategy is case marking; some remarks are provided in (3).

⁵⁹ There is a vast amount of studies on the conceptual domains of space and time and their linguistic realisation in the languages of the world. I shall only mention a few of them: Vernay (1974), Becker (1994), Svorou (1994), Haspelmath (1997), Canbulat (2001), Schrotten (2001), Šenkeřík (2005), Tenbrink (2007). I refer to those studies and the references mentioned there for details on the conceptualisation and expression of space and time.

(1) Locative adverbs

Spatial ADV constitute one of the major strategies for expressing localising modification (Becker 1994: 33). Probably all languages have spatio-temporal ADV (Rijkhoff 2002: 214). Dutch, English and German, too, have a set of spatio-temporal ADV. A few contrastive observations can be found in Devos/De Muynck/Van Herreweghe (1991). German locative ADV were investigated by Eisenberg (2002). The locative ADV constitute a formally heterogeneous group. There is a basic set of invariable primary ADV in all three languages. It contains deictic elements (e.g. English *here, there, then*) and other elements (*nu/now/jetzt, gauw/soon/bald, nooit/never/nie*). A small group of temporal ADV corresponds with a grammaticalised comparative (Eisenberg 2002: 69): Dutch *vroeger/later*, English *earlier/later* and German *früher/später*. There are lexemes formed through univerbation, e.g. *voortaan/hence-forth/fort-an*, Dutch *rechts-af* ‘to the right’, English *over-night* and so on. There is a class of pronominal ADV. In Dutch, they consist of the first constituent *er, daar, hier, (n)ergens, waar, overal* and the second constituent is a PREP (e.g., *van, bij, voor*) or an ADV (e.g., *af, heen, toe*): *daarna, erheen* and so on (Devos/De Muynck/Van Herreweghe 1991).⁶⁰ In German we find *davor, hierauf* etc. formed from *hier/da/wo* and a PREP *an, auf, aus, bei, durch, für, gegen* (Becker 1994: 33, Zifonun et al. 1997: 54). English has pronominal ADV but they are limited to a single first constituent, *there*, e.g. *thereof, thereafter*. Dutch and German frequently rely on pronominal ADV for expressing temporal and spatial relations. In English, they are only used in formal, particularly legal language (Devos/De Muynck/Van Herreweghe 1991).

Primary interest in this dissertation goes to locative ADV formed through word formation. There is not one morphological device which marks the class of locative ADV in Dutch, English and German. There is a set of lexemes historically formed with the former dative ending *-en*, e.g. Dutch/German *morgen* ‘tomorrow’, Dutch *gisteren* ‘yesterday’, *beneden* ‘downstairs’, *buiten* ‘outside’, German *oben* ‘above’. Dutch, English and German have a number of localising ADV which are historically derived by the adverbial *-s*, e.g. English *downstairs, sometimes*, German *anfangs* ‘initially’, *abseits* ‘aside’, Dutch *straks* ‘later’, *ginds* ‘over there’, *nergens* ‘nowhere’ and Dutch/German *links/rechts* ‘left/right’ (see van der Sijs 2002 for Dutch). In addition there are some locative ADV derived by *-(e)lijk/-ly/-lich*, e.g. *recent-elijk/recent-ly/neu-lich* and some ADV expressing repetition, e.g. *dai-ly/täg-lich* (Ros 1992: 117 for German); the latter correspond with Dutch ADV in *-(e)lijks*, e.g. *dag-elijks*. These patterns are all claimed to be unproductive. A special case may be directional ADV derived with *-waarts/-ward(s)/-wärts* in Dutch, English and German, e.g. *opwaarts/upward/aufwärts* (see ANS 1997 for Dutch). This class may still be expandable (see section 2.4.1). The literature refers to other patterns indicating direction in English (*-ly, -bound*, e.g. *a west-er-ly breeze, a home-bound train*; see Hamawand 2007) and in German (*-lich*, e.g. *seit-lich*).

Locative ADV prototypically occur in adverbial position, e.g. *He came yesterday/here*. They may occur as predicates in a predicative construction, e.g. *The meeting was yesterday/downstairs*. Moreover, a number of them may be used in the postnominal attribute slot, e.g. *the meeting yesterday, his journey home, your friend here* (for Dutch and English see Devos/De Muynck/Van Herreweghe 1991). Last but not least, a number of localising ADV may be used as pronominal attributes in Dutch and English, in which case they are inflected in Dutch. This holds for instance for *links/left* and *rechts/right* and the lexemes with *-waarts/-ward*. There is even a tendency in Dutch to use *recentelijk* ‘recently’ attributively, even though the base ADJ *recent* is available (see ANS 1997 and see chapter 2).

⁶⁰ Mind that the demarcation between spatio-temporal ADV and adpositions is thin. Functional linguists like Mackenzie (2001) have argued in favour of a supercategory of ‘AD’ which includes spatio-temporal ADV and PREP. They share formal characteristics (see Butler 2003: 324). In English they have the same form and they can occur predicatively, e.g. *John is in* or *All the shades were down* (from Keizer 2008: 229,243). Keizer (2008: 230) argues that the English locative ADV are in fact instances of (intransitive) PREP.

(2) Locative adjectives

Dutch, English and German have some inherently localising ADJ, e.g. *an early meeting/een vroeg-e vergadering/eine früh-e Versammlung*. These allow not only attributive but also adverbial and predicative uses. German additionally has a separate class of complex locative ADJ derived from locative ADV using the suffix *-ig*. The *ig*-derivatives are restricted to the prenominal attribute slot, e.g. *dortig* ~ *dort* 'there', *hiesig* ~ *hier* 'here', *gestrig* ~ *gestern* 'yesterday', *baldig* ~ *bald* 'soon', and the same holds for derived localising ADV, e.g. *abseitig* ~ *abseits* 'aside', *auswärtig* ~ *auswärts* 'external, foreign' (Eisenberg 2002: 72).⁶¹ Examples are *das dort-ig-e Haus* 'the house over there' and *der gestrig-ig-e Vortrag* 'the presentation yesterday'. A similar strategy is found in the pair *anfänglich* ~ *anfangs* 'initial(ly)' (Eisenberg 2002). Dutch and English do not share this class of complex locative ADJ.

(3) Other lexical expressions

Apart from spatio-temporal ADV, major lexical expressions of space are adverbial constructions with PREP or NPs. There are some contrasts between Dutch, English and German at this point. In Dutch and German, a prepositional phrase can be formed for postnominal attribution, e.g. in Dutch *de bijeenkomst van gisteren* 'lit. the meeting of yesterday; yesterday's meeting' (Devos/De Muynck/Van Herreweghe 1991). As the translation shows, English prefers a genitive construction in which the locative modifier is preposed, e.g. *yesterday's meeting*. In Dutch, English and German, there are NP realisations of time and space (e.g. Devos/De Muynck/Van Herreweghe 1991: 85). Consider English expressions of time like *last Friday* and the Dutch equivalent *afgelopen vrijdag*. German, still having a fairly extensive case system, has a case contrast to mark the opposition between a specified and an unspecified time: accusative marking refers to a specified (definite) time (*letzten Freitag* 'last Friday') and genitive marking to an unspecified (indefinite) time (*eines Tages* 'one day') (Hawkins 1986: 25). Observe that German also uses case to mark a static/directional opposition (Hawkins 1986: 22). With static location, the dative is assigned, e.g. *hinter dem Tisch*, and with movement towards a location, the accusative, e.g. *hinter den Tisch*; both correspond to English *behind the table* or Dutch *achter de tafel* (Hawkins 1986: 22,27; Becker 1994: 33). Thus, there are a number of PREP in German which can govern both a dative and an accusative NP. English may use other strategies, e.g., it differentiates between some static and directional PREP, e.g. *on* vs. *onto* (Becker 1994: 33). In English, distinct forms for the static/directional opposition exist in *where/whither*, although in practice they have been replaced by *where* alone (Hawkins 1986: 27). This may be compensated by using stative or active v, e.g. *where do you live?* vs. *where do you go?* (Hawkins 1986: 28).

4.4.7 Domain modifiers

Domain modifiers are a specific device used by speakers to organise the information they wish to utter. They are inserted to restrict the domain of application of a communicated content. The language user wishes to stress that the propositional content is limited to one particular dimension: "The speaker claims (...) that the proposition holds true in a given domain; he does not commit himself to the truth of the proposition in any other domain" (Bellert 1977: 347). Domain modifiers "can function as hedges to the clause message by placing perspective - and the responsibility for the ensuing proposition - on somebody other than the speaker/writer (...) or by marking an opinion explicitly as subjective" (Hasselgård 2010: 298). This is illustrated by *logically* in (4.3) from Bellert (1977). As pointed out by Quirk et al. (1985: 568), the domain modifier (Quirk et al.'s *viewpoint*

⁶¹ Eisenberg (2002: 72) does not believe that the attributive *ig*-forms are derived from the locative ADV for making these inflectable. He argues that both lexemes have been formed from the same bound root and that the three of them constitute a morphological paradigm, e.g. "Grundform" *abseit*, "Derivationsstammform" *abseits* and "Flexionsstammform" *abseitig*.

subunct) may only have one (part of a) constituent in its scope, e.g. *economically* modifies the attribute *bankrupt* in (4.4).

(4.3) **Logically**, John is right, but morally he is wrong.

(4.4) An **economically** bankrupt nation may still be an **intellectually** flourishing one.

In the German literature among the first to pay attention to domain modifiers were Seibicke (1963), Bartsch (1972) and Inghult (1975). The German equivalent is *Zielbereich* (Kühnhold/Putzer/Wellmann 1978), but we also find the labels *Einschränkung* ('restriction') and *limitierende Adverbiale* ('limiting adverbials'). Furthermore the name *limitativ* (limitative, restrictive) occurs. For Afrikaans, Ponelis (1979: 320) describes a class of adverbial modifiers expressing *opsig* 'perspective'. In Dutch grammar, the class which comes the closest is the *bepaling van beperking* 'restrictive modifier' in ANS (1997). I prepared a paper on domain modification in Dutch from a comparative perspective, see Diepeveen (*submitted*).

Since domain expressions are based on a nominal concept indicating the intended domain, there are no primary domain modifiers, only complex lexemes, so-called 'domain ADV' (1). Dutch, English and German have other lexical expressions for domain modification (2).

(1) Domain adverbs

Ramat/Ricca (1998) already pointed at the polyfunctionality of English and German descriptive modifiers which may function as domain modifiers. In English, *ly*-ADV, e.g. *logically*, *economically* may function both as qualifying ADV and as domain ADV. The position of the ADV may be disambiguating: domain ADV prefer initial position, they accept final position and in central position they normally require prosodic detachment (Pullum/Huddleston 2002: 580). English domain ADV derived by *-ly* constitute an open class "since new domains of endeavor can always be invented, and practically any technical distinction in any field of study may be used as a domain adverb" (Ernst 2000: 87).

In German, unmarked denominal ADJ like *finanziell* 'financially' may function as domain modifiers, e.g. (4.5) from Eichinger (2007: 172). For Dutch, Heynderickx (2001) illustrates adverbially used relational ADJ although she does not refer to the notion of 'domain modification', but *fiscaal* 'fiscally, with respect to tax' in (4.6) is a clear example. Similar examples are found in Afrikaans, e.g. for *finansieel* 'financially', see Ponelis (1979: 320).

(4.5) **Finanziell** ging es ihm nicht gut.
'He was not doing very well financially.'

(4.6) Maar **fiscaal** blijft het nadeel bestaan.
'But fiscally there is still a disadvantage.'

However, in addition to these polyfunctional items, English and German have been shown to possess a class of specialised domain ADV which can be morphologically expanded (Lenker 2002). English domain ADV may be formed on the basis of N indicating the intended domain, using the suffix *-wise*, e.g. *job-wise* in (4.7), see Quirk et al. (1985). The productivity of the pattern of creating domain ADV with *-wise* in contemporary English was statistically confirmed by investigations by Dalton-Puffer/Plag (2001) and Lindquist (2007).

(4.7) **Weatherwise**, we are going to have a bad time this winter.

German domain ADV may be derived from N by the suffixes *-mäßig* and *-technisch*, e.g. *bevölkerung-s-mäßig* (4.8) (Inghult 1975) and *fernseh-technisch* (4.9) (Ruge 2004).; compare Lenker (2002).

- (4.8) Nordrhein-Westfalen - räumlich und **bevölkerungsmäßig** vergleichbar mit der DDR (...).
'Nordrhein-Westfalen - sizewise and populationwise comparable to the GDR (...).'
- (4.9) Gleich vorweg: Der Mittwochabend war **fernsehtechnisch** katastrophal.
'First of all, Wednesday night was a catastrophe as far as television is concerned.'

There is no literature on the existence of a class of complex domain ADV in Dutch. We only find implicit references in van der Horst (2008: 1895) and *EWN*/-gewijs on a recent 'limiting' meaning for *gewijs*-derivatives in spoken Dt. which *EWN* illustrates by *temperatuur-gewijs* 'temperature-wise' in (4.10). For this type of example, *EWN* paraphrases *-gewijs* by *-technisch*. This interpretation corresponds with paraphrases provided for *technisch*-lexemes by the prescriptive Dutch language portal *Taaladvies*, e.g. (4.11).⁶² At closer inspection, these examples may be classified as domain ADV (Diepeveen *submitted*).

- (4.10) **Temperatuurgewijs** gaan we er niet op vooruit.
'It is not getting any better for us temperature-wise.'
- (4.11) **Studietechnisch** heb ik vandaag een drukke dag.
'Today is a busy day for me as far as studying is concerned.'

In Diepeveen (*submitted*) I proposed that Dutch, too, may have a morphological class of domain ADV, formed by *-gewijs*, *-technisch* and even by *-matig*. This point will be further worked out by empirical evidence in the present dissertation. It should be investigated to what extent these suffixes may be associated with domain modification as opposed to their other (descriptive) functions.

(2) Other lexical expressions

Equivalent to domain ADV are participle clauses with (semantically bleached) *verba sentiendi* or *verba dicendi* where the ADV was originally used as a qualifier, e.g. *economically speaking*, *considered/looked at politically*, compare Dutch *economisch bekeken* 'looked at economically', *moreel gezien* 'morally regarded', *politiek gesproken* 'politically spoken' and German *politisch gesehen* 'politically regarded', *moralisch gesehen* 'morally regarded'.⁶³ Another common strategy are explicative phrases with limiting v, e.g. *as far as x is concerned*, *as regards x* or Dutch *wat x betreft*, German *was x betrifft/anght/angeht*, with x being an NP indicating the intended domain. Other common domain expressions are prepositional phrases with abstract N e.g. *from a moral point of view*, *with reference to morals*, *with respect to morals*, compare Dutch *uit moreel oogpunt/perspectief*, German *in Bezug auf x*, *aus x Sicht/Perspektive*. Other prepositional phrases are English *regarding x*, German *hinsichtlich x* governing genitive case, e.g. *hinsichtlich der Gesundheit* 'as far as (his) health is concerned', *von x her*, *in puncto x*. For Dutch the literature has referred to prepositional phrases introduced by *qua* 'regarding' followed by the NP indicating the intended domain, e.g. *qua karakter* 'regarding character' (van der Horst/van der Horst 1999, Diepeveen *submitted*). The use of *qua* for domain modification is very widespread in contemporary Dutch across text-types and registers. The high frequency of the construction with a variety of N suggests that it constitutes a productive pattern. This may block the use of derivational patterns (see Diepeveen *submitted*). In German, domain expressions with *qua* are extremely rare; as in English, the construction denotes an identity (e.g. *qua poet*).⁶⁴

⁶² <http://taaladvies.net/taal/advies/vraag/777/> [last accessed 21.02.2012]

⁶³ A similar strategy of using clauses with *verba dicendi* is preferred for the expression of domain modification in the Romance languages, e.g. French *économiquement parlant* 'economically speaking'; see Klump (2009) who also discusses some historical aspects of this construction.

⁶⁴ In German material of the 1990s there is an incidental example: *In ihrer Not mußten viele ihre Häuser und Hütten verpfänden oder sogar verkaufen, während es der Gesellschaft qua Pro-Kopf-Einkommen „im Durchschnitt“ immer besser ging* 'In her need many houses and cabins had to be pawned or even sold, while

4.4.8 Modal modifiers

Modal modifiers are concerned with the expression of modality, a collective term used in the literature for a range of semantic notions. Ramat/Ricca (1998: 191) distinguish between epistemic modifiers (e.g. *probably*), quotative modifiers (e.g. *allegedly*), evidential modifiers (e.g. *evidently*) or optative modifiers (e.g. *hopefully*). There is no agreement on the demarcation of individual categories, their status and their names. For some categories, it is not even clear whether they should be considered as modal or not, e.g. the category of evidentiality. For a recent discussion on this complex topic, see e.g. Nuyts (2005). I restrict myself in this section to the semantic domain of epistemic modality, which “concerns an estimation of the likelihood that (some aspect of) a certain state of affairs is/has been/will be true (or false) in the context of the possible world under consideration” (Nuyts 2001: 21-22). Importantly, “this estimation of likelihood is situated on a scale (...) going from certainty that the state of affairs applies, via a neutral or agnostic stance towards its occurrence, to certainty that it does not apply, with intermediary positions on the positive and negative sides of the scale”. A wealth of literature has been published on modal expressions, representing as many opinions on what constitutes ‘modality’.⁶⁵ I base the present section on the work by Nuyts (2001) which focuses on the linguistic manifestation of epistemic modality.

Grammatical realisations of modality include the use of (past) tenses and moods. In Dutch and English the subjunctive mood is no longer available (Nuyts 2001: 29), only German still has a morphological subjunctive: compare indicative *gab* and subjunctive *gäbe* (Hawkins 1986: 11). In English, the present subjunctive is identical with the base of the *v* and for the past there are no special forms except *were* (Dekeyser et al. 1993: 84). In Dutch and English, the use of the subjunctive mood is restricted to a number of fixed expressions and formulaic structures and formal style (see Aarts/Wekker 1987: 236 and ANS 1997). English prefers to use the indicative mood, a construction with *should*, or an infinitive construction (Aarts/Wekker 1987: 237).

Lexical realisations of modality include epistemic ADJ (1), epistemic ADV (2) and further lexical expressions (3).

(1) Epistemic adjectives

Nuyts (2001: 55) claims that the epistemic ADJ in Dutch, English and German are a closed class. This may be related to the fact that epistemic modality is a semantically closed class in that it has only a limited set of possible values (Nuyts 2001: 270). For the neutral position on the epistemic scale, Dutch has *mogelijk*, English *possible* and German *möglich*. For the middle position on the epistemic scale, English has *probable* and *likely*. Prototypical ADJ are Dutch *waarschijnlijk* and German *wahrscheinlich*. Finally, for the expression of certainty, English has *certain*, German *sicher* and Dutch *zeker*.

society in general was doing better and better from the point of view of income per person’; from DWDS (see chapter 6).

⁶⁵ The list of publications on modal expressions is too long to be included here so I can only name a few examples. In research on the linguistic realisation of modal meanings, primary focus has usually been on the system of modal auxiliaries (Nuyts 2001: 29). Modal ADV are discussed for the languages of Europe by Ramat/Ricca (1994). Nuyts (2001) focused on the central linguistic manifestations of epistemic modality in Dutch and German (with frequent reference to English). Diepeveen et al. (2006) discuss modal expressions in Dutch with the focus on contrasts between the Netherlandic and Belgian standard variety. For studies on modal particles, see note 68.

(2) Epistemic adverbs

Like epistemic ADJ, the epistemic ADV constitute a closed class (Nuyts 2001: 55). Ramat/Ricca (1998: 225) pointed out that most modal ADV are idiosyncratic and non-derivational. Compared to epistemic ADJ, the class of epistemic ADV is somewhat larger and the lexemes are used more frequently. One reason for this may be their possibilities regarding positioning in the clause (Nuyts 2001: 57). Examples like *a probably unintentional slight* (Pullum/Huddleston 2002: 583) show that epistemic ADV may even occur as modifiers within the NP.

The classes of epistemic ADJ and ADV are remarkably similar across Dutch, English and German (Nuyts 2001: 56). For the neutral position on the epistemic scale, there are primary ADV (resulting historically of univerbation): Dutch *misschien*, English *perhaps* and *maybe* and German *vielleicht*. Alternatively, there are derived ADV: English *possib-ly*, Dutch *mogelijk-erwijze*, corresponding with German *möglich-erweise*. As Nuyts (2001: 56) indicates, the choice between alternative expressions is partly driven by regional and/or stylistic preferences, but there may also be slight semantic differences. For the middle position on the epistemic scale, Dutch has the prototypical ADV *wellicht* and *allicht* (see Janssen/Diepeveen 2007) and English has the derived form *probab-ly*. Finally, for the expression of certainty, Dutch has the prototypical ADV *ongetwijfeld* and *vast*, German *zweifellos*, *zweifelsohne* and *bestimmt*. English has derived *certain-ly*, *undoubtedly-ly* and *sure-ly*.⁶⁶

It follows from this overview that English has several complex epistemic ADV historically derived by *-ly*, but they constitute a closed class (Ernst 2000: 87). Adjectival and adverbial use are kept morphologically apart in English through suffixation. In Dutch and German, there is a high degree of polyfunctionality: many epistemic ADJ can be used adverbially, e.g. German *sicher*, *bestimmt*, *gewiss* and Dutch *mogelijk* ‘possible/possibly’, *waarschijnlijk* ‘probable/probably’, *zeker* ‘certain(ly)’. The suffix *-erweise* is obligatory for adverbial use in German *möglich-erweise* ‘possibly’ while the suffix is optional in Dutch *mogelijk(-erwijs)* ‘possibly’ (Nuyts 2001: 56 and see Hengeveld 1997: 133 and Booij 1974: 629 on modal ADV with *-erwijs*).⁶⁷ Similarly, German may use unsuffixed *sicher* ‘certainly’ instead of the suffixed variant *sicher-lich* (Dutch *zeker-lijk* ‘certainly’ is archaic) and German evidential *vermut-lich* ‘presumable/presumably’ is never suffixed by *-erweise* (Paraschkewoff 1976: 192).

(3) Other lexical expressions

Nuyts (2001) refers to two further central expression types of epistemic modality present in most West European languages: modal auxiliaries (e.g., *They may/might/... have run out of fuel*) and so-called ‘mental state predicates’ (e.g., *I think/believe/... they have run out of fuel*). Epistemic uses of modal auxiliaries appear to be much more frequent in English than in Dutch and German (Nuyts 2001: 31-32). This shows that modal expression types which are structurally available in all European languages are not always used in the same degree (Wandruszka 1969: 424). Epistemic ADJ and ADV “may be considered the ‘purest’ expressions for epistemic modality [in West Germanic], in the sense that they are the most precise and specific means available for marking the degree of likelihood of a

⁶⁶ Modal ADV (e.g., *Maybe/probably/... they have run out of fuel*) and predicatively used modal ADJ (e.g., *It is possible/probable/... that they have run out of fuel*) are two central lexical expression types. Various scholars have argued that there is a semantic difference between epistemic ADJ and ADV as expression types, in that they function at different levels in the underlying representation of the utterance (Nuyts 2001: 60). It has been claimed that epistemic ADV and epistemic ADJ are not synonymous: the latter may include an evidential meaning, which is shown by the fact that they can be used interrogatively (e.g. *Is it probable that...?*) (Ramat/Ricca 1998: 194). Nuyts (2001) refers to various interacting factors which account for the choice between the two expression types.

⁶⁷ See Swan (1991) and Kinn (2005) on epistemic ADV with *-vis* in Norwegian.

state of affairs” (Nuyts 2001: 55). Modal auxiliaries are more vague and polysemous than epistemic ADV and ADJ.

Other lexical manifestations of modality include modal particles (Nuyts 2001: 29). Modal particles are a special kind of particles that do not occur in English, but they are frequent in Dutch and German, particularly in spoken language.⁶⁸ Dutch modal particles include *toch, dan, maar, nou, eens, even, zelfs, alleen, ook, juist, al, nog, pas* (ANS 1997). They are ‘flavouring’ elements which cannot be straightforwardly translated into English. Rather than occurring autonomously, they often complete modal auxiliaries, whereby their effect is strongly context-dependent.

4.4.9 Evaluative modifiers

Bellert (1977) was one of the first scholars who considered evaluatives as a separate modifier type. The definition and demarcation of the category has varied since then; for an overview see Taverniers/Rawoens (2010). I shall use the category of evaluative modifiers as defined by Ramat/Ricca (1998: 191) where it includes both event-oriented evaluations, e.g. *unfortunately*, and participant-oriented evaluations, e.g. *wisely*. Semantically, the evaluative is a non-necessary comment: it does not contribute to the content of the proposition and does not influence its truth value (Bonami/Godard 2008: 282). Consider *amazingly* in (4.12) from Mittwoch/Huddleston/Collins (2002: 772).

(4.12) **Amazingly** he escaped with only a scratch.

The Dutch reference grammar ANS (1997: 1214, 1612) includes evaluatives in the subcategory of “gevoelsmodaliteiten” (emotion modalities). Due to their very loose connection with the clause, English evaluatives have been labelled ‘disjuncts’ by Quirk et al. (1985). However, evaluative modifiers are not by definition sentence modifiers: they may be integrated in a constituent and have semantic scope over part of the constituent only, e.g. *their **fortunately** quite rare misunderstandings, remarkably happy, surprisingly good* (Pullum/Huddleston 2002: 528, 583).

Evaluative modification is lexically encoded by evaluative ADV (1) or other lexical expressions (2).

(1) Evaluative adverbs

Primary evaluative ADV in Dutch and German are *helaas* ‘alas, unfortunately’ (borrowed from French, see Ramat/Ricca 1998: 240) and *leider* ‘sadly, unfortunately’; they are restricted to adverbial position. Further inherently evaluative lexemes are Dutch *jammer* ‘sorrow’ and German *schade* ‘sad, a pity’; they are invariable and restricted to the predicative position (ANS 1997).

Ramat/Ricca (1998) already pointed at the polyfunctionality of English descriptive modifiers which may function as evaluative modifiers. Thus, *ly*-ADV, e.g. *wisely, amazingly* may function both as qualifying ADV and as evaluative ADV. The position of the ADV may be disambiguating: evaluative ADV are usually prosodically detached from the sentence; if they are integrated in sentence structure, they often occur in front position but they also accept central position (Pullum/Huddleston 2002: 580). In contrast, specifications of manner are normally not placed sentence-initially (Pullum/Huddleston 2002: 578).

⁶⁸ A contrastive study on German and English modal particles and some modal ADV is Bublitz (1978). A contrastive study on German and Swedish modal particles is Heinrichs (1981). Monographies on Dutch modal particles are Vandeweghe (1992), Foolen (1993) and Vismans (1994).

For Dutch, Ramat/Ricca (1998) also observed polyfunctionality: unmarked inherently qualifying ADJ may be used as evaluative modifiers, e.g. *gelukkig* ‘luckily, fortunately’ (4.13) from ANS (1997: 1215).⁶⁹

- (4.13) Ze is nu **gelukkig** weer helemaal beter.
‘Fortunately she has completely recovered.’

Ramat/Ricca (1998) consider *gelukkig* an exceptional case; for some historical observations, see Diepeveen (2011a). This strategy may not be as exceptional as Ramat/Ricca (1998) make it look: it also works for other ADJ, e.g. *onverklaarbaar* ‘inexplicable/inexplicably’, and for the unmarked present participle *verrassend* ‘surprising(ly)’ in (4.14), from Algemeen Nederlands Woordenboek corpus. Likewise, the German equivalent *überraschend* ‘surprising(ly)’ (4.15), from DWDS corpus (see section 6.2.2), may function independently as an evaluative ADV. Evaluative use can also be observed in Afrikaans for the ADJ *gelukkig* ‘fortunately’ and *onverklaarbaar* ‘inexplicably’ and even – which is not possible in Dutch – for its negated form *ongelukkig* ‘unfortunately’, see (4.16) in Ponelis (1979: 361). Unmarked qualifying ADJ are further found as evaluatives with another modifier, e.g. Dutch *merkwaardig laat* ‘remarkably late’ and German *seltsam still* ‘remarkably quiet’ (see Diepeveen 2011a).

- (4.14) Een krokodil bewoog. (...) Vanuit bijna-stilstand schoot het dier **verrassend** een halve meter naar voren.
‘A crocodile moved. (...) From near standstill the animal surprisingly jumped forward half a meter.’
- (4.15) Die Stichwahl auf der Insel, die am 28. Juni durchgeführt wurde, endete dann jedoch **überraschend** mit dem Sieg der Linken.
‘The final round of elections on the island which was carried out on 28 June ended, surprisingly enough, in the victory of the left party.’
- (4.16) **Ongelukkig** het die Kaapse leeu uitgesterf.
‘Unfortunately the Cape Lion became extinct.’

Ramat/Ricca (1998) stress that German is one of very few European languages with a productive morphological device for creating sentential ADV, namely the suffix *-erweise*, e.g. *klug-erweise* ‘cleverly’ or *erstaunlich-erweise* ‘astonishingly’, see (4.17) from Liu (2009: 332) and compare *Duden* (2009), Hengeveld (1997: 133), Heinle (2004). This particular function is restricted to modal and evaluative modification; Ramat/Ricca 1998 did not find domain or speech-act modifiers with *-erweise*. Moreover, it is only productive for the evaluative subtype (compare 4.4.8 on epistemic modifiers).

- (4.17) **Erstaunlicherweise** scheint aus meiner Erkältung keine Grippe zu werden.
‘Astonishingly, it seems that my cold is not turning into the flu.’

Thus, we may assume that German has an extendable class of evaluative ADV. As for Dutch, Booij (1974: 629), Ramat/Ricca (1998: 204) and Barbiers/van Oostendorp (2001) refer to the Dutch equivalent *-erwijs*, e.g. *begrijpelijk-erwijs* ‘understandably’ in (4.18) or *(on)gelukkig-erwijs* ‘(un)fortunately’; this suffix, however, they assume to be less productive than German *-erweise*.⁷⁰ The property of *-erwijs* to encode propositional modification was investigated by Van de Velde (2005) and specifically for evaluative modification by myself (Diepeveen 2011a).

⁶⁹ According to Ramat/Ricca (1998: 210), Dutch *gelukkig* may lack a suffix since it is a long ADJ in terms of the number of syllables. This may also explain why *verrassend* occurs without formal marking in (4.7). However, other long ADJ like *eigenaardig* ‘peculiar’ or *merkwaardig* ‘remarkable’ do need a marker to function as evaluatives on a sentence level, so this explanation does not seem to be entirely correct (Diepeveen 2011a).

⁷⁰ See Swan (1991) and Kinn (2005) on evaluative ADV with *-vis* in Norwegian.

- (4.18) **Begrijpelijkerwijs** is Jan weggegaan.
‘Understandably John has already left.’

German further has the suffix *-ermaßen* for creating evaluative ADV, e.g. *billig-ermaßen* ‘fairly, reasonably’, *unverdient-ermaßen* ‘undeservedly’ (Duden 2009). For Dutch, I have referred to evaluative use of derivatives formed with *-(e)lijk*, e.g. *wijs-elijk* ‘wisely’ and optionally in *gelukkig(lijk)* ‘luckily, fortunately’ (Diepeveen 2011a). In addition, Barbiers/van Oostendorp (2001) and Hüning/Diepeveen (2009) proposed that the Dutch suffix *-weg* may be associated with evaluative modification, e.g. *belachelijk-weg* ‘ridiculously’ in (4.19) from the ANW corpus.

- (4.19) De broer waarvan sprake in deze brief is de mens waarmee ik opgroeide in een tehuis ergens in het Zoete Land Van Waas. Lenteweelde heette **belachelijkweg** dat tehuis (...).
‘The brother mentioned in this letter is the guy I grew up with in a children’s home somewhere in the sweet Land Van Waas. Ridiculously enough, that home was called Spring Wealth.’

It will be studied in more detail in this dissertation to what extent *-erwijs*, *-(e)lijk* and *-weg* are morphological devices for marking evaluative modifiers in Dutch and to what extent derivatives are polyfunctional.

(2) Other lexical expressions

Equivalent to evaluative ADV like *amazingly* are paraphrases in which the inherently qualifying (base) ADJ is used predicatively, e.g. *It was amazing that...*, or: *..., which was amazing*. Similar constructions are used in Dutch and German. These languages may further use prepositional phrases for expressing an evaluation, e.g. German *zum Glück* ‘fortunately’ or Dutch *tot mijn verbazing* which equals *to my surprise* (Aarts/Wekker 1987: 258).

Ramat/Ricca (1998: 209) refer to a special strategy for evaluatives in the Germanic languages where “the adverb has to co-occur with some modifier in order to be interpreted as a sentence modifier”. This is illustrated by the construction with the Dutch modifier *genoeg* ‘enough’ (4.20).

- (4.20) **Gek/eigenaardig/vreemd genoeg** is Jan al vertrokken.
‘Oddly enough, John has already left.’

Booij (1974), Barbiers (2001) and Barbiers/van Oostendorp (2001) also referred to this strategy for evaluative modification consisting of a subjective qualifying ADJ immediately followed by the ADV *genoeg* ‘enough’. In this particular construction, *genoeg* does not have its lexical meaning. Instead of having a lexical content of its own it functions as a marker of evaluative use of the ADJ (see Barbiers 2001 and Diepeveen 2011a). In English, *enough* can be used in evaluative expressions as well, but it follows an evaluative ADV ending in *-ly* in which case it is optional (Ramat/Ricca 1998 and see Quirk et al. 1985: 629). In contrast, the strategy is widespread in and well described for the Scandinavian languages: Danish and Norwegian *nok* can be used in the same way (e.g. *venligt nok* ‘friendly (enough)’) (Ramat/Ricca 1998, Swan 1991) and so can Swedish *nog* (e.g. *dumt nog* ‘stupidly (enough)’) (Ramat/Ricca 1998, Taverniers/Rawoens 2010: 1). Swan (1991) has shown that Norwegian *nok* is used very systematically for creating evaluative modifiers. On a similar basis, it can be argued that the Dutch pattern with *genoeg* may also be on its way to becoming a word formation strategy (see Diepeveen 2011a). In German, there does not seem to be a corresponding pattern with *genug*, only incidental instances (see Diepeveen 2011a). Afrikaans uses the pattern as well, e.g. *tragies genoeg* ‘tragically (enough)’, *wonderlik genoeg* ‘astonishingly (enough)’ etc.; and from the large number of examples in Ponelis (1979: 310) we may infer that it is productive.⁷¹

⁷¹ Frisian has a genetically related suffix *-ernôch* which may be added to ADJ but this does not seem to be a pattern for deriving evaluatives, see WFT/*-ernôch* and some remarks in Diepeveen (2011a).

4.4.10 Speech-act modifiers

Speech act modifiers are either speech act-oriented or speaker/hearer-oriented (Ramat/Ricca 1998: 192; in FG these have been referred to as ‘illocutionary’ modifiers). They specify for instance the manner in which the speech act is performed or situate it in the ongoing discourse, e.g. *frankly* in (4.21). As Quirk et al. (1985: 647) point out, this modifier may function within the NP, e.g. *frankly* in (4.22).

(4.21) **Frankly**, he was contemptuous of the pardon.

(4.22) His **frankly** extraordinary attitude dismayed his friends.

The category has grammatical realisations, for instance the declarative, interrogative, imperative and exclamative (Rijkhoff 2008b: 17). Lexical realisations include speech-act ADV (1) and other expressions (2).

(1) Speech-act adverbs

Certain epistemic ADV may function as speech act modifiers, e.g. Dutch *misschien*, its English equivalent *perhaps* (Nuyts 2001: 58) and German *vielleicht* (Ramat/Ricca 1998: 193) as in (4.23). The ADV mitigates the request.

(4.23) Hast du **vielleicht** Feuer?
‘Have you got a light by any chance?’

Ramat/Ricca (1998) found that there is a polyfunctionality in English: descriptive *ly*-ADV like *seriously* and *frankly* may be used as speech-act modifiers. The position of the ADV may be disambiguating: speech-act ADV are most often prosodically detached from the sentence; if they are integrated in sentence structure, they occur in initial position (Pullum/Huddleston 2002: 580). Ramat/Ricca (1998: 207) claimed that Dutch and German do not allow descriptive ADV as speech-act modifiers, but they resort to phrasal solutions. This implies that there is no morphological device associated with speech-act ADV in Dutch, English and German. Particularly for Dutch, it has been claimed that speech-act ADV are absent and that this is compensated by means of complex adverbial expressions (Aarts/Wekker 1987: 258, Hengeveld 1997: 133, Ramat/Ricca 1998). This requires further investigation which I hope to contribute to in this dissertation.

(2) Other lexical expressions

Equivalent to speech-act ADV in English are metalinguistic clauses in which the ADV is used as a qualifying ADV with *verba dicendi*, e.g. *I tell you frankly...*, *I put it to you crudely...*, *to be precise*, *if I may be frank* or participle clauses with *verba dicendi*, e.g. *strictly speaking*, *putting it bluntly*, *put frankly* (Quirk et al. 1985: 614-616). Compare Dutch *om eerlijk te zijn* ‘to be honest’, *eerlijk gezegd* ‘honestly (spoken)’ and German *ehrlich gesagt* ‘honestly (spoken)’ (Ramat/Ricca 1998). Similar metalinguistic clauses are used in Afrikaans: *om eerlik te wees* ‘to be honest’, *om dit diplomaties te stel* ‘to put it diplomatically’, *eerlik gesê* ‘honestly (spoken)’ (Ponelis 1979: 311-312). Prepositional phrases are common in the West-Germanic languages as well, e.g. *in short*, *in all fairness*, Dutch *in alle eerlijkheid* ‘in all honesty’, German *ganz im Ernst* ‘in all seriousness’, Afrikaans *in alle billikheid* ‘in all fairness’. Ramat/Ricca (1998: 209-210) further refer to expressions in which the (qualifying) modifier has to co-occur with some other modifier in order to be interpreted as a speech-act modifier, e.g. Dutch *nu even serieus* ‘lit. now just serious; seriously’.

4.4.11 Overview

On the basis of sections 4.4.3-4.4.10, table 4.8 gives an overview of the distribution of suffixes across modifier types as documented for Dutch in comparison with English and German. The Dutch suffixes investigated in this dissertation are marked in bold face.

Table 4.8. Derivational suffixes and suffix-like elements across modifier types documented in the literature.

LEVEL	MODIFIER SUBFUNCTION		DUTCH SUFFIX	ENGLISH SUFFIX	GERMAN SUFFIX
Descriptive modifiers	classifier		<i>-aal, -aans, -air, -eel, -en, -er, -ief, -iek, -iel, -ig, -isch, -lijk⁷², -ling, -s</i>	<i>-al, -an, -ar, -ic, -en, -ic, -ly, -n, -related</i>	<i>-al, -all, -bezogen, -ell, -isch, -lich, -mäßig, -weise, -technisch</i>
	qualifier		<i>-aal, -achtig, -(i)aans, -air, -eel, -en, -er, -erig, -erwijs, -esk, -eus, -gewijs, -ief, -iek, -iel, -ig, -isch, -(e)lijk, -ling, -(e)lings, -loos, -s, -weg</i>	<i>-al, -an, -ar, -esque, -fashion, -ful, -ic, -ish, -en, -ic, -like, -ly, -n, -ous, -style, -type, -wise, -y</i>	<i>-al, -all, -ähnlich, -artig, -ell, -esk, -förmig, -gemäß, -gleich, -haft, -ig, -isch, -lich, -mäßig, -ös, -weise</i>
	quantifier		<i>(-s)</i>	<i>-ly, (-s)</i>	<i>-weise</i>
	localiser	time	<i>-(e)lijk, -lijks, (-s)</i>	<i>(-ly), (-s)</i>	<i>-lich, (-s)</i>
		place	<i>(-s), -waarts</i>	<i>(-s), -ward(s)</i>	<i>-ig, (-s), -wärtig, -wärts</i>
Inter-personal modifiers	domain modifier		<i>-gewijs?, -matig? -technisch?</i>	<i>-ly, -wise</i>	<i>-al, -all, -ell, -isch, -lich, -mäßig, -technisch</i>
	propositional modifier	modal	<i>-erwijs, -(e)lijk</i>	<i>-ly</i>	<i>-erweise, (-lich)</i>
		evaluative	<i>-erwijs, -(e)lijk</i>	<i>-ly</i>	<i>-erweise</i>
	speech act modifier		<i>-</i>	<i>-ly</i>	<i>-</i>

We may infer from table 4.8 that contemporary English exhibits a large polyfunctionality of *ly*-ADV, which was already observed by Ramat/Ricca (1998). Inherently qualifying *ly*-ADV may function as autonomous quantifying, domain, evaluative and speech-act modifiers. The current literature suggests that contemporary Dutch and German display a different polyfunctionality. Qualifying ADJ may function as adverbial modifiers and relational ADJ may function autonomously as domain modifiers. Many suffixes for deriving denominal ADJ may be associated both with classifying and qualifying modification. It is striking that German *-mäßig* and *-weise* have been associated with classifying functions but their Dutch equivalents *-matig* and *-gewijs* have not. It will be investigated in this dissertation whether this is a functional difference and whether Dutch has a suffix specialised in forming classifiers. A further aim is to find out to what the division of labour is between the suffixes *-erwijs*, *-gewijs*, *-(e)lijk*, *-(e)lings* and *-weg* for forming qualifying lexemes and to what extent they are available for new formation. Moving on to quantifying modifiers, there does not seem to be a morphological class of quantifying ADV in Dutch. Suffixes associated with localising modification seem to be rare, too; we shall try to gain a better understanding of the functions of lexemes formed by *-(e)lijk* and *-waarts*.

In Diepeveen (*submitted*) I proposed that Dutch may have a morphological class of domain ADV, formed by *-gewijs*, *-technisch* and even by *-matig*. This point will be further worked out by empirical evidence in the present dissertation involving the relation with their descriptive functions. It will be studied in more detail in this dissertation to what extent *-erwijs*, *-(e)lijk* and *-weg* are morphological devices for marking evaluative modifiers in Dutch and to what extent derivatives are polyfunctional.

⁷² Denominal *-lijk* is meant.

Exceptionally, qualifying ADJ may be used adverbially as modal or evaluative modifiers. For Dutch, it has been claimed that morphological speech-act ADV are absent and that this is compensated by means of complex adverbial expressions (Aarts/Wekker 1987: 258, Hengeveld 1997: 133, Ramat/Ricca 1998). Comparatively, English has been claimed to make more use of derivation for encoding interpersonal modifier types than Dutch and German: “Languages that allow the formal identity of adjectival and predicate adverb functions seem reluctant to extend this identity further to the sentence adverb function, and have then to resort to a heavier constituent” (Ramat/Ricca 1998: 211). We infer from the existing literature that Dutch has to resort to special phrasal constructions for encoding interpersonal modification (e.g. *qua*-construction for domain modification, *genoeg*-construction for evaluative modification).

The synchronic descriptions of Dutch adverbial suffixes in this dissertation shall provide an empirical foundation for determining to what extent contemporary Dutch uses word formation for encoding not only descriptive modification but also interpersonal modification and its subtypes. Language comparison is used as a heuristic method for finding out which structural possibilities Dutch has in common with English and German and if these are exploited to the same degree. I shall propose that Dutch is structurally more similar to German than previously assumed. It productively derives both descriptive and interpersonal modifiers. I shall further provide evidence that the derivation of interpersonal modifiers is the result of cross-linguistically documented diachronic processes with respect to word formation and modification. They are introduced in chapter 5.

4.5 Summary and outlook

In this chapter I proposed an integrated meaning-based approach to ADV and ADJ as ‘modifying words’. I presented a framework based on concepts from prototype theory and functional linguistics, focusing on modification as a universal function of human language. On the basis of this approach, the label ‘adverbial morphology’ gets a different interpretation than it has usually received in the literature. Adverbial and adjectival morphology are no discrete categories but they are best viewed as scalar notions. The distinction is motivated by the morphosyntactic properties of the output words of the patterns which range from invariable lexemes restricted to non-attributive positions to lexemes which are fully flexible. The questions which must be answered in the synchronic suffix descriptions in this dissertation can then be described as follows.

(1) Which grammatical value is contributed by the suffix?

The grammatical contribution of the investigated suffix is determined on the basis of the morphosyntactic properties of the output words in comparison with the input words. The output words of the word-formation patterns may range from invariable lexemes restricted to non-attributive positions (= prototypical ADV) to lexemes which are fully flexible (= prototypical ADJ). Prototypical ‘adverbial’ suffixes derive prototypical ADV, whereas prototypical ‘adjectival’ suffixes derive prototypical ADJ. The advantage of a gradient approach is that we do not have to force all items into either the ADJ or the ADV category but that we allow for peripheral items (Ramat/Ricca 1994: 295 and Crystal 2004 [1967]: 208). Thus, ‘adverbial morphology’ and ‘adjectival morphology’ are no discrete categories but they are best viewed as scalar notions.

(2) Which semantic value(s) may be contributed by the suffix?

Word formation has two central functions which must be understood as a continuum from lexical to grammatical. So far, Dutch adverbial suffixes have been treated only as grammatical patterns for syntactic recategorisation, i.e., as means to turn words into invariable modifiers restricted to adverbial use. However, derivational patterns may also make a semantic

contribution to their base words. This potential of ‘modifying’ existing words will be inspected in this dissertation. I shall determine the semantic spectrum for each suffix by investigating the relation between the input words and the output words of the pattern. Using a fixed inventory of word-formation meanings (table 4.1), we may discover rival suffixes. The cross-linguistic validity of these meaning labels allows comparison with English and German.

(3) Which universal functions of modification may be encoded by the suffix?

Single words tend to be considered as the most basic forms used to express the universal functions of human language (e.g. van Lier 2009: 1), but word-formation too can be viewed as a way to give encode those universal functions (Dressler 1981: 209). In the present chapter, a set of modifier types was presented according to classifications by Rijkhoff and Ramat/Ricca (1998) together with the central encoding strategies in Dutch, English and German which are documented in the literature. In this chapter it was argued that derivational morphology may be associated with encoding the functional category of modification and its subfunctions. The central question pertaining to the suffixes in this dissertation is to what extent they are exploited for encoding descriptive and interpersonal functions. This can only be determined by investigating the functions of the output lexemes.

The meaning-based approach to ‘adverbial suffixes’ allows us to consider them as a system, i.e., how they interact in the Dutch word-formation system, how they interact with ‘adjectival suffixes’, how they organise the division of labour between semantic values, and which universal functions of language they may encode. A meaning-based approach may lead to the discovery of unknown aspects and structural possibilities of Dutch word formation. Morphologists have recently provided strong arguments in favour of a meaning-based methodology for contrastive studies of word formation (e.g. Hüning 2009b, Lefer/Cartoni 2011). In view of the semantic *tertium comparationis*, the importance is stressed of a macro-approach to affixes, i.e. considering them together as a system (Lefer/Cartoni 2011: 91). The meaning-based approach pursued in this dissertation allows us to make some contrastive observations on Dutch, English and German word formation. In this way, Dutch may be involved in the ongoing discussion on diachronic processes involving modification and word-formation in the European languages. This will be the topic of chapter 5.

5 Diachrony of modification and word formation

Not all languages use adverbs; fewer yet use them polysemously (...), but if they do, there is an overwhelming tendency for them to develop from clause-internal or “predicate adverbs” to sentential adverbs, and ultimately to discourse markers or “connecting adverbs” (...).

Elisabeth Closs Traugott & Richard B. Dasher (2002: 153)

5.1 Introduction

In chapter 4, I argued in favour of a meaning-based approach to ADJ and ADV as modifiers. I proposed a framework based on concepts from functional theory, in which words are forms used to encode the universal functions of human language. In this meaning-based framework, the ‘adverbial suffixes’ may be associated with encoding the functional category of modification and its subfunctions. In the present chapter I take a diachronic perspective to modification and word formation. This corresponds with the second central aim of this dissertation to provide evidence from Dutch for current discussions involving historical processes on the interface of modification and word formation, including a functional shift and a syntactic shift.

I have pointed out in chapter 4 that many individual ADJ and ADV are polyfunctional lexemes which can be associated with different modifier functions. Ramat/Ricca (1998: 203) found that it is a widespread phenomenon among the European languages that one and the same lexeme functions as a predicate modifier and as a sentence modifier. On the other hand, we have seen in chapter 4 that particular suffixes can be associated only with one particular modifier type. In the present chapter, I take a diachronic perspective to these observations. In section 5.2.1, I discuss the cross-linguistic functional shift observed in the literature whereby interpersonal meanings emerge later than descriptive meanings. This shift co-occurs with a change from phrasal expression to a more economical mode of expression, namely word formation, for encoding the interpersonal modifier types. In section 5.2.2, I discuss the emergence of so-called *sentence ADV* which has been documented in the literature. Section 5.2.3 is devoted to the recent explosion of interpersonal modifiers. In section 5.2.4 the phenomenon of ‘special suffixes’ is introduced.

In chapters 2 and 3, I pointed out that there is a certain degree of overlap between ADJ and ADV. Certain phenomena have been referred to in the literature as the result of a syntactic shift. This will be elaborated in section 5.3 in two subsections. In section 5.3.1, I describe the development documented in the literature that prototypical ADV expand their syntactic valency in Dutch and German. In section 5.3.2, I discuss the extension of the attributive modifier slot of the NP, in particular the development whereby ADV are drawn into the NP, recently even ADV with interpersonal functions.

This chapter is rounded off with a summary and an outlook in section 5.4.

5.2 Functional shift

5.2.1 From descriptive to interpersonal meanings

In the literature a major functional shift has been referred to from descriptive modification (description of the event) to interpersonal modification (the exchange). Descriptive modifier types historically precede interpersonal modifier types. Evidence for this functional shift has been found in

the category of ADV. Ramat/Ricca (1998: 241) found that sentence ADV, i.e. ADV belonging to the higher, interpersonal level, usually emerge later in the European languages than lower-level ADV. Empirical investigations of English and German show that the classes of domain ADV, modal, evaluative and speech-act ADV emerged later than the classes of temporal or local ADV, manner ADV or degree ADV which are historically primary. The main findings of these investigations are summarised below for propositional modifiers (see chapter 4) in (1) and for domain modifiers in (2).

(1) Propositional modifiers and ‘subjectification’

Swan (1988, 1991) investigated the emergence of adverbials in English which signal the speaker’s attitude with respect to the propositional content. Swan (1991: 411) points out that “historically speaking, English has developed a tendency to adverbialise speaker comments”. Old English merely had a small class of truth intensifiers, e.g. *soð-lice* ‘truly’, *witod-lice* ‘indeed’ “to intensify or emphasize the truth or importance of the proposition and/or the speaker’s veracity”, see example (5.1) from *Lives of Saints* (Swan 1988: 3). Furthermore there were *epitheticals*, e.g. *riht-lice* ‘rightly’, *wis-lice* ‘wisely’, “to evaluate the rightness, cleverness, wisdom, etc. of the subject with respect to an action”, illustrated by example (5.2) from *Lives of Saints* (Swan 1988: 2). There were very few ADV like *wundor-lice* ‘wonderfully’ and *lað-lice* ‘horribly’ to evaluate a state of affairs as good or bad, but these were “at best blends of sentence-modification and word-modification” modifying only elements of a sentence, e.g. (5.3) from *Lives of Saints* (Swan 1988: 4).

- (5.1) OE
Witodlice god ælmihtig wat ealle þing.
 ‘Truly God Almighty knows all things.’
- (5.2) OE
 þe he **dwollice** gehyrsumede.
 ‘whom he foolishly obeyed.’
- (5.3) OE
 and **wundorlice** mid þeotum wæter ut-ateah.
 ‘and miraculously drew out water by means of pipes.’

In Middle English the class of truth intensifiers grew and some new modal ADV emerged, for instance ADV indicating uncertainty or low probability, e.g. *peradventure* ‘perhaps’. There was greater diversification in Early Modern English, e.g. *perhaps* and *evidently*. In the 18th and 19th ct., more new types emerged. Finally, in the 20th ct., there was further semantic differentiation: the evaluative class in particular was diversified and extended its scope to the whole sentence to “signal the speaker’s attitude to the fact, event, etc. expressed by the sentence” (Swan 1988: 5).

The functional shift from descriptive to interpersonal modification has been connected with the more general diachronic process of semantic change known as **subjectification**. Subjectification is “the most pervasive type of semantic change identified to date” (Traugott/Dasher 2002: 30). It “refers to the diachronic development of meanings that are (more) ‘subjective’ than the item’s original meaning” (Breban 2010: 41). The literature usually refers to the concept of subjectification developed by Traugott. In recent work, she defined subjectification as the development from objective meanings to meanings which express speaker attitude: meanings “become increasingly based in the SP(eaker)/W(riter)’s subjective belief state or attitude toward what is being said and how it is being said” (Traugott 2003: 125). In the domain of ADV, meaning shifts tend to move from the concrete to the abstract and from less to more subjective (Swan 1988: 8). Or, put differently: “The semantic development usually goes from the world being talked about to the views on that world uttered by the speaker in her/his act of speaking” (Ramat/Ricca 1998: 243). Nevalainen

(1994a: 257) referred specifically to “a drift towards a more subjective expression by adverbial means”.

(2) Domain modifiers and ‘analytical observation’

Lenker (2002) provides further evidence for a semantic shift from descriptive to interpersonal modification. She shows that domain modifiers in English developed after the Middle Ages. Inghult (1975) carried out a detailed investigation on the history of complex domain ADV in German. He found only primitive domain modifiers in Middle High German in the form of adverbial genitives, e.g. *der jâre* ‘of years’ and *der witze* ‘of wit’ in (5.4) from DWB (Inghult 1975: 152).

- (5.4) MG
 er was **der jâre** ein kint, **der witze** ein man.
 ‘Regarding age he was a child, regarding wit, he was a man.’

With respect to the emergence of domain modifiers in English and German in the 19th ct., Lenker (2002) mentions some socio-historical factors. During the Middle Ages people considered the world predominantly from a religious or theological point of view. Only after the Middle Ages they started looking at and talking about the world from diverse perspectives. Very significant in this respect is the progress of science and technology; other factors are the growing importance of media and advertising (compare Kühnhold/Putzer/Wellmann 1978: 427). 19th ct. science, for instance, was preoccupied with precise classification (Lenker 2002: 173). It may be assumed that multiple perspectives also gained linguistic relevance. Domain modifiers constituted a means for analytical observation: by stripping the information down to different dimensions, speakers or writers can be specific and to the point. At the same time, they can avoid personal PRON in their presentation. This strategy of providing “eine oberflächliche, nur auf Teilaspekte gerichtete Beobachtungsart” is required in further objective texts where opinions and findings are presented, including newspapers, economical and academic texts (Kühnhold/Putzer/Wellmann 1978: 294, Hasselgård 2010).

5.2.2 The emergence of ‘sentence adverbs’

There has been a development from multi-word expressions towards one-word expressions for expressing interpersonal functions. Thus, the emergence of new modifier types is connected with an expansion of the vocabulary, i.e., of the lexical category of modifying words. This expansion has usually been referred to in terms of the emergence of a morphological class of **sentence ADV** (German *Satzadverbien*). In earlier phases of Dutch, English and German there were no derivational patterns for the encoding of interpersonal and pragmatic functions. Various sources for these patterns have been documented in the literature. The dominant strategy for expanding the lexical category of ADV is extension of existing forms through semantic change (Swan 1991). Semantic extension (1) is responsible for an increase in polysemy in individual ADV which may, through the mechanism of analogy, lead to a productive morphological pattern. Other sources for the morphological class of sentence ADV which have been documented in the literature are recycling of existing marginal patterns (2), the invention of new word-formation patterns (3) and borrowing (4).

(1) Semantic extension

Semantic extension refers to the emergence of new meanings, which leads to suffix polysemy. Synchronic evidence for such meaning shifts is found in semantically ambiguous words which allow more than one interpretation. The meaning spectrum of a suffix can be represented as a radial structure: an initial meaning gives rise to a network of semantic extensions (compare Booij/van Santen 1998: 137). Rainer (2003) refers to the diachronic process of **semantic fragmentation**, whereby “a once semantically homogeneous word-formation process is split up in the course of time

into a series of different processes" (Rainer 2003: 198).⁷³ How suffix polysemy emerges is still a largely unresolved issue (Habermann 2002: 48). It has been claimed that new meanings of suffixes are typically initiated by semantic changes on the level of established complex lexemes (e.g. von Wartburg 1923: 109-110). According to this claim, an existing derived word undergoes a meaning extension and it functions as a model word which triggers the same meaning shift in other lexemes. Typical sources which have been documented in the literature for meaning extensions are metonymic approximation and metaphor (e.g. Traugott/Dasher 2002: 29). Metaphor and metonymy are two central mechanisms which enrich meaning by exploiting pragmatic meaning. However, the meaning of a suffix may also be extended through structural mechanisms, e.g. as the suffix is added to a new input category (Habermann 2002: 41). How different mechanisms interact in word-formation change is outside the scope of this dissertation and remains to be investigated.

In English, ADV derived by the adverbial suffix *-ly* occur across all semantic modifier types (Brinton/Traugott 2005, Payne/Huddleston/Pullum 2010: 73). This polysemy has been explained by semantic extension, a process which is deemed responsible for the emergence of many sentence ADV in the Germanic languages (compare Swan 1991). In individual modifying words, there may be an expansion of scope from a propositional level to a sentence-modifying level: words originally used for specifying verbal or adjectival concepts come into use for the expression of the subjective attitude of the speaker. There is a cross-linguistic tendency of ADV to 'climb up' in the functional hierarchy (Ramat/Ricca 1998: 194, 248): this tendency can be understood as a shift from the representational level (description of the event) to the interpersonal level (the exchange).

Swan (1988, 1991) investigated semantic extension in *ly*-ADV and she found evidence that they expanded their use from manner specifications or intensifiers (e.g. *natural-ly* 'in a natural way', *frank-ly* 'in a frank manner') to evaluative and speech act modifiers (e.g. *natural-ly* 'of course', *frank-ly* 'in all frankness'). The semantic shift first produces a blend of the qualifying meaning with a sentence-modifying interpretation; thus, in (5.5) from the 18th ct., the interpretation of *natural-ly* is ambiguous (Swan 1988: 10).

- (5.5) ModE/18th ct.
The grief we **naturally** feel at the death of...

Unambiguous examples for *ly*-ADV as 'shifted' evaluative modifiers can be found in the 18th and 19th ct. (Swan 1991: 417). Speech act ADV emerged in the 17th ct., e.g. *brief-ly* in (5.6) from *Pseudodoxia* (Swan 1988: 5). Lenker (2002) investigated the emergence of domain ADV, e.g. *botanical-ly* in (5.7), which function independently in the 19th ct.

- (5.6) EModE/17th ct.
Briefly, it consisteth of parts so far from an lcie dissolution that...

- (5.7) ModE/1870
Botanically, this is the region of palms.

Swan (1991) and Lenker (2002) argue that the interpersonal use of *ly*-ADV has its origin in clausal structures with these forms functioning as manner ADV e.g. *frank-ly* (5.8) and *botanical-ly* (5.9), since they occur historically earlier.

- (5.8) She spoke **frankly** about his shortcomings.

⁷³ Rainer (2008) refers to language-specific semantic fragmentation as one of the main sources for divergence in word formation.

(5.9) ModE/1793

In its improved, or to speak more **botanically**, in its monstrous state.

As for (5.9), such phrases are attested in large numbers from the end of the 18th ct. onwards and may have served as the basis for independent use of *ly*-ADV as domain modifiers (Lenker 2002: 172). For more recent shifts, there is an important role for analogy: ADV which shifted early (e.g. *natural-ly*, *happi-ly*) may have become prototypes for later shifts (e.g. *thankful-ly*, for which there is no corresponding structure **It is thankful that...*) (Swan 1988: 13). Through analogy, a pattern originally associated with qualifying, classifying and quantifying modification became associated with interpersonal, more subjective meanings. In English the semantic shift was facilitated through the general use of *ly*-suffixation and the possibility of semantic disambiguation through word order (Swan 1991).

Semantic extension has also been observed for German complex ADV. Inghult (1975) pointed out that German *mäßig*-derivatives developed a new function besides their original descriptive meanings: they came into use for domain modification. In Diepeveen (*submitted*) I investigated Dutch *-matig* in this respect; this will be further investigated in this dissertation together with other instances of semantic extension in adverbial suffixes.

(2) Recycling of existing patterns (exaptation)

In cases where a linguistic pattern already exists, but only unproductively or marginally, this pattern may be recycled for a new function by a process called **exaptation**. The notion of exaptation was introduced in linguistics by Lass (1990) and finetuned in Lass (1997: 316), where it was defined as “a kind of conceptual renovation, as it were, of material that is already there, but either serving some other purpose, or serving no purpose at all”. In this view the language user is presented as an opportunistic *bricoleur* who recycles pieces of junk, “often in amazingly original and clever ways” (316). Applied to word formation, the language user may re-use an ‘old’ or marginal morpheme for a new purpose, so that it becomes a more central morpheme with a new function (Wischer 2010: 34). Care should be taken since exaptation is still a controversial notion (see Wischer 2010).

Van de Velde (2005) refers to the diachronic process of exaptation to explain how Dutch *-erwijs*, which had become unproductive as a marker for manner ADV, developed a new function of deriving ADV with the entire sentence in their scope. However, it never became very productive for this function (Diepeveen 2011a). This will be further investigated in this dissertation. For German deadjectival lexemes derived by *-erweise*, too, there is evidence that descriptive uses historically precede sentential functions (Heinle 2004). Swan (1991) prefers to refer to a semantic shift in Norwegian *-vis* by which modal and evaluative modifiers emerged, e.g. *naturlig-vis* ‘of course’, *heldig-vis* ‘fortunately’. The first evaluative uses were found in the 19th ct.⁷⁴

Exaptation resulting in the morphological encoding of interpersonal meanings can be assumed in the case of the English derivational suffix *-wise*. Lenker (2002) has shown that English *-wise* originally created ADV specifying manner, but this function had become unproductive. In the first half of the 20th ct. the pattern developed the entirely new, interpersonal function of deriving domain modifiers (see chapter 10 on *-gewijs*). It was ‘recycled’ for the domain function for which it became very productive.

(3) Emergence of new patterns

As Swan (1991) points out, entirely new forms may come into being for encoding interpersonal meanings. With respect to codifying domain modification, it has been suggested that German

⁷⁴ By the 20th ct., this strategy was no longer very productive.

invented a new pattern: the suffix-like morpheme *-technisch*. I propose in Diepeveen (*submitted*) that in Dutch, too, a pattern with *-technisch* has come into being; this will be further investigated in this dissertation. In Diepeveen (*submitted*) I also refer to expressions with *qua* ‘regarding’ followed by a N for the creation of domain modifiers. Van der Horst & van der Horst (1999) observed that *qua* was originally used to indicate some kind of identity, e.g., *qua professor* ‘as a professor’, but in the 20th ct. it developed into a PREP with a limiting meaning (see chapter 4). They situate this shift around 1943 but I have found examples which are slightly older (Diepeveen *submitted*). The new use found recognition in Dutch lexicography from the 1950s onwards (van der Horst & van der Horst 1999). It may be interpreted as a new pattern which has grammaticalised for the creation of domain modifiers. Unfortunately there will not be room in this dissertation to investigate this further.

Swan (1991) has shown that Norwegian developed new forms for codifying interpersonal modification through grammaticalisation of phrasal expressions, e.g. of adverbial phrases with the Norwegian particle *nok* ‘enough’. Swan (1991) has shown that the ADV *visstnok* ‘probably’, *riktignok* ‘to be sure; certainly’ are attested in the early 19th ct. She argued that *nok* became productive for creating evaluative modifiers in the 20th ct., e.g. *overraskende nok* ‘surprisingly enough’, *naturlig nok* ‘understandably’, *symbolsk nok* ‘symbolically enough’. Ramat/Ricca (1998) have taken up her point to refer to similar Dutch expressions with *genoeg* ‘enough’ (see chapter 4). For some observations on the extent of grammaticalisation of this element, see Diepeveen (2011a).

(4) Borrowing and loan translations

Germanic languages may have borrowed modifying words for the expression of interpersonal meanings from other languages. Thus, Swan (1991: 416) states that the modal ADV *certes* and *possibly* were borrowed from French in the Middle English period.

As for the emergence of complex domain ADV in German, Inghult (1975: 153) points out that there may have been influence from French and the classical languages which have given rise to borrowing and loan translations.

5.2.3 Explosion of interpersonal modifiers

The literature has not only referred to the emergence of new interpersonal modifier types. It has also been shown that these new modifier types expanded rapidly. This is reflected in the expansion of the lexical category of ADV: “In recent years there has been a tremendous growth of a certain class of adverbials in English (as well as in some other Germanic languages), viz. sentence adverbials (SA) such as *surprisingly*, *fortunately*, *annoyingly enough*, etc.” (Swan 1991: 409). Rahn (1969: 228) points out that word formation by derivational suffixes played an essential role in this expansion. For English, it has been shown that the class of sentence ADV with *-ly* diversified semantically and expanded quantitatively throughout time (Swan 1988: 5). In the 18th and 19th ct. there was a steady growth of the class of sentence ADV in English but its growth was enormous in the 20th ct. (Swan 1991). For German, the literature refers to a recent explosion of interpersonal *erweise*-derivatives (Heinle 2004) and domain ADV formed with *-mäßig* (Inghult 1975). In Norwegian, too, there was a proliferation of complex sentence ADV in the 20th ct. (Swan 1991).⁷⁵

The growth of the class of sentence ADV in the Germanic languages has been explained language-internally by a universal trend for language economy (1) and a trend from analytic towards synthetic

⁷⁵ The abundant use of one-word expressions in English is in contrast with other Germanic languages, e.g. Norwegian, which structurally may use word-formation processes for encoding interpersonal meanings, but which uses phrasal and clausal expressions with *verba dicendi* more frequently, e.g. *oppriktig talt* ‘frankly spoken’, *alvorlig talt* ‘seriously’ (Swan 1991: 422).

structure (2). Another explanation found in the literature is mutual contact, in particular the influence of English on the other Germanic languages (3).

(1) Language economy

Scholars have connected the explosion of complex ADV for encoding interpersonal modification in English and German with a universal trend towards an economical mode of expression. This view presupposes that word formation is more economical than syntax (e.g. Inghult 1975: 155). When larger expressions are, in the course of time, substituted by sentence ADV (Ramat/Ricca 1998: 241) this may be interpreted as a trend towards a condensed, more economical expression. Sentence ADV are “an extremely elegant short-hand for attitudinal comments of many sorts” (Swan 1988: 14). The explosion of English evaluative ADV is explained by Swan (1991: 432) as a new need of speakers to codify sentence-modifying speaker comments in one word. Similarly, language economy has been referred to in the context of the expansion of propositional ADV with *-erweise* in German (Paraschkehoff 1976: 194). Derivational patterns then substitute phrasal and clausal constructions.

Language economy has particularly been referred to in the context of the explosion of domain ADV formed with *-mäßig* in German (Inghult 1975) and with *-wise* in English (Rahn 1969, Lenker 2002). Single-word domain ADV constitute “an extremely condensed and therefore quick and efficient means of stating the perspective chosen for the proposition” (Lenker 2002: 174). Rahn (1969: 228) proposed that the explosion of complex domain ADV with *-wise* reflects a changing way of thinking or observing. In this view, the need for an economical mode of encoding modification may not only be due to stylistic considerations (e.g. journalistic texts) but it may even be founded in a changing way of thinking (compare section 5.3.2). According to Eichinger (2000) the economical mode of expression has spread to diverse genres and registers. He refers to a general increase of (technical or professional) jargon, even in colloquial, non-specialist contexts (Eichinger 2000: 200).

(2) From analytic to synthetic expression

Specifically for German, it has been argued that the explosion of complex ADV for encoding interpersonal modification reflects a syntactic change from analytic to synthetic expression. Domain modification was initially expressed through adverbial genitives or prepositional phrases, later by syntactic constructions, but from the 19th-20th ct. onwards, derivational patterns came into use for creating domain modifiers, e.g. *alter-s-mäßig* ‘as far as age is concerned’ (Inghult 1975: 155). This novelty may be perceived as a structural tendency to synthetic expression in German (Inghult 1975: 155). There may be an additional factor of convenience: an advantage of synthetic one-word expressions in German is that language users evade grammatical decisions on the correct declension, as suggested by Sick (2005).

(3) English influence?

It has been shown that various Germanic languages (English, German, Norwegian) exhibit an explosion of interpersonal modifiers. Swan (1991: 434) asks the question whether this expansion may have been initiated by English and imitated by other Germanic languages through language contact. It is striking that chronologically, the development and proliferation of complex sentence ADV appears to have started in English, which may have been facilitated by the regularity of *ly*-suffixation (Swan 1991: 434). English may thus have served as a model for the other Germanic languages.

5.2.4 Special suffixes

In section 4.4.2, I discussed the claim found in the literature that the Germanic languages may have special morphological devices for deriving sentence ADV. Ramat/Ricca (1998: 204) refer to Dutch *-erwijs*, German *-erweise*, and their counterpart *-vis* in Danish and Swedish as well as to adverbials formed with Dutch *genoeg*, equivalent to *nok* 'enough' in Danish and Norwegian and Swedish *nog* (for examples see 4.4.2). Swan (1991) refers to such devices as **special suffixes** for different functions. From a diachronic perspective these may be the result of semantic specialisation. **Specialisation** refers to the diachronic process of existing semantic values becoming more central than others. It is a diachronic process involving meaning change in suffixes: suffixes may specialise in a specific meaning which becomes prototypical. For instance, Hotzenköcherle (1968) has shown that out of the original meaning established by German *-bar* (e.g. *frucht-bar* 'bearing fruit'), several new meanings arose between the 12th and 16th ct. (compare *gift-bære* 'poisonous', *esel-bære* 'asinine', *vriunt-bære* 'friendly', *sunder-bære* 'special', *wirc-bære* 'workable'), but *-bar* specialised in the deverbal type with a passive meaning (e.g. *ess-bar* 'edible', *automatisier-bar* 'automatizable').

5.3 Syntactic shift

Scholars have shown that in Dutch, English and German, prototypical ADV enter the modifier slots of the NP. This has been referred to as a syntactic shift pertaining to the expansion of the syntactic valency of prototypical ADV (5.3.1). Related to this shift is the growth of the attributive modifier slot of the NP (5.3.2). These aspects have been connected with the growing desire of the language user for economical expression strategies.

5.3.1 Expansion of the syntactic valency of prototypical adverbs

In chapter 2, it was illustrated that prototypical ADV may occur with adjectival properties, particularly, they may be used as prenominal attributes and inflected (in Dutch and German). This has been described as a diachronic development for German and something similar has been suggested for Dutch, though without a sound empirical foundation. A similar expansion cannot be documented for English ADV.

English *-ly*-ADV do not occur as attributive modifiers within the NP: "no *-ly* adverb modifies nouns. This is the hallmark modifying function from which adverbs are absolutely excluded" (Pullum/Huddleston 2002: 563). As noted in 3.2.2, only some English ADV of the locative and temporal type may be used as a premodifying attribute, e.g. *the then chairman*, *an outside toilet* and some directional ADV formed with *-wise* and *-ways*, e.g. *the clock-wise rotation*, *side-ways movement*. Tourbier (1928) paid attention to this phenomenon from a diachronic point of view. He found sporadic examples in the 14th ct. and for the 16th ct. he noted examples like *thy sometimes brother wife*. In general, Tourbier (1928) discovered a decrease in attributive use in the 18th ct. followed by an increase in the 19th ct., where he noted examples like *a slant-wise glimpse* and *length-wise splits*. Brinton (2002) looks more closely at the use of temporal ADV (*then*, *now*, *soon*, *often* etc.) as prenominal attributes. She finds that this usage first appeared in Early Modern English, e.g. in the 16th ct. with *ever* as in (5.10). It was even quite common in Early Modern English, e.g. with *now* as in (5.11) (*quondam* means 'former').

(5.10) EModE/1580
But the time of my **euer** farewell approacheth.

(5.11) EModE/1653
and the **now** King/The quondam Mounsieur shall not desire me this.

Brinton (2002) shows that attributive use of temporal ADV was transient: it has become restricted in contemporary English. It may be quite common for *late* and *then*, but it is rare for other temporal ADV. Brinton (2002) further stresses that attributive use of ADV is limited to temporal ADV and a few spatial ADV, while it is not allowed for other semantic types like manner ADV. All in all, the results suggest that there are no indications for a continuing shift in English; rather, the adjectival and adverbial category have become more strictly separated (Brinton 2002: 87).

Since the 1960s the **German** literature has abundantly referred to attributive use of derived ADV with *-weise*, e.g. *eine Zeit-weis-e Unterbrechung* ‘a temporary interruption’ (Henzen 1965, Rahn 1969, Kann 1972, Schäublin 1972, Starke 1973, Denkler et al. 2008, *Duden* 2009). Henzen (1965: 248) quoted attested examples with further ADV, e.g. *mit kaum-er Not* ‘with scarce need’, *deine oft-e Gasterei* ‘your frequent banquets’ as well as derivatives with other suffixes, e.g. *der jäh-ling-e Abschied* ‘the sudden goodbye’, *blind-ling-e Zufall* ‘blind coincidence’, *von mancher-lei-en Krankheiten* ‘of several diseases’. Reactions suggest that attributive use of ADV in German is young and far from being accepted. The German language critic Bastian Sick (2004) condemns attributive use of adverbial derivatives: he describes the “adverbial attacks”, which have penetrated various domains and registers, as highly alarming. It is not entirely clear when attributive use started (for details and references, see chapter 10 on *-gewijs*). It is however clear that the phenomenon has caught the eye of scholars as early as the beginning of the 18th ct. (Henzen 1965: 248) and that it is assumed to be expanding in contemporary German, e.g. Kann (1972: 105) describes the phenomenon as ADV being increasingly used as ADJ.

The phenomenon of attributive use of ADV has been witnessed for **Dutch**, e.g. *de trap-s-gewijz-e overgang* ‘the gradual transition’ (see chapter 2). A careful observer was Cornelis Herman den Hertog (1903-1904 [1892-1896]). He referred to attributive use of locational and temporal ADV which he illustrated with *den nabij-en winter* ‘the near winter’ (85). He deemed such examples acceptable only for literary language. He also referred to attributive use with a nominalised infinitive, e.g. *het vlug vooruitkomen* ‘lit. the soon coming forward’ and with nominalised ADJ, e.g. *het soms raadselachtige van zijne woorden* ‘lit. the sometimes mysterious of his words’ (201). There were some observations by Royen (1948a; 1954) on the possibility of attributive use of derived ADV for derivatives with *-(e)lijk*, *-(e)lings*, *-halve*, *-s*, *-tjes* and *-waarts*. Royen (1948b) devoted a short paper to attributive use of *gewijs*-derivatives. He assumed a ‘functional shift’ whereby Dutch ADV formed with *-gewijze* may become ADJ. A similar development has been described by van der Horst/van der Horst (1999: 318) who signal that it is typical of contemporary Dutch that ADV enter the NP to be used as premodifiers. Van de Velde (2009a: 164) illustrates this for contemporary Dutch by means of complex ADV, e.g. *een ambt-s-halve aantekening* ‘a note in one’s official capacity’, *net-jes werk* ‘neat work’; further examples are found in van der Horst (2008) and in Diepeveen/Van de Velde (2010). Investigations of historical Dutch data, carried out in this dissertation, will show when attributive use of derived ADV is first recorded in Dutch, whether it is indeed a recent phenomenon, and if it has been expanding from a diachronic point of view. In other words, how much evidence do we find for an expansion of the syntactic valency of Dutch derived ADV? Can we perhaps even find instances of interpersonal ADV which are used attributively and inflected?

Various factors have been mentioned in the literature on German to explain the syntactic shift whereby ADV develop adjectival properties: a trend for flexible lexemes (1), a tendency towards nominalisation (2) and, interestingly, a syntactic change from synthetic to analytic expression (3).

(1) Flexibility

With respect to German it has been argued that attributive use of ADV can be explained by the fact that language users have a growing need for highly flexible lexemes, i.e., lexemes which may be used freely in the modifier slots of the sentence. Seibicke (1963b: 74-75) described this trend as a

tendency for the largest possible syntactic exploitation of the vocabulary. Kann (1972: 105) stated that present-day German is not only striving for condensed structures but it is also characterised by increasing mobility, although its parts of speech do not yet display the same degree of flexibility as in English. The trend, thus described, implies that in German prototypical ADV are moving on the scale of adverbiality to become peripheral items or even prototypical ADJ.

(2) Nominalisation

For German, attributive use of ADV has been connected with the tendency for nominalisation (e.g. Hotzenköcherle 1968 and Denkler et al. 2008). Instead of using *schritt-weise* 'step by step' adverbially to the VP (5.12), present-day speakers are using it attributively with a (deverbal) N (5.13) (compare Sick 2004: 112-113):

(5.12) CG
Wir wollen die Schulden **schrittweise** abbauen.
'We want to cut back the debts step by step.'

(5.13) CG
Wir wollen einen **schrittweisen** Abbau der Schulden.
'We want a step by step cutback of the debts.'

Denkler et al. (2008: 13) explicitly connect the phenomenon of attributive use of *weise*-lexemes with the more general tendency of expanding the NP which can be observed since the Early Modern High German period. Naturally, a tendency towards nominalisation depends on modifying lexemes which may be used attributively. Similarly, Erben (1965: 151, 2006: 131) refers to a tendency in German for the nominal group to correspond structurally with the verbal group, e.g. *probe-weise aufnehmen* 'to admit on probation': *probe-weise Aufnahme* 'probational admittance; e.g. *Der Zug kommt fahrplan-mäßig an* 'the train arrives on schedule': *Die fahrplan-mäßig-e Ankunft des Zuges* 'lit. the schedule-conform arrival of the train' e.g. *Ich halte mich dort auf* 'I stay there': *mein dort-ig-er Aufenthalt* 'lit. my there-ADJ stay'.

For **Dutch**, Cornelis Herman den Hertog (1903-1904: 90) referred to an explosion of attributively used denominal ADJ which emerged from the need to use a nominal concept attributively, e.g. *zijdelings* 'indirect', *jaar-lijks* 'yearly'.

(3) From synthetic to analytic expression

Erben (2006: 131) refers to a tendency in German which is related to nominalisation, namely the preference of a modifying attributive group instead of nominal compounding, e.g. *gattung-s-mäßig-e Unterschiede* 'genre-related differences' instead of the compound *Gattung-s-unterschiede*; *atom-ar-e Raketen* 'nuclear rockets' instead of the compound *Atom-raketen*. This preference was already noticed and illustrated by Hotzenköcherle (1968: 24), who interprets this as a symptom of a more general change from a highly synthetic to a more analytical structure. This kind of use is also found in Modern Dutch, e.g. *de ouder-lijk-e woning* 'the parental home' (instead of adnominal genitive or prepositional phrase) but it is not recommended by grammarians, e.g. den Hertog (1903-1904).

Such a tendency would not correspond with the tendency towards language economy which has been described above.

5.3.2 Extension of the attributive modifier slot of the NP

The second aspect of the syntactic shift reported in the literature concerns the extension of the attributive modifier slot of the NP. This has been empirically studied for Dutch by Van de Velde

(2009a-b) and there is a paper referring to similar phenomena in English by Van de Velde (2007). The extension of the NP is both syntagmatic and paradigmatic: there is a growing number of modifiers in a row within a single NP as well as an increase of potential slot fillers (Van de Velde 2009b: 1035). Van de Velde (2009b: 1021) argues within the framework of FDG that elaborate NPs are “the result of a diachronic development whereby higher layers evolve successively over the centuries”.

In the oldest stages of the Germanic languages, the NP developed a slot for attributive modifiers.⁷⁶ First of all modifiers with lower scope entered the NP, followed by modifiers with wider scope (Van de Velde 2009b: 1032). In the Proto-Germanic NP stacking of ADJ was not possible yet, but the Old Dutch NP could contain several adnominal modifiers in attributive, prenominal position (Van de Velde 2009b: 1034). The elaboration of the NP carried on in Middle Dutch as for instance participles were drawn into the attributive modifier slot (Van de Velde 2009b: 1036), e.g. *eenen seer veel wetenden constenaer* ‘lit. a very much knowing artist’ in the 16th ct. (van der Horst 2008). In the Modern Dutch period, gerundive infinitives entered the attributive modifier slot. The complex pre-attribute grew further and became more common (van der Horst 2008: 1310).⁷⁷ Grammars of Modern Dutch, e.g. Weiland (1805), provide examples of premodifying degree modifiers and localisers, e.g. *eene buitengewoon groote som* ‘an extraordinarily large sum’, *een altoos werkzaam man* ‘lit. an always working man’, *een hedendaags gezocht werk* ‘lit. a nowadays searched job’. In the grammar by Roorda (1852) we find further examples, e.g. *een buiten allen twijfel bij uitstek gewigtige zaak* ‘lit. a without any doubt pre-eminently important matter’, also in Brill (1871), *eene nooit genoeg geprezen daad* ‘lit. a never enough praised deed’; these elaborate attributive modifiers in the Dutch NP are not problematised or discussed. Den Hertog (1903-1904: 92-93) more explicitly referred to elaborate attributive modifiers, e.g. *de van dwang afkeerige opvoeder* ‘lit. the to pressure abhorrent educator’. Further examples of elaborate attributive modifiers in the Dutch NP can be found in the Dutch historical dictionary *Woordenboek der Nederlandsche Taal*, e.g. *zijn straks zoo scherpe blikken* ‘lit. his recently so sharp looks’ (1814/WNT/straks).

Van der Horst (2008: 1958) and Van de Velde (2009a) show that ADV and adverbial phrases, which used to be restricted to adverbial positions in the sentence, enter the attributive modifier slot of the Dutch NP. Starting with ‘lower’ ADV (e.g. degree modifiers) the phenomenon expands to ‘higher’ ADV: in the 19th-20th ct., modal ADV are found in the attributive modifier slot of the Dutch NP, modifying the attributive ADJ, e.g. *met de vermoedelijk laatste bus* ‘lit. with the supposedly last bus’, *in verwonderlijk korte tijd* ‘lit. in amazingly short time’. As Van de Velde (2009b: 1022) observes, “NPs are encroaching on sentence level material, yielding increasingly bulkier NPs over time”. Thus, NPs are getting heavier and heavier in contemporary Dutch. Similar observations have been made for contemporary English by Van de Velde (2007). Pullum/Huddleston (2002: 582-583) point out that English *ly*-ADV may be used in the structure of attributive adjectival phrases “with virtually any of the semantic functions that they have in clause structure”, which they illustrate with descriptive modifiers but also with interpersonal modifiers, e.g. *a philosophically very naïve argument* (domain modifier), *a probably unintentional slight* (modality), *their fortunately quite rare misunderstandings* (evaluative), *this frankly rather unsavoury character* (spec-act related).⁷⁸ It is not clear how young

⁷⁶ In Proto-Indo-European there was no attributive modification and there were no ADJ; see Van de Velde (2009b: 1025) and see section 3.3.1.

⁷⁷ Van de Velde (2009b) further shows that in Modern Dutch an external modifier slot emerges in front of the NP, preceding the determiner and particularly used for interpersonal modifiers, e.g. *misschien zelfs de dood* ‘lit. perhaps even the death’. Compare English *almost the whole book, quite a party, probably the least qualified member of the panel*. (Pullum/Huddleston 2002: 563, Quirk et al. 1985: 450). I shall not be concerned with NP-external modifiers.

⁷⁸ Payne/Huddleston/Pullum (2010) further refer to the contemporary English ‘postmodifying adverb construction’ (see section 3.2.3) which provides evidence that English ADV, codifying different semantic types of modifiers, enter the postmodifier slot of the NP. This is the case for spatial and temporal ADV with *-wise*, *-wards* and *-ways*, e.g. *the capability of rotation clock-wise_{ADV} and counterclock-wise_{ADV}, the meal after-wards_{ADV}, the*

such occurrences of interpersonal modifiers as premodifiers in English actually are. At least this usage is already illustrated by Quirk et al. (1985: 452), e.g. *an **editorially** good paper* (domain modifier), *this **fortunately** very rare disease* (evaluative).

5.4 Summary and outlook

In this chapter I discussed a functional and a syntactic shift documented in the literature for English and German modifying words and it presented similar intuitions for Dutch modifying words which are, however, not based on a sound empirical foundation. My dissertation aims to fill this gap. With respect to the functional shift reported in the literature, I aim to find out on the basis of attested historical Dutch data to what extent interpersonal meanings have become encoded by the ‘adverbial’ suffixes in Dutch and which diachronic processes have taken place to enable this. In Diepeveen (2011a), I referred to Dutch processes of semantic extension giving rise to evaluative ADV whereas in Diepeveen (*submitted*) I looked into the emergence of domain ADV in Dutch. These first attempts will be further worked out in this dissertation. I will show that from a diachronic point of view, there is an increase in polysemy: productive Dutch adverbial suffixes have become associated with the encoding of interpersonal modifier types. With evidence from Dutch, my dissertation may provide further support for the proposed cross-linguistic functional change from descriptive to interpersonal modification.

With respect to the syntactic shift reported in the literature, I aim to find out on the basis of attested historical Dutch data when attributive use of derived ADV is first recorded in Dutch, whether it is indeed a recent phenomenon, and if there may be indications that it has been increasing from a diachronic point of view. In addition I will provide further evidence for the claim that interpersonal modifiers enter the attributive modifier slot of the Dutch NP and try to situate this phenomenon with respect to complex modifying lexemes. This will further break down the classic distinction between ADJ and ADV and provide additional evidence in favour of a meaning-based approach to these categories as ‘modifying words’, and particularly for Rijkhoff’s (2008a) claim that NPs accommodate the same kind of semantic modifier categories as clauses.

lolling side-ways_{ADV} of her head. But there are also examples with *ly-ADV*, e.g. *the use temporary-ly_{ADV} of Australian troops to defend Ceylon, the support financial-ly_{ADV} of the local community*; see section 3.2.3.

6 Methodology

Aan de vraag: ‘Wat kunnen die oude woordenboeken ons leren?’ moet een andere voorafgaan: ‘Wat zullen ze ons niet kunnen leren?’ Woordenboekschrijvers werken met oudere woordenboeken; ze hebben uiteraard een neiging tot naschrijven: verouderde woorden zullen niet spoedig verdwijnen; nieuwe niet onmiddellijk opgemerkt of opgenomen worden. Dergelijke werken zullen ons dus niet in staat stellen met tussenruimten van een eeuw of een halve eeuw nauwkeurig te bepalen welke wijzigingen de woordvoorraad onder maatschappelijke en geestelijke invloeden ondergaan heeft. Maar als men dit in het oog houdt, en het gehalte van elke werker op dit gebied behoorlijk krities onderzoekt, dan is ongetwijfeld voor de ontwikkeling van het woordgebruik en van de woordvoorraad uit de verzamelarbeid van zoveel vlijtige schrijvers veel te leren.⁷⁹

Cornelis G.N. de Vooy (1934: 263)

6.1 Introduction

This dissertation focuses on the internal structure of Dutch modifying words, particularly on the contribution of the Dutch derivational affixes known as *adverbial suffixes* *-(e)lijk*, *-(e)lings*, *-erwijs*, *-gewijs*, *-halve*, *-iter*, *-tjes*, *-waarts*, *-weg*) as well as two additional morphemes (*-matig*, *-technisch*) as listed in (2.2). For the purposes of this dissertation a fairly traditional method has been chosen. The suffix descriptions were prepared on the basis of qualitative analyses of attested language data from corpora and dictionaries. In section 6.2, I explain the methodology for the synchronic description and in 6.3 for the diachronic description. After some preliminaries such as periodisation, I clarify the sources for my language data, how the data were retrieved, the procedure of analysis and the conventions for presentation. In section 6.4, it is explained how the diachronic perspective to scope and productivity has been operationalised. In section 6.5 my use of a contrastive approach as a heuristic instrument is clarified. This chapter ends with a summary and outlook.

6.2 Synchronic description

6.2.1 Preliminaries

The synchronic descriptions pertain to contemporary Dutch by which I mean standard Dutch as it is found in the latest edition of the standard dictionary Van Dale (2005) and in corpora of present-day Dutch which contain data from 1970 onwards. For contrastive observations, I refer to contemporary English and German in the same time frame. The relevant abbreviations used in my dissertation are displayed in table 6.1.

⁷⁹ ‘The question: ‘What can these old dictionaries teach us?’ should be preceded by the question ‘What will they not be able to teach us?’. Lexicographers work with older dictionaries; of course they tend to copy: archaic words may not soon disappear and new ones may not be immediately noticed or included. Such work will not enable us to determine precisely within intervals of a century or half a century which changes the lexicon has undergone under societal and mental influences. However, if one keeps aware of this, and critically investigates the merits of each worker in this field, then one can undoubtedly learn a great deal about the development of the use of individual words and the lexicon from so many diligent authors.’ (My translation, AD)

Table 6.1. Languages and abbreviations.

LANGUAGE	ABBREVIATION	PERIOD
Contemporary Dutch	CD	> 1970
Contemporary English	CE	
Contemporary German	CG	

In this dissertation I focus on standard language. It has been pointed out in sociolinguistic literature (e.g. Clyne 1992, Muhr 2003) that English, German and Dutch are pluricentric languages: they are official languages in at least two countries and they have national varieties. The three standard varieties of Dutch are Netherlandic, Belgian and Surinam Dutch, but only the former two represent the basis of this study. These national varieties differ from one another in various respects, including also the domain of word formation (De Caluwe/Devos 1998). In the present investigation of adverbial morphology, I can only deal with national variation to a minor extent. Dialectal and social variation will not be dealt with at all in this dissertation. The Dutch material includes mainly written but also spoken data, but I shall not systematically differentiate between these, nor between registers or text types. Occasionally I refer to differences when they are particularly striking or when they seem in some way especially relevant to certain phenomena.

6.2.2 Sources

The synchronic description of each suffix is based on an inventory of derived lexemes in contemporary Dutch. The full inventories can be found in the appendix. The lexemes were collected in the leading dictionary of Dutch (1) and in several corpora of contemporary Dutch (2). For further illustrations, I used some additional material (3).

(1) Dictionary

The Dutch dictionary *Groot woordenboek van de Nederlandse taal* by Van Dale (**VD**) is generally considered as the leading dictionary of standard Dutch in the Netherlands and Belgium (see 2.2). It mainly covers contemporary Dutch but it looks back over the past 150 years, so it contains some older lexemes and archaic meanings. The dictionary is updated every seven to eight years. I used the 14th edition, published in 2005. The electronic edition on cd-rom can be searched for entries ending in a certain string. The adverbial suffixes get their own entries, in which further derived lexemes are mentioned for illustration.

(2) Corpora

The following corpora were used for retrieving synchronic Dutch data:

- The 38 million words corpus of written Dutch or *38 Miljoen Woorden Corpus (38MWC)* covers the period 1970-1995. The corpus is available via the Institute for Dutch Lexicology. The corpus consists of a component of varied texts from the Netherlands and Belgium (1970-1992), newspaper texts from the Netherlands (*Meppeler Courant* 1992-1995) and a component of legal texts (1814-1989). The latter component was not included in my search since it contains material from a very specific register and from the period before 1970. This results in a subcorpus of 25 189 682 tokens. The words are lemmatised and enriched with part of speech tags. The corpus can be searched using boolese expressions. Due to automatic tagging care has to be taken when relying on the morphosyntactic information provided. Therefore I only carried out searches on strings of letters within the lemma text of the corpus

and went through the search results manually. Since the corpus is limited in size, this procedure was unproblematic for most suffixes.

- The Corpus of Spoken Dutch or *Corpus Gesproken Nederlands* (**CGN**) contains 10 million words covering the period 1998-2004. The CGN can be purchased on cd-rom. It contains spoken Dutch from various types (tv news, radio, speeches, political debates, spontaneous conversations etcetera; but also read aloud texts, e.g. library for the blind), two thirds of which was produced in the Netherlands and one third in Belgium. The words are lemmatised and enriched with part of speech tags. The corpus can be searched with the search programme Corex using regular expressions; since it was tagged automatically care has to be taken. For each hit in the search result, metadata can be shown specifying text type and recording date.
- The *Algemeen Nederlands Woordenboek* (**ANW**) is a project of the Institute for Dutch Lexicology (INL) running from 2001 till 2019. The ANW is a corpus-based, online scholarly dictionary of Dutch in the Netherlands and Belgium covering the period 1970-2019. Ultimately, it will contain 80,000 headwords and about 250,000 smaller entries (Tiberius 2009: 237). Since 2009 a demoversion of the dictionary is online which is updated every two months. The ANW corpus, the largest corpus of contemporary Dutch, contains over 100 million tokens and has been compiled especially for the dictionary. It is updated for neologisms until the end of the project. The ANW corpus is a balanced corpus which consists of several subcorpora, among others a newspaper corpus, a corpus of literary texts and a corpus of neologisms including material from news websites and magazines.⁸⁰ The material has been lemmatised and PoS-tagged automatically. The ANW corpus is not yet available for the public but the INL gave me the opportunity to have access to the material, for which I am greatly indebted. I was granted limited access to ANW in a local session at the INL office in Leiden (the Netherlands) in April 2008 which was followed by full access to the updated version ANW 2.1 over the web starting in October 2011.⁸¹ The ANW corpus can be searched by means of the sophisticated corpus query system *Sketch Engine* (see Tiberius 2009).⁸²

(3) Additional sources

- The newspaper archive *Archief Leeuwarder Courant* (**ALC**) is the largest online archive of Dutch newspapers. It contains over a million pages of Dutch newspapers including mainly *Leeuwarder Courant* (1752-), *Dagblad van het Noorden* (2006-) and *Nieuwsblad van het Noorden* as well as magazines of the NDC media group. The archive is constantly updated. I used this archive for additional contemporary Dutch examples. It is not possible to search for words ending in a certain string, so ALC can only be used for looking up individual types and each hit in the search result needs to be checked manually for its relevance (e.g. the search result for <prijsmatig> contains hits for *prijsmatigend* and *prijsmatiging*).

⁸⁰ Care should be taken since some material of 38MWC is integrated in ANW. This may cause doubles, which is of special importance when we are dealing with hapaxes in the material (see appendix). This problem could have been avoided if I had only based my descriptions on the (much larger) ANW corpus. However, when I started my empirical work for this dissertation, I did not have access to the ANW corpus yet, so I chose to work with 38MWC and CGN. By the time I was given full access to ANW, my work with 38MWC and CGN had already progressed too far to omit those data.

⁸¹ I wish to thank Fons Moerdijk for guiding me through the material at the INL in 2008 as well as the other staff members at INL for helping me out. Many thanks to Carole Tiberius, Josefien Sweep and Tanneke Schoonheim for taking care of the account in 2011.

⁸² <http://sketchengine.co.uk/>

- English and German corpus material was used for contrastive observations and illustrative purposes. The *British National Corpus (BNC)* contains 100 million words of the last part of the 20th ct. (imaginative texts from 1960 and informative texts from 1975). It is a mixed corpus with 90% written and 10% spoken material. The German corpus *Kerncorpus – das Digitale Wörterbuch der Deutschen Sprache des 20. Jahrhunderts (DWDS)* contains 100 million tokens. It covers the entire 20th ct. and contains among others literary texts, newspaper texts and academic texts as well as 5% of spoken German. Both corpora are lemmatised and tagged and they are available online.
- In addition, I provided some web-attested examples (**internet**); the url and date of last access are added in a footnote. All web searches were carried out with the search engine Google. Web-attested examples are particularly helpful when data from other sources is scarce (Krek/Gorjanc/Stabej 2005: 75). They can reveal structural possibilities of a language and they may illustrate that particular linguistic phenomena are actually employed by contemporary language users. Furthermore, internet material may offer indications of modern developments in language. Obviously, examples from the web have to be handled with caution. The sources for examples can be vague or unreliable. In many cases we are dealing with substandard language or imitations of spoken language (e.g., forum discussions) and it is hard to determine who is responsible for an utterance (e.g., a non-native speaker, a child, etc.). More generally, the use of web-attested material has been criticised for the fact “that it is hard to reach any sensible conclusions out of the results of a simple web search, except that whichever item is looked for, it usually can be found” (Krek/Gorjanc/Stabej 2005: 73). See e.g. Kilgarriff/Grefenstette (2003) on further advantages and disadvantages of using the web as corpus.
- Last but not least, I included some illustrations from the media, e.g. magazines, tv and radio. These sources are specified along with the cited example.

6.2.3 Data retrieval

The relevant data from the corpora were in general retrieved by means of a search on all words ending in the string which corresponds with the investigated suffix (e.g. <erwijs>). In 38MWC, the string was searched for in the lemma text; in CGN, I carried out a content search on orthography. On the basis of the search result it was possible to retrieve concordances which could be used for the qualitative description of the word-formation pattern. In view of the qualitative analysis I did not analyse each individual concordance. Some lexeme types have a very high token frequency so that for practical reasons it was only possible to inspect low frequency items and hapaxes more closely.

From the search result all lexemes which can be considered complex modifying words (see chapter 4) formed with the investigated suffix were included in the inventory. As observed by Plag (1999: 28), the task of determining relevant types looks pretty straightforward but in fact there are rather complex decisions involved, e.g. on the inclusion or exclusion of morphologically opaque forms which are synchronically intransparent. Synchronically, their internal structure is lost sight of: there is no synchronically available base word but only diachronic evidence and etymological clues can reveal the complex structure (e.g. *oulings* ‘in olden times’ was originally derived from *oud* ‘old’ by the adverbial suffix *-(e)lings*). Since I combine a synchronic with a diachronic perspective in this dissertation, it seemed natural to define suffixes etymologically and to include morphologically opaque forms. It is indicated in the appendix for each individual suffix which data were available and how they were retrieved, including specific decisions made or problems I was confronted with.

6.2.4 Analysis

The description of each derivational suffix in Part II of this dissertation starts by an introduction (1). In the second section the scope of the derivational pattern is specified, i.e. its input words, together with synchronic indicators for productivity (2). The next sections address the properties of the output lexemes as ‘modifying words’ (3) and the grammatical and/or semantic contribution of the derivational pattern (4).

(1) Introduction

In the first section of the synchronic description an overview is given of variants and allomorphs of the suffix under investigation, if there are any, and their distribution. Basic information is provided on the composition of the synchronic inventory which forms the basis of the investigation and the total number of lexeme types it includes. Detailed information can be found in the appendix which presents the synchronic inventory in the form of a table organised along the input categories, see (2). In this table all lexeme types included in Van Dale (2005) are typographically marked. Lexemes which are only recorded in this dictionary and not in any of the corpora are additionally marked; so are lexemes which only appear in one particular corpus (see appendix for the conventions on presentation). Hapaxes get special typographical marking and their total number is mentioned in the table.

(2) Scope and productivity

The starting-point of this section is an overview of the input categories of the investigated suffix on the basis of the literature, which is evaluated on the basis of the lexemes in the synchronic inventory. The distribution of input categories in the synchronic inventory is visualised in a figure. This figure consists of a table which gives an overview of morphological patterns, in which the structure of the complex words is visualised together with the absolute number of types in the synchronic inventory formed according to each pattern (see section 4.2.6 on my use of patterns).⁸³ Notice that I have given the output of these patterns the provisional label of ‘modf’, to indicate the function of the complex words as ‘modifiers’ (see section 4.3.4). It is not yet possible at this point in the description to determine the categorial status of these words as ‘ADV’ or ‘ADJ’; these labels can only be provided after the qualitative investigation of corpus data, see (3) and (4). Together with the table, I provide a pie chart which visualises the proportions (in %) of each input category relative to the overall type frequency. This allows us to determine the main input category for each suffix. The results are confronted with the input categories documented in the literature for genetically related suffixes in the other West-Germanic languages.

Each input category is then described in detail in terms of stratal characteristics (Germanic or non-Germanic input words), morphological constraints (simplex or complex words) and semantic properties. Careful inspection of the regularities of attested complex words allows us to estimate the scope of a morphological pattern. Structural constraints on a pattern may not directly drive morphological productivity (Baayen 2009: 907) but the scope of a morphological pattern has a crucial influence on its application rate (Plag 1999: 35). If the pattern has a wide scope, the suffix may be

⁸³ Most decisions on input categories are based on the part-of-speech labels provided Van Dale (2005), but this does not solve all the problems. Category assignment was sometimes difficult due to overlaps and prototype effects which I could only incorporate to a limited extent. For instance, in the derived lexeme *op-waarts* ‘upward’, the base word *op* has characteristics both of PREP and of ADV, in *herhaald-elijk* ‘repeatedly’, the base word *herhaald* has adjectival and verbal characteristics (past PART of *herhalen*), etc. For practical reasons, I had to make a choice in such cases, but I am aware that other decisions could have been made. For details I refer to the appendix.

freely attached to new base words. However, if there are many input constraints, this constitutes a limitation on the productivity of the pattern (see section 4.2.6).

Further synchronic indicators for productivity are searched on the basis of corpus material. Aside from its scope, the **application rate** of a morphological pattern constitutes a central aspect of productivity (see section 4.2.6). Whereas the scope of a pattern can only be estimated and described, there are various quantitative measures for the rate of application (Plag 1999: 35). In this dissertation I limit myself to two basic measures as defined by Baayen (2009): the number of different attested formations or types in the corpus material (realised productivity) and the number of hapaxes in the corpus material (rate of expansion or ‘expanding productivity’). If both realised productivity and the rate of expansion are high, we may assume that we are dealing with a productive pattern. The **realised productivity** “of a morphological category C is estimated by the type count $V(C,N)$ of its members in a corpus with N tokens” (Baayen 2009: 901-902). High type frequency, i.e. a high number of different lexical bases the suffix occurs with, indicates high realised productivity. It was already pointed out in section 4.2.6 that high realised productivity does not tell us anything about the present potential of an affix to create new words (Plag 2003: 52). Therefore the **‘expanding productivity’** of a morphological pattern is added as a second measure (see section 4.2.6). This is estimated by means of the number of words that occur only once in the corpus, i.e., the hapax legomena (Baayen 2009: 902). A large number of hapaxes may indicate that the category is expanding at high rate.⁸⁴ However, hapaxes are not necessarily newly coined derivatives. We have to take into account that they may be words which have already been established in the language (Baayen 2009: 905). They may be well-known words which are simply rare (Plag 2003: 54). The novelty of a given word may be assessed by checking whether it is listed in a large dictionary: we may assume that unlisted words are likely to be newly coined (Plag 1999: 27, Plag 2003: 55).

In this dissertation the preceding measures of productivity have been operationalised as follows. First of all, simple type counts were carried out in the corpus material (ANW, CGN, 38 MWC). High **type frequency** is taken as an indicator of high realised productivity. Secondly, the number of **non-established types** (= potential new formations) was counted.⁸⁵ The leading dictionary of contemporary Dutch, Van Dale (2005), served as a frame of reference: types which are not listed there are likely to be newly coined. I calculated the proportion of non-established types vis-à-vis total type frequency. These proportions are visualised for the investigated suffix in a pie chart. A high proportion of words which did not (yet) make it to the dictionary may be the first indicator of expanding productivity. Among the non-established types I counted the number of **hapaxes** and calculated their proportion vis-à-vis total type frequency.⁸⁶ This too is visualised for the investigated suffix by means of a pie chart. A high share of hapaxes may be the second indicator of expanding productivity. The actual number of new formations in contemporary Dutch (after 1970) can only be determined after the diachronic investigation; see section 6.4 below.

In this dissertation I shall not use any statistical measures for productivity involving token frequency. This is a practical choice which is given by the composition of the linguistic material. One motivation was that in order to obtain correct token counts, all corpus attestations should have been inspected manually, particularly to rule out an overlap between 38MWC and ANW attestations.⁸⁷ For instance,

⁸⁴ As Baayen/Renouf (1996: 74) pointed out, “the availability of a productive word-formation rule for a given affix in the mental lexicon guarantees that even the lowest-frequency complex words with that affix can be produced or understood. Thus large numbers of hapax legomena are a sure sign that an affix is productive”.

⁸⁵ The notion of *lexicalisation* is used in the literature to denote that individual complex words are saved in the collective lexical inventory and can be reproduced. Because the notion is also used for various linguistic phenomena (see Brinton 2002 and Brinton/Traugott 2005: 18), I shall use the notion *establish*.

⁸⁶ Notice that I only counted hapaxes among the non-established types. This means that types which figure in Van Dale (2005) are not counted as hapaxes, even when they occur only once in the corpus material.

⁸⁷ See note 80.

the lexeme *vriendenwaarts* ‘towards friends’ is found in 38MWC and ANW, with one attestation in each corpus; inspection of the concordance shows that it is the identical concordance, therefore it should be counted only once. It was possible to check hapaxes and most low-frequency items in this manner, but it had been too time-consuming to go through all attestations of the highly frequent items. The second motivation for not including token frequencies was to maintain a certain uniformity between the synchronic and the diachronic part of this dissertation. The dictionary material in the diachronic part of this dissertation does not allow token counts and is based solely on type frequencies.

(3) Modifier types

In the third section of the synchronic description I inventorise the functions of the output lexemes of the investigated derivational suffix. I confront the observations documented in the literature with empirical observations on the basis of the corpora. The basis of the classification of modifier types was presented in section 4.4. The purpose in the section on modifier types is to determine the extent to which the investigated suffixes may be associated with encoding different modifier types. This is obtained by a qualitative investigation of the empirical data, which implies that they are used “for identifying and describing aspects of usage in the language and to provide ‘real-life’ examples of particular phenomena” (McEnery/Wilson 2007: 76). For the purpose of this dissertation, concordances were analysed at random. Each modifier type in the suffix descriptions is illustrated with at least one prototypical example. However, ambiguous examples are also paid attention to, to the extent that they may indicate suffix polysemy (see chapter 4). An important heuristic instrument used in this section are contrastive observations, see below.

(4) Contribution of the suffix

As pointed out in chapter 4, the investigated derivational suffixes may make both a grammatical and a semantic contribution to their base words. The grammatical and lexical contribution of each suffix are determined on the basis of the relation between its input and its output lexemes. All claims made in this section are supported by qualitative corpus data. The cross-linguistic validity of the categories used for describing the contribution of derivational suffixes allows comparisons with English and German.

As far as the grammatical contribution of the suffixes is concerned, special attention is paid to the status of the suffix as ‘adverbial’ or ‘adjectival’ (see chapter 4). The semantic value or meaning contribution of derivational patterns is hard to determine. Again, contrastive data from related languages may function as a heuristic instrument, see section 6.5. The semantic relation between a base word and a derived word may be very vague or demotivated in individual complex words due to processes of semantic change. I shall determine the semantic spectrum for each suffix by investigating the semantic relation between the input words and the output words of the pattern. This semantic spectrum is presented in a table summing up the patterns illustrated with a prototypical example. There are various strategies for representing word-formation meaning, including labelling, explanatory paraphrase and componential analysis (Pounder 2000). I have chosen to use a combination of single-word labels in small caps (e.g. LOCATION, SIMILARITY etc., see table 4.1) accompanied by paraphrases for the illustrations (e.g. ‘occurring in/at’, ‘like’). Evidently, a quantification of the actual exploitation would be an interesting topic for further research.

Using a fixed inventory of word-formation meanings, we may discover rival suffixes (see section 4.2.5). In this final section I pay attention to semantically comparable suffixes. The existence of semantically comparable suffixes and, by extension, of other lexical (phrasal) expression strategies for that particular semantic-functional category, may have a certain ‘blocking effect’ on the application of a morphological pattern (although pairs may still be possible, e.g. Dutch *vlot-weg* ~

vlot-jes ‘smoothly’). The absence of rival suffixes may be an indicator of productivity. Established words may also have a blocking effect on the creation of new words: “Once a complex word with one of these affixes has been formed and established, the language user will tend not to use a rival process for creating another complex word with the same meaning” (Booij 2007: 61). Observe that this is only a tendency which does not find strict application.

6.2.6 Conventions for presentation

Individual concordances are cited for illustrative purposes with enough context to be able to interpret the modifying lexeme under investigation. I made some minor adaptations to concordances or examples to facilitate reading. Particularly in concordances from CGN, which represents spoken Dutch, I left out hesitation markers (e.g. *uh*) and some repetitions. Typos were corrected if they disturbed reading (e.g. *ovet* ‘over’ was replaced by *over*) but I did not correct old orthography according to new spelling regulations. In longer concordances, irrelevant passages were left out, which is marked by (...). The relevant lexeme is highlighted in bold face. Each example is preceded by a code including an abbreviation for the language (e.g. contemporary Dutch), the year in which the example was recorded and the source from which it was taken (e.g. *38 Miljoen Woorden Corpus* → ‘38MWC’), as illustrated in (6.2). Below each example I provided a free English translation. Since this investigation presupposes a basic knowledge of Dutch, glosses are not supplied.

- (6.2) CD/1990/38MWC
 De Elbe is **verreweg** de smerigste van alle Oostduitse rivieren.
 ‘The Elbe is by far the the most polluted of all East German rivers.’

6.3 Diachronic description

The diachronic description follows the synchronic description since methodologically, a diachronic description and explanation of the ‘why’ should follow the synchronic description of the ‘what’ and ‘how’ (Wellmann 1997: 81). Conversely, phenomena of language change can only be adequately described when synchronic and diachronic methods are combined (Habermann 2002: 42).

6.3.1 Preliminaries

Dutch is generally divided into the linguistic periods indicated in table 6.2 (based on *EWN*).

Table 6.2. Linguistic periods of Dutch.

PHASE	ABBREVIATION	PERIOD
Old Dutch	OD	< 1200
Early Middle Dutch	EMD	1200-1300
Middle Dutch	MD	1200-1500
Early Modern Dutch	EModD	1500-1700
Modern Dutch	ModD	> 1700

These periods will be referred to in the suffix descriptions using the abbreviations noted in table 6.2. It should be noted, however, that in the earliest phases, particularly in the Middle Ages, Dutch was not one single language, but a collection of dialects (van der Sijs/Willems 2009: 175). The historical dictionaries deal with this variation by locating the sources of many quotations in a certain region of the Low Countries. Regional variation could not be taken into account in my investigation so that all material from the Dutch language area is considered relevant.

6.3.2 Sources

The diachronic description of each suffix is based on an inventory of Dutch derived modifying lexemes attested before 1970. The complete inventory for each suffix can be found in the appendix. The lexemes were collected in the historical dictionaries of Dutch (1) but additional material was used (2).

(1) Historical dictionaries

The historical Dutch material was collected in the set of historical dictionaries made available online by the Institute for Dutch Lexicology within the *Integrated Language Database*. I shall refer to this set of dictionaries with the abbreviation 'INL'. The individual dictionaries with their abbreviations are listed in table 6.3 (based on Mooijaart 2011: 151).

Table 6.3. Historical dictionaries of Dutch.

ABBREVIATION	DUTCH NAME	ENGLISH TRANSLATION	PERIOD COVERED	LEMMAS
ONW	Oudnederlands Woordenboek	Old Dutch Dictionary	500-1200	4 500
VMNW	Vroegmiddelnederlands Woordenboek	Early Middle Dutch Dictionary	1200-1300	25 000
MNW	Middelnederlands Woordenboek	Middle Dutch Dictionary	1250-1550	75 000
WNT	Woordenboek der Nederlandsche Taal	Dictionary of the Dutch Language	1500-1976 ⁸⁸	400 000

Since 2009, the whole set of historical dictionaries is available on the internet. Shared lemmas are linked. However, when consulting the historical dictionaries, one should be aware of considerable differences between them. ONW and VMNW were conceived as digital dictionaries, while MNW and WNT are originally printed dictionaries which have been digitalised (Mooijaart 2011: 144). This comes with certain limitations, e.g. WNT lemmas are not morphologically tagged, so that one cannot search directly for lexemes derived by a particular suffix, but only for lemmas ending in a particular string (van Santen 2011: 193, 201).

In terms of its size, composition, and the variety of text types it includes, the set of INL dictionaries can be used as a historical corpus (e.g. Hoeksema 2011, Mooijaart 2011, van Santen 2011 in a special volume of the journal *Nederlandse Taalkunde*). This holds particularly true for the entire collection of quotations subsumed under the lemmas in the historical dictionaries, which I shall refer to as '**INL quotation text**'. In addition we may collect lemmas ('**INL lemma text**') or consult the entries ('**INL article text**'). These three levels are described below. The online search application allows for different procedures to search the material from each level by means of regular expressions.

- **INL lemma text** contains all the lemmas (words or affixes) which have an entry in one or more of the dictionaries. One can search for the contemporary Dutch lemmas. The lemmas are assigned parts of speech, but they are not morphologically tagged in MNW and WNT. For the purposes of my investigation, searching INL lemma text is useful to obtain a list of lexeme types formed with a particular suffix. One cannot search directly for lexemes derived by a particular suffix (e.g. *-erwijs*), but only for lemmas ending in a particular string (e.g. <erwijs>). The search result contains all the lemmas ending in this particular string and the parts-of-

⁸⁸ The boundary for WNT was originally placed in 1921, but much new material was added and the final boundary for all volumes was 1976.

speech tags allow us to select all ADV and ADJ (e.g. in the case of the string <erwijs>, we are not interested in the N *onderwijs* ‘education’ and all compounds formed with it). Again, among the ADV and ADJ there may be lemmas which do not represent derivatives with the suffix we are interested in. We thus have to check the search result manually to remove irrelevant lemmas.

For certain suffixes, the lemma search may result only in a very small number of lexeme types. One should keep in mind that the number of lemmas included in the dictionaries represents a selection made consciously by the lexicographers. If we wish to find a greater variety of lexeme types than provided by INL lemma text alone, it is useful to search INL quotation text.

- **INL article text** contains the full text subsumed under the lemmas in the historical dictionaries. This includes both lexicographic information (semantic, morphological and etymological information) as well as illustrating quotations from various text types (literary texts, biblical texts, academic texts, etc.) and historical periods. The source and year of recording of each example are mentioned and there may be additional lexicographic comments (e.g. contemporary Dutch rendering of older Dutch example). INL article text can be searched using regular expressions, but then the search result includes hits in the lexicographic information. These do not represent authentic language data and are therefore of no use for the purpose of my investigation. A practical solution is to consult INL article text for each lexeme from the lemma text search (see above). In this way, we can manually track down the earliest attestation of the lexeme, find out about semantic changes and so on. However, we cannot be sure whether we really get the earliest attestation: the quotations included in the article were consciously selected by the lexicographers for illustrative purposes. If we wish to find earlier attestations, we must search INL quotation text.
- **INL quotation text** includes all the quotations subsumed under the lemmas in the historical dictionaries which are typographically marked in red in the electronic edition.⁸⁹ Searching INL quotation text has considerable advantages compared to lemma searches (Hoeksema 2011: 154, van Santen 2011: 196). INL quotation text may be used for finding a greater variety of lexeme types than provided by the lemma text since words are found in quotations for other lemmas. The main problem is that INL quotation text is not lemmatised, not tagged for parts of speech and there is no morphological information. Therefore we can only search for quoted words containing a certain string, which leads to many irrelevant hits. Due to the size of INL quotation text, the search result may be huge (e.g. for words ending in the string <lijk>) so that it has to be restricted by making the query more specific (e.g. by searching only for the strings <iglijk>, <baarlijk> and <zaamlijk>, the search result automatically only includes lexemes in which *-(e)lijk* is added to ADJ derived by *-ig*, *-baar* and *-zaam*).

Another problem involved with searching INL quotation text is that the search result may include lexicographic comments (e.g., the lexeme *herhaaldelijk* ‘repeatedly’ is recorded in MNW, but at closer inspection, it only occurs in lexicographic remarks and does not represent original Middle Dutch language). Such lexicographic comments must be removed manually; they can be recognised typographically, since they are between brackets and italicised.

INL quotation text may further be used for checking the earliest attestations of lexemes derived by a particular suffix and for completing any historical information which is missing in INL article text. An important problem with INL quotation text in this respect is, however, that not all quotations are accompanied by the year in which they were recorded.

⁸⁹ The search application therefore misses all other quotations in the dictionaries (i.e., examples in black and between quotation marks, which for instance accompany the definition of a compound or derived lexeme). These quotations can only be found by consulting the article text.

When the source text or author of the example is indicated, the year or an approximation can often be tracked down, but this may be very time-consuming. If there is no information on the origin of a quotation, it cannot be included in the dataset.

One of the main challenges when searching for complex words in INL quotation text is the fact that there were no official spelling regulations until the 19th ct. To make sure that all the older Dutch spelling variants (e.g. for modern Dutch *wijs*: <wys>, <wise>, <uuis> etc.) will be included in the search result, the search query must be formulated with great care. For an overview of the commonest Middle Dutch and Early Modern Dutch spelling variants, see Mooijaart/van der Wal (2008: 24-25). Another point are inflectional endings, which could vary in older Dutch.

It should be observed that the INL dictionaries have important limitations as a corpus. First of all, ONW and VMNW had to be founded on a limited collection of texts since there is not more material available of that period. ONW is based on a very small, but diverse compilation of material (mostly glosses, fragments and toponymic material) and VMNW was prepared on the basis of the *Corpus-Gyseling*, a collection of Dutch manuscripts of the 13th ct. (Mooijaart 2011: 144). WNT bears the indelible marks of a long preparation time (1851-1998) and a range of different editors (Mooijaart 2011: 143). In contrast, MNW was prepared in a shorter period (1850?-1929) and for the most part by one single editor (Mooijaart 2011: 143). As WNT started, it had about 1000 text sources at its disposal and there was a strong focus on 17th and 19th ct. literary material which was completed by invented examples. Only later, material was added, e.g. 16th ct. material was included and a better balance with non-literary texts was aimed for. The entries for the final letters are based on much more material than the ones for the first letters. Nevertheless, certain periods and text types are inevitably underrepresented, in favour of others from which lexicographers have abundantly drawn illustrations. For instance, WNT has a great proportion of quotations from literary work by Betje Wolff and Aagje Deken of the 18th ct. This is relevant for the morphologist since they are particularly famous for their creative neologisms (van den Toorn et al. 1997). Such preferences of lexicographers must be understood within the historical context in which the dictionaries were compiled, but they potentially bias the search result. Notwithstanding certain limitations and some practical difficulties, the INL material provides a fine basis for historical linguistic research (compare Hoeksema 2011: 153), including for qualitative analyses of complex words. The additional historical material helps completing some missing pieces.

(2) Additional historical material

- The main source for additional historical material is the *Archief Leeuwarder Courant (ALC)* which was already presented above. Since it starts from 1752, it can be used to complete missing information from the historical dictionaries, to check for earlier attestations, and to provide further illustrations for given lexeme types.
- I further occasionally refer to the historical dictionary *Etymologicum teutonicae linguae* by Cornelius Kiliaan (1599). The *Digitale Bibliotheek voor de Nederlandse Letteren (DBNL)* provides online access to this dictionary and the digital version can be searched.⁹⁰ The etymological dictionary *Etymologisch woordenboek van het Nederlands (EWN)* can also be accessed online.⁹¹ Van Dale (2005) includes some etymological information although it should be handled with care since it is not always reliable. I have sometimes used earlier editions of Van Dale (1872, 1924, 1961, 1970, 1976, 1984, 1992, 1999; see references). The first edition of Van Dale from 1864, *Nieuw Woordenboek der Nederlandsche Taal* edited by Calisch and Calisch, is available on the 2005 electronic version on cd-rom.

⁹⁰ <http://www.dbnl.org>

⁹¹ <http://www.etymologie.nl/>

- For additional historical illustrations and to complete missing information on English and German, I used the leading historical dictionaries, *Oxford English Dictionary (OED)* and *Deutsches Wörterbuch (DWB)* by Jacob and Wilhelm Grimm, respectively. Both are available online.

6.3.3 Data retrieval

Retrieval of historical data took place in two basic steps: the lexemes of the synchronic inventory were searched for earlier attestations (1), and additional complex lexemes in older phases of Dutch were searched for (2). It is clear that I had to proceed in various ways according to suffix-specific properties and requirements. The precise procedure for data retrieval is indicated in each chapter and it is indicated in the appendix which data were available for each individual suffix and how they were retrieved.

(1) Complex lexemes of the synchronic inventory

The basis of my historical dataset are the lexeme types of the synchronic inventory. They were searched individually in INL quotation text and in ALC for their earliest recording. An important problem is the fact that the components that make up a complex word were (and sometimes still are) not always joined together in writing. Morphemes may be separated by a hyphen or by a space. This variation may be due to lacking spelling regulations, but it may also be an indication of ongoing language change. Language users may separate the morphemes because they do not perceive them as a semantic unit, but as autonomous words (compare section 2.3.2). Orthographic separation has to be taken into account if we want to track down the source of a derivational pattern and situate univerbation processes, e.g. the development of the suffix *-erwijs* out of sequences of an inflected ADJ and the independent N *wijze* (e.g. *menscheliker wijs* > *menselijkerwijs*). For this reason, looking for first attestations in INL quotation text involves searching for sequences where the morphemes are juxtaposed, but do not form an orthographic unit, i.e., they are not written together or connected by a hyphen. Search queries were therefore formulated for the combination of a single base word followed by a space and the string corresponding with the suffix (again allowing spelling variants). If such sequences occurred, they were checked manually for relevance and the earliest recording in INL.

(2) Additional complex lexemes

The second step in historical data retrieval was to look for additional derivatives in INL. For most suffixes it was problematic to retrieve these from INL quotation text, since the search result for a string corresponding with the suffix, e.g. <lijk>, is often too large to handle. Therefore I restricted the collection of additional lexemes to INL lemma text (unless otherwise indicated in the appendix). Additional derivatives were collected from the INL entry of the suffix (if any) and by means of an 'open' search in INL lemma text on lemmas ending in the string. The relevant lemmas were selected manually from the search result since not all of them may represent modifying words. To find their earliest attestation and to check for corresponding sequences attested earlier, I searched INL quotation text following the procedure described above.

6.3.4 Analysis

The diachronic description of each suffix contains information on the origin of the suffix (1) and it searches evidence for a functional shift (2) as well as a syntactic shift of the complex output lexemes (3) as described in chapter 5.

(1) Origin of the suffix

As pointed out in section 2.3.1, we find some assumptions in the literature on the origin of the Dutch adverbial suffixes. This section starts from the existing observations and verifies and/or completes these by the findings of my own investigations. Particular attention is paid to the historical relation with equivalent suffixes in English and/or German. The methodology is as follows.

- In the case of assumed reanalysis of a suffix sequence (e.g., from *-(e)ling-s* to *-(e)lings*), the earliest attestations of lexemes formed with the sequence (*-(e)lings*) are confronted with the earliest attestations of lexemes formed with its original left component (*-(e)ling*).
- In the case of assumed grammaticalisation (e.g., from *weg* to *-weg*), the earliest attestations of complex lexemes (e.g., *slechtweg*) are confronted with the earliest attestations of the original syntagma (*slecht weg*), if any.
- In the case of assumed borrowing (e.g., *-matig*), the earliest attestations of complex lexemes in Dutch (e.g., *riddermatig*) are confronted with counterparts in the source language (German *rittermäßig*). It can be hard to prove whether a shared suffix is due to borrowing or to parallel developments. Independence of a word-formation pattern can for instance be assumed on the basis of individual formations, e.g. the language-specific use of a linking phoneme. I refer to observations in the individual chapters.

These confrontations are reflected in the make-up of the diachronic inventory in the appendix. In the diachronic description I try to reconstruct the processes which gave rise to the emergence of the investigated suffix. Subsequent steps in these processes are illustrated by attested historical examples. For convenience, the main steps are summarised in a table.

(2) Functional shift

In this section I focus on the modifier functions of the output lexemes of the investigated suffix throughout Dutch history. There are two subsections: (1) descriptive modification and (2) interpersonal modification. The purpose is to find historical evidence for a functional shift from descriptive to interpersonal modification (see section 5.2). By means of attested historical examples I try to trace the emergence of the different modifier types which may be encoded by derivatives with the investigated suffix as listed in the synchronic description. The search method and analysis are qualitative. Contrastive observations may serve as extra input to the discussion. If possible, functional changes are related with processes like semantic extension in suffixes. Evidence for meaning shifts is found in semantically ambiguous words which allow more than one interpretation.

(3) Historical observations on syntactic use

In this section of the diachronic description I focus on the (morpho)syntactic properties of the output lexemes of the investigated suffix throughout Dutch history. The main purpose is to find evidence for the syntactic shift which was discussed in section 5.3. For this reason there are two subsections: the use of derived words as prenominal attributive modifiers (1) and their use as adverbial premodifiers in the NP (2). On the basis of qualitative investigations I provide examples of these uses. Contrastive observations are included whenever possible.

6.3.5 Conventions for presentation

Individual concordances were cited in the historical description for illustrative purposes. Whenever available, they are accompanied by enough context to be able to interpret the relevant modifying lexeme. In very long concordances, irrelevant passages were left out, which is marked by (...); no further adaptations were made. The relevant word or syntagma is highlighted in bold face. Each

example is preceded by a code including an abbreviation of the language phase (e.g. Middle Dutch), the year in which the example was recorded, the source from which it was taken (e.g. *Middelnederlands woordenboek*) and, in case of a dictionary source, the lemma, as illustrated in (6.2). Below each example I provided a free English translation.

- (6.2) MD/1451-80/MNW/verre
 Dat derde is ende **verre wech** dat beste.
 'The third one is by far the best.'

6.4 Scope and productivity from a diachronic perspective

In the synchronic section I investigated the scope of the suffix and I collected synchronic indicators for productivity. In the diachronic section these indicators are verified from a diachronic point of view and I formulate some considerations on the changing degree of productivity of a pattern. All information in this section is inferred from the data collected in the diachronic inventory.

Very productive patterns tend to extend their scope to new categories throughout time (Booij 2007: 270). Morphological patterns may widen their scope but they may also become more restricted in terms of semantic, structural or stratal input constraints. In the synchronic section, some central measures of productivity were introduced: high realised productivity (= high type frequency), high rate of expansion (= high number of hapaxes) and a high number of non-established words (not adopted in Van Dale 2005). However, care has to be taken: type frequency may be affected by "residues of earlier increases or decreases" (Brinton/Traugott 2005: 17-18); a suffix may have a high type frequency in contemporary language but this does not imply that it is used in the present to create new words. In the diachronic section there are two central purposes: (1) describing changes in productivity for a particular suffix throughout the history of Dutch, and (2) checking the novelty of the types collected in the synchronic dataset.

These two purposes are operationalised as follows. In the synchronic section I counted which complex words did not make it to Van Dale (2005) and which are potentially new formations. Whether they actually are innovations of contemporary Dutch, i.e. after 1970, is verified by searching historical language data for earlier attestations. Thus, I searched INL (and ALC) for the first attestation dates of the types listed in the synchronic inventory in order to verify whether they are new formations or not. In order to make diachronic statements on the productivity of a word-formation pattern one may collect the number of neologisms over a period of time (compare Baayen/Renouf 1996). Thus, to trace changes in productivity of the investigated suffixes throughout the history of Dutch, I counted the neologisms per ct., i.e., the number of lexemes that were newly coined based on first attestation dates in the dictionary material.

The absolute number of neologisms per ct. from the emergence of the suffix until the present day is visualised in a bar chart. In this chart, I divided the period of the 20th ct. into the periods '1900-1969' and '> 1970'. This division was made to visualise the number of neologisms in contemporary Dutch in order to facilitate the comparison with the synchronic description. Notice in this respect that the period '> 1970' includes neologisms from the start of the 21st ct. (attested in ANW or ALC). This implies that care must be taken if one aims to contrast the number of neologisms in the 20th ct. with the previous centuries using the representation in the bar chart.

Counting neologisms in historical data is in principle a fruitful method, but, obviously, the reliability of these counts is questionable (Plag 2003: 52). It is notoriously problematic to use dictionaries for studying diachronic aspects of productivity (see Plag 2003: 52-53, Baayen 2009: 909, Trips 2009: 34). First of all, words may have been in use a long time before they are listed in the dictionary. Secondly, new words may have been overlooked by the lexicographers. Thirdly, new words may not have been

included for some reason; one possible reason may be the regularity with which a word-formation pattern is applied: “Dictionaries cannot aim at exhaustiveness in the domain of productive word formation, as it is commercially unattractive to print thousands of words the meaning of which is immediately clear to anyone familiar with the basic meaning of productive affixes” (Baayen/Renouf 1996: 69). I have partly overcome such problems by the fact that I gathered the first attestation dates from the quotation text of INL in its entirety instead of restricting myself to the lemmas provided consciously by the lexicographers. Nevertheless, as pointed out above, INL quotation text does not represent a representative section of authentic language. At all times we need to be aware that any observed increase or decrease in type frequency may be a bias in the material, e.g., it may be due to the composition of the texts used by the lexicographers. Obviously, the dictionary material does not allow reliable token counts at all, so this was not attempted. Some other problems typical of the INL material were already illustrated above.

To round off the diachronic section, I contrast the findings on the changing productivity of the investigated Dutch suffix with the central observations on the productivity of the related suffix in English and/or German. Whenever relevant, I confront structural divergences with norm differences.

6.5 The contrastive approach

As I pointed out in chapter 2, the adverbial suffixes in English and German are relatively well described which is not the case for their Dutch equivalents. Similar derivational patterns in genetically closely related languages may be directly compared and historically identified (Hüning/Schlücker 2010: 786). Language comparison in the domain of word formation may reveal structural differences or systematic oppositions between equivalent patterns in genetically related languages. However, it may also reveal differences in the extent to which patterns are conventionalised in the language community (e.g. Willems 2001 and see 4.2.6). A comparison of Dutch adverbial suffixes with their equivalents in other West-Germanic languages may teach us something about the word-formation systems in these languages.

Essentially, I assume that existing work on the adverbial suffixes in related languages like English and German may be highly instructive for the description and the understanding of their Dutch equivalents. The central languages referred to in this dissertation are the three West-Germanic languages Dutch, German and English; only occasionally I refer to Frisian, Afrikaans or the North-Germanic languages.⁹² Table 6.4 presents the periodisation which is used for English and German (based on *EWN*).⁹³

⁹² On the Germanic languages see König/van der Auwera (1994) and Harbert (2007). For an overview of contrastive studies on German and Dutch I refer to Wilmots (2001). A bibliography of English and German contrastive linguistics is Wallmannsberger/Markus (1987). Detailed contrastive studies of English and German are e.g. Kufner (1969), Burgschmidt/Götz (1974), Hellinger (1977), Fichtner (1979), Lohnes/Hopkins (1982), and Hawkins (1986). A more recent overview is König (2001). Excellent recent work on the pair English and German is König/Gast (2007). A contrastive grammar of German and Dutch is ten Cate/Lodder/Kootte (1998). For references specifically on contrastive studies on German/Dutch word-formation processes, see for instance Hüning/Schlücker (2010: 786). A contrastive grammar of English and Dutch is Aarts/Wekker (1987). Devos/De Muynck/Van Herreweghe (1991) is a contrastive grammar of Dutch, English and French. The three West-Germanic languages Dutch, German and English have been compared in a monograph by Van Haeringen (1956) and in several papers collected by Hüning et al. (2006) and Vismans/Hüning/Weerman (2010).

⁹³ I only refer to High German; Low German shall not be included. Notice that individual scholars may use a slightly different periodisation.

Table 6.4. Periodisation of the Germanic languages.

LANGUAGE	PHASE	ABBREVIATION	PERIOD
English	Old English	OE	< 1100
	Middle English	ME	1100-1500
	Early Modern English	EModE	1500-1700
	Modern English	ModE	> 1700
German	Old (High) German	OG	< 1100
	Middle (High) German	MG	1100-1350
	Early Modern (High) German	EModG	1350-1600
	Modern (High) German	ModG	> 1600

In this dissertation I use the contrastive approach as a heuristic instrument (1) and for its explanatory value (2).

(1) Heuristic instrument

The heuristic value of contrastive observations was already stressed by König (1971: 7) who stated that language comparison may lead to more adequate descriptions of the individual languages. If a linguistic phenomenon is studied for one language in isolation, there is a risk that certain features escape our attention and that given features remain invisible. A comparative point of view including various related languages may lead to new insights and reveal a richer picture. It may not only lead to abstractions and generalisations but also to a more detailed and complete description (Hüning 2009: 73). A contrastive approach discloses new aspects and it may lead to insights which are unattainable by analysing individual languages in isolation (König/Gast 2007: 3). A contrastive analysis of a triplet is even more informative than the comparison of a pair: including a third, related language may throw a light on properties of the other two languages (van der Auwera 2012).

(2) Explanatory value

Apart from their heuristic contribution, I shall also be concerned with the explanatory value of contrastive observations. This arises particularly from the inclusion of diachronic data, since these allow us to explain synchronic contrasts or language-specific characteristics as divergences, and synchronic similarities as convergences (König 1996: 32, Hüning/Schlücker 2010: 787). Different factors may lead to structural convergences in word formation. Language contact may induce structural convergence in word formation. Mutual influence of the Germanic languages is facilitated through their genetic closeness (Van Haeringen 1956: 61, Hüning 2009a: 71). Sometimes we cannot point at an actual source language for a particular development, but at best at a leading language. Word-formation patterns in the Germanic languages may also converge through independent parallel developments (e.g. Hüning 2009a). For instance, similar paths of grammaticalisation may give rise to equivalent suffixes. Language contact may however stimulate parallel structural developments, e.g. if one language has been faster than the other.

Divergences in word formation may pertain to structural properties or to the level of norm (see chapter 4). Structural differences may arise when a morphological pattern develops new possibilities in one language, but not in the other(s). A significant source for structural differences is language-specific semantic fragmentation, which can “account for the systematic non-existence of derivatives for some pragmatically plausible semantic configurations and for the existence of arbitrary, type-specific restrictions” (Rainer 2003: 205). There are of course further sources for structural differences between languages. A pattern may for instance expand its input categories in one language, but the related pattern in the other language(s) may not. Norm differences may be affected by prescriptive activities like purism which try to minimise the effects of language contact.

Van Haeringen (1956: 60) observed that Dutch and German have many similarities when it comes to derivational morphology. This dissertation will provide further evidence for his claim that the overall picture of word formation in Dutch, English and German displays a strong resemblance of Dutch and German and a very separate position of English, as a result of a converging development of the former two and divergence of the latter (Van Haeringen 1956: 62).

6.6 Summary and outlook

In this chapter I have given an overview of the data I use and the methodology I adhere to in my suffix descriptions. The present chapter constitutes the final chapter of the preliminary part of this dissertation. The second, central part of the dissertation consists of a total of eleven chapters which represent descriptions of the word-formation morphemes listed in (2.2). They are presented in alphabetical order. Inventories of attested language data corresponding with each description are included in the appendix at the end of this dissertation. Each chapter or description can be read as a case study. The reader who wishes to have a complete overview on all described elements may consult the synthesis in part III of this dissertation. In the synthesis in chapter 18 the main findings are brought together and general tendencies are discussed.

Part II

Suffix descriptions

Overview of part II

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7 Modifying words with *-(e)lijk*

7.1 Introduction

The suffix *-(e)lijk* is included among the Dt. adverbial suffixes by Booij (2002), de Haas/Trommelen (1993) and ANS (1997). Examples are deadjectival *wijs-elijk* ‘wisely’ in (7.1) and deadjectival *recent-elijk* ‘recently’ in (7.2).⁹⁴

(7.1) CD/2001/ANW
Dat mijn moeder van Duitse komaf was verzwegen ik **wijselijk**.
‘That my mother had German ancestry I wisely concealed.’

(7.2) CD/1996/ANW
Archeologen hebben **recentelijk** meer ontdekkingen in het gebied gedaan.
‘Archeologists have recently made more discoveries in that area.’

The suffix *-(e)lijk* is usually considered as the Dt. adverbial suffix *par excellence* and thus it is put on a par with En. adverbialising *-ly*. In the literature, the majority of deadjectival lexemes formed with *-(e)lijk* is classified as ADV (de Haas/Trommelen 1993: 353). Compare *wijs-elijk* in (7.1) in which the suffix is obligatory and which does not allow attributive use and inflection. However, ANS (1997) signals cases which raise questions on the status of deadjectival *-(e)lijk* as a grammatical, adverbialising pattern in CD. First of all, inflected attributively used derivatives are attested, e.g. *recent-elijk-e* ‘recent’ (7.3). Secondly, *-(e)lijk* is not always grammatically required, e.g. adverbially used *recent-elijk* ‘recently’ may be substituted by the unsuffixed base word *recent* (7.4).

(7.3) CD/1995/ANW
Uit een **recentelijke** brief (...) blijkt dat deze instantie weinig gecharmeerd is van reclame aan lantaarnpalen.
‘A recent letter (...) shows that this authority doesn’t like the idea of ads on lampposts very much.’

(7.4) CD/2001/ANW
Toen Victor haar had leren kennen had ze **recent** de kaap van de veertig gerond.
‘When Victor got to know her she had just turned forty.’

Dt. prescriptive grammar keeps stressing that *-(e)lijk* signals adverbiality in *recent-elijk* ‘recently’ and that the unsuffixed base word is reserved for attributive use. ANS (1997) considers attributive use of the derivative grammatical, but warns that it may not be acceptable to all language users. The prescriptive language portal *Taaladvies* is less tolerant and states that attributive use of *recent-elijk* is substandard: recommendations are to use the base ADJ *recent* in attributive position.⁹⁵ Like Dt., Af. is assumed to have an adverbial suffix *-lik*, e.g. *gewoon-lik* ‘usually’, *verkeerd-elik* ‘wrongly, mistakenly’ (Donaldson 1993: 444). Fs. has the equivalent *-lik*, e.g. *wys-lik* ‘wisely’ (Popkema 2006: 124).

The approach to Dt. *-(e)lijk* as an adverbial marker diverges from the treatment of the equivalent *-lich* in Gm. literature which is no longer included in overviews of adverbial suffixes (e.g. Fleischer/Barz 1995 and *Duden* 2009). Gm. literature only refers to a closed class of idiomatic deadjectival *lich*-derivatives which are classified as ADV, e.g. *wahr-lich* ‘truly’ in (7.5). They are considered remnants of an archaic grammatical pattern of deadjectival ADV formation with *-lich*.

⁹⁴ Denominal and deverbal derivation with *-(e)lijk* (e.g. deverbal *verwerp-elijk* ‘improper(ly)’ and denominal *deugd-elijk* ‘thorough(ly), sound(ly)’) is not treated in the present chapter. I refer to ANS (1997) and the study by Hüning/van Santen (1994) on deverbal *-(e)lijk* and observations by Heynderickx (2001) on denominal *-(e)lijk*.

⁹⁵ <http://taaladvies.net/taal/advies/vraag/694/> [last accessed 10.02.2012]

(7.5) CG/1996/DWDS

Nun ist es **wahrlich** keine Katastrophe, wenn Brillenträger auf den Zuschuß von zwanzig Mark fürs Gestell verzichten müssen.

'Now it is truly not a disaster when people wearing glasses have to manage without the contribution of twenty mark for the frame.'

In the literature, Dt. *(e)lijk*-derivatives are labelled archaic and predominantly used in written language or elevated spoken language (Booij 2002: 133, ANS 1997: 737); the pattern is deemed unproductive (de Haas/Trommelen 1993: 353). In the present chapter I shall provide empirical evidence that the Dt. grammatical pattern with *-(e)lijk* as an adverbialising suffix has indeed become extinct. This status is shared with *-lich* in Gm., but it is in strong contrast with the highly productive En. *-ly* (see chapter 3). Additionally, I shall investigate the semantic spectrum of *-(e)lijk* in deadjectival derivation. The meaning contribution of *-(e)lijk* to ADJ has not been previously described for Dt. in the literature. However, I will show that semantic patterns, too, are unproductive, which is a contrast to Gm. deadjectival *-lich*.

7.2 Synchronic description

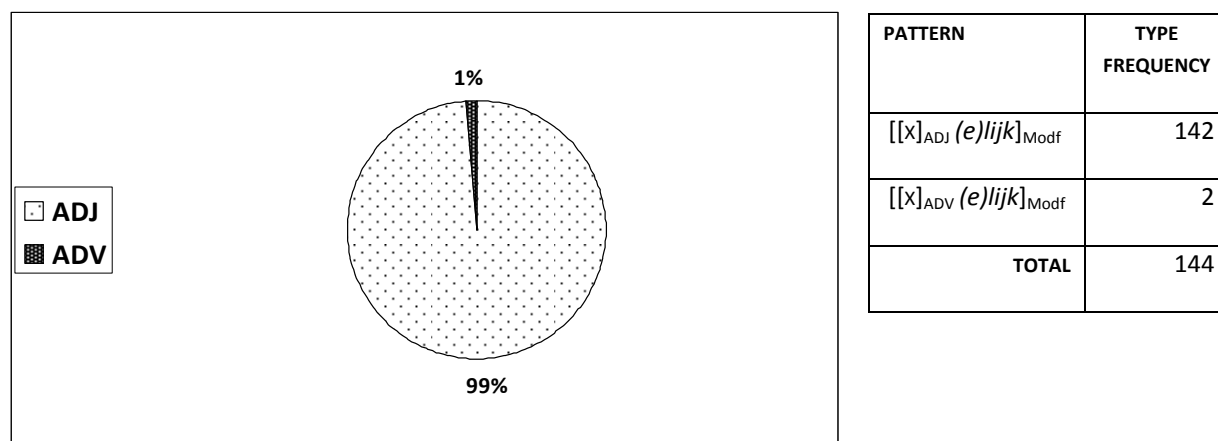
The form of the suffix is cited in the literature as *-lijk* (de Haas/Trommelen 1993), *-(e)lijk* (ANS) or *-elijk* (Booij 2002). This variation signals that there is a linking phoneme *-e-*, the status of which is not entirely clear (see ANS 1997). In certain cases the insertion of a linking phoneme is free (e.g. *hooglijk/hog-elijk* 'highly', *lief(e)lijk* 'lovely', see Van Dale 2005). According to ANS (1997), the linking phoneme is inserted more generally in spoken Dt. than in written Dt. Observe further that the grapheme <ij> in the suffix *-lijk* is not pronounced as the usual diphthong (e.g. in the homonymous N *lijk* 'corpse') but with a schwa. Dt. further has the suffix *-lijks* which shall not be treated in this dissertation. For another variant, *-lijken*, which only occurred in older Dt., I refer to section 7.3.

The synchronic description is based on an inventory of 144 *(e)lijk*-derivatives collected in the dictionary Van Dale (2005) and the corpora 38MWC and ANW (see appendix to chapter 7).

7.2.1 Scope and productivity

Figure 7.1 shows the distribution of input categories included in the synchronic inventory of 144 *(e)lijk*-derivatives. Two input words may be classified as prototypical ADV; all others may be classified as ADJ (including morphological past PART).⁹⁶ Also included are seven lexemes which are from a synchronic perspective morphologically intransparent, but which are historically deadjectival (see below).

⁹⁶ In some cases, e.g. *gekk-elijk* 'foolishly', it is hard to tell whether they are derived from the ADJ *gek* 'foolish' or from the homonymous N *gek* 'fool'. Decisions are based on the parts-of-speech labels in Van Dale (2005).

Figure 7.1. Distribution of input categories for *-(e)lijk* in synchronic inventory.

(1) Adjectival input

On the ADJ which may be input to *-(e)lijk*, Booij (2002: 133) formulates the structural restriction that these are morphologically simplex. There are indeed many examples in the inventory which confirm this: *arm* 'poor', *bang* 'afraid', *hoog* 'high' and so on. However, we also find a great number of derived ADJ as input. There are derived words with the native suffixes *-ig* (e.g. *ernst-ig* 'serious', *angst-ig* 'scared') and *-achtig* (e.g. *waar-achtig* 'truthful'). The derived words in *-ig* are archaic; this can be inferred from the labels of most of the derived words in Van Dale (2005) and from the fact that the very few hits in the material occur in quotations of older Dt. texts (Diepeveen 2011a). The lexeme *gelukk-ig-lijk* is limited to restricted to quotations from Belgian Dt. (see ANW and Diepeveen 2011a). Derivatives on the basis of synthetic compounds (e.g. *groot-moed-ig* 'magnanimous', *lank-moed-ig* 'long-suffering', *oot-moed-ig* 'humble'; *zacht-aard-ig* 'kind-hearted', *wreed-aard-ig* 'cruel'; *laf-hart-ig* 'faint-hearted'; *goed-gunst-ig* 'well-disposed') are only found in the dictionary and not in the corpora. This is a strong indication that these formatives were created in older Dt. and are now archaic. For Gm., too, there are deadjectival modifying words with *-lich* ending in the sequence *-ig-lich*, e.g. *inn-ig-lich* 'profoundly, dearly', *elend-ig-lich* 'miserably' which are perceived as archaic and it has been shown that they are historical remnants (Spycher 1956: 452, Kühnhold/Putzer/Wellmann 1978: 36, Heinle 2004).

There are further complex base ADJ in Dt., e.g. morphologically complex ADJ prefixed by *ge-* (e.g. *ge-streng* 'severe', *ge-reed* 'ready') or ADJ prefixed by the negative morpheme *on-* (e.g. *on-wijs-lijk* 'unwisely', *on-waardig-lijk* 'unworthily').⁹⁷ Other complex base words include morphological past PART (e.g. *bedek-t* 'covert', *herhaal-d* 'repeated'), the morphological present PART *voorafgaa-nd* 'preceding'. Schultink (1962: 149) observed a formal restriction on the input: *-(e)lijk* does not attach to ADJ ending in *-aal* or *-eel*, since this is the domain of *-iter* (see chapter 12 on *-iter*). The absence of *-aal/-eel* in the base can be confirmed on the basis of the Dt. material in the synchronic inventory. Notice further that the inventory does not display any derived words from bases which already end in *-(e)lijk* or in *-zaam*. For Gm., Pounder (2001: 311) shows that there are restrictions on the complex ADJ which can be input to the pattern with *-lich*. Not possible are the combinations of *-lich* with *-lich* itself, with *-haft*, *-isch* as well as foreign adjectival suffixes. En. *-ly* is much more free, although there is a phonological constraint that *ly*-suffixation is avoided when the input ADJ already ends in *-ly*, i.e., formatives like *friend-li-ly* are rarely used (Pounder 2001: 319). Suffixation with *-ly* is impossible with temporal ADJ such as in **week-li-ly*, **day-li-ly*. Observe that occasionally there may be semantic factors involved in the absence or presence of *-ly* (compare *hard* vs. *hard-ly*). I refer to Opdahl (2000) and Tagliamonte/Ito (2002) for details on dual-form ADV (e.g. *real/really*) and on parameters

⁹⁷ The prefix *on-* and the suffix *-(e)lijk* may have been attached simultaneously.

determining the choice between the zero-form and the *ly*-form (for diachronic observations see section 3.3.3).

As far as stratal constraints are concerned, Gm. *-lich* is attached mainly to native base words (Kühnhold/Putzer/Wellmann 1978: 293) whereas with Dt. *-(e)lijk*, non-native base ADJ are relatively common, particularly from Fr., e.g. *gracieus* 'elegant', *abusief* 'mistaken', *respectief* 'respective', *naïef* 'naïve', *summier* 'concise', *expres* 'expressly', *direct* 'direct'. With respect to semantic input conditions, Gm. is more free than Dt. since it allows ADJ denoting colour, e.g. *gelb-lich* 'yellowish'. This is not possible in Dt.

Notice that seven lexemes have been classified as deadjectival although synchronically they may be perceived as intransparent since their base words are no longer directly available for CD speakers: *baar-lijk* 'utter, incarnate', *kwa-lijk* 'badly, evil', *o-lijk* 'roguish', *vro-lijk* 'cheerful, merry', *trionfant-elijk* 'triumphant(ly)', *schrikbaar-lijk* 'terrifying' and *wonderbaar-lijk* 'marvellous'. *Olijk* was derived from the MD ADJ *ode* 'easy', *kwelijk* from MD *quaet* 'bad', *vrolijk* from MD *vro* 'merry'. These base words are no longer used in CD. The base word *baar* 'bare' is archaic and *trionfant* 'triumphant', *schrikbaar* 'terrifying' and *wonderbaar* 'wonderful' are very unusual in CD; the corresponding derivatives are much more common (Van Dale 2005; compare, however, Gm. *wunderbar* 'wonderful').

From the 142 deadjectival lexemes in the inventory, about half are only recorded in Van Dale (2005) and not in the corpora. Among the lexemes which are attested in the corpora there are some highly frequent lexemes with an idiomatic meaning, e.g. *eigen-lijk* 'actually' (7.6).

(7.6) CD/1973-2003/ANW

Herkenden mijn ouders mij **eigenlijk** wel? Ze behandelden me als een gast, omzichtig, diplomatiek, maar uit niets bleek dat zij hier hun zoon voor zich dachten te hebben.

'Did my parents actually recognise me? They were treating me like a guest, carefully, diplomatically, but there was no indication that they believed to be dealing with their son.'

(2) Adverbial input

There are only two input words for *-(e)lijk* which may be classified as prototypical ADV: *alleen* 'alone' in *alleen-lijk* 'alone, only' (7.7) and *jammer* 'a pity, too bad' in *jammer-lijk* 'pitiful(ly), miserable'. Both are established in Van Dale (2005).

(7.7) CD/2004/ANW

Maandag 5 april 2004 begint bij Stubru een nineties-week. De reguliere programma's blijven zo goed als behouden, maar er wordt **alleenlijk** muziek uit de 90 jaren geprogrammeerd.

'On Monday 5 April 2004 the radio station Stubru starts a nineties week. The regular programmes will be maintained as much as possible, but only music from the 90s will be played.'

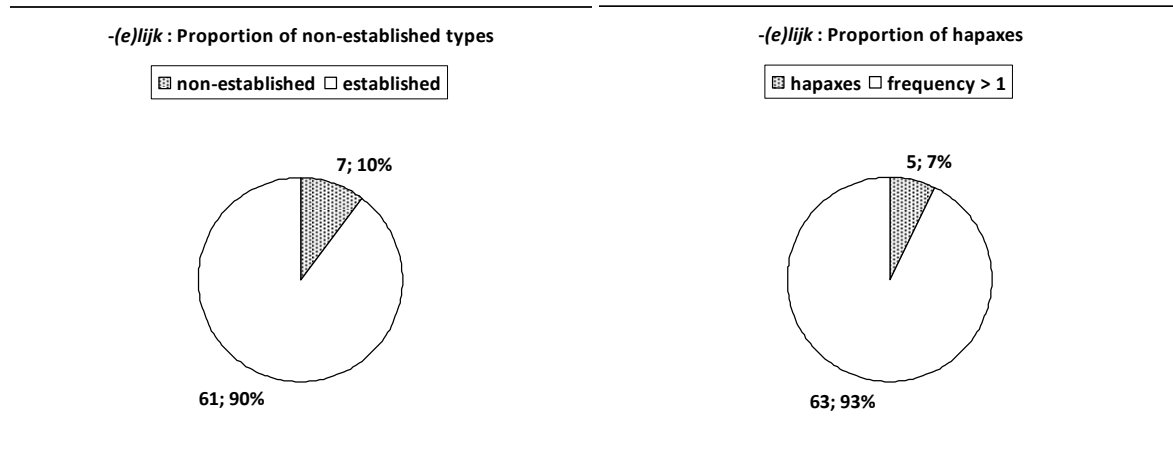
Some Gm. examples of deadverbial *lich*-lexemes are *sämt-lich* 'all', *sonder-lich* 'particular' and *wider-lich* 'repulsive' (see Kühnhold/Putzer/Wellmann 1978: 415).

(3) Synchronic indicators of productivity

The adverbial suffix *-(e)lijk* is archaic and deemed unproductive in CD. Synchronic indications seem to confirm this. The adjectival scope is wide and allows non-Gmc. base words. The application rate for *-(e)lijk* in CD may be high in terms of type frequency in the corpora, but if we compare these types with Van Dale (2005), we find that most of them are recorded there. Only 10% of the types in the corpora are non-established and thus potential new formations, namely *plots-elijk* 'suddenly', *evident-elijk* 'evidently', *voorzichtig-lijk* 'carefully', *gelukkig-lijk* 'fortunately' and additionally, formed

on the basis of *ief*-derivatives, *foutiev-elijk* ‘mistakenly’, *expressiev-elijk* ‘expressively’, *obsessiev-elijk* ‘obsessively’ (all in ANW). Five of them are hapaxes which amounts to only 7% of all types in the corpora. The results are visualised in the pie charts in figure 7.2.

Figure 7.2. Frequencies for *-(e)lijk* in contemporary Dutch corpus data (68 types = 100%).



The results in figure 7.2 may be indicators only for limited new formation with the deadjectival pattern. With only two deadverbial types in the inventory, there are no indications of productivity for deadverbial derivation.

7.2.2 Modifier types

De Haas/Trommelen (1993: 353) state that the meaning of ADV formed with *-(e)lijk* is very diverse and unsystematic. Thorough inspection shows that they occur across modifier types.

(1) Qualifying modifiers

Dt. deadjectival *(e)lijk*-lexemes are split up in the literature in prototypical ADV and prototypical ADJ. A class of prototypical ADV or ‘manner ADV’ is listed by ANS (1997), de Haas/Trommelen (1993) and Van Dale (2005) with words which are claimed to be only used as qualifying modifiers, e.g. *vals-elijk* ‘falsely’, *vrij-elijk* ‘freely’. Interestingly, as qualifiers, they are synonymous to their qualifying input ADJ when these are used adverbially (see chapter 3). Compare *vals-elijk* ‘falsely’ (7.8) and *vals* ‘falsely’ (7.9).

(7.8) CD/1991/38MWC
Werknemers werden vele jaren **valselijk** voorgelicht, bedreigd en geïntimideerd (...).
‘For years employees were falsely informed, threatened and intimidated (...).’

(7.9) CD/1993/38MWC
Voorzitter Panman denkt, dat de boeren **vals** zijn voorgelicht over het vervuilde slib.
‘Chairman Panman believes that the farmers have been falsely informed on the polluted mud.’

For a small proportion of the Dt. *(e)lijk*-ADV it has been noticed in the literature that they occur attributively with the inflectional ending *-e* (e.g. Schultink 1962, ANS 1997), e.g. for *abusiev-elijk* ‘abusively’, *respectiev-elijk* ‘respectively’ and *successiev-elijk* ‘successively’. Examples from the corpus are *een abusiev-elijk-e doorhaling* ‘an erroneous deletion’ (1995/38MWC), *het (abusiev-elijk) neerschieten* ‘the erroneous shooting’ (1995/ANW), *de respectiev-elijk-e echtgenotes* ‘the respective spouses’ (1992/38MWC), *met successiev-elijk-e percentages* ‘with successive percentages’

(2001/ANW), *de successiev-elijk-e aanpak* ‘the successive approach’ (1998/ANW). It is striking that the (foreign) input ADJ of these derived lexemes are rare in the corpora: the derived words with *-(e)lijk* appear to be much more established. ANS (1997) considers attributive use as in the above cases grammatical, but warns that it may not be acceptable to all language users. Prescriptive grammar persists in differentiating between *(e)lijk*-derivatives for adverbial functions and unsuffixed base words for attributive functions. It overlooks that there are further supposed *(e)lijk*-ADV which exhibit attributive use, e.g. *herhaald-elijk* ‘repeatedly’, which indicates frequency. It is synonymous with its input word *herhaald* ‘repeated(ly)’. Consider adverbial use of *herhaald* ‘repeatedly’ (7.10) and *herhaald-elijk* ‘repeatedly’ (7.11) on the one hand, and attributively used inflected *herhaald-e* ‘repeated’ (7.12) and *herhaald-elijk-e* ‘repeated’ (7.13) on the other hand. These synonymous examples suggest that *-(e)lijk* is merely a pleonastic extension (see section 7.2.3).

(7.10) CD/1994/38MWC

In tegenstelling tot de twee voorgaande criteria, die zonder bezwaar zonder onderbreking **herhaald** kunnen worden toegepast, zou dit criterium slechts incidenteel onverwacht uit de kast moeten worden gehaald.

‘Contrary to the two preceding criteria, which can be freely applied repeatedly and continuously, this criterion should be pulled out only incidentally and unexpectedly.’

(7.11) CD/1995/38MWC

Wat betreft het antwoord op de vraag of Van Riel, zoals **herhaaldelijk** is gesuggereerd, graag minister van Defensie had willen worden, kan men alleen maar speculeren (...).

‘With respect to the answer to the question whether Van Riel, as has been insinuated repeatedly, would have liked to become the Defence Minister, one can merely speculate (...).’

(7.12) CD/1994/38MWC

Hij had zijn volle medewerking gegeven aan de blaastest, maar na **herhaalde** proeven bleek het apparaat kapot.

‘He had totally cooperated to the breath test but after repeated attempts the machine appeared to be broken.’

(7.13) CD/1994/38MWC

Ondanks **herhaaldelijke** controle is er in het voorjaar een dusdanige verstopping opgetreden in een weekend, waardoor de vijvers volledig door rioolwater zijn vervuild (...).

‘Despite repeated inspection a blockage occurred in a weekend in the Spring which was so bad that the lakes were completely polluted by the sewage water (...).’

In Gm., too, there is a small class of qualifying *lich*-ADV, e.g. *fälsch-lich* ‘falsely’, *innig-lich* ‘profoundly, dearly’; as in Dt., they are normally synonymous with their qualifying base ADJ, compare *innig-lich* ‘dearly’ (7.14) and *innig* ‘dearly’ (7.15). Substitution by the base is not possible for *lich*-ADV with an idiomatic meaning, e.g. *schwer-lich* ‘hardly’ vs. *schwer* ‘heavy, difficult’.

(7.14) CG/1996/DWDS

der Kanzler und Zar Boris Grosnyi, **inniglich** umarmt. Kommentar: Die herzliche Nähe der beiden Staatsmänner ist spürbar.

‘The Chancellor and tsar Boris Grosnyi, dearly embraced. Comment: you feel the cordial closeness of these statesmen.’

(7.15) CG/1999/DWDS

Andreas küßte seine Mutter auf den Mund, lange und **innig**.

‘Andreas kissed his mother on the mouth, long and dearly.’

For En. there is a vast literature on *-ly* as a creator of so-called ‘manner ADV’ on the basis of qualifying ADJ (compare chapter 3). These prototypical ADV cannot be substituted by their input ADJ and they cannot be used predicatively or attributively.

Besides the class of ‘manner ADV’ or qualifying ADV the literature assumes a class of qualifying *(e)lijk*-ADJ in Dt. As prototypical ADJ, they may be used attributively as well as adverbially, e.g. *het lief-lijk-e dorpje* ‘the charming village’ (2003/ANW) vs. *lief-lijk ogend landschap* ‘charmingly looking scenery’ (2003/ANW), and *rijk-elijk-e Spaanse gewaden* ‘rich Spanish garments’ (n.d./ANW) vs. *rijk-elijk gestoffeerde fauteuils* ‘richly upholstered armchairs’ (2002/ANW). Van Dale (2005) considers these ADJ a mixed class of items which do not have a particular meaning in common. Such a class of deadjectival qualifying ADJ has also been identified for En. *-ly*, e.g. *a dead-ly conversation, an elder-ly bike, a low-ly job*. Hamawand (2007) interprets the contribution of *-ly* here as ‘having the nature of the thing specified by the adjectival root’. Qualifying *lich*-ADJ constitute a rather large class in Gm. with clearly defined semantics. From the literature (Spycher 1956, Kühnhold/Putzer/Wellmann 1978, Ros 1992 and Fleischer/Barz 1995) we infer that *-lich* attached to ADJ predominantly encodes APPROXIMATION to the quality expressed by the base ADJ, e.g. *gelb-lich* ‘yellowish’, *grün-lich* ‘greenish’, *süß-lich* ‘sugary’, *säuer-lich* ‘sourish’, *dick-lich* ‘chubby’ and see *kränk-lich* ‘poorly, feeling sick’ in (7.16).

(7.16) CG/1998/DWDS

Die junge Angeklagte ist **kränklich**. Das gibt dem Vorsitzenden Anlaß zu der Bemerkung: - Wenn Sie so unter Kreislaufstörungen leiden, sollten Sie doch zu Hause bleiben.

‘The young defendant is feeling sick. This is a reason for the foreman to say: “If you are so dizzy you should stay at home.”’

Gm. deadjectival *-lich* may also express a TENDENCY or inclination towards the quality expressed by the input ADJ, e.g. *kränk-lich* ‘sickly, unhealthy’ in (7.17). It is implied that there is some permanency or repetition in the ascribed quality. Notice in (7.17) that the interpretation of TENDENCY may actually be evoked by the presence of the sequence of modifiers *immer* ‘always’ and *etwas* ‘somewhat’.⁹⁸

(7.17) CG/1972/DWDS

Dort sind Ascaso und Durruti meine Freunde geworden. Ascaso war ein sehr freundlicher Genosse, ironisch und vernünftig, sanft und nachdrücklich zugleich; er schien mir immer etwas **kränklich** zu sein. Durruti dagegen wirkte baumstark, athletisch (...).

‘That is where Ascaso and Durruti became my friends. Ascaso was a very friendly comrade, ironic and bright, gentle and emphatic at the same time; he always seemed to be a bit sickly to me. Durruti, however, looked exceedingly strong, athletic (...).’

As indicated above, Van Dale (2005) notes that Dt. *-(e)lijk* derives ADJ which do not have a particular meaning in common. However, in the material we can identify a class of derivatives in which a TENDENCY is expressed, e.g. *goe-lijk* ‘good-natured, benevolent’, *bang-elijk* ‘timid, easily frightened’ (7.18) and *kouw-elijk* ‘sensitive to the cold’ (7.19) (compare De Vooy 1967: 235).⁹⁹ An inclination may also be expressed by En. *-ly*, e.g. *sick-ly* ‘habitually indisposed’.

(7.18) CD/2001/ANW

Hij was een gehoorzaam en wat **bangelijk** kind, maar hij schuifelde voorzichtig de aartsdonkere trap op.

‘He was an obedient and timid child, but he carefully shuffled to the pitch-dark stairs.’

(7.19) CD/n.d./ANW

Ook als je **kouwelijk** bent en je eigenlijk pas goed voelt bij een temperatuur van 23 à 25 graden wijst dat op Serotoninetekort.

‘If you are sensitive to the cold and in fact only feel well when the temperature is 23 to 25 degrees this is another indication for a serotonin deficit.’

⁹⁸ I thank Saskia Schuster for this observation.

⁹⁹ Observe that in regional varieties of Dt., *bang-elijk* has an idiomatised meaning, ‘terrific’.

In a few individual derivatives *-(e)lijk* may encode an APPROXIMATION, e.g. *kouw-elijk* 'chilly' (7.20) or a SIMILARITY, e.g. *ziek-elijk* 'morbid' (7.21) or *ouw-elijk* 'oldish, elderly' (7.22) in which there is an additional pejorative connotation (compare De Vooy's 1967: 235).¹⁰⁰

- (7.20) CD/2001/ANW
Ewa's jongen lag bevallig tegen hem aan (...), zijn benen waren bloot en koud. Beschermend lag de hand van haar vader op die **kouwelijke** huid.
'Ewa's boy was cuddled up to him (...), his legs were bare and cold. His father's hand was lying protectively on that chilly skin.'
- (7.21) CD/1985/ANW
Mijn voorraad hotelpapier was op en ik had mijn orderboek genomen. De in de afgelopen dagen toch al onzinnige noteerlust was nu een **ziekelijke** dwang geworden.
'My supply of paper from the hotel was used up and I had taken my order book. My already absurd urge to make notes from the past days had now turned into a morbid obsession.'
- (7.22) CD/2001/ANW
Een lelijke, **ouwelijke**, kale man in een grijsgestreept pak en zonder overjas stoomde op haar af: 'Mevrouw! Mevrouw!' riep hij in paniek, met een zwak pieperig stemmetje, alsof hij een sprekende pop had ingeslikt.
'An ugly, elderly, bald man in a grey striped suit without overcoat rushed to her and shouted: 'Madam! Madam!', panic-stricken, with a weak squeaky voice, as if he had swallowed a talking doll.'

Van Dale (2005) indicates that in *zoet-elijk* 'sticky-sweet', the quality expressed by the base ADJ is excessively present, see (7.23). Thus, *-(e)lijk* establishes a REINFORCEMENT of the inherent quality, in this particular case in a figurative sense, referring to sentimentality. In Gm., this meaning is found for *süß-lich* 'sticky-sweet' as well, see (7.24), although the APPROXIMATION meaning is more common.

- (7.23) CD/1995/ANW
Maar juist met de ál te rooskleurige, bijna **zoetelijke** ontknoping daarvan stelt Vargas Llosa teleur.
'But especially with that much too rosy, almost sticky-sweet dénouement Vargas Llosa is disappointing.'
- (7.24) CG/1998/DWDS
Die Ausdrucks-skala spannt sich von weicher, mitunter etwas **süßlicher** Lyrik bis zu stärkster dramatischer Kraftentfaltung (...).
'The scale of expression ranges from soft, partly somewhat sticky-sweet lyric to the strongest of dramatic power unfolding (...).'

(2) Quantifying modifiers

Among the deadjectival *(e)lijk*-derivatives we discover a few which may be used as quantifiers. Consider *licht-elijk* 'somewhat, slightly' (7.25), *hog-elijk* 'highly' (7.26). In addition the derivative *rijk-elijk* 'copious(ly)' has an idiomatic quantifying meaning which is distant from the qualifying input word *rijk* 'rich', see (7.27). The idiomatized Dt. lexeme *voornam-elijk* 'principally' also functions as a quantifier.

- (7.25) CD/1978/ANW
De portier keek hem **lichtelijk** verbaasd aan.
'The doorkeeper looked at him, slightly surprised.'
- (7.26) CD/2002/ANW
Het was te zien dat dat antwoord Jan **hogelijk** verbaasde.
'It was obvious that Jan was very surprised by this answer.'

¹⁰⁰ The spelling of the derivatives *kouw-elijk* and *ouw-elijk* as opposed to their base words *koud* 'cold' and *oud* 'old' reflects their pronunciation in spoken Dt. and is fully conventional.

- (7.27) CD/n.d./38MWC
Er is **rijkkelijk** voedsel aanwezig en ook mensen die het in ontvangst nemen.
'There is plenty of food and people willing to receive it.'

Gm. has quantifying *lich*-ADV as well, e.g. *reich-lich* 'copiously' (7.28) and *ganz-lich* 'completely'.

- (7.28) CG/1991/DWDS
Meinen Sie nicht, daß Sie etwas zu **reichlich** getrunken haben?
'Don't you think that you drank a little too much?'

(3) Temporal localisers

Temporal localisers include *laatst-elijk* 'recently', *recent-elijk* 'recently'. They seem to be absolute synonyms of their unsuffixed input words, which have the same time localising function. Compare also adverbial *recent-elijk* 'recently' in (7.2) above and *recent* 'recently' in (7.4) above. Moreover, *recent-elijk* 'recently' is attested as an inflected prenominal attribute, compare (7.3) above. This results in full synonymy with the base ADJ. Compare adverbial *laatst-elijk* 'recently, lately' (7.29) with adverbial *laatst* 'recently, lately' (7.30).

- (7.29) CD/1995/ANW
Dergelijke ruzietjes komen regelmatig voor, **laatstelijk** kolommenlang tussen Rudy Kousbroek en Hans Ree.
'Such quarrels occur all the time, recently for columns in a row between Rudy Kousbroek and Hans Ree.'

- (7.30) CD/2002/ANW
nou ja, d'r zijn zo goed als geen mussen meer las ik **laatst** in de krant, maar goed.
'Well, there are hardly any sparrows left as I recently read in the paper, but whatever.'

In Gm., there are a few idiomatic lexemes with *-lich* which function as temporal ADV, e.g. *neu-lich* 'recently', *kürz-lich* 'recently'. There is not the same degree of overlap as in Dt.: there is a significant meaning difference between the derived ADV *kürz-lich* 'recently' in (7.31) and the adverbially used base *kurz* 'briefly' in (7.32). Whereas the base ADJ is a qualifier which denotes time duration, the derivative is a localiser.

- (7.31) CG/1999/DWDS
Er habe **kürzlich** in einem Zeitungsartikel geschrieben, das Bündnis sei da, um gegen einen Gegner geschützt zu sein.
'(He said that) he recently wrote in a newspaper article that the coalition is there to be protected against an opponent.'

- (7.32) CG/1999/DWDS
Ada steht auf und streicht Nils **kurz** über die Haare.
'Ada gets up and briefly strokes Nils' hair.'

(4) Modal and evaluative modifiers

Dt. has a small class of *(e)lijk*-derivatives which function as modal or evaluative modifiers. In (7.33), *wijs-elijk* provides a modification of the proposition in terms of a subjective evaluation, i.e., 'I consider it wise (of my brother-in-law) that he put out his cigarette'. Compare unsuffixed *wijs* 'wisely, sensibly' (7.34), which is used adverbially to provide a specification of quality of the VP in terms of manner, i.e., 'in a wise manner'.

(7.33) CD/1995/38MWC

Mijn zwager, die **wijselijk** zijn sigaret gedoofd had, hielp me uit de penarie.
'My brother-in-law, who had wisely put out his cigarette, got me out of trouble.'

(7.34) CD/1993/38MWC

Premier Rabin heeft z'n leger in een radiotoespraak opgeroepen om hard en **wijs** op te treden tegen pogingen om het vredesproces te frustreren.
'In a radio speech prime minister Rabin called on his army to act forcefully and sensibly against any attempts to thwart the peace process.'

It is not possible to interpret *wijs-elijk* in (7.33) as a qualifying modifier (which would be, putting out the cigarette in a wise manner). Likewise, in (7.35), *waar-lijk* 'truly' evaluates the proposition. In Diepeveen (2011a), I have shown that the same analysis applies to *(on)gelukkig-lijk* '(un)fortunately'.

(7.35) CD/2003/ANW

En dat de politie misschien zou denken dat ze hem onderdak had geboden. Zou de politie dat **waarlijk** denken? Welneen.
'And that the police might think she had put him up with a bed. Would the police truly think that? Of course not.'

In Gm., too, there are modal ADV formed with *-lich*, e.g. *wahr-lich* 'truly', see (7.5) above, evidential *bekannt-lich* 'as is well-known', epistemic *sicher-lich* 'certainly'. Only for the latter holds that the base *sicher* 'certain(ly)' is itself inherently epistemic. In comparison with Dt. and Gm., En. has a very productive class of *ly*-ADV functioning as evaluative modifiers (see chapter 4).

7.2.3 Contribution of *-(e)lijk*

When *-(e)lijk* is added to existing modifying words, we may differentiate between a grammatical value (1) and a semantic value (2).

(1) Grammatical value

The suffix *-(e)lijk* is presented in the literature as a categorial marker of adverbiality. However, this analysis has to be modified.

Turning inherently qualifying ADJ into quantifying ADV, e.g. *hog-elijk* 'highly', the contribution of *-(e)lijk* is indeed adverbial. The derivatives cannot be substituted by the unsuffixed base word. It is clear that there is an accompanying semantic modification. Turning inherently qualifying ADJ into interpersonal ADV, e.g. evaluative *wijs-elijk* 'wisely' or modal *waar-lijk* 'truly', *-(e)lijk* may also be interpreted as adverbial: it restricts the syntactic valency of the input ADJ since the output cannot be used attributively and avoids inflection. This grammatical pattern is accompanied by a semantic pattern, see below.

It has been claimed that *-(e)lijk* may attach to inherently qualifying ADJ to create qualifying ADV which cannot be used attributively and shun inflection. This would be a pattern similar to En. *-ly* which, added to inherently qualifying ADJ, produces ADV which do not allow attributive or predicative use. This adverbialising function has been observed for Gm. *-lich* by e.g. Fleischer/Barz (1995: 263). However, they find that this grammatical function is disappearing and that certain qualifying *lich*-derivatives are used attributively and inflected (see section 7.3). Thus, *-lich* is pleonastic. We have seen that in Dt., too, derivation by *-(e)lijk* may result in qualifiers which may be used attributively and inflected just like their input. The suffix is not grammatically required: the derivatives may be substituted by the unsuffixed base word. This suggests that the output lexemes are prototypical ADJ just like their input and that *-(e)lijk* is pleonastic. The pleonastic pattern may provide evidence for the

intuition by Booij (2002: 133) that the pattern with *-(e)lijk* is archaic, implying that the derived words are remnants from older Dt.

The literature has also referred to an adjectival suffix *-(e)lijk* added to prototypical ADJ. It can be confirmed that this pattern results in prototypical ADJ with the same syntactic valency as their input. This is fully parallel with Gm. *-lich*. Spycher (1955: 84) already referred to the “remarkable situation” that the Gm. suffixes *-lich* and *-ig* derive ADJ from ADJ, i.e. do not change the category of the input. This deadjectival pattern makes a semantic contribution.

In addition, it has been claimed for Gm. *-lich* that it may recategorise prototypical ADV into ADJ, e.g. *samt: sämt-lich* ‘all’ (Fleischer/Barz 1995: 263). Whereas the input cannot be used attributively and inflected, the *lich*-derivative can. Examples of this pattern in Dt. are only incidental. There were only two examples where *-(e)lijk* is added to prototypical ADV. The status of the products is unclear.

(2) Semantic value

The semantic spectrum of Dt. deadjectival and deadverbial *-(e)lijk* is poorly described, but I provided evidence in section 7.2.2 that a number of semantic values can be identified just as there have been for Gm. I referred to the primary values of APPROXIMATION, TENDENCY, SIMILARITY and I pointed out that *-(e)lijk* may transform inherently qualifying modifiers into quantifiers and interpersonal modifiers. I further illustrated the secondary semantic value of REINFORCEMENT and pointed at the incidental presence of a PEJORATIVE connotation. Schultink (1962: 147) referred to a stylistic effect which he described as a component of “solemnity”. He observes that derived ADV with *-lijk* are typically used in a “solemn”, formal context. He adds that a component of irony may emerge if they are used in a different situation. This solemnity effect indeed explains some examples from a formal or legal context, but there are counterexamples, e.g. the foreign base words may be perceived as more learned than their derived counterparts (compare *abusief / abusievelijk* ‘mistaken(ly)’). Table 7.1 gives an overview of the semantic spectrum of *-(e)lijk*.

Table 7.1. Semantic spectrum of *-(e)lijk*.

VALUE		PATTERN	EXAMPLE
PRIMARY	APPROXIMATION	[[x] _{ADJ} (e)lijk] _{ADJ}	<i>koud</i> ‘cold’ : <i>kouw-elijk</i> ‘rather cold’
	EVALUATIVE	[[x] _{ADJ} (e)lijk] _{ADV}	<i>wijs</i> ‘wise’ : <i>wijs-elijk</i> ‘wisely’
	QUANTIFIER	[[x] _{ADJ} (e)lijk] _{ADV}	<i>hoog</i> ‘high’ : <i>hog-elijk</i> ‘highly’
	SIMILARITY	[[x] _{ADJ} (e)lijk] _{ADJ}	<i>ziek</i> ‘sick’ : <i>ziek-elijk</i> ‘morbid’
	TENDENCY	[[x] _{ADJ} (e)lijk] _{ADJ}	<i>bang</i> ‘afraid’ : <i>bang-elijk</i> ‘timid’
SECONDARY	PEJORATIVE	[[x] _{ADJ} (e)lijk] _{ADJ}	<i>oud</i> ‘old’ : <i>ouw-elijk</i> ‘oldish, elderly’
	REINFORCEMENT	[[x] _{ADJ} (e)lijk] _{ADJ}	<i>zoet</i> ‘sweet’ : <i>zoet-elijk</i> ‘sticky-sweet’
STYLISTIC	FORMAL	[[x] _{ADV} (e)lijk] _{ADV}	<i>laatst</i> ‘recent(ly)’ : <i>laatst-elijk</i> ‘recent(ly)’
PLEONASTIC		[[x] _{ADJ} (e)lijk] _{ADJ}	<i>herhaald</i> ‘repeated(ly)’ : <i>herhaald-elijk</i> ‘repeated(ly)’

In early research it has been claimed that En. *-ly* has a primary semantic value as it creates qualifying ADV, more specifically, those specifying manner. However, since the last decades there is strong agreement that deadjectival *-ly* can be associated with the creation of modifiers across all semantic classes (e.g. Brinton/Traugott 2005, Payne/Huddleston/Pullum 2010: 72-73). The adverbial suffix *-ly* does not make a particular semantic contribution to the base ADJ but it is to a large extent polysemous. Its vagueness allows the output words to be polyfunctional, i.e., *ly*-derivatives occur across all modifier types (see chapter 4). Even one and the same lexeme may fit into more modifier types (compare Payne/Huddleston/Pullum 2010: 71). For instance, the *ly*-derivative *happily* may qualify the verbal predicate in terms of manner or it may provide a subjective evaluation of the proposition (compare chapter 5).

(3) Rival suffixes

In the niche of APPROXIMATION, Dt. *-(e)lijk* has competition from *-tjes* (Klimaszewska 1983: 43, WNT/*zwakkelijk* and see chapter 13 on *-tjes*). Other competitors, which predominantly express SIMILARITY, are *-achtig*, *-ig* and *-erig*. In Gm. *-lich* is competing with other native suffixes including *-ig*, *-isch* and *-haft* (Ros 1992: 140). It is the suffix *-haft* which expresses SIMILARITY (compare Dt. *ziek-elijk* with Gm. *krank-haft* ‘morbid’). Notice that in En., APPROXIMATION to a quality is usually expressed by *-ish*, e.g. *blu-ish*, *old-ish* (Hamawand 2007). En. uses *-y* for SIMILARITY with the quality denoted by the base ADJ, e.g. *green-y purple* (Hamawand 2007).

7.3 Diachronic description

The adverbial suffix *-(e)lijk* is already discussed in grammars in the EModD period, e.g. Van Heule (1625, 1633) and Kók (1649) (see section 2.2). The historical dictionary WNT has an entry on *-(e)lijk* and some diachronic observations on the suffix were made by Stoett (1895), Paardekooper (1991) and van der Horst (2008). The suffix has a Gmc. origin. The Dt. grammarian Christiaan Van Heule claimed in the 17th ct. that the source for *-(e)lijk* was the independent ADJ *gelijk* ‘equal, alike’. The connection with a homonymous ADJ was also pursued by Gm. linguists like Wilhelm Wilmanns (see Schmid 1998: 97). However, linguists today agree that the source for *-(e)lijk* is a homonymous lexical N. It has been claimed that grammaticalisation into a suffix was realised in the individual Gmc. languages, e.g. Erben (2006: 148). Others claim that the development into a suffix had already taken place in early Gmc. texts (e.g. Charles T. Carr in Schmid 1998: 96).¹⁰¹ I shall start from the assumption that the morpheme was already on its way to grammaticalisation in the Gmc. period. The diachronic investigation includes the earliest attestations of Dt. deadjectival (and deadverbial) derivatives with *-(e)lijk* (see appendix to chapter 7). My investigation uses existing information on the diachrony of the En. equivalent *-ly* (e.g. Uhler 1926; Pounder 2001) and the Gm. equivalent *-lich* (e.g. Heinle 1987; Bentzinger 1992; Schmid 1998, 2000; Pounder 2001; Heinle 2004; Erben 2006; for Middle Low Gm. *-like*, see Mähl 2004).

7.3.1 Origin of *-(e)lijk*

The suffix *-(e)lijk*, En. *-ly* and Gm. *-lich* have their origin in a Gmc. N **-līkaz* ‘body, shape, appearance’ (Gt. *leik*, OGm. *līh*, OE *lic*, OG *līh*, MG *like*, OD *līk*, MD diphthongised *lijc*). The PIE predecessor must

¹⁰¹ Possible evidence may be that the same patterns and corresponding derived words are found in the oldest phases of the Gmc. languages (Schmid 1998: 122). Thus, OG *arma-līh*, OE *earm-lic* and Old Norse *arm-ligr* may have a Gmc. predecessor **arm-a-līk-a-* (Schmid 1998: 461). However, we should be aware that structurally similar patterns may be inventions of the individual Gmc. languages due to similar lexical and morphological material (Schmid 1998: 92-93). Individual derivatives or base words may further have been borrowed across the Gmc. languages (Schmid 1998: 529).

have meant something like ‘form, appearance’ (*EWN/wijze*). The N *lijk* ‘corpse’ survives in Dt. as does *Leiche* ‘corpse’ in Gm. Historically, we have to differentiate two stages: the grammaticalisation process from N into deadjectival suffix (1) and reanalysis into an adverbialising suffix (2). Systemic developments caused a formal overlap of these two patterns (3). We may also take a look at the variant forms *-lijken* (4) and *-iglijk* (5).

(1) From noun to suffix: the start of deadjectival derivation with *-(e)lijk*

The older phases of the Gmc. languages display exocentric compounds (bahuvrihi formatives) with the N **-likaz* in a structure **x-lik-* ‘having an appearance which is x’, where x could be a PRON, ADV, ADJ or N (compare Schmid 1998: 95). These compounds may be classified as ADJ specifying a quality of the referent in a possessive relation. With an adjectival first component we find Gt. *liuba-leiks*, OG *liob-līh* ‘having a lovely appearance’, and with an adverbial first component, Gt. *swa-leiks* ‘having such an appearance’, OG *suntar-līh* (Schmid 1998, Erben 2006). The morpheme **lik-a-* made explicit the presence of property x in its bearer. The adverbial component implies a comparison in terms of equality or non-equality of two referents; with an adjectival component, there is a comparison in terms of a concrete property.

The Gt. material suggests that already very early, the morpheme **lika* may have developed a more abstract, qualifying meaning which paved the way for its becoming a grammatical element (Schmid 1998: 95). Its meaning contribution ‘having an appearance which is x’ bleached into ‘corresponding with x’ (Heinle 2004: 134). Speakers were no longer conscious of the semantic and grammatical connections of the parts of the compound. Applied systematically to ADJ, a suffix OD *-lik*, OE *-lic*, OG *-līh* came into existence for the creation of qualifying ADJ. Compare the OD inflected predicative ADJ *reh-lic-a* ‘sincere’ (7.36).

- (7.36) OD/901-1000/ONW/rehtlik
 (...) gelouoda sulun uerthun alla **rehlica** an hertin.
 ‘(...) praised will be all who are sincere from heart.’

What was the semantic contribution of the suffix to the input ADJ? For the OE *goodly*-type, Marchand (1969: 330) refers to the meaning of ‘resemblance to the quality implied in the basis’. As for OG *-līh* there was an old claim that it enabled base ADJ which denote a concrete property to be used with abstract reference, but this claim has been rejected by Schmid (1998: 96). There are plenty of *līh*-derivatives with concrete reference, e.g. *ein tiur-līh marigreoz* ‘Lt. pretiosa margaritha’ (Schmid 2000: 42). Schmid (1998) has shown for OG and Pounder (2001) for OE that the suffix could form ADJ which appear to have been synonymous to the base: attaching *-līh/-lic* is pleonastic since it does not establish a semantic change. Schmid (1998: 467) argues that the pleonastic pattern was inherited from the old Gmc. bahuvrihi structure, where **lik-a-* made explicit the presence of property x in its bearer.

If we investigate the oldest Dt. attestations of *lik*-ADJ and the definitions in their entries in ONW and VMNW, we find that the suffix may have contributed a range of semantic values. Included is a pleonastic pattern, where it does not seem to have established a semantic modification. Table 7.2 presents the semantic potential of the suffix.

Table 7.2. Semantic spectrum of *-līk* in OD and EMD.

VALUE		PATTERN	EXAMPLE ONW/VMNW
PRIMARY	TENDENCY	[[x] _{ADJ} (e)lijk]	<i>dicke</i> 'fat' : <i>dicke-like</i> 'tending to be fat'
	MANNER	[[x] _{ADJ} (e)lijk]	<i>hart</i> 'harsh' : <i>hard-elike</i> 'in a harsh manner'
	SIMILARITY	[[x] _{ADJ} (e)lijk]	<i>diur</i> 'precious' : <i>diur- līk</i> 'dearly, expensive'
SECONDARY	REINFORCEMENT	[[x] _{ADJ} (e)lijk]	<i>groot</i> 'big' : <i>grōt-līk</i> 'enormous'
	PEJORATIVE	[[x] _{ADJ} (e)lijk]	<i>weec</i> 'weak' : <i>wek-elike</i> 'feeble'
PLEONASTIC		[[x] _{ADJ} (e)lijk]	<i>dun</i> 'thin' : <i>dun-lijk</i> 'thin'
		[[x] _{ADV} (e)lijk]	<i>nauwe</i> 'hardly, barely' : <i>nauwe-like</i> 'hardly, barely'

In the older Gmc. languages, grammaticalisation may have been stimulated by the existence of a homonymous ADJ, e.g. OG *līh* 'alike, appropriate' (Erben 2006: 149). It has further been observed that there may have been influence from Lt. on the formation of ADJ with *-līh* in the older Gmc. languages (see references in Schmid 1998: 108-109). In this view, the Gmc. languages cultivated the pattern to render a Lt. complex structure in translation (e.g. in glosses or dictionaries), where they came to similar results. E.g., Lt. *simplic-iter* 'simply' is rendered in OG as *einfalt-līh*, in Old Norse as *einfall-d-lijk* (Schmid 1998: 459). Schmid (1998: 457) argues that such cases can indeed be found, but they can be separated from the much larger class of native Gmc. derived ADJ without a foreign model.

Schmid (1998) points out yet another interesting observation. He argues that OG *līh*-ADJ with abstract reference (e.g. *wīs-lich* 'wise') may have emerged through a process of back formation from preceding ADV. This occurred when verbal phrases (e.g. *Singent uuīs-lich* 'sing wisely') were turned into NPs (e.g. *uuīs-lich-on uuórton* 'wise words') in a tendency to nominalisation. Many ADV ending in *-līhho* are attested earlier than the corresponding ADJ in *-līh* (Schmid 2000). It is clear that there is a close tie between the adjectival suffix and the adverbialising pattern OD *-līko*, OE *-lice*, OG *-līhho*.

(2) Reduction and reanalysis: adverbialising *-(e)lijk*

Above I have referred to compounds which may be classified as ADJ specifying a quality of the referent in a possessive relation. It is usually assumed that an ADV could be derived from these complex ADJ using the regular adverbialising suffix *-o* (Heinle 2004: 134). Already in Gt., ADV are recorded which are formed with *-leik-o*, e.g. *alja-leik-o* 'differently, in a different manner', *ana-leik-o* 'in the same manner', *lapa-leik-o* 'gladly, with pleasure' (Heidermanns 1996: 259-260, Schmid 1998: 449-450). In OG texts, too, there is a high number of ADV ending in the sequence *-līhh-o*, e.g. *wīs-līhh-o* 'wisely, in a wise way' (Heinle 2004: 134). The corresponding OE form is *-lic-e*. Consider OE *earm-lic-e* 'in a miserable way' (7.37), OD *reh-lic-o* 'rightly, just' (7.37), OG *árme-līhh-o* 'pitifully' (7.39) (examples from Schmid 1998: 494; Schmid 2000: 46-47 and ONW).

(7.37) OE
 þe wæron butan scylde swa **earmlice** acwealde.
 'They were killed in a miserable way without being guilty.'

(7.38) OD/901-1000/ONW/rehtlīko
 Of giuaro geuuisso rehnussi spreket, **rehlico** irduomit kint manno.
 'If you verily administer justice, judge rightly, sons of man.'

- (7.39) OG
 so siê sih **ármelícho** dir ergében.
 'As they surrender to you pitifully.'

For Gm. it has been claimed that the ADV may have been directly derived from the unsuffixed ADJ by OG *-líhho*, e.g. *baldlíhho* 'bravely, in a way which shows that he is brave' may be derived either from *bald-líh* or directly from *bald*, which are both attested and have the same meaning (Heinle 2004: 136). It was already pointed out that many ADV ending in *-líhho* are attested earlier than the corresponding ADJ in *-líh* (Schmid 2000). In addition, for a number of OG ADV ending in *-líhho* no corresponding ADJ ending in *-líh* is attested, which indicates that the ADV must have been derived directly from the adjectival base using *-líhho* (Heinle 1987: 328, Heinle 2004: 137; but Schmid 1998: 106 warns for hasty conclusions). All of this suggests that OG *-líhho* may have functioned as an autonomous adverbialising suffix (Schmid 2000: 45, Pounder 2001: 304).¹⁰²

Like OG *-líhho*, also OE *-lice* can be shown to have been an autonomous suffix for ADV formation. Here, too, ADV are recorded for which no corresponding ADJ in *-lic* is attested, i.e., *-lice* was a competitor of the adverbial ending *-o* (later *-e*) which was inherited from early Gmc. (Schmid 2000: 45). Thus, the ADV *ryht-e* (7.40) and *ryht-lice* (7.41) are synonymous (Pounder 2001: 317).

- (7.40) OE
 þonne mon þonne ongiete þæt he **ryhte** gedemed habbe.
 'When one perceives that he has rightly judged.'

- (7.41) OE
 gif him þonne God **ryhtlice** and streclice deman wille.
 'If God then wants to rightly and severely judge him.'

Schmid (2000) claims on the basis of these contrastive data from the older Gmc. languages that the adverbialising pattern may have been autonomous already in the Gmc. period, i.e., *bahuvrihi* ADV could be formed with the structure **x-lík-ō(d)* 'in a way which shows that the agent has property x'. Support can be found in Gt., where most of the qualifying ADV in *-leiko* are recorded without a corresponding ADJ ending in *-leiks* (Heidermanns 1996, Schmid 1998: 494). In this view, Gt. *-leiko* was already an adverbialising pattern with the same function as *-o* and *-ba* (see Heidermanns 1996).¹⁰³ The adverbialising function became more prominent and expanded in the West-Gmc. languages (Schmid 1998: 494). This expansion may be connected with a tendency to compare not only concrete referents, but also actions or processes (Schmid 1998: 494).

Thus, the suffixes OG *-líhho* and OE *-lice* had a grammatical value: they were adverbialisers. They did not establish a semantic modification: the meaning of the derived ADV was synonymous with the meaning of the base (Uhler 1926, Schmidt 1998).¹⁰⁴ Likewise, OD *-líko* receives its own entry as an adverbialising suffix in ONW. In OD we find deadjectival derived ADV like *balt-líko* 'boldly', *uus-lico* 'wisely', *war-lich* 'truly' and *reh-lico* 'rightly' (7.38). In sum, the older phases of the Gmc. languages had a relatively clear formal differentiation between adverbial and adjectival uses, with competing suffixes for ADV marking. The adverbialising pattern was so well-established that the suffix was even

¹⁰² The OG adverbialising suffix *-líhho* was not only attached to ADJ but to other parts of speech as well, including N, e.g. *stucki-líhho* 'piecemeal', *gibora-líhho* 'regarding birth' (Heinle 2004: 138) and verbal base words (stem or participle).

¹⁰³ Schmid (1998: 494) however adds that *-leiko* was no real competitor since the other two patterns were applied much more regularly.

¹⁰⁴ Uhler's methodology does not leave room for any other conclusion, see Schmid (1998) for criticism.

pleonastically added to existing ADV, compare OG *oft-lîhho* ‘often’, *in-werth-lîhho* ‘at the inside’ (Heinle 2004: 139).¹⁰⁵

(3) Formal overlap

In the 12th and 13th centuries, there were important changes in the morphological systems of the West-Gmc. languages as a result of phonetic reduction. The ancient systems of ADJ inflection and ADV marking through affixation were strongly affected. With respect to ADV marking, the original adverbial *-o* got reduced to *-e* and was then omitted completely (see also chapter 3). As for ADJ inflection, MD and MG abandoned inflection on predicatively used ADJ as in *reh-lic-a* ‘sincere’ (7.36) (see also chapter 3). Inflection on attributive ADJ was retained. The result was a formal overlap between the uninflected predicative ADJ and the unmarked adverbially used ADJ. In MD, ME and MG there was a tendency to compensate for the loss of ADV marking by *-o/-e* by expanding suffixation by MD *-like*, ME *-lic(e)* and MG *-liche* (see Brill 1871, Schmid 1998, Pounder 2001). An indication that MD *-like* was perceived as an adverbial marker can be observed when it is added to ADJ which would not normally be suffixed, and when it is attached to existing ADV through systematisation, e.g. EMD *gerede-like* ‘swiftly, easily’ (VMNW/gheredelike). In the MG period, too, the suffix *-liche* was extended to existing ADV, e.g. *gërne-lîche*.

One reason why Dt. *-like* and Gm. *-liche* were attractive means for ADV marking may be that they were perceived as clearer markers of adverbiality than the reduced adverbial suffix *-e* (Schmid 1998: 528). Recall that *-e* still functioned as an inflectional ending on attributive ADJ, so it would not have been a practical marker to disambiguate between adverbial and adjectival uses. However attractive, there was also a problem connected with *-like/-liche* as an adverbial suffix in Dt. and Gm.: *-lik/-lich* was still used for the creation of ADJ. This gave rise to several contexts of formal overlap. For Dt., MNW presents the picture of a systematic differentiation between *-lijc* and *-like* in MD: MNW has several double entries (e.g. *vromelijc/vromelike* ‘pious(ly)’, *valschelijc/valschelike* ‘false(ly)’) where the entry ending in *-lijc* is classified as an ADJ, the entry on *-like* as an ADV. However, in actual usage, a strict differentiation between adverbial *-like* and adjectival *-lijc* was not maintained.

First of all, there was a formal overlap of adverbial *-like* with the inflected form of the *lik*-ADJ. Compare the MD derived ADV *sacht-elike* ‘softly’ in (7.42) with the inflected derived attributive ADJ *better-lik-e* ‘bitter’ in (7.43).

(7.42) MD/1348/MNW/sachtelike

Die maniere ooc haers sprekens was ghematech: soe en riep niet, maer met ghemake ende **sachtelike** sprac soe.

‘Her way of speaking was moderate too: she did not shout, but she spoke calmly and softly.’

(7.43) EMD/1265-70/VMNW/bitterlijc

Dat hem oc sprongen vten ogen Wel groet die **betterlike** trane.

‘That also from his eyes sprung largely the bitter tears.’

Secondly, adverbial *-like* could be affected by *e*-apocope, which resulted in a formal overlap with the uninflected derived predicative ADV. Compare the MD ADV *boud-elic* ‘bravely’ in (7.44) with the uninflected predicative ADJ *week-elic* ‘weak’ in (7.45).

¹⁰⁵ However, according to Heinle (2004: 139), the suffix may have made a reinforcing contribution in *inwerthlîhho*. This corresponds with the definition of OE *inwardlice* provided by OED: ‘in or from the inmost heart; with deep emotion or feeling; heartily, fervently, earnestly’.

- (7.44) MD/1403/MNW/toom
Doe seide die hertoge: rijt **boudelic** (...).
'Then the duke said: ride bravely (...).'
- (7.45) EModD/1534/MNW/wekelijc
Dese guede suster Griete was also **weekelic**, dat sie bloet brack.
'This good sister Griet was so sick that she was spitting blood.'

The same contexts of formal overlap have been identified for MG. Heinle (2004) shows that lexemes formed with *-lich* were predominantly used adverbially in the 15th and 16th ct., but nevertheless the share of attributive ADJ was also large. All in all it is hard to tell whether complex ADV first attested in the MD and MG period are the result of *e*-apocope or the product of direct ADV formation with *-lik* (van der Horst 2008). In addition, there is an effect of rhyme or metre on the presence or absence of the final *-e*.¹⁰⁶

For En. adverbialising *-lic(e)*, the chances were better, which was first of all due to systemic factors (see e.g. Pounder 2001 and Diepeveen/Van de Velde 2010). Not only had ME already put aside ADJ inflection, there was also less interference from ADJ derivation with *-lic*. For instance, the semantic pattern of approximation which developed in Gm. never developed in En. (Pounder 2001: 317). In En., the functions of *-ly* were more restricted so that it was easier for the suffix to become associated with ADV marking. There were less contexts in which ambiguity and formal overlap could occur.

(4) The variant form *-lijken*

Already in OG, ADJ ending in *-lih* were adverbialised by means of the ending *-en*, e.g. *jar-líhh-en* 'yearly' (Heinle 2004: 139). This is an original dative ending which was attached to many existing ADV through analogy. The pattern with *-lichen* was continued in MG probably as some kind of compensation: it may have been perceived as a clearer marker of adverbiality than *-lich(e)*, which was also found in adjectival uses (Paraschkewoff 1967: 236 and see above). Interestingly, observations on the pattern are made in 16th ct. Gm. grammar. The grammarian Laurentius Albertus in his *Teutsch Grammatick oder Sprach-kunst* published in 1573 stated that the ending *-lich* usually occurred in Gm. to derive an ADV from an ADJ and that the cluster *-en* was often attached to it (Dibbets 1995: 295).

In MD the same pattern occurred and probably for the same reason of compensation. The variant *-liken* is found in the material and it became a productive category in late MD (van der Horst 2008). In the 16th ct. material, *-liken* is well represented, constituting a variant for *like*-ADV. See *vast-elycken* 'certainly' (7.46) and *rechtueerdich-licken* 'justly' (7.47) and the long list of *licken*-ADV in Kiliaan (1599).

- (7.46) EModD/1575/WNT/vastelijc
Dat **vastelycken** staet te verhoepen (...).
'That may certainly be hoped for (...).'
- (7.47) EModD/1562/WNT/rechtvaardiglijk
Hy (...) werckt seer wel ende **rechtueerdichlicken**.
'He (...) works very well and justly.'

Evidence on the grammatical contribution of Dt. *-lijken* as a marker of adverbiality in the 16th ct. can be found in the very first preparations of a Dt. grammar. Johan Radermacher's *Voorreden vanden*

¹⁰⁶ For instance, *heylich-like* 'holy' may be chosen to rhyme with the n *ertrike* 'earth' (see example in MNW/heiliglike).

<sic> *noodich ende nutticheit der Nederduytscher taelkunste* published in 1568 included a draft definition of the ADV (*bywervich woort*) in which he wrote that ADV mostly end in *-lyken* (Dibbets 1995: 294).¹⁰⁷ Interestingly, Radermacher made some changes in this definition of the ADV: he crossed out his observation on the presence of the marker *-lyken* (Dibbets 1995: 294). One possible explanation is that Radermacher found this observation too strong and had noticed too many counterexamples (Dibbets 1995: 295). Hence he reduced his comment to the rather vague observation that the ADV is an open category.¹⁰⁸

Apparently, the moment of glory of Dt. *-lijken* and Gm. *-lichen* was short. Paraschkewoff (1967: 236) notes that *-lichen* was used predicatively more and more so that it lost its adverbialising ability. The adverbial suffix *-lichen* was found in certain dialects up to the 17th ct. (Heinle 2004: 162). However, *-lich* was the dominant form. Likewise, van der Horst (2008) claims that the variant *-lijken* had lost much of its adverbialising power by the 17th ct. My material confirms this.

(5) The variant *-iglijk*

For Dt. it has been observed in the literature that there was a period in which the sequence *-ig-lijk* was frequently found in ADV. In the EModD material of the 16th and 17th ct., there is a considerable type and token frequency of derived ADV ending in the sequence *-iglijk*. They are e.g. found in the *State Bible* of 1637, an important authority for correct language at the time. Consider *angstich-lick* ‘fearfully’ (7.48).

(7.48) EModD/1637/WNT/vernieting

David zijnde in perijckel van omcingelt ende overvallen te worden, (...) bidt seer **angstichlick** om vernietinge van de aenslagen sijner vyanden.

‘David, in danger of being surrounded and assaulted (...), prays fearfully for cancellation of the assaults of his enemies.’

As far as I know, *-iglijk* has not yet been analysed as an independent suffix but only as a sequence. However, this analysis could make sense. E.g., we observe in the EModD period the phenomenon that originally denominal ADV, e.g. *stat-elijk* ‘stately’, were replaced by ADV formed with *-iglijk*, i.e.: *stat-iglijk*. For several derived words with *-iglijk* first recorded in the 17th ct., there are earlier equivalents without *-ig*.

For Gm. it has been described in the literature that the sequence *-ig-lich* was reanalysed into an autonomous suffix. Already in OG, *-lîhho* could be attached to ADJ derived with *-ig* (e.g. *ēwig-lîhho* ‘eternally’, *kreftîg-lîhho* ‘strongly’) (Heinle 2004). The same holds for OD, e.g. *minn-ec-lich* ‘friendly’ (7.49).

(7.49) OD/1151-1200/ONW/minnigliko

Sancta heléna sie auer ane sprach unde sie vil **minn-ec-lich** bat (...).

‘Saint Helen addressed them again and asked them in a very friendly way...’

The number of words derived with *-lich* from ADJ ending in *-ig* rose firmly from the 11th ct. onwards (Schmid 1998: 616). The number of ADV derived from ADJ in *-ic/-ec* (*-ig*) had risen in MG in comparison with OG. There are indications that the whole sequence *-iglich* could be used as an

¹⁰⁷ Original quotation (Radermacher 1568 in Dibbets 1995: 294): “<Een> bywervich woort is, dwelc byt wervighe ghevoecht, vervult desselven beteekening oft verandert se, of vermindert se, als <te weten> die gheminlyken <meestal> einden met dese syllaben *Lyken*. als blydelyken, fellyken *grammelyken*, oft.”

¹⁰⁸ Original quotation (Radermacher 1568 in Dibbets 1995: 294): “(...) dese woorden *wel*, *qualyken*, *luyde*, *heymelyken*, syn bywervighe woorden. syn ook seer veel in ghetalle.”

adverbialiser in MG, in other words, that it should be analysed as a functionally monomorphous suffix (Schmid 1998: 616). In some cases, it is hard to determine the base word: Gm. *frömmiglich* may be derived either from the derived ADJ *frömm-ig* or directly from the ADJ *fromm* (Heinle 2004: 165).¹⁰⁹ From the 9th ct. onwards, the suffix could be attached to simplex ADJ, e.g. *fol-îglîh* (Schmid 1998: 617). It could also be attached to complex ADJ, e.g. MG *zwivel-haft-iclîche* ‘doubtfully’ (Heinle 2004: 152). Moreover, *-iglich* could be attached to abstract feminine N, e.g. *mâht-îglîh* (Schmid 1998: 617). In all cases, the pattern with *-iglich* did not make a semantic contribution but it functioned purely grammatically as an adverbialiser (Heinle 2004: 166). In this sense it functioned as a competitor of MG adverbialising *-lich*. Notice further that complex words with *-iglich* are often found in verse, so metre may have played a role in the distribution of *-iglich* and *-lich*. The pattern reached its peak in the EModG period (Heinle 2004: 164). Observe that *-iglich* was even attached to existing ADV, e.g. *oft-iclîche* ‘often’ (Heinle 2004: 153), which indicates how well-established it was. It should be noted, however, that although *-iglich* was an adverbialiser, many derivations are also attested with adjectival uses. All in all it is remarkable that the pattern developed such a strong affinity to derive ADV (Schmid 1998).

In Dt., the pattern with *-iglich* was given up, possibly under the pressure of prescriptive grammar. There was resistance against suffix stackings like *-ig-lijk* and *-zaam-lijk* uttered by grammarians (see van den Toorn et al. 1997: 417 for references). This is similar to Gm. where the combination *-iglich*, which reached its peak in the EModG period (Heinle 2004: 164), had become archaic by the late 18th ct. (Pounder 2001: 310). It got out of use partly through its competition with *-lich* (Heinle 2004: 166), but we may assume that prescriptive grammar had a role to play as well. Attestations in CG are rare and it has been shown that these lexemes are historical remnants (Kühnhold/Putzer/Wellmann 1978: 36, Heinle 2004). In ModG, they are perceived as archaic (Spycher 1956: 452). In CD, too, derived words ending in *iglich* are perceived as archaic and they are barely used. The ones which are attested typically figure in biblical quotations or excerpts from older Dt.

7.3.2 Functional shift

Throughout its history, Dt. *-(e)lijk* can be associated with descriptive modification (1) as well as interpersonal functions (2).

(1) Descriptive modifiers

In older phases of Dt., *-(e)lijk* has formed descriptive modifiers, predominantly of the qualifying subtype specifying manner with the VP, e.g. OD *minnec-lich* ‘in a friendly manner’ in (7.49) above, MD *sacht-elike* ‘softly’ in (7.42) above, MD *boud-elic* ‘bravely’ in (7.44) above, or EModD *gelukkig-lijck* ‘happily’ (7.50).

- (7.50) EModD/1648/WNT/streek
 Zy leefden sedert dus seer **gelukkiglijck** (...).
 ‘So since then they have lived very happily (...).’

Qualifiers of the referent are attested as well and various semantic patterns are found (see section 7.3.1 for an overview). The pattern of TENDENCY remains common, e.g. EMD *dicke-like* ‘tending to be fat’, MD *weec-lick* ‘weak, fragile’ (7.51), ModD *zwak-lyk* ‘weak, frail’ (7.52) and *koud-elijck* ‘sensitive to the cold’.

¹⁰⁹ Gertraud Winkler has shown that a number of Gm. *ig*-ADJ are the result of back formation from *iglich*-ADV (see Schmid 1998: 114).

- (7.51) MD/1465-85/MNW/wekelijc
Het was een **weclick** mensche van natueren, soodat si dat alreswaerste werck niet en vermochte.
'She was a fragile person by nature so that she was unfit to do the heaviest of work.'
- (7.52) ModD/1749/WNT/zwakkelijc
Iemand, Contribuant willende worden, zal niet boven de 50 jaren bereikt mogen hebben, of ziek of **zwaklyk** mogen zyn.
'If someone wants to become a contributor they should not be above 50 years, sick or frail.'

For Gm. deadjectival *-lich*, Pounder (2001: 311) found that particularly the semantic niche of APPROXIMATION is increasingly represented in the 18th ct. Although Gm. *-lich* remained productive for this niche, this function never became very productive in Dt. (see section 7.2.2).

Temporal *cort-like* 'recently' (7.53) was already attested in EMD but this lexeme is no longer found in CD; the same holds for temporal *nieuw-elijk* 'recently'.

- (7.53) EMD/1276-1300/VMNW/cortelike
Doe sprac die ridder openbare Reinout here hebt ghenen vare Hir es **cortelike** vernomen V sueer es hir van gasscoengen comen (...).
'Then the knight spoke openly: lord Reinhout, have no fear, we recently heard that your father-in-law came back from Gascony (...).'

The quantifying function is attested for instance in EModD *gansch-elic* 'completely' and ModD *hogelyk* 'highly', e.g. (7.54).

- (7.54) ModD/1734/WNT/hoogelijc
't Is **hogelyk** te vreezen, dat (...).
'It should be much feared that (...).'

(2) Interpersonal modifiers

Already in the earliest phases of Dt. there are *(e)lijk*-derivatives with interpersonal functions. First of all there were modal modifiers, e.g. *war-lich* 'truly' (7.55), *seker-like* 'certainly' (7.56), *vri-like* 'certainly, I assure you' (7.57), *wiss-elijk* 'certainly' and see *vast-elycken* 'certainly' in (7.46) above.

- (7.55) OD/1100/ONW/branden
wanda so wer so thie sint, thie sie **warlich** hauent, thie brinnont in hiro herzan *per amorem* (...).
'Because whoever they are, who truly have her, they burn in their hearts out of love (...).'
- (7.56) EMD/1260-1280/VMNW/sekerlike
want gi sijt **sekerlike** die beste ridder van al erterike.
'Because you are certainly the best knight in the whole world.'
- (7.57) EModD/1501-50/MNW/vrilike
Ic sal ons **vrijlic** wel bereyen lacker vlaijkens.
'I assure you I will make delicious pies for us.'

For En. *ly*-derivatives Swan (1991) has shown that original descriptive modifiers developed the interpersonal function of evaluative modification through semantic extension (see chapter 5). An example from EModE is *hapi-lie* (7.58) which has the entire proposition in its scope.

- (7.58) EModE/16th ct.
If **hapilie** vertue paced not equallie with these studies and rare knowledge.

Swan (1991) has shown that there was an explosion of this type of modifiers in EModE which contributed to the proliferation and the generalisation of adverbial *-ly*. In Diepeveen (2011a) I have shown that in Dt., too, there were qualifying *(e)lijk*-derivatives which widened their scope and developed evaluative uses in EModD, e.g. *wijs-elijk* ‘wisely’ (7.59) and (7.60).

(7.59) EModD/1566/WNT/wijselijk

Die (...) autae tafelen (...) wart (...) **wijselic** afghedaen ende up den turre verborghen.
‘The altarpieces were wisely removed and hidden in the tower.’

(7.60) EModD/1611/WNT/vin

Een Crabbeken heel teer, welck om sijn lijf te decken Gaet in haer ruyme Schelp sich **wyselick** vertrecken.

‘A very fragile little crab which wisely retires into its spacious shell to cover its body.’

Compare also the descriptive use of EModD *gelukkig-lijck* ‘happily’ in (7.50) above with the evaluative use of *ongelukkig-lijk* ‘unfortunately’ in (7.61).

(7.61) ModD/1761/WNT/wild

Twee Heeren reeden te samen te paard; waar van de een, die haastig was, **ongelukkiglyk** een zeer wild paard had getroffen. Het paard begon wat te steigeren; waar op de ruiter zeer toornig wierd.

‘Two gentlemen were riding together, but one of them, who was in a hurry, unfortunately turned out to have a very wild horse. When the horse started rearing up a little the horseman became furious.’

There are incidental examples in ModD with other qualifying base words, e.g. *schrikbaar-lijk* ‘frightening’ (7.62).

(7.62) ModD/1879/WNT/rammeien

Schrikbaarlijk is (...) in den voorraad van 1800 geramaaid. Tallooze voorwerpen van waarde zijn door onwetende gemeentebesturen op vendutie geworpen.

‘Frighteningly enough, there has been a raid on the 1800 supplies. Numerous valuable objects have been auctioned by ignorant city councils.’

However, contrary to En. *-ly*, the suffix *-(e)lijk* never really took off for creating evaluative ADV. The same holds for Gm. *-lich*. Perhaps *-(e)lijk* had already lost its productivity by the time the class of evaluative modifiers was growing in Dt. or there was too much rivalry with other structures (Diepeveen 2011a).

As pointed out by Lenker, En. deadjectival *ly*-ADV further developed the interpersonal function of domain modification. There are incidental attestations of Dt. *(e)lijk*-derivatives with a domain function in older phases of Dt., e.g. *verbaal-lijk* ‘verbally’ (7.63). This function never became productive in Dt. (although it did for denominal derivatives), but instead, the unmarked base ADJ functions as a domain modifier (see chapter 4).

(7.63) EModD/1548/WNT/verbaallijk

Ontga ic my ieuers, ind dicht principalic, Ofte ooc **verbalic**, ende **rigorueselic**, Ick bidde elcken zonderlijnghe, en nemes niet qualic.

‘Should I ever let down, primarily in poetry, or as far as wording and rigour are concerned, I beg each of you individually to forgive me.’

7.3.3 Historical observations on syntactic use

For *(e)lijk*-derivatives the material shows that they have been attested attributively throughout the history of Dt. (1). Their use as adverbial premodifiers is newer (2).

(1) Attributive modifier

En. deadjectival *ly*-derivatives are excluded from adjectival use. Not so in Dt. and Gm., as has been noted in section 7.2. If we look at the grammatical use of the derived ADV in the historical data, we find that attributive use is no exception.¹¹⁰ In EMD and MD, *lijk*-ADJ were used besides *like*-ADV, e.g. *snel-lijk* 'quick': *snel-like* 'quickly', *ghewoon-lijk* 'usual': *ghewoon-like* 'usually', *lief-lijk* 'lovely': *lief-like* 'in a lovely way' etc. We find plenty of attributive examples: *die bitter-like tranen* 'those bitter tears' (1265-70/VMNW/bitterlijk), *en dwaes-lik begerte* 'a foolish craving' (1270-90/VMNW/dwaeslijk), *van den gewon-lek-en slape* 'of the usual sleep' (1291-1300/VMNW/ghewoonlijk), *uan urom-elik-en daden* 'of pious deeds' (1265-70/VMNW/vromelijk), *met innech-lik-en schine* 'with inner shine' (1265-70/VMNW/innichlijk), *ter waer-lik-er wette* 'for true law' (1297/VMNW/bare). In MD we find further examples, e.g. *een openbaer-lic voorsmaken* 'an obvious foretaste' (1350-1450/MNW/openbaerlijk), *t-rein-lijk-ste volc* 'the tidiest people' (1467-80/MNW/reinlijk), *een snel-lik-e hette* 'a sudden heat' (1485/MNW/snelijk). From EModD we may add a range of further examples, e.g. *voernem-elijck-e menschen* 'important people' (1556/WNT/voornamelijk), *een wijss-elick-e ende verstandig-e oorsake* 'a wise and clever reason' (1566/WNT/wijselijk), *een stade-lic waken* 'a continuous waking' (1566/WNT/stadelijk), *Mijn solemne-lijck-e feeste* 'my solemn feast' (1583/WNT/tusschen), *Tot een vierich-lick gekrijt* 'to a passionate cry' (1621/WNT/vuriglijk), *sijn gans-elick-e leven* 'his entire life' (1621/WNT/klippel), *onsichtbaer-lick' maer doodelicke pijlen* 'invisible but mortal arrows' (1623/WNT/onzichtbaarlijk), *met blijde-lijck-e voldoeninge* 'with happy satisfaction' (1635/WNT/blijdelijk), *het abusiv-elijck schrijven van sommige haestige Koopluyden* 'the erroneous writing of some hasty salesman' (1659/WNT/zilver), *uyt de sichtbaer-lick-e goederen* 'from the physical goods' (1637/WNT/zichtbaarlijk), *een luy, ende traech-elijck lichaem* 'a lazy and slow body' (1679/WNT/tragelijk), *van zyne arm-elyk-e wooninge* 'of his poor dwelling' (1687/WNT/armelijk).

For some *(e)lijk*-derivatives WNT explicitly notes that they can be both ADV and ADJ, e.g. *eerbiedig-lijk* 'respectful(ly)', *voorafgaand-elijck* 'preceding(ly)', *wonderbaar-lijk* 'peculiar(ly)' and also the notorious *respectiev-elijck* 'respective(ly)'. In ModD, there are various attributive examples: *Van veel geheiligde, eerbiedig-lyk-e graven* 'of many blessed respectful graveyards' (1709-39/WNT/eerbiediglijk), *het gretig-lijk voortbrengen van loutere dwaasheden* 'the eager production of sheer folly' (1808/WNT/gretiglijk), *bij elke voorafgaand-elyk-e zitting* 'with every preceding session' (1846/WNT/voorafgaandelijk), *een herhaald-elijck-e temperatuurwisseling* 'a repeated temperature fluctuation' (1870-81/WNT/koorts), *met vrij-elijck-en armzwaai* 'with free gesticulation' (1903/WNT/armzwaai). The lexeme *respectiev-elijck* 'respectively' was originally only adverbial, but since the end of the 19th ct. it is also found with adjectival uses (WNT/respectievelijk), e.g. *hunne respectiev-elijck-e neuzen* 'their respective noses' (1881/WNT/respectievelijk) and *tot successiev-elijck-e vernieuwing* 'until successive renovation' (1933/WNT/vlootplan). For each of these examples, the unsuffixed base ADJ is available and the suffix does not add anything to the meaning or syntactic valency. This shows that a pleonastic pattern with *-(e)lijk* has established itself in 19th ct. Dt.

In the 20th ct., Royen (1954) described a recent trend of adjectival uses of prototypical *(e)lijk*-ADV. We find evidence in the material. The derived word *trionfant-elijck* was originally reserved for adverbial use apart from an incidental adjectival occurrence in the 16th ct. (WNT/trionfantelijk). Since the 20th ct. it is found adjectivally more and more (WNT/trionfantelijk) and today the use of the base ADJ *trionfant* is very rare (Van Dale 2005). Attributive examples in CD have already been given in section 7.2. Further examples include: *een heus-elijck-e nieuwe ford* 'a actual new Ford' (1979/ANW), *een gelijk-elijck fanatisme* 'a similar fanaticism' (1982/ANW), *een licht-elijck-e vorm van vrijheidsbeperking* 'a

¹¹⁰ I will not discuss postnominal attributive use, which is attested in the historical material, e.g. *Die duel bar-lik-e* 'the bare devil' (1291-1300/VMNW/baerlijk), *met woorden vroed-elijck* 'with wise words' (1561/WNT/vroedelijk).

light form of freedom limitation' (1995/38MWC), *een eeuwig-lijk wonder* 'an eternal miracle' (1999/ANW), *een vrij-elijk bewustzijn* 'a free conscience' (2000/ANW), *het vals-elijk aantijgen van iemands reputatie* 'the false allegation of somebody's reputation' (2002/ANW), *een licht-elijk geurtje* 'a light smell' (n.d./ANW). Observe that the modal modifier *waar-lijk* also occurs attributively, activating the qualifying meaning of the base: e.g. *een waar-lijk-e volkspartij* 'a true people's party' (1993/38MWC), *waar-lijk-e rust* 'true rest' (2002/ANW). The same holds for *wijs-elijk* 'wisely' and *ongelukkig-lijk* 'unfortunately' in internet attestations: *de wijs-elijk-e keuze* 'the wise choice' (2007/internet¹¹¹), *een wijs-elijk besluit* 'a wise decision' (2011/internet¹¹²), *op een ongelukkig-lijk-e manier* 'in an unfortunate manner' (n.d./internet¹¹³). There, too, the attributively used derivative is synonymous to the unsuffixed base ADJ, i.e., the suffix is pleonastic.

For Gm., attributive use of *lich*-derivatives is recorded in the MG period but it reached a peak in the 17th ct., e.g. *mit bitter-lich-en Thränen* 'with bitter tears', *mit ernst-lich-en Worten* 'with earnest words' (Bentzinger 1992: 142, Pounder 2001: 310). In the 17th ct. Gm. material, attributive use of derived words with *-lich* even outnumbers adverbial use (Heinle 2004: 154). A 17th ct. example is the dative form *der gänzt-lich-en Meinung* 'of the full opinion', in the 18th ct. we find *Am neu-lich-en Neujahrstage* 'at the recent New Year's Day', *mit einer ernst-lich-en Betrachtung* 'with an earnest observation' (Bentzinger 1992: 144,154). In all of these cases the suffix is pleonastic. Scholars have referred to a recent ModG tendency to use deadjectival *lich*-derivatives which were originally ADV, attributively (Schmid 2000: 49). Fleischer/Barz (1995: 263) refer to *kürz-lich-e Umfrage* 'recent survey', Schmid (1998: 489) gives the examples *neuer-lich-er Versuch* 'recent attempt', *ernst-lich-e Bedrohung* 'serious threat', *fälsch-lich-e Zuordnung* 'wrong classification', *gänzt-lich-e Zerstörung* 'complete destruction'. In the CG material in DWDS, attributive examples can incidentally be found, e.g. *diese gänzt-lich-e Individualisierung* 'this complete individualisation' (1993/DWDS), *in kürz-lich-en Erklärungen* 'in recent declarations' (1979/DWDS).

(2) Adverbial premodifier

Adverbial modifiers in the NP are found in EModD, with degree modifiers and evaluative modifiers, e.g. *met een gansch-elick wtsinnich gheschrey* 'with a completely insane screaming' (1560/WNT/uitroeping), *Wonderbaer-lijck-e veel schepen* 'amazingly many ships' (1576/WNT/wonderbaarlijk), *onwaerdigh-lijck gedaene dingen* 'unrespectfully done things' (1666/WNT/weerwillig). In ModD we find further examples, e.g. *Onwettig-lyk gebruikte magt en gezag* 'unlawfully used power and authority' (1770-84/WNT/onwettiglijk), *in een zacht-elijk verwarmd bed* 'in a mildly heated bed' (1844/WNT/zachtelijk), *de vrij-elijk gekozen regering* 'the freely chosen government' (1886/WNT/vrijelijk).

In CD there are many further attestations of adverbial premodifiers with *-(e)lijk*, e.g. *vag-elijk herkenbare landschappelijke elementen* 'vaguely recognisable elements of the landscape' (1993/ANW), *vals-elijk opgewekte jaloezie* 'falsely induced jealousy' (1994/ANW), *vals-elijk opgemaakte facturen* 'falsely calculated invoices' (1998/ANW), *een waar-lijk ziek brein* 'a truly sick brain' (2001/ANW), *een vaak verkeerd-elijk gebruikte term* 'an often wrongly used term' (2002/ANW). Gm. examples can also be found, e.g. *eine kürz-lich unternommene Reise* 'a recently made journey' (1971/DWDS), *in einer gänzt-lich verwandelten Gestalt* 'in a completely changed appearance' (1999/DWDS).

¹¹¹ <http://ninainvorm.punt.nl/?r=1&id=405435> [last accessed 10.02.2012]

¹¹² <http://www.moetenwienietwillen.nl/2011/07/gudde-stapt-morgen-op/> [last accessed 10.02.2012]

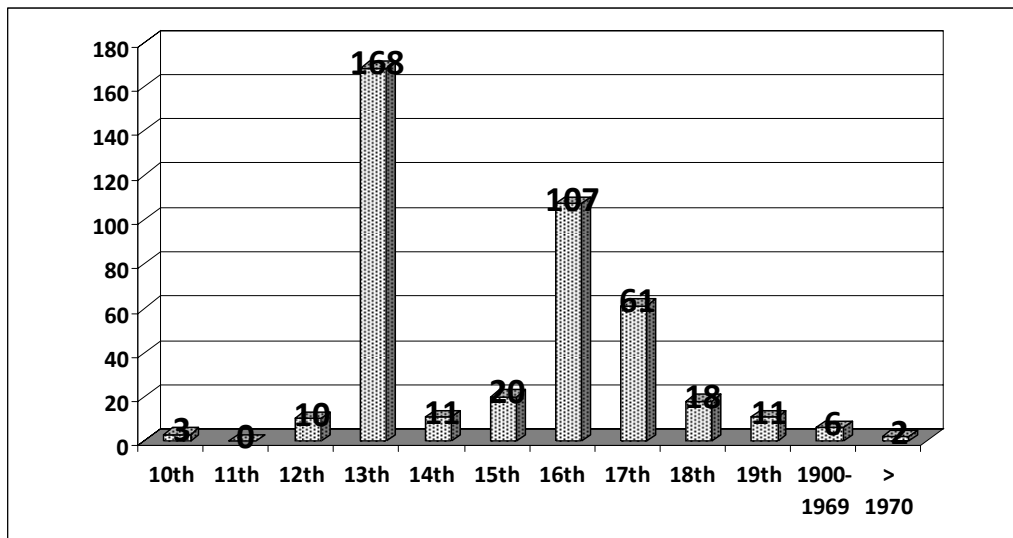
¹¹³ <http://www.kahomedy.be/comedians.html> [last accessed 10.02.2012]

7.3.4 Scope and productivity from a diachronic perspective

In this section I present my conclusions on the changing productivity of *-(e)lijk* in Dt. (1) with additional considerations on productivity of En. *-ly* (2) and Gm. *-lich* (3). Pounder (2001: 302) stresses that “the movement away from *lich*-affixation for adverb-marking in Gm. and towards ultimate consolidation of *ly*-affixation for this purpose in En. coincided or overlapped temporally with the period of standardization in the respective languages”. She was able to show that systemic causes went hand in hand with the standardisation processes. This will be taken into account in the following sections.

(1) Productivity in Dutch

The scope of Dt. *-(e)lijk* has expanded throughout the centuries, particularly in EMD. In the OD period, only simplex native ADJ are recorded as input to the pattern. However, we may assume that complex ADJ were also allowed. Already in the oldest phases of the Gmc. languages the adverbialising pattern allowed for complex ADJ, e.g. OE *wearn-wis-lice* (Sauer 2006), OG *ēw-ig-līhho* ‘eternally’, *reht-wīs-līh* (Heinle 2004, Schmid 1998). In Dt. complex ADJ are recorded as input words in the 12th ct., e.g. *open-baar* ‘public’ and *ig*-derivatives, e.g. *voll-ig* ‘fully’, *inn-ig* ‘intimate, profound’. In the EMD period, further complex words occur, e.g. *ge-meen* ‘common’, *ge-trouw* ‘faithful’, *ver-scheid-en* ‘different’, *be-scheid-en* ‘modest’, *roek-eloos* ‘reckless’, *ge-hoor-zaam* ‘obedient’, etc. Striking are many *ig*-ADJ and ADJ prefixed by negative *on-*, e.g. *on-rein* ‘impure’ and based on a present PART is *stink-end-elijk* ‘stinking’. There are also other complex input words, e.g. *goed-er-tiere-n* ‘merciful, benevolent’, *weer-bog-ig* ‘recurrent’. The ADV *jammer* ‘pitiful’ and *alleen* ‘alone’ are first recorded in the 13th ct. Importantly, Lt. and Fr. loan ADJ could be input to *-(e)lijk* in EMD, e.g. *kuis* ‘chaste’, *puur* ‘pure’, *speciaal* ‘special’, *loyaal* ‘loyal’, *devoot* ‘devout’, *sufficient* ‘sufficient’, *fraai* ‘fine’, *subtiel* ‘subtle’ etc. This wide input variation is continued in the MD and EModD period with particularly many Romance loan words, e.g. *trionfant* ‘triumphant’, *respectief* ‘respective’, *successief* ‘successive’, *distinct* ‘distinct’, *civiel* ‘civil’, *vocaal* ‘vocal’, *indirect* ‘indirect’, *abuis* ‘mistaken’, *expres* ‘on purpose’, *furieus* ‘furious’ etc. However, it should be added that the base words are sometimes attested later than the derivatives (e.g. *indifferent-elijk* ‘indifferently’ is attested earlier than *indifferent*). As proposed by WNT, the *(e)lijk*-formatives may have been created as translations of Fr. *ment*-ADV (see below). New in the ModD period were input ADJ derived by *-matig*, e.g. *doel-matig* ‘efficient’. However, there came formal restrictions on the candidate bases. ADV formed on the basis of foreign ADJ in *-eel*, *-aal*, *-iel* became archaic. In the 20th ct., these formations are only represented in (southern) dialects of Dt. Derived words with *-iglijk* became rare as well; this is connected with resistance against suffix stackings uttered by grammarians (see van den Toorn 1997: 417 and see below). In the 20th ct., input variation decreases, e.g. *ig*-derivatives are no longer allowed. The ones which are attested typically figure in biblical quotations or excerpts from older Dt. (e.g. *overvloed-ig-lijk* ‘abundantly’). Figure 7.3 shows the number of new types per century in a bar chart.

Figure 7.3. New formations with *-(e)lijk* throughout the centuries.

A proportion of 40% of all types included in the diachronic investigation was first recorded in EMD. This includes the majority of *(e)lijk*-lexemes from the synchronic inventory. In this period derivation by *-(e)lijk* had its most productive period with another peak in the 16th ct.¹¹⁴ In the EModD quotation material, formatives on the basis of complex ADJ (particularly *ig*-derivatives) are numerous. This sequence occurs for instance frequently in the *State Bible* published in 1637 which was an important authority for correct language. The long lists of *ighlick*-lexemes in Kiliaan (1599) shows that this was a well-established pattern.

Paardekooper (1991) claims that the suffix was subject to stylistic and geographical limitations, e.g., adverbial *-(e)lijk* is more present in material from the south than in the north of the Dt. language area. Paardekooper (1991) has further shown that the suffix is used more frequently in texts which were translated from Fr. or Lt. than in original Dt. literature. It is also signalled by WNT that certain derivatives are formed specifically for translating a Fr. or Lt. ADV, e.g. *reciproquelijk* and *instantelijk*. This indicates that ADV marking with *-(e)lijk* was not systematic in the 17th ct. The Dt. grammarians in the 17th ct. Dt. recognised this variation. Dt. grammars of the 17th ct. present *-(e)lijk* as a well-established adverbialising pattern, but they do not prescribe it. Observations can be found in grammars for foreign learners: Dibbets (1995: 296) refers to *The Dutch tutor*, to Hillenius and to Laco, where it is stated that Dt. ADV are often derived from ADJ by means of the ending *lick/lik/lijck*.¹¹⁵ The grammarian Allard Kók (1649: 56) illustrated various patterns of ADV formation with *-(e)lijk*, including the deadjectival pattern. Kók added that the ADJ occurs frequently without the ending, e.g. *schoon* 'beautifully'.¹¹⁶ The grammarian Christiaan Van Heule, too, observed in his *Nederduytsche grammatica ofte spraec-konst* (1625) that most ADJ take the ending *lic* but that some ADJ do not change form, e.g. *klaer* 'clearly'.¹¹⁷ Whereas in 1625 he merely described the frequent use of the

¹¹⁴ The decrease in the MD period may be due to the digital conception of MNW, see appendix and chapter 6.

¹¹⁵ There is not much we can say for certainty about the pronunciation of the suffix. De Vooy's (1967) stated that its pronunciation must have weakened very early in the northern Dt. region, whereas it was pronounced as a diphthong in southern dialects. De Vooy's (1967: 234) claimed that the weakened pronunciation of the suffix was normal in the Hollandic region in the 17th ct. However, rhyme patterns in Vondel's language show that it must have been possible for some to pronounce it as a long vowel.

¹¹⁶ For the original quotation in Kók (1649: 56), see chapter 2.

¹¹⁷ Original quotation (Van Heule 1625: 58): "Veel Byvouglicke woorden, kunnen bywoorden worden, ende eyndigen wel meest in lic, ende zijn van het Generley geslacht als *Reynelic, Zuyverlic, Goedichlic*, ook worden veel andere Byvouglicke woorden / voor Bywoorden gebruykt / nae de Grieksche manier / als *Hy heeft goed gedaen, voor Hy heeft welgedaen, Dat is zuyver gewrocht, Hy spreekt klaer uyt.*"

pattern, a few years later Van Heule (1633) actually took position against it in his revised grammar (compare Dibbets 1995: 296). He argued that the ending is best left out for reasons of euphony and since it was not in accordance with actual practice.¹¹⁸

The material shows that type frequency decreased strongly from the 18th ct. onwards and that it kept decreasing.¹¹⁹ This is an interesting discrepancy with 18th ct. grammar, which prescribed the ending *-(e)lijk* to differentiate between adjectival and adverbial use (van den Toorn et al. 1997: 417), e.g. Séwel (1712). In his own practice, Séwel used the suffix *-(e)lijk* rather consistently (Paardekooper 1991: 162). This is in contrast with his colleague Moonen (1706) who also prescribed *-(e)lijk*, but his own practice exhibited a remarkable absence of the suffix. The further decrease of the adverbialising pattern with *-(e)lijk* in the 19th ct. may have been stimulated by the activities of grammarians who expressed ever firmer resistance towards the pattern, which they felt was archaic and redundant. It was criticised mainly for reasons of euphony. The influential Dt. grammarian Brill (1871: 373) proposed that *-(e)lijk* be left out since it had a drawling effect on speech. The leading critic of adverbial *-(e)lijk* in the 19th ct. was Willem Bilderdijk. From Bilderdijk (1826) we infer that the suffix *-(e)lijk* was not only used in writing but also in speaking, where it was pronounced as *lik*. This is homophonous with *lik* 'lick': the ones who often used *-lik* Bilderdijk jokingly called *likkers* 'lit. those who lick; *lic*-users'.¹²⁰

In the 20th ct., type frequency sinks further. Schultink (1962: 143) observed that new formations with *-(e)lijk* are found, but only with an elevated or ironic character. In section 7.2 I presented some evidence that deadjectival derivation by *-(e)lijk* may only be limitedly available for new formation in CD. The inclusion of diachronic material confirms that there are only two *(e)lijk*-types first recorded after 1970: *expressiev-elijk* 'on purpose' (7.64) and *obsessiev-elijk* 'obsessively' (7.65). Both occur in internet material from ANW and are not very easily interpretable.

(7.64) CD/1989/ANW

Dat moest dus allemaal en dat moest gepropageerd worden in een wereld en **expressievelijk** in een milieu van oud-NMB-mensen, die het wel een beetje erg radicaal vonden.

'And all that had to be done and propagated in a world and expressly in a circle of ex-NMB people who considered it slightly radical, to say the least.'

(7.65) CD/2000/ANW

Het onderwerp van de patronen zal deze persoon **obsessievelijk** bevatten. Er is geen sprake van 'onafhankelijke reacties' of 'vrije keuze' maar van Doelgerichte reacties door een 'voorgeprogrammeerde' breinstructuur.

¹¹⁸ Original quotation (Van Heule 1633: 70): "deze opmerkinge heeftte vele beweegt / om alle deze Byvoughelicke woorden /met *lijc* op het eynde te schrijven / maer overmits wy de zoet-vloejentheyt in onze sprake / zeer nootsakelic behoren te bevorderen / ende de wijle ooc de kortste uyt sprake meest ghebruykelic is / Daerom hebben wy de silbe *lijc*, als ons minst nodich naergelaten."

¹¹⁹ Moreover, new types emerging in the 20th ct. are not necessarily the result of Dt. word formation. According to Van Dale (2005), *recent-elijk* 'recently' was borrowed from En. in the period 1926-1950.

¹²⁰ Original quotation (Bilderdijk 1826: 222): "Tot den uitgang in *lijk* hebben sommigen (en dit plach tot de ingebeelde netheid van taal gerekend te worden,) de Adjectiven zelfs die de andere opgenoemde uitgangen hadden, zal ik zeggen vervormd of verknoeid? En dit, om toch aan de willekeurige onderscheiding tusschen Adjectiven en Adverbien, uit de Latijnsche Grammatica overgenomen, getrouw te zijn. Zoo moest het naar deze Taalbedervende wijsheeden *verstandiglijk gedaan* heeten, zoo *dapperlijk gestreden* en vooral niet, *verstandig* of *dapper*. Zoo *werkten* zy *vlijtiglijk* en *naarstiglijk*, *geduriglijk* en *aanhoudenlijk*, om en Taal en gezond verstand te verwoesten. Hun schrijven, en zelfs hun spreken, was dus vol van dit *lijk*, dat, als *lik* uitgesproken, hun den naam van *likkers* deed geven. En geen van hun scheen te begrijpen, dat deze uitgang van *lijk* geen aanhangsel by dat *ig* zijn kon, maar dat zy dan ten minste *vlijtelijk* en *naarsteljk* moesten zeggen, van *vlijt* en van *naarste* (...). Een merkwaardig staal van de Taalgeleerde domheid, waar op de eigenwaan zich byzonder veel voor liet staan!"

'The subject of these patterns will be incorporated obsessively by this person. There are no 'independent reactions' or 'free choice' but only purposive reactions by a preconditioned brain structure.'

(2) Productivity in German

In MG, there was "a continual increase in productivity of *lich*-suffixation for the purpose of adverbialising" (Pounder 2001: 305). By the end of the MG period, the suffix *-lich* had become the principal adverbialiser (Heinle 2004: 134, Pounder 2001: 305; on *e*-apocope, see below). It is characteristic for MG that *-lich* attached freely to complex base ADJ (Schmid 1998: 117). Base words are attested with the endings *-bære*, *-sam*, *-isch* and *-haft* (Heinle 2004: 148). Even complex base words with stacked suffixes are found, e.g. MG *zwivel-haft-ic-lîche* 'doubtfully'. Gm. *-lich* did not attach to ADJ already ending in *-lich* whereas En. *-ly* allowed this (Pounder 2001: 318). MG *-lich* attached furthermore to foreign base words which had been integrated into the language (Schmid 1998: 117).

In 17th ct. Gm., attributive use of derived words with *-lich* outnumbered adverbial use, which signals the end of the morpheme as an adverbial marker (Heinle 2004: 154). Kühnhold/Putzer/Wellmann (1978: 417) show that the productivity of adverbialising *-lich* has stagnated in Gm. since 1800. Gm. developed some restrictions to its input ADJ (Pounder 2001: 31,319). In ModG, it is no longer possible to combine *-lich* with *-haft*, *-isch*, as well as with foreign adjectival suffixes and there came a phonological restriction after the late 17th ct. that bases ending in *-el* no longer allowed *-lich*. Such restrictions on candidate bases are an indication that ADV marking with *-lich* was no longer systematically possible. By the 20th ct., adverbialising *-lich* was basically only left in remnants and idiomatic cases (Fleischer/Barz 1995: 263 and see section 7.2). These lexemes have lost the semantic link to the base ADJ. They have maintained the status as prototypical ADV in CG due to specific semantic developments (Paraschkehoff 1967: 237).

(3) Productivity in English

Throughout its history, En. *-ly* managed to establish itself as a categorial marker of adverbiality. In CE, adverbial *-ly* is prolifically productive (Swan 1997: 186); when a new ADJ appears, the corresponding *ly*-ADV will automatically be formed. It is very significant that CE still has virtually no restrictions on the bases which can be input to the pattern with adverbial *-ly*. In ModE it only became less common for *-ly* to attach to ADJ ending in *-ly* for reasons of euphony (Pounder 2001: 318). Other complex bases remained, e.g. *ward*-derivatives (*up-ward-ly*, *down-ward-ly*). It should however be noted that suffixless forms may still occur in regional language and/or specific style registers (see chapter 3). However, recent research (Nevalainen 1997 and Tagliamonte/Ito 2002) shows that the overall tendency is to use adverbial *-ly* systematically, especially in British En., but also in American En.

7.4 Conclusion

In this chapter I investigated the function of the suffix *-(e)lijk* in deadjectival word formation. Despite attributive use of its derivatives, it is usually presented as the adverbial suffix *par excellence*, with a grammatical function of adverbialisation like En. deadjectival *-ly*. Possible semantic contributions, as described for Gm. deadjectival *-lich*, have been neglected. A historical perspective involving these three languages reveals that after a shared point of departure, the grammatical and semantic functions of the equivalent suffixes have been rearranged. This divergence can be explained by systemic developments as well as different concerns in prescriptive grammars of the individual languages (cf. Pounder 2001).

In their oldest phases, the West-Gmc. languages shared a semantic pattern *-lîk/-lic/-lîh* for deriving ADJ from existing ADJ as well as a grammatical pattern *-lîko/-lice/-lîhho* for marking adverbiality on

ADJ. The latter, grammatical pattern initially competed with the principal adverbial suffix *-o*, also inherited from Gmc., but this suffix was omitted after a process of phonetic reduction. As a means of compensation, *-lik(e)/-lich(e)* was optionally used for differentiating adverbial from adjectival uses. In Dt. and Gm., adverbialising *-lijk/-lich* had a productive period but linguistic changes gave rise to extinction. This was partly due to a tension vis-à-vis the semantic pattern and pressure from a pleonastic pattern. Two variant forms, *-lijken/-lichen* and *-iglijk/-iglich*, did not manage to maintain the grammatical function either. Thus, today there are only remnants of the original adverbialising pattern, including a small class of modal ADV and some idiomatic lexemes. In Dt., there is a class of lexemes which are fully synonymous to the unsuffixed base ADJ and where *-(e)lijk* has become pleonastic. Paardekoper (1991: 167) summarises this development as follows: in Dt. and in Gm. the suffix created a number of ADV in a restricted area, within a restricted period; afterwards it disappeared, apart from incidental remnants.

Dt. and Gm. strongly diverge from En., where *-ly* managed to become a highly productive adverbial suffix. En. cultivated the adverbialising pattern in such a way that *-ly* became an obligatory marker for systematic differentiation of adverbial functions from adjectival functions. Responsible for this development is a combination of systemic changes and standardisation attempts by prescriptive grammarians. Gm., however, cultivated the semantic pattern of adjectival *-lich* for semantic modification of existing ADJ (particularly in terms of the semantic value of APPROXIMATION). In a small class of Dt. deadjectival *(e)lijk*-derivatives, semantic contributions can be identified but they do not constitute productive patterns.

In sum, while En. cultivated the grammatical pattern of deadjectival word formation with *-ly* and Gm. cultivated the semantic pattern of deadjectival word formation with *-lich*, there are strong indications that the Dt. suffix *-(e)lijk* is no longer productive for either subpattern of deadjectival word formation.

8 Modifying words with *-(e)lings*

8.1 Introduction

The suffix *-(e)lings* is listed by Booij (2002) in his overview of Dt. adverbial suffixes. Examples of modifying words with *-(e)lings* are *blind-elings* ‘blindly’ (8.1) and *rak-elings* ‘closely’ (8.2).

(8.1) CD/1991/38MWC

Men kan uit het bovenstaande concluderen dat de redacties van latere woordenboeken **blindelings** op het gezag van het WNT hebben vertrouwd.

‘One may conclude from the above that the editors of later dictionaries blindly trusted the authority of the WNT.’

(8.2) CD/1994/38MWC

Iedereen schrok enorm. De brokstukken van het vliegtuig kwamen **rakelings** langs een grote supermarkt, en stortten in een ravijn.

‘Everyone was scared to death. The debris of the plane came grazing across a big supermarket and crashed into a ravine.’

We also find modifying words with *-lings* in Gm., e.g. *blind-lings* ‘blindly’ in (8.3) and *bäuch-lings* ‘on the belly’ in (8.4). They are rarely used and word formation with *-lings* is not productive (Altmann/Kemmerling 2005: 163).

(8.3) CG/1995/DWDS

Blindlings griff ich mir ein paar Hosen heraus und hielt sie mir an.

‘I blindly grabbed some pants and held them before me.’

(8.4) CG/1983/DWDS

Beim Shiatsu liegt der Nehmer **bäuchlings** auf einer Decke, der Geber kniet neben ihm (...).

‘With Shiatsu the Taker is lying on his belly on a blanket, the Giver kneels beside him (...).’

For En., the suffixes *-ling* and *-lings* are recorded (Stein 2007: 101), e.g. *dark-ling(s)* and *flat-ling(s)*, e.g. in (8.5). Plag (2003) does not include *-ling(s)* in his overview of adverbial and adjectival suffixes and according to the OED, *ling(s)*-derivatives are chiefly restricted to dialects or regional language. Most lemmas for individual lexemes get the label ‘obsolete’ or ‘rare’.

(8.5) CE/1987/BNC

Darkling they drew off as best they could, dragging their wounded with them, carrying them when they dropped.

Equivalentents of *-(e)lings* can be found in Af. (e.g. *blind-elings* ‘blindly’, *syde-lings* ‘sideways’) (see Raidt 1983, Donaldson 1993) and in Fs. (e.g. *krús-lings* ‘crosswise’, *ears-lings* ‘backwards’) (see Hoekstra 1998, Popkema 2006, WFT). Hoekstra (1998: 163) claims that Fs. *-(e)lings* is unproductive. Observe that Raidt (1983: 166) lists Af. *-elings* as an adjectival suffix.

There are several problems with the current treatment of Dt. *-(e)lings* in the literature. First of all, Dt. *-(e)lings* is treated by ANS (1997) together with the suffix *-s* and considered a suffix sequence consisting of adjectival *-(e)ling* and adverbial *-s*. There are, as I will show, enough reasons to treat *-(e)lings* synchronically as a suffix in its own right. Secondly, there are different observations on its productivity: van der Sijs (2002) claims that *-(e)lings* is productive, whereas ANS (1997) states that it is not. The central problem is the superseded view of *-(e)lings* as an ‘adverbial’ suffix. Van Loey (1970) found that many *(e)lings*-derivatives have adjectival uses. I will show in this chapter that *-(e)lings* has never been a prototypical adverbial suffix and that it is no longer productive in CD.

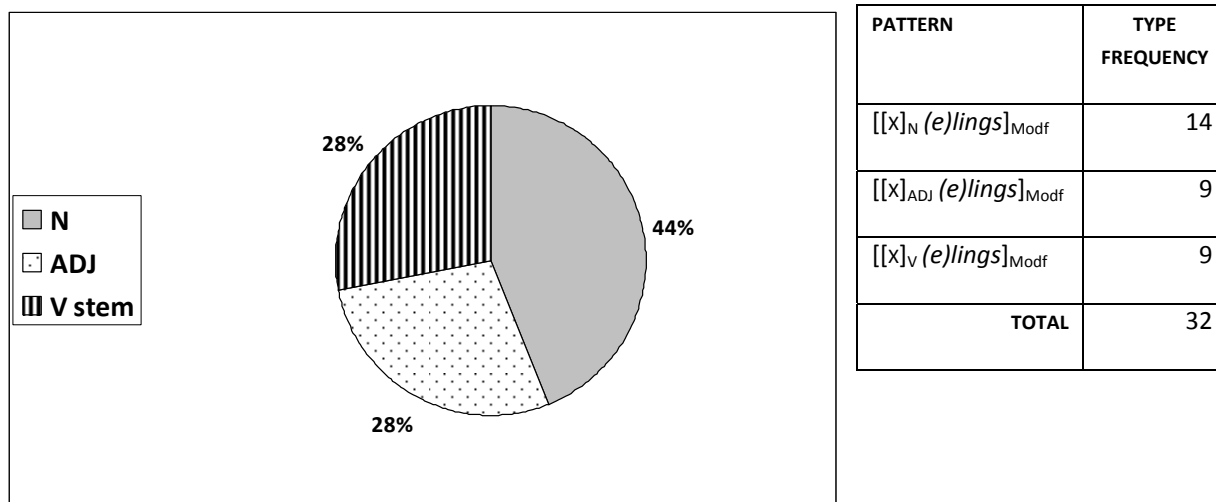
8.2 Synchronic description

The synchronic description of *(e)lings*-derivatives is based on an inventory of 32 lexeme types collected in the corpora 38MWC, CGN and ANW and in the dictionary Van Dale (2005) (see appendix to chapter 8). Observe that Dt. has modifying words formed with *-(e)ling*, e.g. *mond-eling* ‘oral’, *zonder-ling* ‘peculiar’, *onder-ling* ‘mutual, together’ and *plots-eling* ‘sudden(ly)’ (Van Dale 2005). These are not discussed in the synchronic section but they will be referred to in section 8.3 when I discuss the diachrony of *-(e)lings*.

8.2.1 Scope and productivity

According to ANS (1997: 737), *-(e)lings* is attached to N, ADJ and v. Figure 8.1 shows the actual distribution of input categories in the synchronic inventory of 32 *(e)lings*-derivatives. Also included are five lexemes which are from a synchronic perspective morphologically intransparent, but which are historically derived (see below).

Figure 8.1. Distribution of input categories for *-(e)lings* in synchronic inventory.



We may infer from figure 8.1 that N constitute the main input category for *-(e)lings* whereas deadjectival and deverbal types are comparatively less common. No other input categories were found. In Gm., N and ADJ are the main input categories for *-lings*; e.g. *bäuch-lings* ‘on one’s belly’ and *jäh-lings* ‘suddenly’, respectively; v as input are found only incidentally (Ronca 1975: 80, Fleischer/Barz 1995: 186, Lohde 2006: 293). In En., too, *-ling(s)* is attached to N (e.g. *side-ling(s)*, *head-ling(s)*) and to ADJ (e.g. *dark-ling(s)*, *flat-ling(s)*) (OED), but since the derivatives are restricted to regional En., I will not discuss the En. pattern. Fs. *-(e)lings* is usually added to N (e.g. *krús-lings* ‘crosswise’) but also to v (e.g. *roer-lings* ‘closely, by inches’) and incidentally to ADJ (e.g. *dwers-lings* ‘transversely, crosswise’) (Hoekstra 1998: 164).

(1) Nominal input

As far as morphological complexity is concerned, Dt. *-(e)lings* is added to simplex N with the exception of *drupp-el* ‘drop’ and *dropp-el* ‘drop’, which are etymologically diminutive forms of *drup* and *drop*. The N to which *-(e)lings* is added are native lexemes which refer to abstract concepts like *zijde* ‘side’ or more concrete concepts like *rug* ‘back’. In terms of token frequency, *zijde-lings* ‘sideways’ and *beurt-elings* ‘alternately’ dominate. Notice that *rot-elings* ‘alternately’ is classified as denominal although present-day language users may no longer be familiar with the base word *root*

'row'. In Gm., denominal derivatives are typically formed with names of body parts, e.g. *rück-lings* 'on one's back' and *bäuch-lings* 'on one's belly', as in (8.4) above (Ronca 1975: 81). The Dt. derivative *zijde-lings* can be used in its literary fashion 'sideways' as in (8.6), but it may also be used figuratively, meaning 'indirect(ly)' as in (8.7), with a certain degree of idiomatisation.

- (8.6) CD/1995/38MWC
De infraroodstralen tasten zowel **zijdelings** als pal naar achter het verkeersgebeuren over een afstand van over drie meter af.
'The infrared rays scan the traffic both sideways and directly backwards over a distance of over three metres.'
- (8.7) CD/1995/38MWC
Wayne Wang gaat de drugsproblematiek niet uit de weg, maar vermeldt die slechts **zijdelings**.
'Wayne Wang does not ignore the drugs issue but he mentions it only indirectly.'

(2) Adjectival input

Word formation with *-(e)lings* may take native simplex ADJ as its base, e.g. *blind* 'blind' and *kort* 'short', which are inherently qualifying. In terms of token frequency, *blind-elings* 'blindly' as in (8.1) above, dominates. Deadjectival *lings*-formatives in Gm. are *blind-lings* 'blindly' and *jäh-lings* 'suddenly' (Ronca 1975: 84).

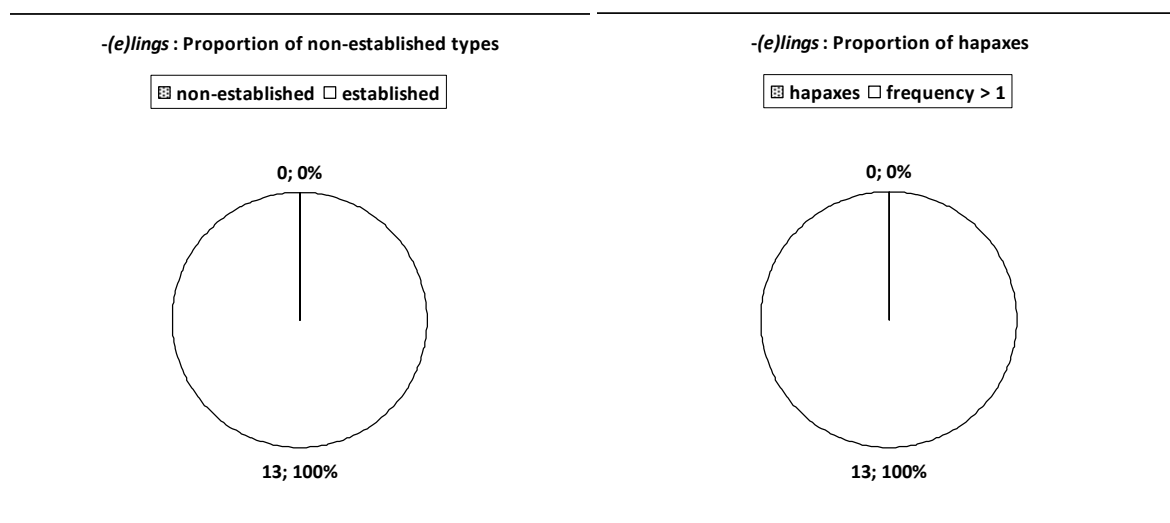
(3) Verbal input

The suffix *-(e)lings* is added to native v which denote some kind of movement, e.g. *raken* 'touch' and *kruipen* 'creep'. In terms of token frequency, *rak-elings* 'closely, by inches', as in (8.2) above, dominates, whereas most other deverbal lexemes are uncommon. Notice that *ijlings* 'in great haste', *schrijlings* 'astride' and *scherlings* 'astride' are classified as deverbal although present-day language users may no longer be familiar with the base words *ijlen* 'make haste', *schrijden* 'stride' and *scherden* 'stride'.¹²¹ Gm. deverbal *lings*-derivatives are *meuch-lings* 'on the sly' and *ritt-lings* 'astride' (Fleischer/Barz 1995: 186, Ronca 1975: 82).

(4) Synchronic indicators of productivity

ANS (1997: 738) claims that *-(e)lings* is not productive and indeed I did not find any indicators of new formation in the corpus material. Overall type frequency is low; there are only 13 types in the corpora and they are all established lexemes in Van Dale (2005). Thus, the proportion of non-established types and the proportion of hapaxes are both zero, as illustrated in the pie charts in figure 8.2. Reversely, however, the dictionary contains a number of *(e)lings*-derivatives which are not represented in the corpora. Van Dale (2005) notes explicitly that some of these lexemes are archaic (e.g. *nieuw-elings* 'recently', *ou-lings* 'in olden times', *piss-elings* 'in spurts, trickling down') and that others are regional (e.g. *plots-elings* 'suddenly', *stoem-elings/stomm-elings* 'stealthily') or uncommon (*drupp-elings* 'drop by drop', *roer-lings* 'closely, narrowly'). These lexemes must be remnants of a productive period in the history of Dt.

¹²¹ But notice one recording for the variant form *schrijd-elings* 'astride' in ANW, see 8.2.2. *Scherden* is not in Van Dale (2005).

Figure 8.2. Frequencies for *-(e)lings* in contemporary Dutch corpus data (13 types = 100%).

8.2.2 Modifier types

Dt. *(e)lings*-derivatives are associated in the literature with qualifying modification (e.g. ANS 1997: 737). From the entries for individual lexemes in Van Dale (2005) we may infer that *(e)lings*-derivatives are found in other descriptive functions as well, e.g. localising. The qualifying and localising function are also reported for Gm. *-lings* (Ronca 1975, Heinle 2004) and for En. *-ling(s)* (Stein 2007). Since the En. derivatives are restricted to regional language, they are not included below.

(1) Classifying modifiers

Lexemes formed with *-(e)lings* may function as classifiers and emerge as (inflected) prenominal attributes. This is common for *zijde-lings* 'sideward', e.g. *een zijde-lings-e aanrijding* 'a collision from aside' (1998/ANW), and less common for other *(e)lings*-derivatives, e.g. *de rugg-elings-e sprong* 'the backward jump' (1982/ANW), *schrijd-elings-e verplaatsing* 'straddling movement' (1979/ANW). Gm. *lings*-derivatives, in contrast, cannot be used attributively (Ronca 1975).

(2) Qualifying modifiers

ANS (1997: 737) observes that *(e)lings*-derivatives may function as manner adverbials. This holds for each input category (Van Dale 2005). Compare deadjectival *blind-elings* 'blindly' in (8.1), deverbal *rak-elings* 'closely' in (8.2) and denominal *zijde-lings* 'indirectly' in (8.7) above. In Gm., too, we find qualifying *lings*-derivatives, e.g. deadjectival *blind-lings* 'blindly' in (8.3) above and *meuch-lings* 'on the sly'. The qualifying Gm. *lings*-derivatives cannot be used attributively (Ronca 1975), whereas in Dt., they can: this holds for denominal *(e)lings*-derivatives, e.g. figurative *zijde-lings* 'lit. sideways; indirect' in *de zijde-lings-e rol van de gemeente* 'the indirect role of the municipality' (1995/38MWC) or *die kruis-elings-e opbouw* 'that cross-wise structure' (2001/ANW), as well as for deverbal derivatives, e.g. *een razendsnelle rak-elings-e scheervlucht* 'a superfast close low pass' (1997/ANW). In addition, also the deadjectival *(e)lings*-derivative *blind-elings* is used as prenominal attribute, e.g. in (8.8). Observe that normally the unsuffixed ADJ *blind* 'blind' is used; therefore, examples like (8.8) may not be acceptable to all language users.

- (8.8) CD/1995/38MWC
 Het zal na de enquête afgelopen zijn met het **blindelingse** vertrouwen dat in de politie en de officieren van justitie werd gesteld.
 ‘After the questionnaire the blind trust in the police and the legal officers will come to an end.’

The *(e)lings*-derivatives are incidentally used predicatively in Dt., e.g. figuratively used *zijde-lings* ‘indirect’ in (8.9) or *blind-elings* ‘blind(ly)’ in (8.10).

- (8.9) CD/1977-78/ANW
 De haastige uiteenzetting was **zijdelings** en cryptisch geweest en wat openbaar gemaakt moest worden achtte ik niet voor openbaarheid geschikt en wist ik al.
 ‘The hasty statement had been indirect and cryptic and what had to be exposed to publicity I deemed not appropriate for publicity and I already knew.’
- (8.10) CD/2000/ANW
 Neem mij maar in het vizier. Zie eens hoe **blindelings** mijn vertrouwen is (...).
 ‘Catch sight of me. Look how blind my trust is (...).’

(3) Quantifying modifiers

We could classify as a quantifier the modifying lexeme *halv-elings* ‘more or less’, which is restricted to Belgian Dt. (Van Dale 2005; indeed, there are only hits in Belgian Dt. material of ANW and CGN), e.g. (8.11).

- (8.11) CD/1996/ANW
 De ruzie in de cel-Cools werd maandag **halvelings** toegegeven door de Luikse hoofdcommissaris, André Hennesdaels.
 ‘The dispute in the Cools-cell was more or less admitted on Monday by the superintendent in Liège, André Hennesdaels.’

(4) Localising modifiers

For Gm., Ronca (1975: 82) refers to two localising uses of denominal *lings*-derivatives. The derivatives *bäuch-lings* ‘on one’s belly’ and *rück-lings* ‘on one’s back’ indicate direction with *v* of movement whereas they indicate location at a certain place with static *v*, e.g. in (8.4) above. Inspection of Dt. examples shows that the same uses are found. Denominal *(e)lings*-derivatives may be used as indicators of direction, e.g. *zijde-lings* ‘sideways’ in (8.3) above or *rugg-elings* ‘backwards’ in (8.12). In addition, they may indicate a stative location, e.g. *rugg-elings* ‘on the back’ in (8.13). Thus, there is polysemy on the level of individual lexemes; the context is disambiguating.

- (8.12) CD/2000/ANW
 Zijn stoel kantelde en hij viel **ruggelings** in het gras.
 ‘His chair toppled and he fell backwards into the grass.’
- (8.13) CD/1983/ANW
 De canadees lag **ruggelings** op de grond, kreunend keek hij in zijn hand vol kleverig bloed.
 The Canadian was lying on his back on the ground and moaning he looked into his hand covered with sticky blood.’

There is no ambiguity for static isolated *schrijlings* ‘astride’ in (8.14), which is the semantic equivalent of Gm. *ritt-lings* (Ronca 1975: 80).

- (8.14) CD/1983/ANW
de mannen hingen **schrijlings** op hun stoelen, een bierfles in de hand.
'The men were lolling astride in their chairs, a beer bottle in the hand.'

Observe further that apart from indicating the direction of a movement, *zijde-lings* may specify the origin of a movement, i.e., 'from aside' as in (8.15).

- (8.15) CD/2000/ANW
Het was avond, de gordijnen waren dicht en het doek was **zijdelings** belicht (...).
'It was evening, the curtains were closed and the fabric was illuminated from aside (...).'

Among the deadjectival *(e)lings*-derivatives we find some temporal localisers. The temporal localisers *nieuw-elings* 'recently' and *ou-lings* 'in olden times' are archaic (Van Dale 2005), but *kort-elings* is still used. It should be noted that *kort-elings* has regional meaning differences: in Netherlandic Dt. it always means 'recently' as in (8.16), whereas in Belgian Dt. it may also mean 'shortly, soon' as in (8.17) (Van Dale 2005).

- (8.16) CD/2002/ANW
De heer W. SCHIMMER, brandspuitgast te Rotterdam, die **kortelings** zijn goudenjubileum vierde bij de vrijwillige brandweeer, is op zeer feestelijke wijze gehuldigd (...).
'Mister W. Schimmer, fireman in Rotterdam who recently celebrated his golden jubilee at the voluntary fire brigade, was honoured in a very festive way (...).'

- (8.17) CD/1997/ANW
Journalisten van Litsa lieten zich ontvallen dat ze Korzhakov helpen bij het uitschrijven van de memoires die hun populaire Russische blad **kortelings** zal publiceren.
'Litsa journalists mentioned that they are helping Korzhakov write out the memoires which their popular Russian paper will publish shortly.'

8.2.3 Contribution of *-(e)lings*

The suffix *-(e)lings* is added both to existing modifying words and to other categories. Section 8.2.2 revealed that *(e)lings*-derivatives function as descriptive modifiers. The suffix contributes a grammatical value (1) or a semantic value (2).

(1) Grammatical value

The addition of *-(e)lings* moves v and n into modifiers, in which case it has a grammatical value. It is stated in the literature that Dt. *-(e)lings* derives ADV and the corpus material confirms that *(e)lings*-derivatives often function as adverbials. However, derivatives also function predicatively and there are various attributive instances in the corpus. This shows that *(e)lings*-derivatives are not prototypical ADV. This is recognised by lexicography, e.g. Van Dale (2005) gives some denominal and deverbal *(e)lings*-derivatives a double label (ADV or ADJ): *beurt-elings* 'alternately', *kruis-elings* 'crosswise', *ruyg-elings* 'backward(s)'. Briefly, added to v and n, *-(e)lings* can be analysed as an adjectivising suffix. The status of the Gm. suffix *-lings* is different since no attributive instances of *lings*-derivatives are recorded. It is indeed an adverbialising suffix (e.g. Fleischer/Barz 1995: 286).

Added to prototypical ADJ, Dt. *-(e)lings* does not make a grammatical contribution: just like the input ADJ, the output form may be used attributively and inflected, so its syntactic valency remains the same. Moreover, the suffix is not grammatically required. Unaffixed qualifiers may be used adverbially, e.g. *blind/blind-elings* 'blindly' and the same holds true for Gm. *blind/blind-lings*. This suggests that *-(e)lings* may establish a semantic modification to the input ADJ.

(2) Semantic value

We found that Dt. *(e)lings*-derivatives occur across the whole range of descriptive modifiers. The suffix *-(e)lings* has a relatively wide semantic spectrum of primary semantic values; this is presented in table 8.1. This fully corresponds with Gm. The literature mainly refers to the semantic value MANNER (ANS 1997: 737), but more specific contributions resulting in qualifying modifiers are FORM and DISTRIBUTIVE. Van Dale (2005) points at the meaning DIRECTION and we found that *-(e)lings* may further indicate the ORIGIN of a movement as well as SPATIAL LOCATION and TEMPORAL LOCATION.

Table 8.1. Semantic spectrum of *-(e)lings*.

VALUE	PATTERN	EXAMPLE	
PRIMARY	MANNER	[[x] _V (e)lings] _{ADJ}	<i>raken</i> 'to graze': <i>rak-elings</i> 'in a grazing manner, closely'
	FORM	[[x] _N (e)lings] _{ADJ}	<i>kruis</i> 'cross': <i>kruis-elings</i> 'crosswise'
	DISTRIBUTIVE	[[x] _N (e)lings] _{ADJ}	<i>beurt</i> 'turn': <i>beurt-elings</i> 'by turns'
	DIRECTION	[[x] _N (e)lings] _{ADJ}	<i>rug</i> 'back': <i>rugg-elings</i> 'backwards'
	ORIGIN	[[x] _N (e)lings] _{ADJ}	<i>zijde</i> 'side': <i>zijde-lings</i> 'from aside'
	SPATIAL LOCATION	[[x] _N (e)lings] _{ADJ}	<i>rug</i> 'back': <i>rugg-elings</i> 'on the back'
	TEMPORAL LOCATION	[[x] _{ADJ} (e)lings] _{ADJ}	<i>kort</i> 'short': <i>kort-elings</i> 'recently'
PLEONASTIC	[[x] _{ADJ} (e)lings] _{ADJ}	<i>blind</i> 'blind(ly)': <i>blind-elings</i> 'blind(ly)'	

In the case of the qualifier *blind-elings*, however, there does not seem to be a semantic contribution: the derivative can be substituted by the unsuffixed base without a change in meaning, since they are synonymous qualifiers, compare adverbial *blind-elings* 'blindly' (8.1) above with unsuffixed adverbial *blind* in (8.18) and attributive *blind-elings* (8.8) above with unsuffixed attributive *blind* in (8.19).¹²² Here, the suffix seems fully pleonastic. The same seems to hold for *halv-elings* 'more or less' although it is slightly idiomatic.

(8.18) CD/2002/ANW

Ze zagen eruit als figuren die **blind** ieder bevel zouden uitvoeren, zonder enig meegevoel of welbehagen.

'They looked like figures who would blindly carry out each order without any sympathy or pleasure.'

(8.19) CD/1993/CGN

nu het **blinde** vertrouwen in die mestverwerking is volgens ons nogal discutabel.

'now we believe this blind trust in manure processing is rather dubious.'

In Gm., too, adverbially used *blind-lings* 'blindly' can be substituted by unsuffixed *blind* (Ronca 1975: 84). This is a reason for Ronca (1975: 84) to argue that the suffix is nothing more than 'filling', i.e., it is fully pleonastic.

¹²² Roorda (1852: 158) already pointed at the synonymy of *blind gehoorzamen* and *blindelings gehoorzamen* 'obey unquestioningly', i.e., the optional character of suffixation of inherently qualifying ADJ. Observe that in some contexts, it could be argued that unsuffixed *blind* may be ambiguous with the literal reading of 'not being able to see'.

(3) Rival suffixes

The Dt. suffix *-(e)lings* has to compete with some other suffixes in creating descriptive modifiers for the aforementioned niches. In general, De Vooy (1967: 259) points out that *-(e)lings* is semantically comparable to *-(e)lijk*, which he supports by diachronic evidence (see section 8.3). Deadjectival *-(e)lings* may be comparable with *-weg*, e.g. *blind-elings/blind-weg* ‘blindly’ (Van Dale 2005 and see chapter 17 on *-weg*).¹²³ In the DISTRIBUTIVE meaning, denominal *-gewijs* is equivalent, e.g. *drupp-elings/drup-s-gewijs* ‘drop by drop’ and the latter is used more often (see chapter 10 on *-gewijs*). In the niche of FORM, *-(e)lings* may compete with denominal *-gewijs* as well (e.g. *kruis-elings/kruis-gewijs* ‘crosswise’). Indicating DIRECTION, denominal *-waarts* is semantically equivalent, e.g. *zijde-lings/zij-waarts* ‘sideward(s)’ (see chapter 16 on *-waarts*). For Gm., too, *-wärts* is equivalent in the DIRECTION meaning, e.g. *rück-lings/rück-wärts* ‘backwards’ (Ronca 1975: 166).

8.3 Diachronic description

The historical dictionary WNT has a detailed entry on *-(e)ling(s)*. The suffix *-(e)lings* historically constitutes a reanalysed sequence of a suffix *-ling* and the adverbial suffix *-s*. To gain an insight into the process of reanalysis, the diachronic investigation includes the earliest attestations of *ling*-formatives (see appendix to chapter 8). The equivalents in the other West-Gmc. languages (see section 8.1) point at a common origin. My investigation uses existing information on the emergence of the Gm. equivalent *-lings* (e.g. Heinle 2004, Mähl 2004) and it includes some data from OED on En. *-ling(s)*.

8.3.1 Origin of *-(e)lings*

The origin of the Gmc. suffix *-ling* is described in (1). Then, the addition of the adverbial *-s* is described and finally, reanalysis of this sequence into *-(e)lings* (2).

(1) From *-ing* to *-ling*

For the origin of *-ling*, WNT refers to OG *-lingun* and OE *-ling(a)*, *-lunga*, e.g. OGM. *blinti-lingûn* ‘blindly’, *rucki-lingûn* ‘backwards’ and OE *nîd-linga* ‘obliged, compulsory’. These forms have been analysed as alternatives to older forms with *-ing-* and *-ung-*, which originate in the PIE suffix **-nqu-*, PGmc. **-ingōn* (EWN/*-ling*) and Gt. *-iggo*. The old form is recorded in OG *gâh-ingûn* ‘suddenly’, *unwar-ingûn* and EMD *niew-inghe* ‘recently’ (Heinle 2004: 167, Ronca 1975: 81, EWN/*-ling* and VMNW/*nieuwinghe*). There are indications that it was a West-Gmc. invention to insert the *-l-* (Mähl 2004: 42).¹²⁴ It has been claimed that this happened in analogy with forms in which the base word ended in *-l-*, e.g. OG *îtal-ingûn* ‘vainly’ (Ronca 1975: 81). In MG, *-lingen* became the general form, e.g. *biuche-lingen* ‘on the belly’, *rücke-lingen* ‘backwards’ (Heinle 2004: 171, Mähl 2004: 71-71). The unmarked accusative form *-ling* was predominantly used in the 16th ct.; *-linge* is only found in MG *anderlinge* (Heinle 2004: 171).

In Dt., the suffix *-linghe* is found in several EMD formatives in the 13th ct., e.g. *cort-elinghe* ‘soon’ in (8.20) or *mund-elinghe* ‘orally’ and *sonder-linge* ‘especially’ in (8.21). There was a regional (West-Flemish) variant *-langhe* in EMD (VMNW/*endelanghe*; VMNW/*rucghelanghe*).

(8.20) EMD/1276-1300/VMNW/*cortelinghe*
 gi selt mi volgen **cortelinghe**.
 ‘You shall follow me soon.’

¹²³ Observe that Fs. only has *blyn-wei* (Hoekstra 1998: 164).

¹²⁴ However, OED/*-ling* refers to the Gmc. root **ling-*, *lang-*, *lung-*, ‘to extend, reach’.

- (8.21) EMD/1290/VMNW/mondelinghe
 Ende bidt ouer mi **mundelinge** Ende metter herten **sonderlinge**.
 ‘And pray over me orally and especially with the heart.’

In EMD, in principle there was a formal differentiation between an ADJ in *-linc* and an ADV in *-linghe(n)*, e.g. *onder-linc* ‘mutual’ : *onder-linghe(n)* ‘mutually’; *soen-linc* ‘conciliable’ : *soen-linghe* ‘conciliably’ (VMNW; see section 8.3.3).

WNT notes that the original form *-(e)ling* made the same contribution as adverbial *-(e)lijk*; we can refer to synonymous pairs like *blind-elijk/blind-eling* ‘blindly’, *bott-elijk/bott-eling*, *plots-elijk/plots-eling* ‘suddenly’, *eind-elijk/eind-eling* ‘finally’. There are different synchronic results of this historical rivalry: *plotseling* replaced the older form *plotselijk* (WNT/plotseling), whereas *eindelijk* established instead of *eindeling(s)*. The rivalry also gave rise to interesting Gm./Dt. contrasts, e.g. Gm. *plötz-lich* vs. Dt. *plots-eling* ‘sudden(ly)’ and Gm. *münd-lich* vs. Dt. *mond-eling* ‘oral(ly)’ (*mondelijk* is still found in Roorda 1852).

(2) The reanalysed form *-lings*

In MD, ME and MG the adverbial genitive ending *-s* was occasionally added to the original form *-ling* in adverbial uses (see chapter 2 and compare chapter 15 on *-tjes* and chapter 16 on *-waarts*). Already in the 14th ct. we find in En. e.g. *side-ling-s*, *need-lings* and *head-lings* with the adverbial *-s* (OED). The same is observed for MG (Henzen 1965: 232, Heinle 2004: 171). In Dt., the adverbial *-s* was added incidentally in the 15th ct., e.g. *nieuw-elings* ‘recently’ in (8.22).

- (8.22) MD/1485/MNW/nieuwelinge
 Van einigher materie (...), die nieuwe schijnt ende **nieuwelincs** ooc ghevalen es.
 ‘From some substance (...), which seems new and which also recently fell down.’

The adverbial *-s* spread in EModD (see e.g. van der Horst 2008). It is present in lemmas in Kiliaan (1599), e.g. *nieuwelingshs* ‘recently’ and *wortelingshs* ‘to the root’ and there are many examples in the 16th and 17th ct. INL material. Nevertheless, certain *lings*-forms then coined were not able to replace the old *ling*-form, e.g. *mondelings*, *zonderlings* and *onderlings*, *plotselings*. Gradually, the combination *-ling-s* got reanalysed as a suffix *-lings*. Already in the 16th ct., *lings*-ADV were formed without the existence of a preceding *ling*-form in the INL material, e.g. *wortelings* ‘to the root’.¹²⁵ The pattern became productive in the 17th ct. as we find many new formatives, many of them deverbal. Some of the new formations could establish themselves in Dt., e.g. *schrijlings* ‘astride’ in (8.23), but many are restricted to one single occurrence.

- (8.23) EModD/1615/WNT/schrijlings
 Hoe Cupido daar sit **schrylinx** op een hont.
 ‘How Cupid is sitting there astride on a dog.’

A piece of evidence that the reanalysed *lings*-forms were established in 17th ct. Dt. may be the fact that it is these forms which made it into the daughter language Af.¹²⁶ In Dt., however, some new *ling*-derivatives are still found in 18th ct. material. The last new formation in the INL material is *warreling* by Wolff and Deken (1789/WNT). Incidentally, the old *ling*-variant is used until the 19th ct., e.g.

¹²⁵ WNT notes that for *ijlings* no form *ijling* is attested, but I found examples. Royen (1948a: 67) claims that *ijlings* originates in participial *ijlends*.

¹²⁶ The basis of the Af. language is formed by Dt. dialects brought to South-Africa by the Dt. who settled at the Cape in the 17th ct. Thus, if certain linguistic forms are represented in Af., this may be an indication that they already existed or were well-established in 17th ct. Dt. Of course, we have to be careful with such conclusions and we need to be aware of autonomous developments in Af.

blindeling is still recorded in 1836 in (8.24). Mind that the modifier is used predicatively, which may have been a reason in ModD for not adding *-s*.

(8.24) ModD/1836/WNT/blindelings

Ik ben daar **blindeling** in, ik weet daar niet van, de zaak is mij geheel vreemd.

'I am blind in this matter, I am not aware of it, it is completely unknown to me.'

By the 19th ct., *-(e)lings* was the only productive form and *-ling* did not form any new modifying words. This was recognised by 19th ct. grammarians, e.g. Brill (1871: 373) stated in his grammar that *-ling* for ADV formation is mostly followed by *-s*. The formal development of the suffix throughout time is summarised in table 8.2.

Table 8.2. Formal chronology of *-(e)lings*.

13 th ct.	<i>-inghe, -linc, -linghe(n)</i>
16 th ct.	<i>-ling, -ling-s</i>
17 th -18 th ct.	<i>(-ling), -lings</i>
> 1800	<i>-lings</i>

In Gm., too, *-lings* with final *-s* established itself in ModG and it dominated by the 18th ct. (Mähl 2004: 71, Heinle 2004: 173).¹²⁷ Observe that Fs. has *-lings* as well. In En., however, the situation of variation was apparently kept intact. We infer from OED that in En., the pattern with *-ling(s)* produced its very last new formations in the 18th ct.

8.3.2 Functional shift

Dt. *(e)ling(s)*-derivatives throughout history are only found in the function of descriptive modifiers. I did not find any examples of interpersonal modification in any of the investigated languages (compare Heinle 2004 for Gm. and OED for En.). That the Dt. *(e)ling*-derivatives started as descriptive modifiers was illustrated in (8.20)-(8.21) above; a further example from MD is *duuster-linghe* 'in the dark, darkling' (8.25).

(8.25) MD/1479/MNW/duusterlinge

Dat ghi noch wel bi nachte sout **duusterlinghe** gaen sonder (...) lanteern.

'That you would even go at night in the dark without (...) a lantern.'

The reanalysed *(e)lings*-derivatives continued the role as descriptive modifiers throughout the centuries, e.g. the temporal localiser *nieuw-elings* 'recently' in (8.22) and the qualifier *schrij-lings* 'astride' in (8.23) above. For CD examples, see section 8.2.

8.3.3 Historical observations on syntactic use

For *(e)lings*-derivatives and their predecessors, attributive use is common (1) and they are found to enter the premodifying attribute slot in the NP (2).

¹²⁷ Perhaps a factor which stimulated the substitution of adverbial *-ling* by *-lings* is multifunctionality of *-ling*, which is also used for the creation of N, e.g. Dt. *nieuw-eling* 'novice, newcomer', *stomm-eling* 'fool'; Gm. *Jüng-ling* 'lad, young man', *Frisch-ling* 'novice'. On their etymological connection, see EWN.

(1) Attributive modifier

In 8.3.1, I pointed out that in EMD there was a formal differentiation between an ADJ in *-linc* and an ADV in *-linghe(n)*. The *linc*-ADJ was inflected in prenominal position, e.g. [*i*]n *zoen-lingh-en dinghen* ‘in conciliable matters’ (1290/VMNW), *van onder-lingh-er minnen* ‘of mutual love’ (1291-1300/VMNW). Further attributive instances are found until the 17th ct., e.g. *Twee bisonder-lingh-e bomen* ‘two special trees’ (1488/MNW/bisonderlinge), *’t rugg-elingh gespin* ‘the backward spinning’ (1624/WNT/kennep), *Dit kruyss-elingh geschrapp Van Schaetsen* ‘this crosswise scraping of ice skates’ (1651/WNT/kruiselingsch). Observe that deadjectival *blind-eling* too was used attributively, e.g. *Ons blind-elingh Sermoen* ‘our blind sermon’ (1647/WNT/blindelings), *met blind-eling-en yver* ‘with blind diligence’ (1647/WNT/-ling). For Gm., Heinle (2004: 175), too, observes attributive use of the older *ling*-derivatives. This has also been found for En. *ling*-derivatives by Tourbier (1928), see e.g. *in heed-lynge sentence* (1518/OED), *the side-ling parts of the head* (1548/OED) and *a flat-ling blow* (1609/OED).

We have seen that the sequence *-ling-s* reanalysed into an adverbial suffix *-lings*. Strikingly, denominal *lings*-derivatives were already used as prenominal attributes from the 17th ct. onwards, in which case they were inflected: *Twee kruys-lincksch-e swaerden* ‘two crosswise swords’ (1642/WNT/kruiselingsch), *naar beurt-lings-en Vloed en Ebbe* ‘to high tide and low tide taking turns’ (1769/WNT/beurtelingsch), *met zyde-lings-e Bloemen* ‘with flowers to the side’ (1777/WNT/zijdelingsch), *op kruis-lingsch-e onderleden* ‘on crosswise subparts’ (1853/WNT/cirkel). Although WNT differentiates orthographically between ADV ending in *-lings* and ADJ ending in *-lingsch*, with separate entries for ADJ like *beurtelingsch*, *kruiselingsch*, *ruggelingsch*, this is actually one and the same suffix; the formal distinction is already mentioned by Roorda (1852: 98). The spelling *-sch* was officially adapted to *-s* in 1954 (van der Sijs 2002: 172 and see chapter 16 on *-waarts*).

Not only denominal, but also deadjectival *lings*-derivatives were used attributively from the 19th ct. onwards, e.g. *Een plots-lingsch-e ommekeer* ‘a sudden revolution’ (1820/WNT/plotseling). Den Hertog (1903-1904 [1892-1896]: 84) classified *rugg-elingsch-e* ‘backward’ and *zijde-lingsch-e* ‘sideward’ as ADJ. Further attested examples for the first half of the 20th ct. are provided by Royen (1948a: 65, 1954: 139). As shown in section 8.2, attributive use of *(e)lings*-derivatives, including deadjectival derivatives, is still represented in CD. In ModE, attributive use is exceptionally attested for *half*lings e.g. *the haf*lings fool (1801/OED), but in general, it is restricted to the forms without final *-s* (see OED/flatling). Henzen (1965: 248) refers to attributive use in Gm. *der jäh-ling-e Abschied* ‘the sudden goodbye’ and *blind-ling-e Zufall* ‘blind coincidence’, but mind the absence of the adverbial *-s*. Heinle (2004: 175) found one attributive occurrence for *blind-lings* in her historical material for Gm., but there are no indications that attributive use is still attested for *lings*-derivatives in CG. This is a striking difference with CD (see section 8.2).

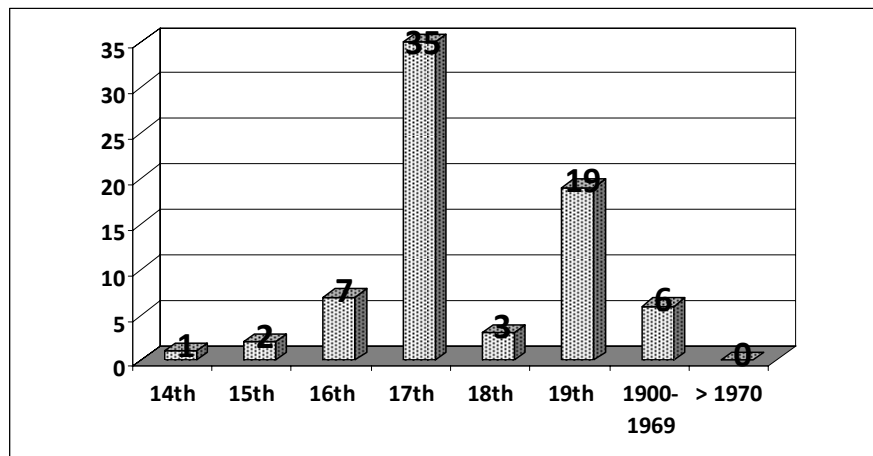
(2) Adverbial premodifier

The new *(e)lings*-forms in Dt. were used adverbially as premodifiers in the NP already in EModD, e.g. *sijde-lincks drijvende lucht* ‘sidewards floating air’ (1660/WNT/zijdelings). In ModD we find further examples like *beurt-elings verwisselende slagen* ‘alternately varied hits’ (1754/WNT/trillo), *met kruis-lings geplaatste dubbele stelen* ‘with crosswise situated double handles’ (1839/WNT/toog), *de kort-elings ontslagene* ‘the recently fired person’ (1864/WNT/kortelings), *het schrijlings te paard zitten* ‘the sitting astride on the horse’ (1919/WNT/kant). For CD examples see section 8.2.

8.3.4 Scope and productivity from a diachronic perspective

Figure 8.3 gives an overview of the new formations per century; observe that I only counted the formatives with *-(e)lings*, i.e., with the final *-s*. This first attestation was taken even when the formatives without *-s* occurred earlier.

Figure 8.3. New formations with *-(e)lings* throughout the centuries.



As figure 8.3 shows, after a few incidental new formations, reanalysed *-(e)lings* appears to have become highly productive in the 17th ct. Almost half of the types in the diachronic material were coined in the 17th ct. Many of these types have low token frequency or are even limited to one single attestation in INL. It is striking that many of the 17th ct. new formations in INL were coined by P.C. Hooft. There were hardly any new formations in the 18th ct., which corresponds with Gm.¹²⁸ We infer from OED that in En., the pattern with *-ling(s)* produced its very last new formations in the 18th ct. In contrast, there was an increase of new *(e)lings*-derivatives in the 19th ct., both in Gm. (Heinle 2004: 168) and in Dt. However, it could not reach the top frequency of the 17th ct. again. There was a firm decrease in the 20th ct. This development corresponds with Gm. (Heinle 2004: 168). Although Ronca (1975: 81) claims that *-lings* is still limitedly productive in CG, Altmann/Kemmerling (2005: 163) claim that it is not productive at all. The observation made in section 8.2 that Dt. *-(e)lings* is not productive in CD (compare ANS 1997: 738) can be confirmed by the diachronic investigation: there are no new derivatives after 1970. The most recent new formation was *roer-lings* ‘in a grazing manner, closely’ in 1955.¹²⁹

8.4 Conclusion

One of the main findings of this chapter is that the Dt. suffix *-(e)lings* is not, and never has been, a prototypical adverbial suffix. Attributive use of derivatives is already recorded in the EModD period and these derivatives allow inflection. This is opposed to Gm., where *lings*-derivatives are restricted to adverbial use.

Synchronically, Dt. *-(e)lings* is a suffix in its own right, which has its historical origin out in a former suffix sequence of Gmc. *-ling* and the adverbial *-s* which was occasionally added from the 15th ct. onwards. The adverbial suffix *-(e)lings* emerged through reanalysis in the 16th ct. and it was highly productive in the 17th ct. The pattern was productive until the first half of the 20th ct. In CD, *-(e)lings*

¹²⁸ But consider also a potential bias in the INL material for this period, see chapter 6.

¹²⁹ I counted only first attestations for *-(e)lings*. This first attestation was taken as the basis even when formatives without *-s* occurred earlier.

is no longer available for new formation. The established derivatives, which constitute a small closed class, function across the range of descriptive modifier types.

9 Modifying words with *-erwijs*

9.1 Introduction

The native suffix *-erwijs* is included in the overview of Dt. adverbial suffixes by Booij (2002). It gets a short description by de Haas/Trommelen (1993). *ANS* (1997) treats *-erwijs* together with *-gewijs* and *-wijs*. These suffixes do share the same origin, but *-erwijs* has different properties than *-gewijs* and they have to be treated as distinct suffixes (Van de Velde 2005). The lexemes *vragend-erwijs* ‘interrogatively, by way of questioning’ in (9.1) and *mogelijk-erwijs* ‘possibly’ in (9.2) illustrate word formation with *-erwijs*.

(9.1) CD/1995/38MWC

De heer Van den Berg stelde **vragenderwijs** enkele oplossingen aan de orde.

‘Mister Van den Berg pointed out some solutions in an interrogative manner.’

(9.2) CD/1995/38MWC

Mogelijkerwijs trekt de export in september weer aan.

‘Possibly the export will be picking up in September.’

Dt. *-erwijs* is generally treated as a suffix which is clearly distinct from *-gewijs*, a suffix with entirely different properties (Booij 2002, de Haas/Trommelen 1993, Van de Velde 2005). There is no productive equivalent of *-erwijs* in En., only of *-gewijs* (Rahn 1969: 235 and see chapter 10 on *-gewijs*). En. only has deadjectival remnants like the highly idiomatic lexemes *other-wise* and *like-wise*. The Gm. equivalent of *-erwijs* is *-erweise*. It is referred to in the literature as an extremely productive suffix (e.g. Heinle 2004). Consider *möglich-erweise* ‘possibly’ and *gleich-erweise* ‘similarly’ in (9.3).

(9.3) CG/1971/DWDS

Beide haben **möglicherweise** die gleichen Vorstellungen, sind jedoch mit der Kirche als äußere Institution nicht **gleicherweise** solidarisch.

‘Perhaps both have the same ideas but they are not similarly solidary with the church as an exterior institution.’

In morphological descriptions of Gm. usually no distinction is made between *-weise* and *-erweise*, the latter being treated under the heading of *-weise* with *-er-* as a linking element (e.g. Ronca 1975, Ros 1992, Fleischer/Barz 1995, Heinle 2004, Altmann/Kemmerling 2005, *Duden* 2009). However, there are good reasons to distinguish between *-weise* and *-erweise*: although they are etymologically identical, *-weise* and *-erweise* have entirely different synchronic properties (e.g. Paraschkewoff 1976, Ramat/Ricca 1998, Motsch 2004). Af. also has *-erwys(e)*, e.g. *redelik-erwys(e)* ‘within reason’, *vra(g)end-erwys* ‘questioningly’ (Donaldson 1993: 444). Compare Fs. *-erwize* (WFT), e.g. *gelokkig-erwiz* ‘fortunately’, *boartsjend-erwize* ‘playingly’ (Boersma 2007, Popkema 2006).

The central issue in the description of the suffix *-erwijs* is its connection with the independent N *wijze* ‘manner’. In Dt. and Gm., adverbial phrases can be formed, introduced by a PREP, which function as qualifying modifiers to the verbal predicate e.g. Dt. *op subtiel-e wijze* ‘in a subtle way’ in (9.4) and Gm. *auf klar-e und elegant-e Weise* ‘in a clear and elegant way’ (9.5). Compare similar constructions in En. with the N *way*.

(9.4) CD/1995/38MWC

De belichting wijzigt voortdurend **op subtiële wijze**.

‘The lighting changes all the time in a subtle way.’

(9.5) CG/1999/DWDS

Sie halten Französisch für den Gipfel der Sprachentwicklung und für die einzige Sprache, in der sich Gedanken zugleich **auf klare und elegante Weise** ausdrücken lassen (...).

'They consider French the top of linguistic development and the only language which allows the expression of thoughts simultaneously in a clear and elegant way (...).'

It has been shown that historically, such adverbial phrases constitute the origin of word formation with *-erwijs/-erweise* (e.g. Heinle 2004, Lenker 2002, Van de Velde 2005). In fact, *vragend-erwijs* in (9.1) or *gleich-erweise* in (9.3) can be paraphrased by an adverbial phrase with the N *wijze/Weise*, which suggests that the lexical meaning of 'manner' is still present. However, for *mogelijk-erwijs/möglich-erweise* 'possibly' in (9.2)-(9.3), a paraphrase by *wijze/Weise* does not apply and there is no reference to manner. The status of *-erwijs* and particularly *-erweise* in such examples has been discussed in several studies (e.g. Booij 1977, Barbiers 2001 and Van de Velde 2005 on *-erwijs*; Paraschkehoff 1976, Ramat/Ricca 1998 and Lenker 2002 on *-erweise*). Ramat/Ricca (1998: 203) and Van de Velde (2005) argue that the suffixes in both languages constitute grammatical patterns: they function as markers of sentential adverbiality. Ramat/Ricca (1998: 204) observed that the use of Gm. *erweise*-lexemes as sentential adverbials is actually restricted to particular subfunctions: *erweise*-derivatives never function as domain or speech act modifiers. They prototypically function as evaluative modifiers, e.g. *glücklich-erweise* 'fortunately' in (9.6), or as modal modifiers, e.g. *möglich-erweise* 'possibly' in (9.3) above. It has been shown that Dt. *erwijs*-lexemes, too, function as modal modifiers (Nuyts 2001) or as evaluatives (Barbiers 2001, Diepeveen 2011a), e.g. *interessant-erwijs* 'interestingly (enough)' (9.7).

(9.6) CG/1998/DWDS

(...) aber abgesehen von blutenden Hautabschürfungen passierte uns **glücklicherweise** nichts.

'(...) but apart from bleeding scratches we were fortunately not wounded.'

(9.7) CD/1995/ANW

In nettere bewoordingen is deze visie nu ook tot andere geledingen van de Vlaamse zuil doorgedrongen, waarbij **interessanterwijs** de twee procent Maghrebijnse nieuwkomers in Vlaanderen als 'invasie' en de twintig procent Nederlandstaligen in Brussel als 'bedreigde minderheid' worden beschouwd.

'More carefully formulated this idea has penetrated other segments of the Flemish sociopolitical system where, interestingly, the two percent of Maghrib newcomers in Flanders are considered as an 'invasion' and the twenty percent of Dutch-speaking persons in Brussels as an 'endangered minority'.'

The Gm. suffix *-erweise* is used systematically for coining evaluative ADV and it is probably the most productive adverbial suffix in CG (Ronca 1975: 162). In contrast, the Dt. suffix *-erwijs* has been considered unproductive (Barbiers 2001) and its use is restricted (Booij 1977, de Haas/Trommelen 1993). The suffix is for instance optional in epistemic *mogelijk(-erwijs)* 'possibly' and in evaluative *gelukkig(-erwijs)* 'fortunately', whereas it is blocked in **vreemd-erwijs* 'strangely'. The similarities and contrasts between Dt. and Gm. will be clarified in this chapter by means of a combined synchronic-diachronic approach.

As I already noted in previous work (Diepeveen 2011a), the claim that *-erwijs* and its Gm. cognate *-erweise* are grammatical markers of sentential adverbiality is problematic. I will further work out this problem in the present chapter. I shall argue that the suffix does create prototypical ADV but that these (i) can be associated prototypically with the semantic function of evaluative modification and not with the whole spectrum of sentential modification, and (ii) can be used for NP-internal modification.

9.2 Synchronic description

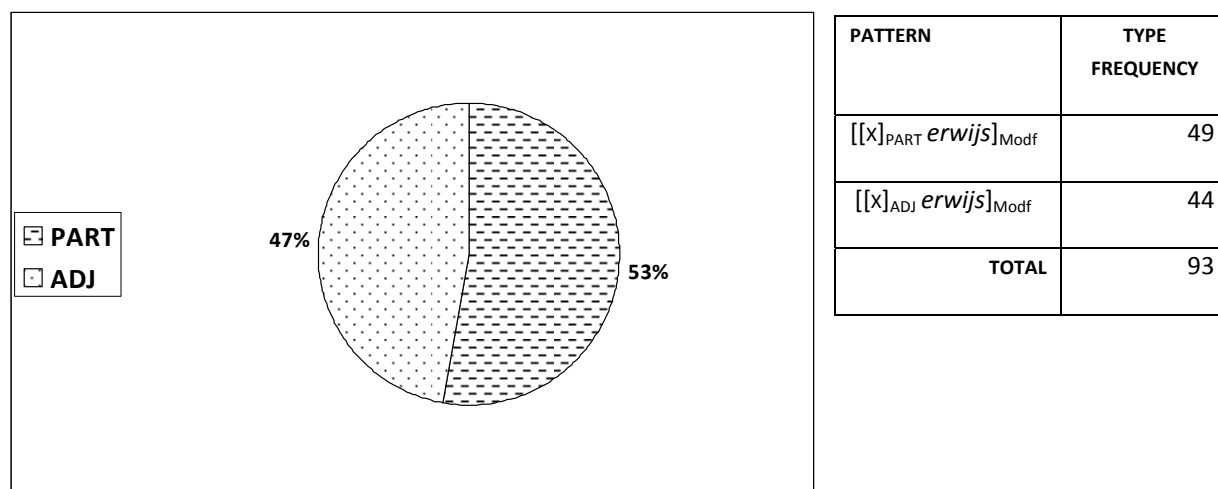
9.2.1 Introduction

The Dt. suffix *-erwijs* has a variant ending in schwa, *-erwijze*. Van Dale (2005) mentions both but it uses *-erwijs* in all entries; I shall do the same. The distribution of these variants is not clear (ANS 1997: 738 and see chapter 10 on *-gewijs*). I shall not go into this but I refer to Van de Velde (2005) for a discussion of their distribution. The following synchronic description is based on an inventory of 93 *erwijs*-lexemes collected in the corpora 38MWC, CGN and ANW and the dictionary Van Dale (2005) (see appendix to chapter 9).

9.2.2 Scope and productivity

As noted by Van Dale (2005/*-erwijs*) and ANS (1997: 739), there are two input categories for word formation with *-erwijs*: ADJ or present PART (ending in *-end*). This is not the place to go into the question whether PART belong to the adjectival or verbal category (see de Haas/Trommelen 1993 and ANS 1997). I shall treat them here as modifying words formed by the ending *-end* on the basis of a verbal stem. Figure 9.1 shows the actual distribution of input categories in the synchronic inventory of 93 *erwijs*-lexemes.

Figure 9.1. Distribution of input categories for *-erwijs* in synchronic inventory.



As figure 9.1 shows, the participial and the adjectival input category are almost equally well represented in terms of type frequency. In the material there is one past PART, the rest are present PART. For Gm. *-erweise*, the same main input categories are found: ADJ and PART, both present and past PART (Ronca 1975: 149, Altmann/Kemmerling 2005: 167). In terms of type and token frequency, ADJ clearly represent the prototypical input category in Gm. Additionally, there can be a pronominal input: the only examples are *solch-erweise* and (archaic) *welch-erweise* (Ronca 1975: 149; but Ros 1992: 132 considers *solch-erweise* a compound). In the Dt. material, depronominal *erwijs*-lexemes are not found (however, for older Dt. see section 9.3).

(1) Participial input

The PART which are input to derivation with *-erwijs* mostly denote some kind of activity but they may also refer to an emotion. Their verbal stems are of varying morphological complexity: simplex (e.g. *lach-end* 'laughing') or complex, e.g. prefixed by *aan-* (e.g. *aan-vullend* 'adding'), *ge-* (e.g. *ge-biedend*

'commanding'), *be-* (e.g. *be-scham-end* 'humiliating') or *ver-* (e.g. *ver-zach-tend* 'mitigating'), or a compound (*deel-uitmak-end* 'being a part of'). The stem may be of non-native origin, e.g. *citer-end* 'citing' and *improviser-end* 'improvising' from French or *zapp-end* 'zapping' from En. In the material there is one *erwijs*-formation on the basis of a past PART, *ge-dwong-en* 'enforced, compulsory'.

In Gm., participial *erwise*-formations are found as well (Ronca 1975, Altmann/Kemmerling 2005: 167), though not as numerous as in Dt. Derived from a present PART are e.g. *überrasch-end-erwise* 'surprisingly', *bezeichn-end-erwise* and (archaic) *folg-end-erwise* 'in the following way' (the latter is considered a compound by Ros 1992: 132). Ronca (1975) mentions *spiel-end-erwise*, *les-end-erwise* and *red-end-erwise*, but adds that they are colloquial; indeed, Heinle (2004) did not find them in her corpus and there are no hits in DWDS (only one for *spiel-end-erwise* from 1906). Derived from a past PART are e.g. *un-verschuld-et-erwise* and *ver-bot-en-erwise*.

Most participial formations in Van Dale (2005) are recorded in the corpora, only a few are not. In terms of token frequency, *spelend-erwijs* 'by playing' from native *spelen* 'play' is the most common. It may display some degree of idiomatisation, i.e., there is not always 'playing' involved and it rather means something like 'without effort, with (the greatest of) ease', e.g. in (9.8).

(9.8) CD/2001/ANW

(...) haar lieve, begaafde Nathalie die bijna haar doctoraal Spaans had gehaald en nog wel **spelenderwijs**, ze had nooit ergens haar best voor hoeven doen.

'(...) her sweet, talented Nathalie who almost obtained a Master in Spanish and did so without effort, she had never needed to do her best for anything.'

(2) Adjectival input

The material shows that *-erwijs* may be added to qualifying ADJ (e.g. *interessant* 'interesting', *tragisch* 'tragic') and to modal (epistemic) ADJ (e.g. *mogelijk* 'possible', *noodzakelijk* 'necessary'). De Haas/Trommelen (1993: 353) describe two formal restrictions on input ADJ: they are Gmc. and they are morphologically complex. As only non-Gmc. input ADJ they mention *normaal* 'normal' but in my inventory there are several further Romanic examples, e.g. *interessant* 'interesting', *ideaal* 'ideal', *klassiek* 'classic' and *ludiek* 'playful'. The restriction involving morphological complexity is in accordance with my material. Complex ADJ include those suffixed by *-(e)lijk* (e.g. *mens-elijk* 'human'), *-ig*, (e.g. *schandal-ig* 'scandalous'), *-isch* (e.g. *iron-isch* 'ironic', *democrat-isch* 'democratic') and those prefixed by negative *on-* (e.g. *on-logisch* 'illogical'). The non-native input ADJ are ending in *-iek* (e.g. *klassiek* 'classic') and *-aal* (e.g. *paradoxaal*). Unclear is the input of the complex lexeme *fallologisch-erwijs* in (9.9) for which no corresponding ADJ is recorded in Van Dale (2005). Its input ADJ may be a combination of the splinter *fallo-* 'phallo' (e.g. *fallocratisch* 'phallocratic') with the ADJ *logisch* 'logical' in an *ad hoc*-invention. Otherwise, it could be a misinterpretation of the ADJ *fallisch* 'phallic'.

(9.9) CD/1999/ANW

Wanneer de huidige religieuze reveils dit machinaal-fallisch karakter van hun logica ontkennen, lopen ze het gevaar blind te blijven voor het doodsprincipe dat hen (**fallologisch-erwijs**) van binnen uit belaagt.

'If the current religious reveilles deny the mechanical-phallic character of their logic, they risk staying blind for the principle of death which (?phallogically) besieges them from the inside.'

According to my data, the restriction that morphologically simplex input ADJ do not occur is held upright (but see section 9.3.4). Gm. *-erwise* however is fully flexible: it is freely added to both native ADJ (*klug* 'smart') and non-native ADJ (*interessant* 'interesting', *konsequent* 'consistent'), to morphologically complex ADJ (e.g. *list-ig*, *glück-lich* 'happy', *zweck-mäßig* 'efficient', *un-bekannt* 'unknown') and simplex ADJ (e.g. *klug* 'smart', *dumm* 'stupid') (Ronca 1975, Heinle 2004). It is even

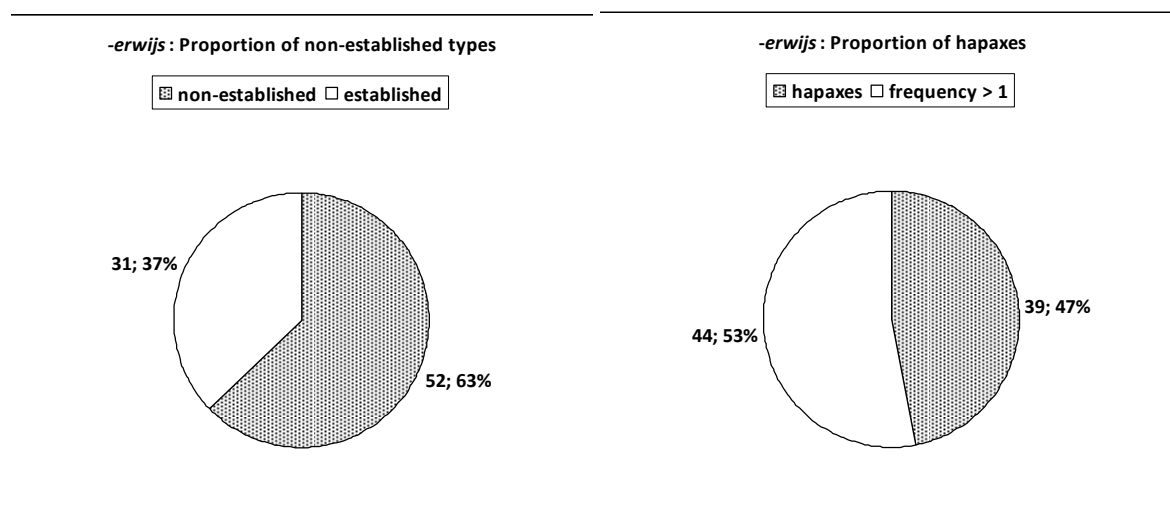
phonologically unproblematic to add *-erwise* to ADJ ending in *-er*, e.g. *makaber* ‘macabre’, which is impossible in Dt.

It is striking that all of the Dt. deadjectival lexemes recorded in Van Dale (2005) are represented in the corpora: they are all well-established. In terms of token frequency, the modifying words with *-erwijs* which are best represented in the corpora are *noodzakelijk-erwijs* ‘necessarily’, *redelijk-erwijs* ‘reasonably’ and *mogelijk-erwijs* ‘possibly’. *Redelijk-erwijs* may display some degree of idiomatisation when it means ‘fairly, in fairness’. Comparable with Dt. *redelijk-erwijs* is Gm. *billig-erweise* ‘reasonably’, which is also idiomatised (Ronca 1975: 158). For Dt. *gelijk-erwijs* holds that it has an archaic use as a conjunction (Van Dale 2005).

(3) Synchronic indicators of productivity

We have observed on the basis of the synchronic inventory that the scope of *-erwijs* is relatively wide: there are not many structural and semantic constraints on the adjectival and participial input words. Non-Gmc. bases are allowed. There are some formal restrictions which make *-erwijs* less flexible than Gm. *-erweise*, i.e., the latter has a wider scope. There is evidence from the application rate of *-erwijs* in the corpora that it is a productive suffix. The overall type frequency for *erwijs*-lexemes in the corpora is fairly high: 83 and 63% of these types are not established in Van Dale (2005). There are 39 hapaxes, which is good for nearly half of all types. The results are visualised in the pie charts in figure 9.2.

Figure 9.2. Frequencies for *-erwijs* in contemporary Dutch corpus data (83 types = 100%).



There are indications from the corpus material that *-erwijs* is productive for both deadjectival and participial derivation. Half of the deadjectival lexeme types are hapaxes, e.g. *ludiek-erwijze* ‘playfully’ in CGN and *potsierlijk-erwijze* ‘grotesquely’ in ANW. The corpora also display participial lexemes which Van Dale (2005) has not recorded. There are 17 hapaxes, e.g. *zappend-erwijs* ‘by zapping’ and *ervar-end-erwijs* ‘by experiencing’ in CGN, *repeteerend-erwijs* ‘by rehearsing’ in 38MWC and *tuit-end-erwijze* ‘by pouting one’s lips’ in ANW.¹³⁰

¹³⁰ *Deel-uitmak-end-erwijs* is also a hapax, but it constitutes a special case. The attestation in which it occurs is a Dt. translation of a quote by the writer Fernando Pessoa, originally written in Portuguese. The Dt. lexeme *deel-uitmak-end-erwijs* represents an *ad hoc*-formation to render the Portuguese complex ADV *incorporadamente*.

9.2.3 Modifier types

Scholars agree that *-erwijs* derives ADV. According to de Haas/Trommelen (1993), *erwijs*-lexemes function as manner adverbials. Booij (1977) and Van de Velde (2005) further refer to sentence adverbials (see section 9.1). Barbiers (2001) refers specifically to evaluative adverbials. In Van Dale (2005), most *erwijs*-lexemes are classified as qualifying ADV (specifying manner or circumstance) and one as modal ADV. These are indeed the modifier types represented in the material.

(1) Qualifying modifiers

Formed on the basis of PART, derived words with *-erwijs* usually specify manner on the verbal predicate like *vragend-erwijs* 'questioningly' in (9.1) above and *grappend-erwijs* 'jokingly' (9.10) and *repetierend-erwijs* 'by rehearsing' (9.11) below.

(9.10) CD/1994/38MWC

'De Stadsvernieuwing moet niet in één klap teniet worden gedaan', tekende Jansen daar **grappend-erwijs** bij aan.

'The Town Renovation should not be brushed aside right away', Jansen noted jokingly.'

(9.11) CD/1995/38MWC

Ook bij het Werkteater leerde ik de tekst **repetenderwijs**.

'Also in Working Theater I learned the text by rehearsing.'

Deadjectival *erwijs*-derivatives, too, may function as qualifying adverbials specifying manner (de Haas/Trommelen 1993: 354, Van Dale 2005/*-erwijs*) or compliance. They are typically formed on the basis of objective ADJ, see *natuurlijk-erwijs* 'naturally' (9.12), *toevallig-erwijs* 'by chance' (9.13) and *logisch-erwijs* 'logically, according to logical principles' (9.14).

(9.12) CD/1991/38MWC

Niet een taal die door regeringen en politici wordt bedacht, maar een die **natuurlijkerwijs** uit de samenleving opkomt?

'Not a language which is made up by governments and politicians but a language which emerges naturally from society?'

(9.13) CD/1994/38MWC

Vier personages komen **toevalligerwijs** met elkaar in aanraking en besluiten gezamenlijk verder te reizen.

'Four characters run into each other by chance and decide to continue their journey together.'

(9.14) CD/n.d./ANW

De leerlingen lopen dan naar de hoek van de kamer waar het boek ligt, waaruit ze denken dat het voorgelezen fragment komt. Nadien verantwoorden ze dan **logischerwijs** hun keuze.

'The pupils then go to the corner of the room where the book is situated which they believe includes the section which was read to them. Then they logically account for their answer.'

Van de Velde (2005) shows by means of quantitative data that the qualifying function is rare for deadjectival *erwijs*-lexemes. The same holds true for Gm. *erweise*-lexemes (Starke 1973: 143) e.g. deadjectival *ähnlich-erweise* 'in a similar way', *gleich-erweise* 'equally', see (9.3), depronominale *solch-erweise* 'in such a way' and Ronca (1975) adds participial *folgend-erweise* 'in the following way'. Consider further *natürlich-erweise* 'naturally' (9.15).

(9.15) CG/1976/DWDS

Drehbewegungen, so sagt Benedetti, sind “sicherlich nicht ewig”, denn die Teile der Kugel, die sich ja geradlinig bewegen möchten, unterliegen einem gegen ihre Natur gerichteten Zwang, “und daher kommen sie **natürlicherweise** zur Ruhe”.

‘Rotary movements, according to Benedetti, are “certainly not eternal”, since the parts of the ball which want to move in a straight line are subject to a force which goes against their own nature, “and therefore they naturally come to a halt”.’

In the qualifying examples (9.12)-(9.14), the Dt. qualifying *erwijs*-derivative may in principle be substituted by the unsuffixed base. Both are grammatical alternatives for the adverbial position and seem to share the same lexical content. Substitution by the base in the Gm. example (9.15) results in ambiguity (*natürlich* ‘of course, obviously’).¹³¹

(2) Modal modifiers

Deadjectival *erwijs*-words may function as modal modifiers. Epistemic *mogelijk-erwijs* in (9.1) above is special: as Booij (1977) observed, *mogelijk* ‘possible/possibly’ may function as a modal ADV without *-erwijs*; this is a contrast with Gm. *möglich-erweise* ‘possibly’ in (9.3) above which requires suffixation. Moreover, *-erwijs* can be left out in *noodzakelijk-erwijs* ‘necessarily’ (9.16); notice, however, that in this example the modifier only has scope over the qualifier to its right.

(9.16) CD/2000/ANW

Die bepalende condities kunnen bij elke jaargang van nieuwkomers sterker (...) aanwezig zijn, zodat generaties ook gradueel en niet **noodzakelijkerwijs** substantieel van elkaar verschillen.

‘These determining conditions can be present more strongly in each year’s newcomers (...), so that generations may also differ from one another gradually and not necessarily substantially.’

Substitution by the unsuffixed base is impossible for modal *logisch-erwijs* ‘logically’ (9.17). As this example shows, *logisch-erwijs* is polysemous between an interpersonal reading and a qualifying reading expressing compliance with a norm (9.14). Van de Velde (2005: 112) already pointed out that this may lead to ambiguous instances.

(9.17) CD/n.d./ANW

Om een rijbewijs te behalen moet je slagen in een theoretisch en een praktisch examen. **Logischerwijs** start men met de theoretische test.

‘To obtain a driving licence you have to pass a theory exam and a driving test. Logically you start with the theory exam.’

Modal modifiers with *-erweise* in Gm. include epistemic *möglich-erweise* ‘possibly’ in (9.3) and *logisch-erweise* ‘logically’ (9.18).

(9.18) CG/1985/DWDS

Man kann ohne Übertreibung sagen, daß damit die Tätigkeit der Ingenieure - vor allem in Konstruktion und Technologie - revolutionär verändert wird. Daraus ergeben sich **logischerweise** Auswirkungen auf die Weiterbildung fast aller Beschäftigten der produktionsvorbereitenden und produzierenden Bereiche.

‘One could say, without exaggerating, that in this way the occupation of engineers - particularly in construction and technology - changes dramatically. Logically, this comes with implications for further training of almost all the employees of the departments responsible for preparing production and producing.’

¹³¹ See Van de Velde (2005: 119-120) on the meaning difference between PART with and without *-erwijs*.

(3) Evaluative modifiers

Evaluative modification is the prototypical function of Gm. *erweise*-derivatives (see e.g. Duden 2009, Hengeveld 1997: 133, Heinle 2004, Liu 2009), e.g. *glücklich-erweise* ‘fortunately’ in (9.6) above and *erstaunlich-erweise* ‘astonishingly’ in (9.19) from Liu (2009: 332).

- (9.19) **Erstaunlicherweise** scheint aus meiner Erkältung keine Grippe zu werden.
‘Astonishingly, it seems that my cold is not turning into the flu.’

In Dt., too, deadjectival lexemes with *-erwijs* may function as evaluative modifiers (see e.g. Barbiers 2001 and Diepeveen 2011a). The base words are qualifying ADJ. Examples are *interessant-erwijs* ‘interestingly (enough)’ in (9.7) above, *begrijpelijk-erwijs* ‘understandably’ in (9.20), *komisch-erwijze* ‘funnily (enough)’ (9.21). Booij (1977) observed that *-erwijs* is optional in *gelukkig(erwijs)* ‘fortunately’, but *-erwijs* cannot be left out in any other example.

- (9.20) CD/1995/38MWC
Een man of vrouw die individuele behandeling behoeft en een baan heeft, wil **begrijpelijk(erwijs)** zo snel mogelijk weer aan de slag.
‘A man or woman who is in need of individual treatment and has a job understandably wants to go back to work as soon as possible.’

- (9.21) CD/1995/ANW
In dit hoogst stimulerende boek herkent men duidelijk de structuur van een (historische) detective-roman, waarin **komischerwijze** niemand minder dan de filosoof Voltaire de rol van detective vervult.
‘In this highly stimulating book one clearly recognises the structure of a (historical) detective novel in which, funnily enough, no one less than the philosopher Voltaire figures as the detective.’

Observe that participial formatives, too, may function as evaluatives, e.g. *beschamend-erwijs* ‘painfully (enough)’ (9.22).

- (9.22) CD/2001/ANW
Maar er is ook de Dylan van het kinderdeuntje Wigwam (**beschamenderwijs** zijn grootste Nederlandse hit).
‘But there is also the Dylan of the children’s tune Wigwam (painfully enough, his greatest hit in the Netherlands).’

Incidentally, Dt. *erwijs*-derivatives on the basis of subjective ADJ are ambiguous between a qualifying reading and an evaluative interpretation, e.g. *schandalig-erwijze* ‘scandalously, in a scandalous way’ specifying manner on the VP or ‘scandalously (enough)’ evaluating the proposition (9.23). The evaluative interpretation is more likely since a qualifying reading would allow leaving out the suffix and this appears to be odd.

- (9.23) CD/1995/ANW
Een van de laatste programma’s die ik op Discovery Channel zag, voordat het **schandaligerwijze** uit mijn kabelaanbod werd geschrapt.
‘One of the last programmes I watched on Discovery Channel before it was scandalously (enough) removed from my cable network.’

The same potential ambiguity on the level of individual lexemes is observed for Gm. by Ronca (1975: 57), e.g. *vernünftig-erweise* ‘considered, reasonably’.

9.2.4 Contribution of *-erwijs*

The suffix *-erwijs* is generally argued to have a grammatical value, which can be specified (1) but we may determine semantic values as well (2).

(1) Grammatical value

The suffix *-erwijs* is added to inherently modifying words: ADJ and present PART. Section 9.2.3 suggests that the output words of this pattern are prototypical ADV. Adding *-erwijs* restricts syntactic valency: the output lexemes can normally not be used as prenominal attributes (but see section 9.3). This means that the suffix has a grammatical value of adverbialisation. This corresponds with Gm. *-erweise* which is also an adverbialiser; deadjectival *erweise*-derivatives cannot be used attributively (Starke 1973: 142, Kühnhold/Putzer/Wellmann 1978: 376, Fleischer/Barz 1995).

As indicated in section 9.1, the literature assumes that the suffix *-erwijs*, like Gm. *-erweise*, signals sentence adverbiality, i.e., derives modifiers of the entire proposition. This claim is not fully generalisable. First of all, the derived lexemes may function as modifiers of the predicate (and, as we will see in section 9.3, they are even incidentally used as modifiers of the referent in Dt.). Secondly, the derived lexemes do not serve the full spectrum of sentential functions but the suffix seems to make a more specific semantic contribution. We have seen in section 9.2.3 that the suffix *-erwijs* does not create domain or speech act modifiers, so the analysis that it derives sentential ADV (e.g. Van de Velde 2005) is too general. It makes a more specific semantic contribution.

Finally, for some modal lexemes as well as for most qualifying lexemes holds true that Dt. *-erwijs* is not obligatory: the base ADJ may be used adverbially without additional marking. In these cases, the addition of *-erwijs* seems pleonastic.

(2) Semantic value

As far as the semantic contribution of *-erwijs* is concerned, we must distinguish between different classes of lexemes. On the one hand there are descriptive, qualifying modifiers in which it seems that *-erwijs* just makes the inherent MANNER meaning more explicit, e.g. *natuurlijk-erwijs* 'naturally, in a natural manner'. In these lexemes there is a close semantic connection with the independent N *wijze* 'manner'. Ros (1992) considers the semantic transparency of such qualifying ADV in *-erweise* in Gm. as a reason to analyse these lexemes as compounds rather than as derived words. Moreover, in Gm., qualifying ADV (e.g. *natürlicherweise* 'naturally') may be substituted by a phrase with an inflected ADJ and the N *Weise* 'manner' (e.g. *natürlicher Weise* 'in a natural way'). In Dt., the qualifying ADV (e.g. *natuurlijkerwijze*) may also be substituted by a phrase (e.g. *op natuurlijke wijze*), but notice that *-er* is no longer used as an inflectional ending on ADJ. In Dt., *-er-* is clearly part of the word-formation pattern and *-erwijs* can be analysed as a prototypical suffix.

In other descriptive lexemes the semantic value of *-erwijs* is more vague. We infer from Van Dale (2005) that Dt. *-erwijs* may establish the relation of MANNER or COMPLIANCE with a norm, but we also find the relation of INSTRUMENT which Ronca (1975) identified for Gm. *-erweise*. Last but not least, *-erwijs* may be used to turn a qualifying lexeme into an evaluative modifier, e.g. *interessant-erwijs* 'interestingly'.

Table 9.1 presents the semantic spectrum of *-erwijs*. There is polysemy on the level of individual lexemes; recall from section 9.2.2 that *logisch-erwijs* 'logically' is polysemous in CD between a qualifying reading expressing COMPLIANCE and a modal reading.

Table 9.1. Semantic spectrum of *-erwijs*.

VALUE		PATTERN	EXAMPLE
PRIMARY	COMPLIANCE	[[X] _{ADJ} <i>erwijs</i>] _{ADV}	<i>logisch</i> 'logical(ly)' : <i>logisch-erwijs</i> 'logically, according to logical principles'
	EVALUATIVE	[[X] _{ADJ} <i>erwijs</i>] _{ADV}	<i>komisch</i> 'funny/funnily' : <i>komisch-erwijs</i> 'funnily (enough)'
		[[X] _{PART} <i>erwijs</i>] _{ADV}	<i>beschamend</i> 'shameful(ly)' : <i>beschamend-erwijs</i> 'shamefully (enough)'
	INSTRUMENT	[[X] _{PART} <i>erwijs</i>] _{ADV}	<i>vragend</i> 'asking' : <i>vragend-erwijs</i> 'by asking'
	MANNER	[[X] _{ADJ} <i>erwijs</i>] _{ADV}	<i>natuurlijk</i> 'natural(ly)' : <i>natuurlijk-erwijs</i> 'naturally, in a natural way'
	MODAL	[[X] _{ADJ} <i>erwijs</i>] _{ADV}	<i>logisch</i> 'logical(ly)' : <i>logisch-erwijs</i> 'logically, which is logical'
PLEONASTIC		[[X] _{ADJ} <i>erwijs</i>] _{ADV}	<i>mogelijk</i> 'possible/possibly' : <i>mogelijk-erwijs</i> 'possibly'

(3) Rival suffixes

In creating descriptive modifiers, *-erwijs* has several semantically comparable suffixes. In the qualifying function, *-erwijs* is synonymous with *-weg* according to de Haas/Trommelen (1993). But in actual fact they do not seem to compete. In Gm., in the qualifying niche, there is competition between *-erweise* and *-ermaßen* (Heinle 2004: 243). Ronca (1975: 152,166) refers to *folgend-erweise/folgend-ermaßen* 'in the following way', *gebührend-erweise/gebührend-ermaßen* 'appropriately, properly', *(un)verdient-erweise/(un)verdient-ermaßen* 'undeserved, without reason' Compare also *gleich-erweise/gleich-ermaßen* 'in the same way' Ronca (1975: 166-167) claims that *folgend-erweise* is archaic and is being replaced by *folgend-ermaßen*. Reversely, *billig-ermaßen* is being replaced by *billig-erweise*.

We also find rival suffixes in the interpersonal function. According to de Haas/Trommelen (1993: 353), the semantic contribution of *-erwijs* overlaps with that of *-iter*; in their view, *normaliter* and *normal-erwijs* 'normally' are synonymous (see chapter 12 on *-iter*). Van Dale (2005) too gives *normaliter* as a synonym for *normal-erwijs*. An evaluative minimal pair is *ideal-erwijs/idealiter* 'ideally', but since *-iter* is no available Dt. suffix (see chapter 12), it cannot be considered a competitor outside these examples. We find further synonyms in *ongelukkig-erwijs/ongelukkig-lijk* 'unfortunately' (see Van Dale 2005 and Diepeveen 2011a). If we include unmarked adverbially used ADJ, there are triplets for certain modal modifiers: unmarked *normaal*, *normal-erwijs* and *normaliter* 'normally'; unmarked *toevallig*, *toevallig genoeg* and *toevallig-erwijs* 'coincidentally, by coincidence'. The main competitor for evaluative *-erwijs* in Dt. is the phrasal pattern with *genoeg* 'enough' (see chapter 4). The patterns seem to be absolute synonyms, which gives rise to evaluative doublets. When I investigated some evaluative doublets in corpus material, I found that the pattern with *genoeg* tends to have higher token frequency than the derived lexeme with *-erwijs* (see Diepeveen 2011a). Moreover, the pattern with *genoeg* has the advantage that it does not seem to have any formal restrictions on the ADJ with which it may be combined, e.g. it freely combines with monomorphemic monosyllabic ADJ like *dom* 'dumb'. This is a contrast with Gm., where *-erweise* is the only suffix available for the evaluative function.

9.3 Diachronic description

The historical dictionary WNT includes some information on the history of *-erwijs* in its entry on *wijze*. The suffix *-erwijs* is historically related with the lexical N *wijze* ‘manner’. To gain an insight into univerbation and grammaticalisation processes, the diachronic investigation includes the earliest attestations of sequences where *wijs* and the base word are juxtaposed, but do not form an orthographic unit, i.e., are not written together or connected by a hyphen (see appendix to chapter 9). My investigation uses existing information on the emergence of its Gm. equivalent *-(er)weise* (e.g. Paraschkewoff 1976, Heinle 2004).

9.3.1 Origin of *-erwijs*

The suffix *-erwijs* and its Gm. equivalent *-erweise* have their origin in a Gmc. N **wīsa* “manner” (OE *wīs(e)*, OG *wīsa*, MG *wīs(e)*, OD *wise*, MD diphthongised *wijs*). The PIE predecessor must have meant something like ‘form, appearance’ (*EWN/wijze*). The N *wijze* ‘manner’ survives in Dt. as does *Weise* ‘manner’ in Gm., but *wise* is not used in En. There seem to be two combined sources for the word-formation pattern with *-erwijs/-erweise*: early complex qualifying modifiers which may be considered univerbations with the N *wise* (1) and grammaticalisation of adverbial constructions (2).

(1) Complex qualifying modifiers

In the oldest phases of the West-Gmc. languages complex qualifying modifiers are attested which may be considered univerbations with the N *wise*. The En. highly lexicalised lexemes *otherwise*, *likewise*, and archaic *contrariwise*, *anywise*, *leastwise* and *nowise* are remnants of this (Lenker 2002: 165-166). Compare OG *zwier wīson* ‘in two ways’ and *anderes wīs* ‘otherwise’ (Paraschkewoff 1976: 172). In EMD we find *welker+wijs* ‘in which way’ (1287) consisting of a PRON and *wise*; the MD lexeme *tweerwijse* ‘in two ways’ (1470-1490) is a univerbation of the numeral *twee* ‘two’ and *wise*. There are also univerbations of an inflected ADJ and *wise*: EMD *gheliker-wise* ‘in the same manner’ (9.24) and *eniger-wijs* ‘in some manner’ (e.g. Royen 1948: 232 referring to Verdam).

- (9.24) EMD/1276-1300/VMNW/(also) *ghelikerwijs* also
 [w]ant also **ghelikerwise** [a]ls men werpe (...) een drupele waters in een vat dat vol van wine ware (...).
 ‘Because in the same manner as you (...) throw a drop of water in a barrel full of wine (...).’

(2) From noun to suffix: the start of deadjectival derivation with *-erwijs*

The older phases of the West-Gmc. languages display adverbial constructions consisting of an introductory PREP governing case and an inflected qualifying ADJ premodifying the feminine N *wise* ‘manner’. These constructions specified manner with the VP. Consider OE *on oðre wisan* ‘in another way’ (9.25) (OED) and MG *in reiner wīse* ‘in a pure way’ (9.26) (Paraschkewoff 1976: 171).

- (9.25) OE/c900/OED/*wise*
 Ne meahþ þu **on oðre wisan** biscop halgian buton oðrum biscopum.

- (9.26) MG
in reiner wīse ein saelec wīp
 ‘in a pure way a blessed woman’

There are incidental examples from EMD, e.g. *in droeu-er wise* 'in a sad way' (9.27), and many more examples in MD, e.g. *in vrientlicker inde heymelicker wyse* 'in a friendly and surreptitious manner' (9.28).¹³²

(9.27) EMD/1287/VMNW/algader
Des nachts bleef hi **in droeuer wise**. Sonder slaep ende sonder spise.
'He spent the night in a sad way without sleep and without food.'

(9.28) MD/1423-73/MNW/heimelijc
Sie **in vrientlicker inde heymelicker wyse** weder bij eynde ander to vuegen.
'To put them back together in a friendly and surreptitious manner.'

The general hypothesis (e.g. Lenker 2002, Heinle 2004, Van de Velde 2005) is that the phrasal construction is at the basis of a process of grammaticalisation into a suffix for deadjectival word formation. First of all the introductory PREP became redundant and it was omitted. OED refers to OE *ealde wisan* 'in the old way' from *Beowulf* (9.29); an EModE example is *humble wise* (9.30).

(9.29) OE/1000/OED/wise¹³³
Ic þa leode wat ge widfeond ge widfreond fæste geworhte, æghwæs untæle **ealde wisan**.
'I trow my landfolk towards friend and foe are firmly joined, and honour they keep in the old way.'

(9.30) EModE/1592/OED/wise
Humble wise To thee my sighes in verse I sacrifice.

In En., these constructions never gave rise to a productive word-formation pattern. Marchand (1969: 358) cites some examples from the ME up to the ModE period, the most recent one being *despiteful-wise* (1903). In Gm., the deadjectival pattern became productive. There was a process of reanalysis by which the sequence of the inflectional ending *-er* and *Weise* was reinterpreted as a word-formation morpheme *-erweise*. Heinle (2004: 232) claims that *-erweise* may have already been reanalysed in the 14th century. However, she adds that productivity of *-erweise* can only be demonstrated in the 16th century. Luther still spelled *ewiger weise* 'eternally', *rechter weise* 'rightly' etc. (Paraschkewoff 1976: 172). There is no more doubt about the suffix status by the 18th century.¹³⁴

Van de Velde (2005: 106) describes the process of reanalysis and grammaticalisation for Dt. In the INL material adverbial phrases without a PREP can be found in EModD, e.g. *menscheliker wijs* 'in a human manner' (9.31) and *heymelyker wyse* 'surreptitiously' (9.32).

(9.31) EModD/1526/WNT/vechten
Heb ic **menscheliker wijs** (...) tegen wilden dieren geouchten (...).
'I fought in a human manner (...) against wild animals (...).'

(9.32) EModD/1595/WNT/luisteren
Die aan een mans huys gaat luisteren **heymelyker wyse**, breukt een groote boete.
'Who surreptitiously eavesdrops on a man's house is punished with a large fine.'

Van de Velde (2005) claims that in the early combinations without a PREP *wijze* was still perceived as a free morpheme. Orthographically, *wijze* is written apart with the ending *-er* belonging to the ADJ; furthermore, the ADJ can be premodified and an article can easily be inserted (Van de Velde 2005:

¹³² Adverbial phrases following the pattern [PREP + ADJ + *wijze_n*] are still around in CD.

¹³³ The quotation from OED was completed and its modern translation prepared on the basis of *Bilingual Beowulf*, <http://www.mit.edu/~jrisling/webres/beowulf.pdf> [last accessed 14.04.2012]

¹³⁴ However, Adelung (1793-1801) stressed the substantival character of *Weise* and considered *-er* as an inflectional ending, thus he stated that combinations like *thörichter Weise* are not to be spelled in one word (*thörichterweise*).

106). Full suffix status is reached later. The process of grammaticalisation into a suffix includes that the semantics of *wijze* become vague and that the preceding ADJ is no longer in a modifier relation with it. This may be assumed for examples in the 17th century, e.g. *eerlijk-er-wijs* ‘in fairness’ in (9.33), where the lexical meaning of manner is not necessarily present. It should however be observed that the manner interpretation is still frequent in CD even though there is full suffix status (see section 9.2).

- (9.33) EModD/1674/WNT/autoriteit
 Personen, die men het **eerlykerwys**, of autoriteytshalven, niet wel en heeft kunnen weygeren.
 ‘Persons whom one could not deny it (*access to a sick person*) in fairness, or on the basis of authority.’

The process of grammaticalisation from adverbial phrase to derivational pattern is illustrated in table 9.2.

Table 9.2. Historical development of *-erwijs*.

EMD	<i>ghelikerwise, welker+wijjs</i>	
EMD-MD	[[[x] _{PREP} [[x] _{ADJ} er] wijjs/ze] _{AdvP}	<i>in .i. wonderliker wise</i>
> 1500	[[[x] _{ADJ} er] wijjs/ze] _{AdvP}	<i>menscheliker wijjs</i>
> 1600	[[x] _{ADJ} erwijs/ze] _{ADV}	<i>eerlykerwys</i>

It should be noted that there are already attestations from MD for which I did not find a preceding adverbial phrase in the material, see *zoeterwijs* ‘in a sweet manner’ (9.34) and *stederwijs* ‘continually’ (9.35). It is not clear whether these are univerbations or derived words.

- (9.34) MD/1400/MNW/zoeterwijs
 Hier en is ghiene sterft **zoeterwijs**.
 ‘There is no one here who dies in a sweet manner.’
- (9.35) MD/1426-75/MNW/stederwise
 Alle dit selles du overdenken ende **stederwijs** in dijn herte draghen.
 ‘All of this you shall think over and continually bear in your heart.’

For *-erwijs* to become a productive word-formation pattern, this presupposes expansion to other ADJ to form qualifying modifiers. A rise in type frequency can be noted in the 17th ct. (see appendix to chapter 9). We find ADJ of differing complexity and there is no preceding prepositional phrase. Nevertheless, orthography remained variable, e.g. EModD *fatsoenliker wijze* ‘decently’ (1644/WNT/toereeding) and *natuyrlicker wijse* ‘naturally’ (1634/WNT/regeering) and it would not until well in the 19th century. Bilderdijk (1826: 240-241) considered *gelijker wijze* ‘similarly’ and *derwijze* ‘in that way’ as “two-word ADV” which may be written separately or together. In his section on ADV formation, Brill (1871: 274) referred to examples like *schimpscher wijze* ‘scornfully’, *spottischer wijze* ‘sarcastically’, *verhalenderwijze* ‘narratively’ and observed that any ADJ seems to allow a combination with *wijze*. Although he appears to consider the pattern with *wijze* productive for ADV formation, orthography suggests that he perceives *-er* as a genitive ending on the ADJ.

Contrary to Gm. and Dt., the deadjectival pattern has never become productive in En. The last example quoted in OED is *despiteful-wise* from 1903 (9.36).

- (9.36) ModE/1903/OED/wise
 She..Treated them **despiteful-wise**.

Since En. *-wise* was semantically comparable with *ly*-derivation (e.g. *humbly*), which OED/wise notes, we may infer that *ly*-derivation was too strong a competitor and that it managed to take over completely. In contrast, Paraschkehoff (1976) claims that Gm. started using *-erweise* as a substitute for the morphologically marked qualifying ADV which were lost. This function was not regularised, however, but the unmarked ADJ was used (see chapter 3).

9.3.2 Functional shift

In the literature semantic changes for *erwijs*-derivatives have been observed which have usually been described as a widening of scope, i.e., a development from predicate- to sentence-level modification (Van de Velde 2005). I shall describe this development as a functional shift from descriptive modification (1) to interpersonal modification (2).

(1) Descriptive modifiers

The use of *erwijs*-lexemes as descriptive modifiers specifying manner is historically primary. This can be illustrated by formatives on the basis of ADJ (Diepeveen/Van de Velde 2010: 395), e.g. *menscheliker wijs* in (9.31) above, *heymelyker wyse* in (9.32) above and *ironischer ende spotswyse* in (9.37).

(9.37) EModD/1600/WNT/ironisch

Hij heeft meer dan acht duysent boecken (...) laten drucken, ende dat soo **ironischer ende spotswyse**, soo datter elck, die se leest, om lachen moet.

'So he had more than eight thousand books (...) printed, and this in such an ironic and mocking fashion, that everyone who reads them, has to laugh.'

The same semantic analysis applies to deparicipial formations, e.g. *lachend-erwijze* 'in a laughing manner, jokingly' (9.38) and *waerschouwend-erwijs* 'in a warning manner, cautionary' (9.39) in EModD.

(9.38) EModD/1644/WNT/toepassen

Dat ons dat oude veirsjen niet toegepast en worde, 't welk eertijds **lachenderwijze** gebruikt wier (...).

'That the little old verse was not applied to us which was formerly used jokingly (...).'

(9.39) EModD/1662/WNT/waarschuwen

(...) diversche malen is **waerschouwenderwijs** bekend gemaect, dat de meeste menschen die met bloedigen affganck gequelt worden (...) voornamelijck tot die plaegh comen te vervallen (...).

'(...) several times it was announced in a warning manner that most people who suffer from bloody stool (...) predominantly end up with that plague.'

Compare ModG 17th ct. examples where there is a clear descriptive meaning, e.g. *natürlicher weis* 'in a natural way' (9.40) (Paraschkehoff 1976: 173).

(9.40) ModD/17th ct.

daß aber solches nit wahr sey / sonder alles **natürlicher weis** zugehe / ist aus gegenwertigem Buche zuersehen.

'That such thing, however, is not true, but that everything occurred in a natural way can be inferred from the present book.'

Incidentally, Dt. qualifying *erwijs*-lexemes are used as adjectival predicates, e.g. deadjectival *toevallig-erwyze* 'by coincidence, coincidentally' (9.41) and deparicipial *trillend-erwyze* 'in a shaking fashion, quivery' (9.42).

- (9.41) ModD/1727/WNT/toevallig
Schoon nu in de tegenwoordige Visschery mede wel eenige Visschen in Zee gevangen worden, is 't echter meer **toevalligerwyze**.
'Although now in contemporary fishing some fish are caught at sea, that is actually mostly by coincidence.'
- (9.42) ModD/1762/WNT/trillen
Den 14 May 1758 is eene zwaare Aardbeving of schudding (...) gevoelt, in heevigheid overtreffende die van voorleede Jaar (...) op den 8 Augustus ontwaard, doch heeft deeze maar een minuut geduurd, daar de voorige 5 minuten van 't Zuiden na 't Noorden langzaam beweegde, en deeze **trillenderwyze** en irregulier van beweeging was.
'On the 14th of May 1758 a strong earthquake or seism (...) was felt, with a strength which surpassed the one (...) which was perceived last year on the 8 of August. However, this one lasted only for a minute, whereas the last one moved for 5 minutes slowly from the south to the north and was quivery and irregular in its movement.'

(2) Interpersonal modifiers

In the Dt. material, interpersonal modifiers with *-erwijs* historically follow descriptive modifiers formed with this suffix. For Gm. it has been argued that interpersonal *erweise*-ADV are the result of a semantic shift whereby the scope of the modifying lexemes widened from the verbal predicate to the entire sentence (compare Heinle 2004). This shift is assumed to have occurred in ModG. An interpersonal modifier can be found in the 19th ct. in *bekannter weise* 'as is well known' (9.43) (Paraschkewoff 1976: 187).

- (9.43) ModG/1827
die ganze rousseausche hypothese von ungleichheit der menschen ist, **bekannter weise**, auf solche fälle der abartung gebaut.
'The entire Rousseau's hypothesis on the inequality of man is, as is well known, based on such cases of degeneration.'

Paraschkewoff (1976: 187) found that true manner ADV like *diebischer weise* 'in the manner of a thief, thievishly' became less common in the 19th ct. He argued that *-erweise* could fulfil the function of marking subjective evaluations as it put aside its descriptive function. There is indeed evidence for a shift. Ruge (2005) shows how the author Thomas Mann has played purposely with the ambiguity between the descriptive and the interpersonal reading of *weise*-ADV in his literary work. Consider *loyal-erweise* in (9.44) which can be interpreted as a qualifier, 'in a loyal manner', or as an evaluative, 'which is loyal (of me)' (Ruge 2005: 467). Ruge (2005) takes this as evidence that the shift from predicate-level to sentence-level ADV was ongoing in this period (i.e., the start of the 20th ct.).

- (9.44) ModG/1939
Darauf läuft es, locker geredet, hinaus, wenn ich Ihnen **loyalerweise** ein Drittel der zehntausend Franken zubillige, die ich nach Ihrer Meinung lösen muss.
'That is, simply speaking, what it boils down to, if I loyally award you one third of the ten thousand francs you are expecting me to pay.'

It has been suggested that Danish and Swedish modelled their pattern of forming modal or evaluative ADV with *-vis* on the example of (Low) Gm. in the 18th ct. (Paraschkewoff 1976: 195). Paraschkewoff notes that the correspondence between the Dt. *erwijs*-ADV and their Gm. equivalents is so striking that the former must have resulted from Gm. influence as well. Evidence in support of the analysis of language contact in my material is for instance that the earliest attestation of the evaluative ADV *gelukkig-erwijs* 'fortunately' in the material occurs in a newspaper article covering an event in the border region of the Netherlands and Germany.

(9.45) ModD/1831/ALC

Daar het water nog altijd wast, zoo is het waarschijnlijk, dat het zich nog tot de Rindern en tot hier in de Diergaarde zal uitbreiden. **Gelukzigerwijs** hebben onze bandijken nog geene schade geleden.

'As the water is still rising it is probable that it will expand to Rindern and up to here in Diergaarde. Fortunately our main dikes have not yet suffered any damage.'

However, the WNT article on the lemma *gelukkig-erwijze*, written in the period 1886-1888, does not refer to borrowing from Gm. The analysis of language contact also diverges from the analysis by Van de Velde (2005) who argues that the Dt. *erwijs*-ADV underwent an independent semantic shift as their scope widened from the verbal predicate to the entire proposition. His claim is supported by the EModD example with *wonderlijcker wijze* 'curiously' in (9.46) which is ambiguous between a descriptive interpretation ('they grow together in a curious way'), in which *wijze* has its lexical content of 'manner', and an evaluative interpretation ('curiously enough, they grow together') in which the connection with 'manner' is absent. This ambiguity may be an indication for a semantic shift.¹³⁵

(9.46) EModD/1646/WNT/aaneen

Dat vele dingen lang aen een verknocht, **wonderlijcker wijze** aen een wassen.

'That many things, attached to each other for a long time, curiously grow together.'

As further input ADJ could give rise to an interpretation with a wider scope, *-erwijs* became a productive derivational pattern for the creation of evaluative ADV. Many new evaluative ADV are coined in the 19th ct. on the basis of subjective ADJ, e.g. *begrijpelijk-erwijs* 'understandably (enough)' (9.47) and *ongelukkig-erwijze* 'unfortunately' (9.48) (see Diepeveen 2011a for further diachronic aspects on *(on)gelukkig-erwijs*).

(9.47) ModD/1879/ALC

De Russische Albanezen, die **begrijpelijkerwijs** van Turksche heerschappij genoeg hebben, zijn vereenigd tot verkrijging der vrijheid.

'The Russian Albanians, who, understandably (enough), have had enough of Turkish dominion, have united for obtaining freedom.'

(9.48) ModD/1831/WNT/ongelukkig

Ongelukkigerwijze geeft hetgeen te Antwerpen en in die streken gebeurt, eene maar al te gunstige gelegenheid en aanleiding om op den publieken geest verderfelijk te werken.

'Unfortunately what happens in Antwerpen and in those regions constitutes a more than suitable opportunity and occasion to have baneful influences on the public spirit.'

Van de Velde (2005) provides quantitative evidence that the scope of *erwijs*-derivatives has been expanding over time. Observe, however, that modal modifiers in ModD could already function as premodifiers of a qualifying modifier.

(9.49) ModD/1891/WNT/wisselen

Zij spraken niet, hun handen beroerden **noodzakelijkerwijze** vluchtig maar gedurig elkander; soms wisselden zij een blik of een knikje onder hunne zomerhoeden.

'They did not talk, their hands touched necessarily briefly but continually; sometimes they exchanged a glance or a nod under their summer hats.'

I already pointed out in 9.2.2 that in CD, participial formatives, too, may function as interpersonal modifiers, which has gone unnoticed in Van de Velde (2005). This scope expansion indicates that the evaluative pattern with *-erwijs* is productive. Apart from modal and evaluative modifiers, there do

¹³⁵ Recall from Section 9.2.2 that *logisch-erwijs* 'logically' is polysemous in CD between a qualifying reading expressing COMPLIANCE and a modal reading. Interestingly, the earliest attestation of *logisch-erwijs* in my material has an interpersonal interpretation, but it is only from 1910.

not seem to be any other types of interpersonal modifiers with *-erwijs* in the historical material. Perhaps only *zedelyker wyze* ‘morally’ (9.50) could be interpreted as a domain modifier, but there is a certain ambiguity and it never became a productive pattern.

(9.50) ModD/1768/WNT/zedelijk

’t Is genoeg, dat de onkunde, **zedelyker wyze**, onverwinnelyk of weezenlyk is, zoo dat een voorzigtig man, die zyne belangen ter harte neemt, dezelve waarschylyk niet kan te boven komen.

?’It is enough that the ignorance is morally invincible or essential, so that a careful man, who takes his interests to heart, will probably not be able to overcome these.’?

9.3.3 Historical observations on syntactic use

In 9.3.2, I referred to the widening of scope of *erwijs*-lexemes from descriptive to interpersonal modifiers. Adverbial use increased with the emergence of the interpersonal function.

(1) Attributive modifier

In Diepeveen/Van de Velde (2010) it was already shown that *erwijs*-lexemes incidentally occur as premodifier of an attributive ADJ in CD. This was illustrated by the internet example in (9.51).

(9.51) CD/2001/internet¹³⁶

Concreet kan dit betekenen: geen extra taken aan de leidinggevende op leggen bovenop een **redelijkerwijs pakket** van 80% of 90% diensturen.

’Concretely this may mean: not to give any extra tasks to the manager on top of a reasonable package of 80% or 90% working hours.’

There are incidental examples in ANW, even for modal ADV, e.g. *het mogelijk-erwijze afremmen van MS* ‘the possible slowing-down of MS’ (n.d./ANW). Examples are slightly more numerous on the internet, e.g. *een mogelijk-erwijs akkoord* ‘a possible agreement’ (n.d./internet¹³⁷), *een noodzakelijk-erwijze onverenigbaarheid* ‘a necessary incompatibility’ (n.d./internet¹³⁸), *een logisch-erwijze oplossing* ‘a logical solution’ (2005/internet¹³⁹), *het begrijpelijk-erwijze beschermen van de privacy* ‘the understandable protection of privacy’ (2007/internet¹⁴⁰). This use is probably not acceptable to all language users (Diepeveen/Van de Velde 2010).

It was pointed out in section 9.2 that Gm. *erweise*-derivatives are not used attributively. However, recently, attributive examples can incidentally be found. The recent edition of the prescriptive guide *Duden Richtiges und gutes Deutsch* (2007) quotes the examples *das gleich-erweise Vorgehen* ‘the similar process’ and *das klug-erweise Verhalten* ‘the clever behaviour’, of which it strongly disapproves. Observe that these *erweise*-derivatives are descriptive modifiers. Examples with attributively used interpersonal modifiers can incidentally be found on the internet, e.g. *eine möglich-erweise Zunahme an Kohärenz* ‘a possible increase of coherence’ (2002/internet¹⁴¹), *die erfreulich-erweise Entwicklung der Gewerbesteuer* ‘the satisfying development of corporate tax’

¹³⁶ *Nota aan de Vlaamse Regering 19.01.2001*, <http://www2.vlaanderen.be> [last accessed 26.08.2011]

¹³⁷ <http://www.123people.nl/s/marloes+konings> [last accessed 26.08.2011]

¹³⁸ <http://www.vredesactie.be/sub.php?id=70> [last accessed 26.08.2011]

¹³⁹ <http://www.worksheet.nl/forumexcel/afgehandelde-vragen/53519-waas-wissen-indien-doorgelinkt-naar-andere-sheet.html> [last accessed 06.03.2012]

¹⁴⁰ *Moordouders*, A.J. Verheugt (2007), via Google Books. [last accessed 24.02.2012]

¹⁴¹ www.soz.uni-frankfurt.de/hellmann/reichwein_einleitung.pdf [last accessed 12.09.2011]

(2009/internet¹⁴²). This use seems to be restricted to premodifying deverbal N. In these cases *-erwise* is fully pleonastic.

As for En., Rahn (1969: 238) referred to common adjectival use of *other-wise*, but we should keep in mind that this is a highly idiomatic lexeme which is restricted to descriptive functions and that it is usually postposed.

(2) Adverbial premodifier

In the historical Dt. material we find that modal and evaluative *erwijs*-lexemes enter the NP as premodifiers of attributes. Early examples are found in ModD: *de meerderheid der gewoonlyker wyze stemmende Leden* (1773/WNT/wijze), *de mogelijk-erwijze verkregen winst* (1829/ALC). In CD, this premodifying use appears to get more common, e.g. *kwesties van, soms begrijpelijk-erwijze gedeelde, smaak* 'matters of sometimes understandably shared taste' (1994/ANW), *een van zijn (begrijpelijk-erwijs nooit uitgevoerde) filmscenario's* 'one of his (understandably never realised) film scripts' (1995/ANW), *die noodzakelijk-erwijs onbeholpen aanleiding* 'the necessarily clumsy provocation' (2000-02/ANW), *de mogelijk-erwijs hoge kosten* 'the possibly high costs' (2002/ANW), *het redelijk-erwijs benodigde onderhoud* 'the reasonably necessary maintenance' (n.d./ANW). Further examples are found on the internet, e.g. *een ongelukkig-erwijs dodelijke afloop* 'an unfortunately deadly outcome' (2007/internet¹⁴³).

The use of modal and evaluative *erwise*-derivatives as premodifiers within the NP can also be detected in Gm., e.g. *eine möglich-erweise beschwichtigend gemeinte Geste* 'lit. a possibly as soothing intended gesture' (1999/DWDS), *eine unglücklich-erweise schon etwas ältere Originalversion* 'an unfortunately already somewhat elderly original' (2007/internet¹⁴⁴). Since formations with Gm. *-erwise* occur within the NP one may argue that this is evidence that the suffix is not an exclusive creator of sentence ADV.

9.3.4 Scope and productivity from a diachronic perspective

Simplex and complex ADJ were already found in the earliest phases. EModD adds depronominial *zulk-erwijs* 'in such a way' (1544). The first participial bases are found in EModD: *verborg-end-erwijse* (1556) and *loop-end-er wyse* (1596). Participial bases get more common and varied in the 17th century. The depronominial formations and the numeral do not survive in CD. So do many of the deadjectival and deparicipial formations, e.g. *hoffelijk-erwijs* 'courteously' and *waarschuwend-erwijs* 'premonitorily' have disappeared.

The scope of *-erwijs* may be expanding: if we consult the web, we find that the restriction that there are only morphologically simplex input ADJ is not held upright, e.g. (9.52) with *dom* 'stupid' and (9.53) with *vreemd* 'strange'. These examples are marked but they show that monomorphemic input ADJ are structurally possible.

(9.52) CD/>2004/internet¹⁴⁵

Hier zijn veel reacties opgekomen en de site kreeg uitgebreid media aandacht. **Dommerwijs** hebben we er toen niks mee gedaan en hebben de site laten doodbloeden.

'There were many reactions to that and the site got a lot of attention in the media. Stupidly (enough), we did nothing with that at the time and we let the site bleed to death.'

¹⁴² www.cdu-hockenheim.de/index.php/Pressearbeitdetails/items/stellungnahme-cdu-fraktion-nachtragshaushalt-2009.html [last accessed 12.09.2011]

¹⁴³ *Facetten van strafrechtspleging*, ed. J.B.J. van der Leij, via Google Books. [last accessed 19.11.2010]

¹⁴⁴ <http://www.urwurz.de/1391.0.html> [last accessed 02.03.2010]

¹⁴⁵ <http://www.stopdevertrutting.nl/about> [last accessed 02.03.2010]

(9.53) CD/2010/internet¹⁴⁶

Waarom zou ik clandestiene bronnen met fantasierijke verklaringen waarvan de referenties **vreemderwijs** in alle academische bronnen afwezig zijn moeten verkiezen boven de verklaringen van het relevante onderzoeksobject?

'Why should I prefer clandestine sources with highly imaginative explanations for which, strangely enough, the references are absent in all academic sources, above explanations of the relevant research topic?'

Figure 9.3 gives an overview of the number of new types formed with *-erwijs* per century (including the earliest univerbations). Mind that I took into account the first attestations of sequences which were written separately; they represent semantic units, but we cannot be sure that they are perceived as one complex lexeme.

Figure 9.3. New formations with *-erwijs* throughout the centuries.

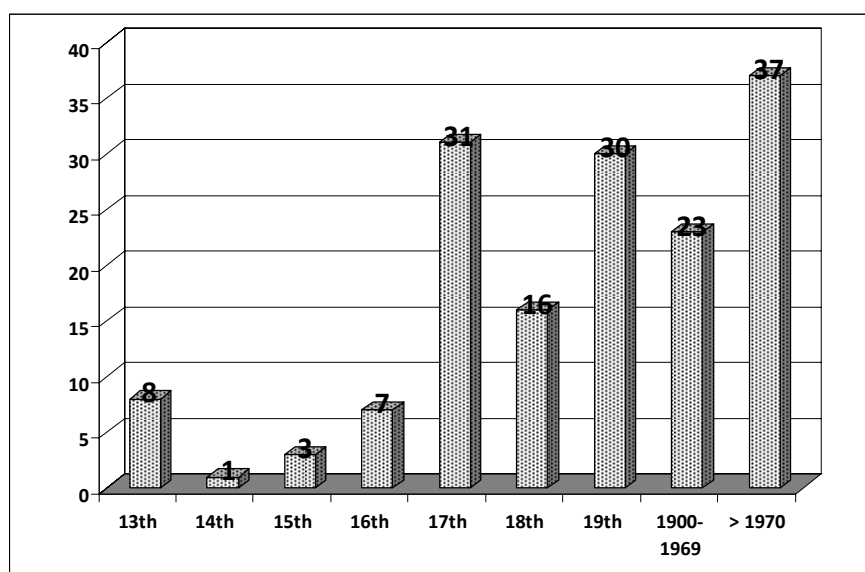


Figure 9.3 shows a high type frequency in the 17th ct. with a share of almost 20% of all types in the investigation. Even though there is less new formation in the 18th ct. (which may be a bias in the INL material) there is a rise in the 19th and 20th ct. which shows that the pattern is very productive. In the synchronic section I presented indications that *-erwijs* is available for new formation in CD. The diachronic investigation confirms this: there are 37 *erwijs*-types first recorded after 1970, which amounts to the highest proportion of new formations throughout history (23,7 %).

However common, the Dt. pattern of creating evaluative modifiers with *-erwijs* was not able to become as common as its Gm. equivalent *-erweise*. The same holds true, by the way, for Norwegian *-vis* which produced evaluative ADV in the 19th ct., but is unproductive nowadays (see Kinn 2005). In Gm., however, the use of *erweise*-lexemes with sentence scope has risen in the 19th century to become central and highly productive in the 20th century (Heinle 2004). The Gm. *erweise*-lexemes have been particularly common since the 19th century and their number has risen dramatically from the 20th century onwards (Fleischer/Barz 1995; Heinle 2004). It can be assumed that their use as evaluative modifiers has something to do with this. The deadjectival pattern with *-erweise* was used very creatively by the literary writer Thomas Mann (Ronca 1975, Ruge 2005 and see 9.3.2).

¹⁴⁶ <http://turksnl.net/forum/viewtopic.php?f=7&t=20230&start=165&st=0&sk=t&sd=a> [last accessed 11.09.2011]

9.4 Conclusion

This chapter has shown on the basis of synchronic and diachronic evidence that derivation by *-erwijs* has been productive since the 19th ct. although *-erwijs* may already have reached suffix status in the 17th ct. or even earlier. There seem to be two sources for the pattern. On the one hand early complex modifiers like *gelijk-er-wijs* 'likewise' which may be considered as univerbations of an inflected ADJ and the N *wise*. On the other hand there was a process of grammaticalisation of original adverbial phrases in combination with reanalysis of the sequence of the inflectional ending *-er* of the ADJ and the N *wise*.

The suffix *-erwijs*, like Gm. *-erweise*, is found in qualifying modifiers in which it shares its semantic value with the lexical N *wijze* 'way, manner', from which it originates. In these seemingly transparent formations it could be argued that *-erwijs/-erweise* is no prototypical suffix. However, contrary to Gm., *-er* can no longer be analysed as an inflectional ending in Dt., but it is a fixed part of the suffix. Moreover, *-erwijs* developed a special value in which the semantic connection with the lexical N *wijze* 'way, manner' is completely lost. The suffix particularly derives lexemes which function as evaluative modifiers. I argued that the new value of *-erweise/-erwijs* should not be defined in terms of the categorial value of marking sentential adverbiality. Rather, it is a semantic-functional value in terms of marking the subfunction of modal modification. This function is particularly common in Gm., whereas qualifying *erweise*-lexemes expressing manner are uncommon; Gm. *-erweise* thus developed into a prototypical suffix which is independent of the homonymous lexical N in which it originates.

There is a difference between Gm. *-erweise* and Dt. *-erwijs* in terms of scope and application rate: Gm. *-erweise* is more flexible in terms of its input conditions and it is much more productive. In terms of norm, there is a difference as well: Dt. *erwijs*-derivatives do not represent the standard realisation of evaluative modification, whereas lexemes with *-erweise* in Gm. do. In Dt., there is particularly competition from the evaluative *genoeg*-construction.

The grammatical value of *-erwijs* as an adverbialiser is strong but there is evidence that individual *erwijs*-lexemes, as well as some Gm. *erweise*-lexemes, may be losing their status as prototypical ADV. They incidentally occur as prenominal attributes.

10 Modifying words with *-gewijs*

10.1 Introduction

The native suffix *-gewijs* is listed among the Dt. adverbial suffixes by Booij (2002) and de Haas/Trommelen (1993).¹⁴⁷ It is treated together with *-erwijs* and *-wijs* by ANS (1997). It should however be distinguished from *-erwijs* (see chapter 9 and see Van de Velde 2005 for the distinction between *-gewijs* and *-erwijs*). Examples of *gewijs*-derivatives are *stap-s-gewijs* ‘lit. step-wise; gradually, step by step’ in (10.1) and *steekproef-s-gewijs* ‘lit. spot check-wise; at random’ (10.2).

(10.1) CD/2001/ANW
Onze ecologische schuld wordt **stapsgewijs** afgelost.
‘Our ecological debt will be paid off step by step.’

(10.2) CD/2002/ANW
Wij hebben de eerste periode bij elk dossier gecontroleerd en later **steekproefsgewijs**.
‘First we checked with every file and later at random.’

There are equivalents for *-gewijs* in all Gmc. languages, e.g. En. *-wise* in *length-wise* (10.3) and Gm. *-weise* in *schriftweise* ‘lit. step-wise; gradually’ (10.4). Af. also has *-gewys(e)*, e.g. *groep-s-gewys(e)* ‘in groups’, *bietjie-s-gewys* ‘bit by bit’, *roetine-gewys* ‘as a routine’ (Donaldson 1993: 444). Fs. has *-gewize* (Boersma 2007, WFT), e.g. *trep-s-gewize*. On the suffix *-vis* in Norwegian, see Kinn (2005) and in Swedish, see Norde (2005). The En. suffix *-wise* is well-described in the literature (e.g. Dalton-Puffer/Plag 2001, Lenker 2002, Lindquist 2007) and so is Gm. *-weise* (e.g. Ronca 1975, Ros 1992, Fleischer/Barz 1995, Heinle 2004, Lohde 2006). Gm. *-weise* is probably the most productive adverbial suffix in CG according to Fleischer/Barz (1995: 288) and Lohde (2006: 295), but mind that they subsume *-erweise* under *-weise* (see chapter 9). En. *-wise*, too, is very productive.

(10.3) CE/1993/BNC
She cut **lengthwise** along the arm and missed the main arteries.

(10.4) CG/1983/DWDS
Dennoch merke ich, wie die Arbeit an diesem Buch **schriftweise** mein Leben verändert.
‘Yet I notice how working on this book is gradually changing my life.’

The suffix *-gewijs* has a special status among the Dt. adverbial suffixes since it is the only one for which Dt. grammar and lexicography explicitly recognise that derivatives may be used attributively, e.g. *stap-s-gewijs* ‘lit. step-wise; step by step’ in (10.5).

(10.5) CD/n.d./ANW
Indien deze resultaten goed zijn, worden de apparaten waaraan uw kind gekoppeld ligt een voor een afgekoppeld. Dit is een **stapsgewijs** proces dat afhankelijk is van de ingreep en het recuperatievermogen van het kind.
‘If those results are good, the machines to which your child is connected will be disconnected one by one. This is a step-by-step process which is dependent on the kind of surgery and the child’s recovery progress.’

¹⁴⁷ Only EWN/*-gewijs* treats *-gewijs* rather vaguely as a morpheme which creates adverbial compounds. For En. and Gm., too, the suffix status is generally accepted. Some scholars have argued that En. *-wise* should be regarded as a suffixoid (e.g. Marchand 1969: 358, Sauer 2006), but they constitute a minority. Dalton-Puffer/Plag (2001) argue convincingly that *-wise* is a suffix.

Frequent attributive use of *gewijs*-derivatives is a reason for de Haas/Trommelen (1993: 354) to postulate a classificational problem for the suffix: is it really ‘adverbial’? Van Dale (2005) has chosen to apply a double status: *-gewijs* derives both ADJ and ADV. Attributive use is also found in Gm., e.g. *schritt-weise* ‘lit. step-wise; step by step, gradual’ in (10.6); see also section 5.3.1. The possibility of creating both attributive and adverbial modifiers has been referred to as a reason for the high productivity of *-weise* (Erben 2006: 132). In fact, the phenomenon of attributive use is found throughout the Gmc. languages: in En., e.g. *clock-wise* in (10.7) (Payne/Huddleston/Pullum 2010), in Fs. (Boersma 2007) but also in Norwegian (Kinn 2005) and in Swedish (Norde 2005).

(10.6) CG/1990/DWDS
Ebenso wichtig wird die **schrittweise** Anpassung der Sozialsysteme sein.
‘Equally important will be the gradual adjustment of the social systems.’

(10.7) CE/1989/BNC
A **clockwise** spiral remains clockwise whatever its orientation in the plane.

Diachronically, attributive use is seen as a fairly new potential of Gm. *weise*-derivatives (e.g. Schäublin 1972: 354) and it has been explained as a functional shift for Dt. *gewijs*-derivatives (Royen 1948b) which may have been influenced by Gm. In this chapter I shall show that the potential for the Dt. derivatives to be used attributively is not at all new, but it has been around for centuries and there is no direct reason to assume Gm. influence. There have been changes in the exploitation of this potential, in the way prescriptive grammarians evaluated the phenomenon and its recognition in grammar and lexicography, but today *-gewijs* may be classified as an adjectival suffix.

Apart from the syntactic valency of *gewijs*-lexemes a semantic phenomenon shall be investigated in this chapter. There are implicit references in van der Horst (2008: 1895) and *EWN*/*-gewijs* on a new “limiting” meaning for *gewijs*-derivatives in spoken Dt. which *EWN* illustrates by *temperatuur-gewijs* ‘temperature-wise’ in (10.8). At closer inspection, this lexeme may be classified as a domain modifier (see Diepeveen *submitted*).

(10.8) CD/2004
Temperatuurgewijs gaan we er niet op vooruit.
‘It is not getting any better for us temperature-wise.’

The “limiting” meaning in examples like (10.8) is directly connected by *EWN* with the En. equivalent *-wise*, e.g. *weather-wise* (10.9). It is widely recognised that ModE *wise*-derivatives came into use for the function of domain modification for which the pattern has become extremely productive (Dalton-Puffer/Plag 2001, Lenker 2002, Lindquist 2007).

(10.9) CE/n.d./BNC
I knew before I started out that, **weatherwise**, the end of March is not the time to plan a journey to the Islands (...).

In this chapter I show that it is a new function of Dt. *-gewijs* to derive interpersonal modifiers specifying the domain of the proposition. This constitutes a correction to the claim by Van de Velde (2005) that *-gewijs* only derives modifiers of the (verbal) predicate (contrary to *-erwijs*). I shall argue that language contact with En. *-wise* is likely to have triggered this new function, although it should not be excluded that Dt. *-gewijs* underwent a semantic shift independently from En.

10.2 Synchronic description

As pointed out in section 10.1, *-gewijs* should be distinguished from *-erwijs* and so do Gm. *-weise* and *-erweise* (see chapter 9 on *-erwijs*). In Gm., the suffix *-weise* is homonymous with the lexical N *Weise*

'manner'. En. has the suffix *-wise*, but the lexical N *wise* is only used in archaic occurrences (Dalton-Puffer/Plag 2001: 25). Mind that there are compound ADJ formed with the lexical ADJ *wise*, e.g. *street-wise* which should be distinguished from the complex words we are interested in (see Dalton-Puffer/Plag 2001). En. *-wise* has a variant *-ways* (Quirk et al. 1985: 1557, Stein 2007: 176 and see chapter 17 on *-weg*).¹⁴⁸

The Dt. suffix *-gewijs* stands out due to the prefix *ge-* which is not found in En. and Gm. but which is present in Af. and Fs. Observe that Dt. also has a suffix *-wijs* (with a variant *-wijze*) which is infrequent and in general perceived as archaic (Van de Velde 2005: 107, Van Dale 2005/*-wijs*). It represents the historically older form of *-gewijs* as we will see in section 10.3. I will not deal with *-wijs* in the synchronic section but it will play a role in the diachronic investigation.¹⁴⁹

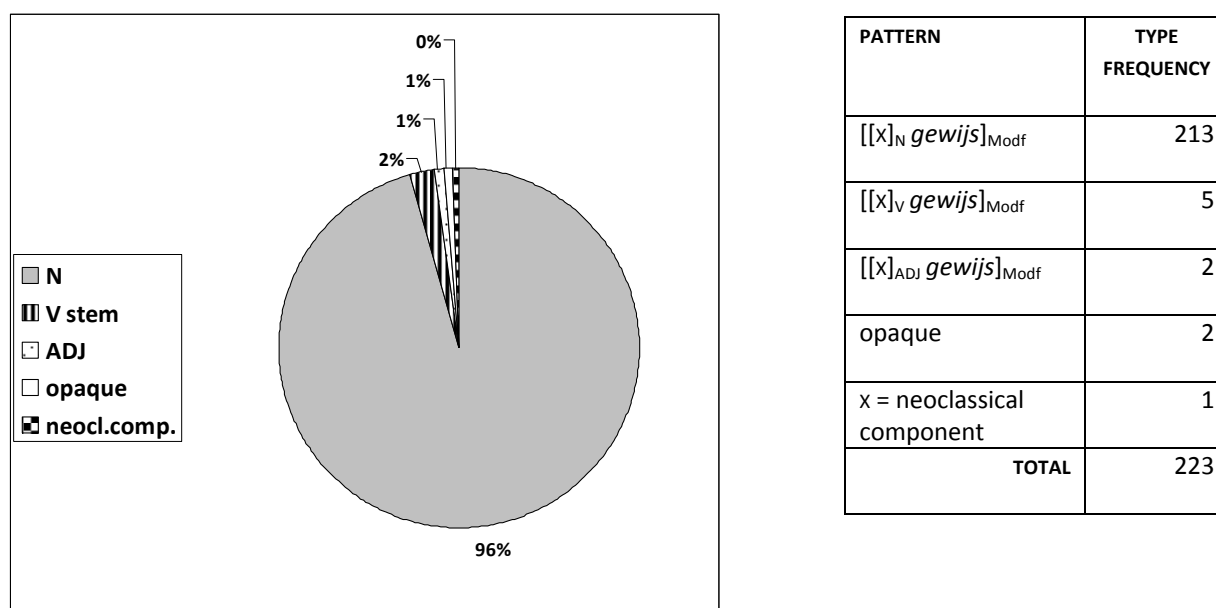
The Dt. suffix *-gewijs* has a variant ending in schwa: *-gewijze*. Fs., too, has *-gewiis* and *-gewize* (Boersma 2007). Van Dale (2005) mentions both but it uses *-gewijs* in all entries; I shall do the same. The distribution of these variants is not clear; if there is a difference at all, it is stylistic in the sense that the forms with *-gewijze* may be perceived as slightly more formal (ANS 1997: 738, de Haas/Trommelen 1993: 354; Van de Velde 2005). As ANS (1997: 738) observes, the form *-gewijze* is used when the derivative is used as a prenominal attribute (see below). It is not possible to establish whether this form represents the variant *-gewijze* or the inflected form of the suffix *-gewijs*.

The synchronic description is based on an inventory with 223 *gewijs/ze*-derivatives from the corpus ANW and the dictionary Van Dale (2005) (see appendix to chapter 10).

10.2.1 Scope and productivity

According to the literature, the input category of the pattern with *-gewijs* is N (de Haas/Trommelen 1993: 354, ANS 1997: 738). Figure 10.1 shows the actual distribution of input categories for the 223 *gewijs/ze*-derivatives in the synchronic inventory.

Figure 10.1. Distribution of input categories for *-gewijs* in synchronic inventory.



¹⁴⁸ Historically, *-ways* is the genitive form of *way*. Due to its similarity with *-wise*, it was interpreted as a variant of this suffix (Jespersen 1952: 306).

¹⁴⁹ For a set of 17 Dt. *wijs*-derivatives from Van Dale (2005) I refer to the appendix to chapter 10. There are no attestations of these in ANW.

As we may infer from figure 10.1, *-gewijs* is indeed prototypically attached to N: in 96% of all cases, see (1). A verbal stem incidentally occurs as a base word, see (3). Adjectival base words are exceptional, compare (3). This choice of input categories is parallel with Gm. *-weise*, which occurs mainly with nominal base words, e.g. *ausnahm-s-weise* 'exceptionally' and incidentally with verbal base words, e.g. *leih-weise* 'on loan' (Ronca 1975: 149, Fleischer/Barz 1995: 288, Lohde 2006: 296). Only incidentally, Gm. *-weise* is attached to a numeral, e.g. *dutzend-weise* 'by the dozen' (Ronca 1975). En. *-wise* attaches chiefly to N (Quirk et al. 1985) but occasionally, even an ADJ or ADV may occur as base word.

Unique for Dt. is one type on the basis of a neoclassical component; see (4). Two further types appear to be highly opaque and no longer analysable, see (5).

(1) Nominal input

A variety of nominal input words occurs, many of which are *concreta*, e.g. *ballon* 'balloon', *doos* 'box', *gitaar* 'guitar' but also *abstracta*, e.g. *ervaring* 'experience', *onderhandeling* 'negotiation', *discipline* 'discipline'. Many words refer to business, finance and communication (e.g. *branche* 'department', *tarief* 'tariff', *marketing* 'marketing') and to military jargon (e.g. *charge* 'charge', *cohort* 'cohort', *projectiel* 'missile'). There is a large number of proper names and brand names (e.g. *Europa* 'Europe', *Flippo*, *Baywatch*, *McDonald's*, *Norbert*). In Gm. the input words also include *concreta* (e.g. *Kreuz* 'cross', *Kette* 'chain') but time indicators are also common (e.g. *Zeit* 'time', *Augenblick* 'moment', *Quartal* 'quarter') and so are *nomina actionis* (e.g. *Schritt* 'step', *Zwang* 'compulsion') (Ronca 1975: 153-154). Moreover, Gm. has several input N indicating a unit of measure (e.g. *Pfund* 'pound', *Liter* 'litre'), an indication of amount (e.g. *Löffel* 'spoon', *Eimer* 'bucket') or an indeterminate number of persons or objects (e.g. *Gruppe* 'group', *Haufen* 'heap') (Ronca 1975: 152). Compare *tonnen-weise Kraftfutter* 'tons of concentrate' (1998/DWDS) and *haufen-weise Nichtsnutze* 'heaps of layabouts' (1999/DWDS).¹⁵⁰ Units of measure are uncommon as base words for Dt. *-gewijs*. Rare examples of such base words in the inventory are *hectare* 'hectare', *kwartaal* 'quarter, trimester'.

There are barely any formal input restrictions on Dt. *-gewijs*. De Haas/Trommelen (1993: 354) already observed that the input N are of varying complexity and this is confirmed by the material which exhibits simplex N (e.g. *pluk* 'tuft'), compounds (e.g. *kurken-trekker* 'corkscrew') and derived N (e.g. *onderhandel-ing* 'negotiation', *gemeen-schap* 'society') including diminutives (e.g. *lepel-tje* 'small spoon'). There seem to be no stratal input restrictions: there are plenty of borrowed N from Fr. (e.g. *montage* 'assembly', *tranche* 'parcel'), Lt. (e.g. *amfitheater* 'amphitheatre', *regio* 'region', *thema* 'theme', *systeem* 'system'), Italian (e.g. *crescendo* 'crescendo', *salami* 'salami') and En. (e.g. *batch*, *e-mail*, *fax*, *peek*). Even borrowed phrases occur (e.g. *jingle bells*). The flexibility of *-gewijs* in terms of structural and stratal input conditions corresponds with Gm. and En. As to morphological complexity, there is also great variation in Gm. input N which may be simplex (e.g. *Gruppe* 'group'), compounds (e.g. *Bruch-stück* 'fragment'), derived N (e.g. *Andeut-ung* 'indication') including diminutives (e.g. *Tröpf-chen* 'drop') (Ronca 1975: 150, Altmann/Kemmerling 2005: 167). Apart from native input N, there are plenty of borrowed input N, e.g. from Fr. (e.g. *Kolonne* 'column'), but also from Lt. and En. In En., the pattern with *-wise*, too, is characterised by its ease to combine with nominal bases. There is no morphological restriction on the base; base words are both native and loans, and even compounds and phrases occur.

Most denominal Dt. formations with *-gewijs* take a linking phoneme *-s-* (de Haas/Trommelen 1993: 354), notably if the input N ends in a consonant, e.g. *groep-s-gewijs* 'in groups' vs. *processie-gewijs* 'in a parade' (ANS 1997: 738). In Gm., too, there may either be no linking element (e.g. *zeit-weise* 'temporar(il)y', *probe-weise* 'probationary, on probation') or a linking element *-s-* (e.g. *schätzung-s-*

¹⁵⁰ For a similar use in Norwegian, see the paper on *-vis* by Kinn (2005).

weise ‘at a rough estimate’, *gespräch-s-weise* ‘by conversation’). In addition, in Gm. there may be a linking element *-en-* (e.g. *stelle-n-weise* ‘locally’) or *-er-* (e.g. *fäss-er-weise* ‘tons of’). For the conditions on the insertion of a linking element in Gm., see Ronca (1975: 150).

From Heinle (2004) and Ronca (1975) we infer that there are several Gm. denominal *weise*-lexemes with highly idiomatised meanings, e.g. *beziehung-s-weise* ‘respectively’, *vergleich-s-weise* ‘comparatively’, *vorzug-s-weise* ‘preferably’. According to Ronca (1975: 149), *beziehung-s-weise* ‘respectively’ and *beispiel-s-weise* ‘for instance’ have become conjunctions. A similar degree of idiomatisation cannot be demonstrated for denominal lexemes formed with Dt. *-gewijs*.

(2) Verbal input

Verbal bases for Dt. *-gewijs* can be found e.g. in the borrowed stem *zap-* ‘zap’ and in the native stem *sluip-* ‘sneak’ with insertion of a linking *-s-*. Gm. *-weise* occurs with a verbal stem as well, e.g. *leih-weise* ‘on loan’ and *miet-weise* ‘rented’, although this is rare (Fleischer/Barz 1995: 288, Altmann/Kemmerling 2005: 167). It can be argued that these stems should be considered as N (Ronca 1975: 150). Perhaps the verbal base is blocked because of the existence of nominal compounds with the lexical N *Weise* (e.g. *die Schreibweise* ‘spelling, notation’, *die Blühweise* ‘inflorescence’).

(3) Adjectival input

An ADJ occurs as a base in only two cases: *steels-gewijs* ‘surreptitiously’ (complex ADJ derived from *stelen* ‘to steal’) and in the hapax *theoretisch-gewijs* ‘theoretically’ (10.10). Deadjectival *gewijs*-formatives are not established in the dictionary and they could be an indication of a process of new formation.

(10.10) CD/2003/ANW

Het hele repertoire van Beethoven wordt **theoretischgewijs** vaak ingedeeld in drie periodes.
‘Beethoven’s complete repertory is theoretically usually divided into three periods.’

(4) Neoclassical component as input

One non-established *gewijs*-lexeme stands out as its input is a neoclassical component, *bio-*, thus: *bio-gewijs* ‘biologically’. That this may constitute a productive pattern is shown by the fact that similarly formed lexemes can incidentally be found on the internet, e.g. *meteo-gewijs* ‘weatherwise’ and *eco-gewijs* ‘ecologically’.¹⁵¹

(5) Opaque words

For two words it is not possible to establish an input word and they appear to have been formed differently. The established lexeme *pondsponds-gewijs* ‘proportionally, pro rata’ is analysed as an analogy formation with its synonym *pondsponds-gelijk* (WNT). The lexeme *des-gewijs* constitutes a hapax and it may have been formed in analogy with the established degree ADV *der-wijze* ‘to such a degree’ with which it appears to be synonymous in the corpus token.

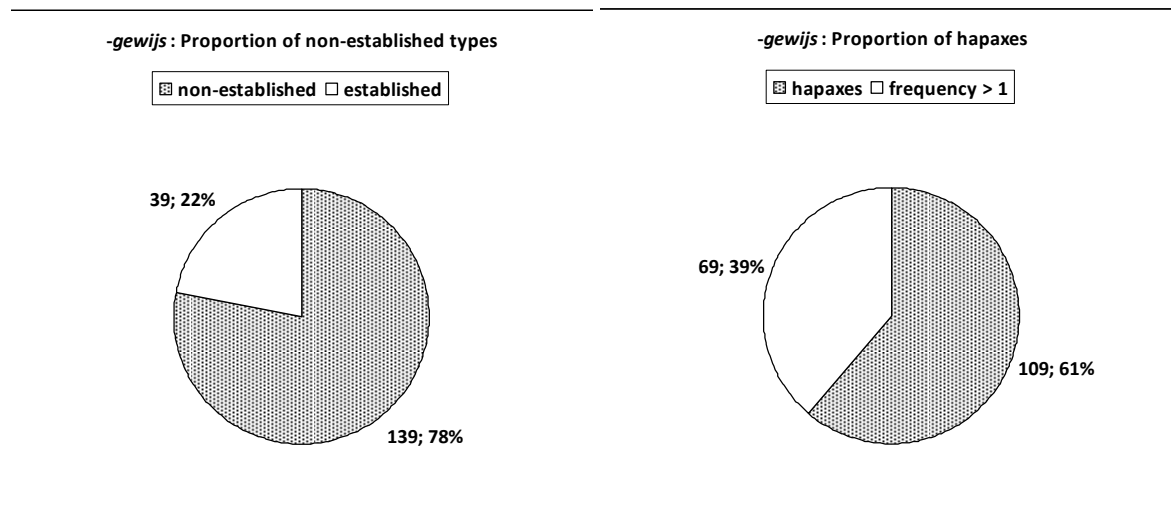
(6) Synchronic indicators of productivity

ANS (1997) claims that *-gewijs* is productive in CD and there are strong indications for this in the corpus material. The study of lexeme types in the synchronic inventory has shown that the suffix has a large scope: there are practically no structural and semantic input limitations on nominal bases.

¹⁵¹ Google-search carried out on 09.03.2012.

This is fully parallel with the genetically related suffixes En. *-wise* and Gm. *-weise*, for which the literature has already reported that the denominal pattern is highly productive. The realised productivity of *-gewijs* in CD is impressive in terms of type frequency: 178 types. The proportion of non-established types is large: it amounts to almost 80% of all attested types. Moreover, there are 109 hapaxes, which is good for more than 60% of the types in the corpus material. These results are visualised in figure 10.2.

Figure 10.2. Frequencies for *-gewijs* in contemporary Dutch corpus data (178 types = 100%).



10.2.2 Modifier types

Dt. lexemes *gewijs*-derivatives are associated in the literature exclusively with qualifying modification (e.g. ANS 1997: 738, Van de Velde 2005) whereas a wider spectrum of modifier types has been recognised for their En. and Gm. equivalents. En. *wise*-derivatives are used as qualifying and domain modifiers, although Rahn (1969) also referred to localising modifiers indicating position or direction (e.g. *clock-wise*, *side-wise*). Gm. *weise*-derivatives may function as classifying and qualifying modifiers, but scholars have also referred to quantifying modifiers (e.g. *kilo-weise* 'kilos of', *haufen-weise* 'tons of') and incidentally also modal modifiers (e.g. *schätzung-s-weise* 'at a rough estimate', *vermutung-s-weise* 'presumptively' (Ronca 1975, Heinle 2004).

(1) Classifying and qualifying modifiers of the nominal head

ANS (1997) mentions that *gewijs*-derivatives are "sometimes" used attributively as prenominal modifiers. Corpus data show that attributive use is actually quite common, not only with nominalised infinitives and deverbal N but also with other N. Examples include: *een geval-s-gewijze benadering* 'a case by case approach' (2002/ANW), *zo'n geleidelijk en stap-s-gewijs proces* 'such a slow and gradual process' (1995/ANW), *de project-gewijze samenwerkingsverbanden* 'the cooperations in the form of projects' (1993/ANW), *de rubriek-s-gewijze beoordeling* 'the evaluation per section' (1993/ANW), *onderneming-s-gewijze productie* 'production by companies' (1980/ANW), *bedrijfstak-s-gewijze controles* 'inspections per business sector' (2001/ANW), *dat sprong-s-gewijze beeldverhaal* 'that saltatory comic strip' (2001/ANW), *steekproef-s-gewijs onderzoek* 'investigation at random' (2001/ANW).

This is parallel with Gm., e.g. *die schritt-weise Vergiftung* 'the gradual poisoning' (1993/DWDS), *eine zeit-weise Verlangsamung* 'a temporary retardation' (1985/DWDS), *eine teil-weise Waffenruhe* 'a partial cease-fire' (1990/DWDS), *das probe-weise Sonntagsfahrverbot* 'the probationary driving ban

on Sundays' (1989/DWDS), *der kreuz-weise Austausch* 'the crossways exchange' (1989/DWDS). Kühnhold/Putzer/Wellmann (1978: 376) stress that attributive use of *weise*-derivatives is only incidental and it is said to be restricted to certain niches and certain base N, although DWDS shows some variety. En. *wise*-lexemes too may occur as prenominal modifiers (Marchand 1969: 358; Payne/Huddleston/Pullum 2010: 51), e.g. *the apparently clock-wise movement* (1989/BNC) or *6 length-wise cuts* (1991/BNC). Payne/Huddleston/Pullum (2010: 42ff.) further give postmodifying examples, e.g. *the capability of rotation clock-wise and counterclock-wise*. They find that the modified N typically denote events.

(2) Qualifying modifiers of the verbal predicate

According to the literature (de Haas/Trommelen 1993: 354, ANS 1997: 738), the basic function of derived lexemes with *-gewijs* is qualifying the verbal predicate. Typically, we find a specification of manner with the VP in which some kind of similarity is expressed with the nominal concept denoted by the base word, e.g. *spiraal-s-gewijs* 'spirally' (10.11) or *dakpan-s-gewijs* '(overlapping) like (roof)tiles' (10.12).

(10.11) CD/2003/ANW

Verschillende walvissen duiken 15 of 20 meter diep onder een school kleine vissen. Vervolgens zwemmen ze in het rond en laten ze luchtbellen ontsnappen terwijl ze langzaam **spiraalsgewijs** stijgen.
'Several whales dive 15 to 20 metres deep under a school of small fish. Then they swim around and let out air bubbles while they slowly spiral up.'

(10.12) CD/1982/ANW

Anna bracht de borden naar de keuken, spoelde ze af en legde ze **dakpansgewijs** op het aanrecht.
'Anna brought the plates to the kitchen, rinsed them and laid them down on the drain-board like roof-tiles.'

Predicative position is possible but occurs only incidentally, e.g. *sample-gewijs* 'like a sample' (10.13).

(10.13) CD/1999/ANW

Ze lijken een refrein na te wauwelen. Sam Cooke klinkt **samplegewijs**, de stem vertraagd en gescratcht in old skool style (...).
'They seem to be echoing a chorus. Sam Cooke sounds like a sample, the voice slowed down and scratched in old skool style (...).'

The qualifying function is also found in En. (Quirk et al. 1985, Dalton-Puffer/Plag 2001), e.g. *length-wise* in (10.3) above and *cross-wise* (10.14); compare Gm. *kreuz-weise* 'cross-wise' (10.15) (Ronca 1975, Heinle 2004).

(10.14) CE/1989/BNC

Wash potatoes and halve **crosswise**.

(10.15) CG/1971/DWDS

Du klebst die Strohstreifen **kreuzweise** übereinander, so daß ein Stern mit kleineren und größeren Strahlen entsteht.
'You glue the straws together crosswise so that a star with smaller and larger beams emerges.'

For Dt., the literature refers explicitly to the distributive meaning in *gewijs*-derivatives (ANS 1997: 738). It occurs in adverbial position, e.g. *stap-s-gewijs* 'step by step' in (10.1) above and *stoot-s-gewijs* 'jerkily, in jerks' (10.16) but it may also occur in predicative position. In Gm., the distributive subtype is found as well (Ronca 1975), e.g. *schrift-weise* 'step by step' in (10.4) above.¹⁵²

¹⁵² For the distributive use in Norwegian, see the paper on *-vis* by Kinn (2005).

(10.16) CD/n.d./ANW

Het bloed stroomt **stootsgewijs** uit de wond; bij iedere hartslag komt er een golfje bloed naar buiten.
 'The blood flows out of the wound in jerks; with each heartbeat a stream of blood comes out.'

Other common qualifiers in Dt. and Gm. include a specification in terms of instrument, e.g. Dt. *e-mail-gewijs* 'via e-mail', *liaan-gewijs* 'by lianas' (10.17) and Gm. *gespräch-s-weise* 'by conversation' (10.18) (Ronca 1975).

(10.17) CD/1996/ANW

Daarenboven verplaatst hij zich **liaangewijs**, redt hij Jane van het gevaar en is hij vergezeld van een bevriende aap, Cheeta.
 'Moreover he moves by means of lianas, he saves Jane from danger and he is accompanied by his friend, the monkey Cheeta.'

(10.18) Gm./1994/DWDS

Zugleich wurde der neuen Leitung der H. auch von führenden Vertretern des 'Verbandes der Historiker Deutschlands' **gesprächsweise** mitgeteilt, daß eine Fusion beider Vereinigungen indiskutabel sei.
 'At the same time the new management of the H. was informed in conversation also by leading representatives of the 'German historians society' that a merger of both associations was indisputable.'

With deverbal *gewijs*-lexemes a specification of manner is expressed, e.g. *kruip-s-gewijs* 'in a crawling manner, by crawling (around)' (10.19).

(10.19) CD/n.d./ANW

Sommige ouders houden uit angst hun blinde kind veel in de box. Maar hoe kan het dan vertrouwd geraken met wat de wereld te bieden heeft? **Kruipsgewijs** leert het alle vormen te herkennen en gaat het ook durven op verkenning gaan.
 'Some parents keep their blind child in the playpen for fear. But how can it get familiar with everything that the world has to offer? By crawling around, it learns to recognise all shapes and it will dare to go exploring.'

It is difficult to provide a further differentiation of qualifying specifications (Heinle 2004, Paraschkewoff 1976: 195). ANS (1997: 739) observes that individual lexemes may be polysemous: they may specify manner in terms of similarity or in terms of distribution, e.g. *trap-s-gewijs* 'lit. like (a flight of) steps, phased' or 'step by step'.

(3) Domain modifiers

As pointed out in section 10.1, there are implicit references in the literature (Van der Horst 2008: 1895 and *EWN/-gewijs*) that *gewijs*-derivatives may function as domain modifiers. This function is not reported in ANS (1997) or Van Dale (2005). It can be discovered in the corpus material, e.g. *sponsor-gewijs* in (10.20) and *schoen-s-gewijs* in (10.21) although it is not very frequent.

(10.20) CD/1996/ANW

Wat de keuze van het kampioenschap betreft, Duits of Brits, daar lijkt het me **sponsorgewijs** makkelijker om voor onze oosterburen te kiezen.
 'As far as the choice of the championship is concerned, German or British, I think it is easier sponsor-wise to choose our eastern neighbours.'

(10.21) CD/1995/ANW

De meesten van ons zullen **schoensgewijs** wel weer [...] ergens tussen deze twee uitersten in belanden. Ook daar is in voorzien, al is 'er tussenin' deze zomer gemiddeld toch eerder een degelijke schoen dan een elegante.

'As far as shoes are concerned, most of us will end up in between these two extremes. That has been catered for as well, even when this Summer 'in between' tends to be a solid shoe rather than an elegant one.'

Whereas the domain function for *-gewijs* is only implicit in Dt. literature and appears to be infrequent, it has been quantitatively confirmed that En. *wise*-lexemes are highly frequent in the domain function (e.g. Dalton-Puffer/Plag 2001, Lindquist 2007). In En., one and the same lexeme may be used for the qualifying or the domain function in which case the position may be disambiguating: the domain adverbial typically occurs in sentence-initial or sentence-final position, or it is separated from the main clause by commas in writing or a pause in conversation (Rahn 1969).

10.2.3 Contribution of *-gewijs*

Deriving modifying words from N and V, *-gewijs* is a grammatical pattern (1) which may be accompanied by a variety of semantic values (2).

(1) Grammatical value

There is no doubt that *-gewijs* is a grammatical pattern since it derives modifying words from N and V. However, it is doubtful whether it constitutes a pattern of adverbialisation. Normally *-gewijs* is classified in the literature as an adverbial suffix but de Haas/Trommelen (1993: 354) point at the classificational problem that *gewijs*-derivatives occur attributively. The large number of attributive instances with a variety of base words in the corpus confirms that *gewijs*-derivatives are by no means prototypical ADV. This is recognised by lexicography, e.g. Van Dale (2005) regards *-gewijs* as a suffix for both ADV and ADJ formation and many lemmas get the label of ADJ. According to the criteria in this dissertation, the output words of *gewijs*-derivation are prototypical ADJ.

The Gm. suffix *-weise* is also treated as an adverbial suffix in the literature even though many attributive instances of *weise*-derivatives are recorded. Ronca (1975: 149) considers attributive use no reason to treat *weise*-derivatives as ADJ, even when dictionaries often classify them that way. Altmann/Kemmerling (2005: 167) are more tolerant: they note that certain *weise*-derivatives are ADJ, but no prototypical ones. I leave this question open but I refer to the diachronic section in 10.3 for some more observations.

We found that *-gewijs* is incidentally added to ADJ. This is probably due to analogy and the suffix does not add any value but it appears to be fully pleonastic.

(2) Semantic value

Together with the grammatical value, *-gewijs* adds a semantic value to its base word. We found that *gewijs*-derivatives occur in descriptive modifiers, particularly of the qualifying subtype, and in domain modifiers. These functions are shared with En. *wise*-derivatives, but they differ from Gm. *weise*-derivatives which may function as quantifiers and (incidentally) as modal modifiers.

Creating modifying words, *-gewijs* may make various semantic contributions which are not always easy to identify. The semantic values formulated for Gm. *-weise* (Ronca 1975, Ros 1992) are to a large extent extendable to Dt., e.g. DISTRIBUTIVE, FORM, INSTRUMENT, MANNER, SIMILARITY. Some semantic values found in Gm. appear to be absent or uncommon in Dt., in particular indications of quantity as in *tonnen-weise* 'tons of' and *haufen-weise* 'heaps of', the DURATIVE value in *zeit-weise* 'for some time, temporarily', *saison-weise* 'for a season' and the value of IDENTITY, e.g. *anhang-s-weise* 'as an appendix', *ersatz-weise* 'in substitution (for)', *leih-weise* 'as a loan', *probe-weise* 'probational(ly)'. In contrast, Dt. shares with En. the semantic value of REFERENCE, which enables *gewijs*-derivatives to

function as classifiers to nominal concepts or as domain ADV and which is absent in Gm. Mind that En., on the other hand, has a semantic value of DIRECTION which appears to be absent in Dt. and Gm., e.g. *counterclock-wise*, *side-wise*, although in En. the variant *-ways* is more common, e.g. *side-ways* (see chapter 17 on *-weg*). Table 10.1 illustrates the semantic spectrum of the Dt. suffix *-gewijs*.

Table 10.1. Semantic spectrum of *-gewijs*.

VALUE		PATTERN	EXAMPLE
PRIMARY	DISTRIBUTIVE	[[x] _N <i>gewijs</i>] _{ADJ}	<i>druppel</i> 'drop' : <i>druppel-s-gewijs</i> 'drop by drop, in drops'
	FORM	[[x] _N <i>gewijs</i>] _{ADJ}	<i>kruis</i> 'cross' : <i>kruis-gewijs</i> 'crosswise'
	INSTRUMENT	[[x] _N <i>gewijs</i>] _{ADJ}	<i>liaan</i> 'liana' : <i>liaan-gewijs</i> 'by lianas'
	MANNER	[[x] _V <i>gewijs</i>] _{ADJ}	<i>kruipen</i> 'crawl' : <i>kruip-s-gewijs</i> 'in a crawling way, by crawling'
	REFERENCE	[[x] _N <i>gewijs</i>] _{ADJ}	<i>schoen</i> 'shoe' : <i>schoen-s-gewijs</i> 'as far as shoes are concerned'
	SIMILARITY	[[x] _N <i>gewijs</i>] _{ADJ}	<i>dakpan</i> 'roof tile' : <i>dakpan-s-gewijs</i> '(overlapping) like roof-tiles'
PLEONASTIC		[[x] _{ADJ} <i>gewijs</i>] _{ADJ}	<i>theoretisch</i> 'theoretical(ly)' : <i>theoretisch-gewijs</i> 'theoretically'

(3) Rival suffixes

For the creation of descriptive modifiers of the qualifying subtype, Dt. has a range of suffixes some of which are semantically comparable to *-gewijs*, particularly in the niche of SIMILARITY; see section 4.4.4. Gm. *-lich* and *-haft* are competitors in this niche (Altmann/Kemmerling 2005: 167). In the DISTRIBUTIVE niche, *-(e)lings* is comparable, e.g. *druppel-s-gewijs/drupp-elings* 'drop by drop', but the *(e)lings*-formatives have an archaic status (see chapter 8 on *-(e)lings*). In the niche of FORM, too, *-(e)lings* is comparable with *-gewijs*, e.g. *kruis-gewijs/kruis-elings* 'crosswise' (see chapter 8 on *-(e)lings*). For En. descriptive modifiers formed with *-wise* there is a variant *-ways*; there are many parallel formatives (Marchand 1969: 357 and see chapter 17 on *-weg*). Otherwise, *-wise* "is somewhat rivaled by *-fashion* which is, however, much weaker" (Marchand 1969: 358).

For the REFERENCE meaning, 'as far as x is concerned', Dt. has the semantically comparable suffixes *-matig* and *-technisch* (see chapters 13 and 14).¹⁵³ Their equivalent suffixes *-mäßig* and *-technisch* are used in Gm. instead of *-weise* for the REFERENCE meaning (Lenker 2002, Rahn 1969). En. *-wise* in the REFERENCE meaning sometimes competes with *-(al)ly*, e.g. *music-wise/musically*.

10.3 Diachronic description

We discovered a large functional equivalence and shared syntactic properties for the related patterns: Dt. *gewijs*-derivatives share their wide functions as qualifying modifiers with Gm. *weise*-derivatives and they share their additional function as domain modifiers with En. *wise*-derivatives. In the present section these properties are investigated starting from the common origin of the derivational suffixes. The question shall be addressed whether the shared properties are due to mutual influences or the result of parallel developments.

¹⁵³ Dt. usually uses the lexical construction with *qua* followed by a N for expressing domain modification (see section 4.4.7).

On the diachrony of *-gewijs* see Royen (1948b) and Van de Velde (2005). The historical dictionary MNW has an entry on *-gewijs* and WNT includes some information in its entry on *wijze*. The suffix *-gewijs* is historically related with a homonymous lexical N. To gain an insight into univerbation and grammaticalisation processes, the diachronic investigation includes the earliest attestations of sequences where *(ge)wijs* and the base word are iuxtaposed, but do not form an orthographic unit, i.e., are not written together or connected by a hyphen (see appendix to chapter 10). My investigation uses existing information on the emergence of its Gm. equivalent *-weise* (e.g. Heinle 2004) and En. *-wise* (e.g. Lenker 2002). On historical aspects of the suffix *-vis* in Norwegian, see Kinn (2007) and see Norde (2005) for Swedish.

10.3.1 Origin of *-gewijs*

Dt. *-wijs/-wijze*, En. *-wise* and Gm. *-weise* originate in a Gmc. N **wīsa* ‘manner’ (OE *wīs(e)*, OG *wīsa*, MG *wīs(e)*, OD *wise*, MD diphthongised *wijs*). The PIE predecessor must have meant something like ‘form, appearance’ (EWN/*wijze*). The N *wijze* survives in Dt. and *Weise* in Gm., but *wise* is not used in En. It is reported in the literature (e.g. Lenker 2002, Heinle 2004, Van de Velde 2005) that Dt. *-wijs/-wijze*, En. *-wise* and Gm. *-weise* emerged through a process of grammaticalisation, by which the independent lexical N *wise* became a bound morpheme (1).¹⁵⁴ This process is comparable to the one described for *-erwijs/-erweise* (see chapter 9). In Dt., a variant *-gewijs/-gewijze* came into use, which replaced *-wijs/-wijze* (2).

(1) From noun to suffix: the start of denominal derivation with *-wijs*

The older phases of the West-Gmc. languages display adverbial phrases consisting of an introductory PREP governing case and a N premodifying the feminine N *wise* ‘manner’. These constructions specified manner in a relativistic way as in the following OE examples from OED (10.22) and MG examples from Paraschkewoff (1976: 174):¹⁵⁵

(10.22) OE/OED/*wise*

on scipwīsan ‘in the manner of a ship, like a ship’; **On munuc-wīsan** ‘like a monk’

(10.23) MG

en hundes wīse ‘like a dog’; **in kriuzes wīs** ‘in the form of a cross’

This construction became very common in the MG period. Until the 15th ct., the N could be premodified or preceded by an article, e.g. *in eynes garteners wyse* ‘in the manner of a gardener’ (Paraschkewoff 1976: 174). There are comparable examples from OD, e.g. *in lampreythe wise* ‘in the form of lampreys’ and *in wurme wise* ‘in serpentine form’ (10.24) and in EMD, e.g. *Jn sconinx wijs* ‘in the manner of a king’ (10.25) (with *coninc* ‘king’ in the genitive singular and a proclitic genitive article *des*) (compare Van de Velde 2005).

(10.24) OD/1100/ONW/*wisa*

[Wahe goltchetenon] **in lampreythe wise** gebreyde machon wir thir, **in wurme wise** geblachmalad mid siluere.

¹⁵⁴ Compare Norde (2005) on Swedish *-vis*. There may even be evidence for a much older, Gmc. origin of the pattern. In OE, the ADV *wearnwīslīce* ‘obstinately’ is attested; it is discussed by Sauer (2006) who discovered it in the Epinal-Erfurt glossary, the earliest document in En. language. This glossary is a list of Lt. words with OE glosses dating from 680-690, preserved in a manuscript from 800. There, *uernuislicae* appears as gloss of the Lt. ADV *difficile* ‘with difficulty’. Sauer (2006) regards *wīs* as an early semi-suffix attached to the N *wearn* ‘reluctance, repugnance, refusal, denial’. Since it is followed by adverbial *-lice*, it is not clear what its status is.

¹⁵⁵ Compare section 9.3.1 on phrases with *wise* preceded by ADJ and see Lenker (2002).

'Beautiful gold chains braided in the form of lampreys we make for you, engraved in silver in serpentine form.'

(10.25) EMD/1285/VMNW/wijs

Ende om spot te makene grod. Namen si eenen mantel purpur+rod. **Jn sconinx wijs** ende daden hem an.

'And to make fun they took a coat, crimson in the manner of a king and put it on.'

The general hypothesis (e.g. Lenker 2002, Heinle 2004, Van de Velde 2005) is that the phrasal construction is at the basis of a process of grammaticalisation into a suffix for denominal word formation. Van de Velde (2005) describes the process of grammaticalisation for Dt. The nominal elements were compressed into a compound, e.g. EMD *in cruce-wijs* (10.26): the absence of the genitive ending (*cruce-n*) indicates that *wijs* may no longer be perceived as an independent N.

(10.26) EMD/1265-70/VMNW/crucewise

Dar+na so reikede althant Den dume van der rechter hant Die maget houesch ende wijs Ende ouerstreec **in crucewijs** Dis kindes borstekijn dar+mede.

'After that the courtly and wise virgin reached out the thumb of her right hand and stroke the child's breast with it crosswise.'

Later on, the preceding PREP became redundant and it was omitted. As for En., ellipsis of the PREP is reported in the ME period; Marchand (1969: 358) and Lenker (2002: 166) refer to the end of the 14th ct., e.g. *crosse-wyse* (10.27).

(10.27) ME/1398/OED/crosswise

On holy Saterdaye newe fyre is fette and thus [= incense] is putte therin **crossewyse**.

In Gm., too, the PREP could be left out already in the MG period, e.g. *kriuzewîs* 'crosswise' or *pilgrîmeswîs* 'as a pilgrim' (10.28) (Paraschkewoff 1976: 174).

(10.28) MG

und her ist **pilgrîmeswîs** ûz gevaren.

'And he went away as a pilgrim.'

An indication that the *-s-* was no longer a case ending, but perceived as a linking phoneme, is the fact that it was found with feminine N, which according to the Gm. inflectional system do not take the ending *-s* for the genitive case. This can be observed in e.g. *warnungs weisz* 'in the manner of a warning' in the 16th ct. (Paraschkewoff 1976: 175). In the INL material there are examples without an introductory PREP as early as in EMD, e.g. *zaghe-wise* 'lit. saw-shaped' (10.29) and more abundantly in MD, e.g. *cruus-wijs* 'crossways' (10.30).

(10.29) EMD/1287/VMNW/saghewise

Ghetande diere **zaghewise** ebben uercoren vlesch ter spise.

'Animals with incisive teeth have chosen meat to eat.'

(10.30) MD/1401-1500/MWN/crucewise

Daertoe sal men nemen een scers ende sniden die wonde **cruuswijs** op.

'Therefore one shall take scissors and cut the wound crossways.'

At a certain point, *-wise* was interpreted as a word-formation morpheme (see Van de Velde 2005). This includes that the semantics of *wise* became vague and that the preceding N was no longer in a modifier relation with it. The preceding N could no longer be premodified and an introductory article could no longer be inserted (compare Van de Velde 2005: 106). According to *EWN/-gewijs* this change in Dt. took place in the 15th and 16th ct. but there may be indications already in MD in the 14th

ct., e.g. *ridder-wise* ‘like knights’ (10.31). For *-wijs* to become a productive word-formation pattern, however, this presupposes expansion to other N to form qualifying modifiers. This indeed seems to have taken place in the 15th and 16th ct.

- (10.31) MD/1355/MNW/ridderwise
 Laet ons vechten **ridderwise**.
 ‘Let us fight like knights.’

Orthography remained variable until the 18th ct.; in Gm. as well it was still common to write *weise* separately in the 18th ct. (Paraschkewoff 1976: 175).

(2) The variant *-gewijs*

Already in MD, there was a variant *gewis(e)* for *wis(e)* (Van de Velde 2005: 107 and MNW/*wise*). It was *-gewijs* and not *-wijs* which established itself as a suffix in Dt. The origin of this variant is not entirely clear; the prefix *ge-* may have been added for prosodic reasons (Van de Velde 2005: 107). WNT claims that *-gewijs* is not recorded as an autonomous N in the nominative but it is only found in adverbial phrases following a N in the genitive. These phrases could start by a PREP, e.g. *in ghecs ghewise* ‘like a madman’ (1473/WNT/*ghewise*) but examples without a PREP are already recorded in the same period. It was already common to write the N and *gewijs* together in the 16th ct. However, they are found written separately until the 17th ct., e.g. *reyens gewyse* ‘in rows’ (1697/WNT/*gewijze*), *spots gewijse* ‘ironically’ (1651/WNT/*gewijze*). We further find that already in the 16th ct. new words could be formed directly with the variant *gewijs* without there being any recordings with *wijs*, e.g. *processie-gewijs* ‘in a procession’ and *stapel-s-gewijs* ‘in a stack’. That *-gewijs* established itself as a word-formation pattern in the EModD period can further be inferred from the fact that the final *-s* of the first N was no longer considered a genitive ending, but a linking phoneme. It was namely inserted after feminine N, which do not take the ending *-s* for the genitive case. EModD examples from the 17th ct. are *fuycx-ghewijse* ‘like a fyke net’ (10.32) and *vlag-s-gewys* ‘flag-shaped’ (10.33).

- (10.32) EModD/1623/WNT/vleugel
 De Visch, die sy vanghen, is in vleughelen, diese maken van dunne langhe stocken, vooren wijt open, en achter scherp toe, met een kuyl **fuycx-ghewijse**, diese met leegh water in 't slick, op de strande setten.
 ‘They catch the fish in nets which they make of thin long sticks, wide open at the front, and pointed at the back, with a trawl like a fyke net, which they put in the mud on the beach at low tide.’

- (10.33) EModD/1652/WNT/vlag
 (Een molenas) met drie ofte vier Roeden met Ses ofte vier hecken met zeylen **vlagsgewys**.
 ‘(A sail axle) with three or four sail-arms with six or four frames with flag-shaped sails.’

The historical development from adverbial phrase to derivational pattern is visualised in table 10.2.

Table 10.2. Historical development of *-gewijs*.

EMD	[[X] _{PREP} [X] _N <i>wijs/ze</i>] _{AdvP}	<i>in crucewijs</i>
MD	[[X] _N <i>wijs/ze</i>] _{Adv}	<i>stapwijs</i>
	[[X] _{PREP} [X] _N <i>gewijs/ze</i>] _{AdvP}	<i>in cruusghewise</i>
MD-EModD	[[X] _N <i>gewijs/ze</i>] _{Adv}	<i>fuycxghewijse</i>

By the 19th ct., the formation of new words with *-wijs* is scarce in the historical material so that *-gewijs* appears to have taken over completely.

10.3.2 Functional shift

The early examples in section 10.3.1 have shown that *-gewijs* was originally used for lexemes providing descriptive modification (1). As indicated in sections 10.1 and 10.2, *gewijs*-derivatives may be used as interpersonal modifiers indicating domain (2).

(1) Descriptive modifiers

In earlier phases of Dt., *-gewijs* created lexemes which were used as descriptive modifiers predominantly specifying a quality, in terms of FORM, e.g. *ruyten wijze* ‘rhombic, diamond-shaped’ (10.34) or MANNER, e.g. *zang-s-gewijs* ‘in a singing manner’ (10.35) but also IDENTITY is recorded (e.g. MD *pelegrijms wise* ‘as a pilgrim’). Gm. *-weise*, too, started off with the qualifying values of MANNER or FORM (Paraschkehoff 1976: 175).

(10.34) EMD/1587/WNT/wijze

Een gouden ketten van sestien leden acht van dewelcke elck (...) ter sijden met twee perlen beset sijn, ende die andere acht leden elck met acht perlen op elcke sijde vier alle **ruyten wijze** gemaickt.

‘A gold chain with sixteen links, eight of which are each (...) set with two pearls on the side, and the other eight each with eight pearls, four on every side, all made in the shape of diamonds.’

(10.35) EModD/1662/WNT/zangswijs

Apollinarius Syrus, een treflyck Christen, Was een van d’ eerste, die gewyde bybelstof Gejuicht heeft **sangsgewys**.

‘Apollinarius of Syria, a respectable Christian, was one of the first who performed sacred themes from the Bible in a singing manner.’

WNT/*gewijze* situates the distributive meaning in EModD, e.g. *reyens gewyse* ‘in rows’ (10.36).

(10.36) EModD/1697/WNT/gewijze

Daar sal hy de ordentlijk aan een gevoegde Spykerladen, tot omvang, en uitlevering van allerhande Spykers-soorten, **reyens gewyse** by een voegen.

‘There he shall arrange the reasonably assembled naildrawers row for row according to their size and the delivery of various types.’

(2) Interpersonal modifiers

Van der Horst (2008: 1895) and *EWN/-gewijs* situate the new, restrictive meaning, which may be interpreted as the expression of domain modification, in CD. The material indeed points in this direction: the earliest unambiguous corpus examples of *gewijs*-lexemes with a domain interpretation date from the 1990s. Compare the descriptive use of *zang-s-gewijs* in (10.35) above with the domain modifier in (10.37).

(10.37) CD/1996/ANW

Politiek groeiden Vlaanderen en Wallonië verder uiteen, **zangsgewijs** idem dito.

‘Politically, Flanders and Wallonia grew further apart, singing-wise as well.’

Dt. grammar and lexicography have not recognised the domain function of *gewijs*-derivatives which suggests that it is very new. *EWN* relates this new Dt. use directly to En. *-wise*. This is indeed likely since the function is much older for En. *wise*-lexemes (see below) and since Dt. undergoes considerable language contact with En. through modern media like the internet. However, the domain function could also be the result of an independent development for Dt. An indication for

this may be ambiguous examples where either a qualifying or a domain interpretation applies. Such ambiguous examples can be found in the middle of the 20th ct. In (10.38), the interpretation of *procent-s-gewijs* ‘in terms of percentage, percentage-wise’, comes quite close to domain modification and the same holds true for *ensemble-gewijs* ‘ensemble-wise’ in (10.39) which is quoted by Royen (1948b: 157).

(10.38) ModD/1954/repertoire

Die actuele problematiek is een belangrijk deel van het repertoire, waarvan **procentsgewijs** het meest verloren gaat, geruisloos verdwijnt omdat het niet aanslaat ... of eenvoudig wordt vergeten.

‘That current problem is a significant part of the repertoire, of which percentage-wise most is lost, quietly disappears because it is not successful ... or is simply forgotten.’

(10.39) ModD/1947

Dit was trouwens de algemene feil in deze opvoering: **ensemble-gewijs** ‘liep’ het meestal vrij goed (...).

‘That was, by the way, the general flaw in this performance: ensemble-wise, things were usually ‘running’ quite smoothly (...).’

Ambiguous examples still occur in CD, e.g. *jurk-gewijs* ‘lit. dress-wise’ in (10.40), which may be interpreted descriptively in terms of instrument, i.e., ‘by means of her dress’ or as a domain adverbial, ‘as far as her dress was concerned’.

(10.40) CD/2011/internet¹⁵⁶

En dus koos Diaz uiteindelijk voor de rode Alexander McQueen-jurk. Velen zagen hierin een poging om Zoe’s realityshow een boost te geven. In ieder geval slaagde Diaz erin de media-aandacht, **jurkgewijs**, geheel naar zich toe te trekken, ondanks het mindere weer die dag.

‘So Diaz eventually picked the red Alexander McQueen gown. Many felt this was an attempt to give Zoe’s realityshow a boost. Anyway, despite that day’s drowsy weather, Diaz managed to draw all media attention to herself, dress-wise (= by means of her dress / as far as her dress was concerned).’

The ambiguity in examples like (10.40) may indicate an ongoing change. At the same time we should keep in mind, particularly for internet examples, that they may represent translations from the En. media. Although unambiguous examples of domain ADV with *-gewijs* in the corpora are limited in number we can easily find them on the internet, e.g. *kapsel-gewijs* ‘hair style-wise’ (10.41).

(10.41) CD/2008/internet¹⁵⁷

Wie **kapselgewijs** dan weer wél met haar tijd meegaat is koningin Paola. De manier waarop ze haar haar draagt, heeft met de jaren discrete ‘retouches’ ondergaan.

‘Who does manage to keep up with time in terms of her hair style is queen Paola. The way her hair is styled has undergone discrete touchups throughout time.’

Native speakers of Dt. agree that lexemes like *jurk-gewijs* and *kapsel-gewijs*, although structurally well-formed and semantically perfectly interpretable, are marked and strike as unusual.¹⁵⁸ It seems that domain modifiers with *-gewijs* are formed consciously and on purpose most of the time. The perception of markedness and the association with a particular style register of Dt. *gewijs*-ADV are strongly reminiscent of the degree of acceptance of En. *wise*-ADV with a domain function half a century ago. This ‘new’ function was first referred to in the late 1960s by e.g. Foster (1968), Houghton (1968) and Rahn (1969). Its history was further investigated by Lenker (2002) who found

¹⁵⁶ http://www.deredactie.be/cm/vrtnieuws/ookdatnog/ODN_110504_PippaScoort_De_Redactie, online news portal, 04.05.2011 [last accessed 04.05.2011]

¹⁵⁷ <http://www.nieuwsblad.be/article/detail.aspx?articleid=TH1SIVTD> *Het Nieuwsblad*, online edition, 30.05.2008 [last accessed 09.11.2011]

¹⁵⁸ I base this observation on reactions of native speakers in conference talks where I presented these and comparable examples. I thank drs. Johanna Ridderbeekx for confirming this intuition.

that the first attestations are recorded in the 1940s, e.g. *position-wise* (10.42) and *plot-wise* (10.43) (Lenker 2002, OED/wise).

(10.42) CE/1942/OED/wise

It should be noted that there are two types of hydrogen atoms **positionwise**.

(10.43) CE/1948/OED/wise

Plotwise, it offers little more or little less of what-happens-next interest than may be found [etc.].

The domain pattern spread from 1950 onwards even though it was criticised: Houghton (1968: 209) noted that “there are many who detest it stylewise” and gave an overview of critical remarks in American style guides. Pulgram (1968: 383) observed that the *wise*-formatives were “frowned upon socially” and “regarded as brisk and snappy” in the language of advertising, business and bureaucracy. The perceived markedness of the pattern is shown by the fact that it was played with in the 1960 film *The Apartment*, where the character Al Kirkeby attached *-wise* all the time, which was imitated and ridiculed throughout the entire film (see Sick 2005, who referred to this film to indicate that in the Gm. version, all En. *wise*-lexemes were rendered by *mäßig*-lexemes; see chapter 13).¹⁵⁹

Rahn (1969) observed that the domain function was gradually recognised by lexicography in the 1960s, although originally in American dictionaries only. Marchand (1969) did not yet include the domain function in his description of *-wise*. In the same period, Houghton (1968: 213) described the status of the pattern in terms of acceptance as “considerable progress toward establishing itself as a generally accepted part of the language”. As far of the occurrence of the pattern he noted that “in a very short time it has gained wide currency” in America and there were indications “that it may well become firmly established in Standard English, at least in this country” (Houghton 1968: 209). Similarly, Foster (1968: 95) noted that “[t]he usage is evidently quite standard in the United States”. For the spread of the pattern in the 1950s and 1960s, Rahn (1969) referred to the jargon of financial trade, the mass media and technical sciences.

In Britain, the pattern was already in vogue in the 1950s (Foster 1968: 95) but it was initially rejected. This negative perception changed rapidly. In the next decades the pattern of creating domain modifiers with *-wise* became very productive in both national varieties (Lenker 2002; Dalton-Puffer/Plag 2001). Quirk et al. (1985: 1557) refer to the pattern as “more freely productive in AmE than in BrE” adding that “many people object to these formations”. The massive expansion of the pattern in the latest decades can be inferred from Lindquist (2007). He determined the productivity of the pattern quantitatively on the basis of a large corpus showing that domain modifiers formed with *-wise* have penetrated all national varieties of CE, in both written and spoken language, in different text genres and a variety of registers. The productivity of the pattern over the period 1990-2000 is particularly large in the British variety.

It is not clear how the emergence of the new limiting meaning of *-wise* should be explained. Lenker (2002: 167) argues that there is no direct semantic path between the new and the old meanings. Foster (1968) and Rahn (1969) referred to language contact with Gm. through the influence of scholars and immigrants. They attempted to connect the revival of *-wise* with the persistent success of its Gm. equivalent *-weise*. This connection is not convincing, since the domain interpretation is absent throughout the history of Gm. *-weise*. The only potential instance which I found is part of a

¹⁵⁹ The *wise*-derivatives even figure on the original film poster which says: *Movie-wise, there has never been anything like “The Apartment” love-wise, laugh-wise or otherwise-wise!* The film poster can be viewed online at the website of the *International Movie Database*: <http://www.imdb.com/media/rm2509147136/tt0053604> [last accessed 16.04.2012]

complex pun with *beziehung-s-weise* (10.44).¹⁶⁰ Referring to the relationship between students and teachers, the pun is based on the well-established and highly idiomatised lexeme *beziehung-s-weise* ‘rather’ (see section 10.2) and the established compound *beziehung-s-gestört* ‘having commitment problems’.

(10.44) CG/2010/*Furios*

Verhältnisse beziehungsweise gestört. (...) Beziehungen können Fluch oder Segen bedeuten. Können wir sie noch danach unterscheiden? Oder sind wir, im wortwörtlichsten Sinne, beziehungsgestört?
‘Relationships, or rather, disturbed commitment-wise. (...) Relationships may be a curse or a blessing. Can we still classify them that way? Or do we, in the most literal sense, have commitment problems?’

The example in (10.44) shows that it is structurally not impossible for Gm. *weise*-derivatives to be interpreted as domain modifiers. As I did not find any other examples or references in the literature besides this pun, I assume that the domain use of *-weise* in CG is purely incidental and of an intentional, deliberate nature only. In any case, it is unlikely that Gm. inspired the revival of En. denominal *-wise* in the domain function. Instead, the Gm. suffix *-erweise* has known and still has a highly productive period, but this suffix is attached to ADJ, so it is unlikely that it was an inspiration for En. denominal domain modifiers with *-wise* (Lenker 2002: 168). Language contact seems an unlikely explanation for the domain meaning of En. *wise*-derivatives, but there is another explanation. It is striking that *-wise* as a pattern for deriving qualifying modifiers had become rare (Houghton 1968) or even archaic (Rahn 1969) by the time the first attestations with the domain meaning are found (Lenker 2002). The emergence of the new meaning of *-wise* may then be explained by the process of exaptation (see section 5.2): as its old function of creating qualifying modifiers had become extinct and there was a functional need for single-word encoding of the meaning of reference, *-wise* was ‘recycled’ for the domain function. En., in turn, may have served as a model for Dt. for coining domain modifiers with *-gewijs* (see above).

10.3.3 Historical observations on syntactic use

As pointed out in section 10.1, *gewijs*-derivatives are known to allow attributive use (1). They may also be used as premodifiers of the attribute (2).

(1) Attributive modifier

De Haas/Trommelen (1993) and ANS (1997) recognise that *gewijs*-derivatives occur as prenominal attributes (see section 10.2). Lexicography also recognises the use of *-gewijs* in adjectival positions, but only recently so: the 1992 edition of Van Dale regarded *-gewijs* strictly as an ADV formation suffix, but the 1999 edition regarded it as a suffix for both ADJ formation and ADV formation (the distributive meaning). In Dt., attributive use was first noticed rather implicitly in 1805 as Petrus Weiland noted in his grammar that *trap-s-wijze* ‘step by step, gradual(ly)’ may be used attributively and the same example is commented by Arie de Jager (1858: 416) who adds that Dt. follows the High Gm. example of attributively used *stufe-n-weise*. Den Hertog (1903-1904: 83) simply included *trap-s-gewijze* among his qualifying ADJ and De Vooy (1967: 259) followed him by stating that *gewijze*-derivatives can be used adjectivally. Attributive use was discussed in a paper by Royen (1948b) in which he provides an impressive number of attested attributive examples. Royen (1948a: 200) proposed that some Dt. attributive instances came into use under the influence of attributive use of their Gm. equivalents, e.g., attributive use of Dt. *kruis-wijze* ‘crosswise’ may have originated in attributive use of Gm. *kreuz-weise*.

¹⁶⁰ This pun occurred in the 2010 issue of the magazine *Furios* of the Free University of Berlin. I thank Saskia Schuster for bringing the example to my attention.

In CG, attributive use of *weise*-derivatives has been getting much more attention than in CD (see Henzen 1965, Rahn 1969, Kann 1972, Schäublin 1972, Starke 1973, etc.). Scholarly descriptions point out that *weise*-derivatives are freely used both adverbially and attributively (Rahn 1969: 234). Already in the 1970s, scholars have argued that *weise*-derivatives should therefore be classified as ADJ (e.g. Starke 1973) and that *-weise* may be classified as an adjectival suffix (e.g. Kann 1972: 108). They add, however, that some *weise*-derivatives avoid attributive use, e.g. the idiomatised lexemes *beispiel-s-weise* ‘for instance’ and *schätzung-s-weise* ‘at a rough estimate’: they are prototypical ADV. Prescriptive grammar shows, however, that attributive use is still perceived as marked in standard Gm. and that it is not fully accepted. Some prescriptive grammarians strongly condemn attributive use of *weise*-derivatives, e.g. Sick (2004) when he refers to the phenomenon of *schrittweise Zunahme der Adjektivierung* ‘step-by-step increase of adjectivisation’. The prescriptive guide *Duden Richtiges und gutes Deutsch* (2007) is somewhat more tolerant: it accepts attributive use of *weise*-derivatives with *nomina actionis* (e.g. *eine probe-weis-e Einstellung* ‘a probational appointment’) but it rejects all other instances (e.g. *stück-weis-er Preis* ‘price per piece’).

Interestingly, Gm. grammarians have not noticed attributive use of *weise*-derivatives significantly earlier than Dt. grammarians, namely since the start of the 19th ct. It is, however, remarkable that Gm. grammarians heavily criticised the phenomenon, e.g. Adelung (1801: 1464) and Campe (1811: 653). By the end of the 19th ct., Paul (1897) confirmed that attributive use was common. Ruge (2005 : 456) for instance observed that in this period the author Thomas Mann used *weise*-derivatives attributively in his literary work. The grammarian Heyse (1900) too had to admit that attributive use expanded so much that it could no longer be stopped, although to him it was still unacceptable. In his school grammar, Heyse (1900: 367) rejected this practice, but he continued that it was so common that lexemes formed with *-weise* had moved from the category of ADV to the category of ADJ. After a century of criticism, Bohner (1903-04: 238) explicitly accepted attributive use of denominal *weise*-formatives. It is remarkable that despite this acceptance at the start of the 20th ct., present-day language criticism (e.g. Sick 2004) fights the phenomenon again. The critical reflections show that a pattern which the Gm. language system has already allowed for centuries is still not accepted.¹⁶¹

There is no direct evidence that Gm. *weise*-derivatives were used attributively earlier than their Dt. counterparts. Schäublin (1972: 116) claims that attributive use of Gm. *weise*-derivatives occurs only recently. Inghult (1975 : 145) refers to the 18th ct. and Bohner (1903-04 : 238) refers to various examples in Goethe’s writings, e.g. *eine schritt-weise Ausführung* ‘a step-by-step realisation’, *an den wechsel-s-weisen Unterricht* ‘on the alternate education’, etc. However, Heinle (2004) found the first attributive instances of *weise*-derivatives already in the 16th ct., e.g. *auf alle geist-weis gottgelerten* ‘on all religious (?) theologians’, *stück-weise + Angriff* ‘piece by piece assault’. Pre-attributive use of Dt. *wijs*-formatives occurred incidentally in EModD in the 16th ct., e.g. *het sack-wijs omwindsel* ‘the sack-shaped involucre’ (1505/WNT/zak), continuing in the 17th ct., e.g. *met hare saag-wys-e knypers* ‘with her saw-toothed pincers’ (1688/WNT/zaag).¹⁶² It became more common with *-gewijs*, occurring also with non-verbal NPs, e.g. *d’weg-ghewijs been* ‘the sphenoid bone’ (1568/WNT/wegge), *croon-s-gewijse bloemen* ‘umbellated flowers’ (1608/WNT/pimpernel), *Van mijn’ steels gewijs-en lust* ‘of my surreptitious lust’ (1638/WNT/steelsgewijze), *een halvemaan-s-gewijs ronden muur* ‘a crescent-shaped round wall’ (1664/WNT/renbaan), *dese wolkx gewijs-e materie* ‘this cloud-like matter’ (1674/WNT/wolk). The examples in WNT particularly originate from scientific literature, such as

¹⁶¹ The same is the case in Swedish. Even though the frequency of attributive instances has risen since the 18th ct., it is still not entirely accepted in the written language (Norde 2005). Interestingly, since the 1990s, the *vis*-forms are adverbialised once again by means of the suffix *-t*, e.g. *grad-vis-t* ‘gradually’. According to Norde (2005) this phenomenon indicates that speakers no longer perceive *vis*-lexemes as ADV.

¹⁶² For Dt., post-attributive use of *wijs*-formatives can already be found in MD, e.g. *Il beenren schilt-wijs* ‘to bones in the shape of a shield’ (1450-70/MNW/schiltwise).

Dodoens and Van Leeuwenhoek. It is imaginable that an academic or scientist tried to render Lt. descriptions in Dt., or perhaps scholars were influenced by Gm. academic writings. In ModD there are many further examples, e.g. *een dik, uitstekend, boog-s-gewyse bosch* ‘a thick, protruding, arch-shaped mop (of hair)’ (1745/WNT/voorhoofd), *zulke stuk-s-gewyze aanbidders* ‘such partial admirers’ (1761/WNT/stuksgewijze), *eene kring-s-gewyze Verheffinge* ‘a circular elevation’ (1773/WNT/verheffing), *twee of meer wig-s-gewyze Tandem* ‘two or more cuneate teeth’ (1773/WNT/wig), *een halvemaan-s-gewijze gekromd been* ‘a bone curved in crescent shape’ (1857/WNT/vork), *schroef-s-gewijze bewegingen* ‘spiral movements’ (1808/WNT/uitdrijven), *eene kring-s-gewijze haarplek* ‘a circular patch of hair’ (1871/WNT/haarwervel).

For Gm., Heinle (2004) discovered a striking rise in attributive use of *weise*-derivatives from the 18th ct. onwards. Apparently it was remarkable enough to be noticed by grammarians like Adelung. It is possible that this rise in Gm. stimulated attributive use in Dt., possibly through language contact in the field of science and academics. In this context it should be added that En. *wise*-derivatives, too, occur in the prenominal attribute slot. Tourbier (1928) paid attention to this phenomenon from a diachronic point of view. After sporadic examples in the EModE period he noted that there was an increase in the 19th ct., e.g. *a church-wise form, a slant-wise glimpse* and *length-wise splits*. In the 20th ct., Pulgram (1968: 381) and Marchand (1969: 292) recognised that *wise*-formatives could be used attributively, e.g. *a corner-wise cloakroom, coast-wise steamer, clock-wise movement*, although Rahn (1969) believed this was rare. Only recently, attributive use got attention by scholars again as it is mentioned by Payne/Huddleston/Pullum (2010), although their focus is on post-attributive use.

The rise of attributive use of Dt. *gewijs*- and Gm. *weise*-derivatives has also been connected with the recent tendency to nominalisation, for Dt. see Royen (1948b) and for Gm. see Denkler et al. (2008: 13); see section 5.3.1. The same has been suggested by Norde (2005) for Swedish *vis*-derivatives. The oldest attributive example she found in her corpus dates from 1797. Since the earliest attestations in Swedish are all with verbal N or *nomina actionis* and throughout time this combination remains much more frequent than the combination with other types of N, Norde (2005) claims that attributive use is only allowed when v are nominalised. Diachronically, this fits into a more general structural change in the Gmc. languages referred to as a tendency to nominalisation. This can, however, not be confirmed for the earliest attestations of attributive use in Dt., En. and Gm., since this occurred from the beginning with non-verbal N. It seems that attributive use is a structural property for the Gmc. languages, but it is conceivable that the recent rise in nominalisations has been an extra trigger for attributive use.

(2) Adverbial premodifier

Descriptive modifiers formed with *-gewijs* occur as premodifiers in the NP, incidentally in EModD, e.g. *eenige trap-s-gewijs schuyn opgaande Banken* ‘some phased slanting benches’ (1679/WNT/trapsgewijs) and much more frequently in ModD, often in a context of botany. Examples include: *vier boog-s-wyze beschilderde Paneelen* ‘four boards painted in the form of an arch’ (1714/WNT/bord), *vyf witte roos-wyze geschikte blaedjes* ‘five white leafs arranged roselike’ (1743/WNT/watereppe), *Wig-s-wyze getande naakte Bladen* ‘in cuneiform serrated naked leafs’ (1775/WNT/wig), *lange, fijne, boog-s-wijze gekromde takjes* ‘long thin arch-like curved branches’ (1826/WNT/zee), *met kroon-wyze geschikte, groote, witte bloemen* ‘with large white flowers arranged crown-like’ (1848-49/WNT/zegenrijk), *de kring-s-gewijze boven elkander geplaatste armen der lichtkroonen* ‘the arms of the chandeliers placed above another circularly’ (<1859/WNT/trans), *schroef-s-gewijs geribde zuil* ‘spirally corrugated pillar’ (1862/WNT/zuil), *schaaf-s-gewijze ingesneden bladeren* ‘runcinate leaves’ (1924/VD). CD examples are plenty, e.g. *een kruis-gewijs ingeregen koord* ‘a cross-wise threaded cord’ (1983/ANW), *zulke groep-s-gewijs uitgevochten conflicten* ‘such conflicts which are fought out in group’ (1996/ANW), *een trap-s-gewijs dalende verantwoordelijkheid* ‘a gradually diminishing responsibility’ (n.d./ANW). Domain ADV too may occur as premodifiers in the

NP, e.g. *een, prestatiegewijs, gelijkwaardige Apple* ‘a performance-wise equivalent Apple (computer)’ (2009/internet¹⁶³) – just like their English counterparts.

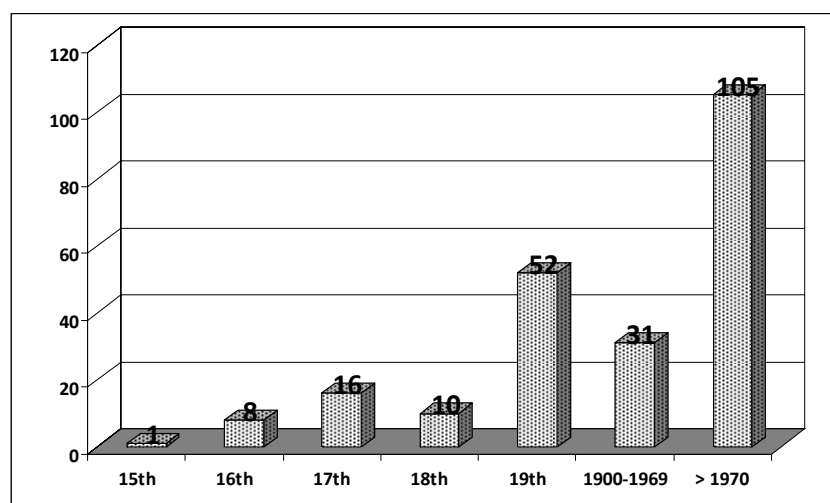
10.3.4 Scope and productivity from a diachronic perspective

An inspection of the first attestations of *gewijs*-lexemes including their predecessors with *-wijs* shows an expansion of scope throughout time. We first find native N and these are morphologically simplex. Stratal constraints are soon omitted: in the 16th ct. the first borrowed N occur as base words, e.g. Lt. *processie* ‘procession’ and *kapittel* ‘chapter’, followed by Fr. *cirkel* ‘circle’ in the 17th ct., *ojief* ‘ogee’ in the 18th ct. and these remain common. In addition, N borrowed from En. emerge as base words in the CD period, e.g. *batch, hype*. In terms of structural constraints, too, we discover changes. Compounds occur as input to *-gewijs* in the 17th ct., e.g. *half-maan* ‘crescent’ and they get more common in the 19th ct., e.g. *dak-pan* ‘roof tile’, *thee-lepel* ‘teaspoon’. The pluralised N *tralie-s* ‘bars’ is first recorded in the 18th ct. and ing-derivatives are attested in the 19th ct., e.g. *verhoud-ing* ‘proportion’. The latter are more commonly found in the 20th ct. New in CD are proper names as base words, e.g. in *McDonald’s-gewijs* or *Norbert-gewijs* (referring to a specific person called Norbert); these are obviously *ad hoc*-coinages for use in a specific context. As far as input categories other than N are concerned, the ADJ *steels* ‘stealthy’ is already found in the 16th ct.; pleonastic *theoretisch-gewijs* ‘theoretically’ first occurs in 2003. Derived words with a verbal base were noticed by grammarians in the 19th ct. (e.g. De Jager 1858: 415, Brill 1871: 374) although they are already found in the 17th ct., e.g. *Sluip-s-wyse* ‘in a crawling manner’. The status is sometimes unclear: we cannot say with certainty whether *vraag-s-gewijs* ‘by way of questioning’ is formed on the basis of the stem of the v *vragen* ‘to question’ or on the basis of the N *vraag* ‘question’. Last but not least we have to refer to the possibility of neo-classical components as input for *-gewijs* which first occur in CD (see section 10.2.1).

To have an idea of productivity changes throughout the history of Dt., the bar chart in figure 10.3 gives an overview of the number of new types formed with *-gewijs* per century. These figures should be handled with care, since, for practical reasons, I only incorporated the first attestations of the 223 lexemes of the synchronic inventory and no additional lexemes from the historical dictionaries (see appendix to chapter 10).¹⁶⁴ Observe further that the first attestation date may be based on the first attestations of sequences of a N and *gewijs/ze* which were written separately: they represent semantic units, but we cannot be absolutely sure that they are perceived as one complex lexeme. Last but not least, notice that I have only taken into account the first attestation dates for the variant *gewijs/ze*, even when there were earlier attestations with the variant *wijs/ze*.

¹⁶³ <http://tweakers.net/nieuws/63737/psystar-verliest-van-apple-in-auteursrechtenzaak.html> [last accessed 29.03.2012]

¹⁶⁴ Checking first attestations of 223 lexemes in the historical material already was already a considerable task. A search in INL lemma text for additional lexemes led to a huge number of types and there seemed to be no suitable method for making a manageable selection.

Figure 10.3. New formations with *-gewijs* throughout the centuries.

We may infer from figure 10.3 that the largest proportion of new formations is to be found in the CD period.¹⁶⁵ In the synchronic section I presented indications that deadjectival derivation by *-gewijs* is available for new formation in CD. For 105 derivatives it could be confirmed that they are attested after 1970. However, the diachronic investigation reveals that 34 potential new formations (non-established lexemes) are actually already recorded before 1970. All in all, intuitions of de Haas/Trommelen (1993), ANS (1997) and van der Sijs (2002: 172) that the pattern is still productive can be confirmed. The assumption of ANS (1997) that *-gewijs* is only productive in the distributive meaning is incorrect since other contributions can be found in the synchronic section as well.

As for Gm. *-weise*, a rise in frequency has been documented from the 16th ct. onwards (Fleischer/Barz 1995: 288) and the pattern is still common today (Lenker 2002: 168, Fleischer/Barz 1995: 64). The literature suggests that there may have been some influence going out from Gm. to the other Gmc. languages. Thus, many Swedish lexemes on *-vis* have High Gm. and Low Gm. predecessors (Norde 2005). However, there is no direct indication for Gm. influence on Dt. *-gewijs*, but this may be a topic for further investigation.

10.4 Conclusion

The suffix *-gewijs* is a MD variant of the suffix *-wijs* which emerged through a process of grammaticalisation of adverbial phrases introduced by a PREP which was later omitted. The suffix *-gewijs* established itself as a word-formation pattern in the EModD period. The suffix has been used for centuries for the formation of descriptive modifiers. The creation of descriptive modifiers is still an important function for Dt. *-gewijs* nowadays and the same holds true for Gm. *-weise*. However, for En. *-wise* descriptive functions are nearly extinct (e.g. Quirk et al. 1985). Instead, it is widely recognised that En. *wise*-derivatives have come into use for domain modification and for this function they have become highly productive. I have shown in this chapter that this interpersonal function can recently also be discovered in Dt. *gewijs*-derivatives. Ambiguous instances may be taken as evidence that Dt. *-gewijs* developed the domain function independently through semantic extension instead of having borrowed it from En.

The domain function previously remained implicit in the literature. This function provides evidence that the claim by Van de Velde (2005) that *-gewijs* only derives modifiers of the predicate should be

¹⁶⁵ This may have something to do with the fact that I only included the 223 lexemes of the synchronic inventory in this investigation and no additional lexemes. See previous note.

corrected. The structural possibility to create domain modifiers with *-gewijs* is, however, exploited only to a limited extent: it is perceived as marked which may be due to competition with other strategies, predominantly the phrasal construction with *qua* (see section 4.4.7).

Descriptive modifiers formed with *-gewijs* have behaved as a prototypical ADJ, allowing attributive use and inflection, throughout the history of Dt. with an increase from the ModD period onwards. It can be argued on this basis that *-gewijs* is an adjectival suffix.

11 Modifying words with *-halve*

11.1 Introduction

The suffix *-halve* is included in the overview of Dt. adverbial suffixes by Booij (2002). It is also treated as an adverbial suffix by de Haas/Trommelen (1993) and ANS (1997: 739). According to ANS (1997: 739), *-halve* is predominantly used in written Dt. Modifying words formed with *-halve* are illustrated by *ambt-s-halve* 'by virtue of ones office, professionally' (11.1) and *volledigheid-s-halve* 'for the sake of completeness' (11.2).

(11.1) CD/1995/38MWC

Walter Provo werkt al tien jaar voor het Gentse Filmfestival, moet dus **ambtshalve** heel wat films bekijken en doet dat uiteraard het liefst in zo goed mogelijke omstandigheden.

'Walter Provo has been working for the Ghent Film festival for ten years, so he has to watch many films professionally and obviously he prefers to do so in the best possible circumstances.'

(11.2) CD/1993/38MWC

Er wordt daar echter een Keltische taal gesproken, in welke taal dat gebied Cymria heet.

Volledigheidshalve vermeld ik ook de Franse naam: Pays de Galles!

'However, a Celtic language is spoken there, the area is called Cymria in this language. For the sake of completeness I mention the French name as well: Pays de Galles!'

There is no diachronic connection with the lexical ADJ *half* 'half', but there is a Gmc. origin in an independent N. A remnant of this is En. *behalf*. Further evidence can be found in Gm. which has three related suffixes: *-halb/-halben/-halber*. Ronca (1975: 56) discusses *-halb* as in *außerhalb* 'outside' (11.3) and *-halben* as in *mein-et-halben* 'as far as I'm concerned' (11.4) and observes that they are probably unproductive. Directly genetically related with Dt. *-halve* is Gm. *-halber*, e.g. *sicherheit-s-halber* 'for safety' (11.5).

(11.3) CG/1986/DWDS

Die Deutschen Verwaltungen für Gesundheit, Justiz und Volksbildung bleiben formell **außerhalb**, ebenso jene für Inneres.

'The German administrations of health, justice and education formally stay out (of it), and so does the home department.'

(11.4) CG/1998/DWDS

Meinethalben könnte eine Oper getrost in einer Fabrik, auf einer Großstadtstraße von heute, in der Eisenbahn oder sonst irgendwo spielen.

'As far as I'm concerned, an opera could take place in a factory, on of today's main streets, in the train or anywhere.'

(11.5) CG/1996/DWDS

Ich möchte dich **sicherheitshalber** nach Hause begleiten.

'I would like to walk you home for safety.'

However, for some complex words with *-halber* it is questionable whether they really constitute derived words formed with the bound morpheme *-halber*. The reason is that Gm. has a formally and semantically identical independent PREP *halber* 'because of; for the sake of'. This results in many synonymous pairs like *einfachheit-s-halber* 'for simplicity's sake' (11.6) and *der Einfachheit halber* (11.7) 'for simplicity's sake'.

(11.6) CG/1981/DWDS

Diese konstruiere ich **einfachheitshalber** als eine Folge von jeweils sechs Paaren von Argumenten für und gegen eine universalistische Position.

'For simplicity's sake I present them as a sequence of six pairs of arguments for and against a universalist position.'

(11.7) CG/1999/DWDS

Der Einfachheit halber setzen wir im Jahre 200 ein und erzählen alles vorherige als Prolog.

'For simplicity's sake we start in the year 200 and consider what preceded as a prologue.'

The coexistence of complex words with *-halber* and phrases with the independent morpheme *halber* is a reason for Ros (1992: 58) to treat the former as compounds. Ronca (1975) is more careful: she points out that not all complex words with *halber* are paraphrasable by phrases with independent *halber*, e.g. *spaße-s-halber* 'for fun' (11.8).

(11.8) CG/1996/DWDS

Als die Maschine keine Diskussionsbeiträge von ihnen fand, versuchte er es **spañeshalber** mit seinem eigenen Namen.

'When the machine didn't find any of their contributions to the discussion, he tried his own name just for fun.'

This could be an indication that *-halber* is on its way to becoming a suffix: "Jedoch zeigt (...) *-halber* die Tendenz, sich auch in semantischer Hinsicht zu einem Ableitungsmorphem zu entwickeln" (Ronca 1975: 68).¹⁶⁶ In the present chapter I shall argue that Dt. *-halve* has moved further towards the grammatical end of the scale than Gm. *-halber*. Diachronic evidence confirms that *-halve* has long established itself in the word-formation system as a derivational suffix for the creation of modifiers. This corresponds with Af. *-halwe*, e.g. *formaliteit-s-halwe* 'for the sake of formality', *gerieflikheid-s-halwe* 'for convenience's sake', a suffix which is used quite often (Donaldson 1993: 444). Moreover I will provide evidence that Dt. *-halve* may be losing its original status as a prototypical adverbial suffix.

11.2 Synchronic description

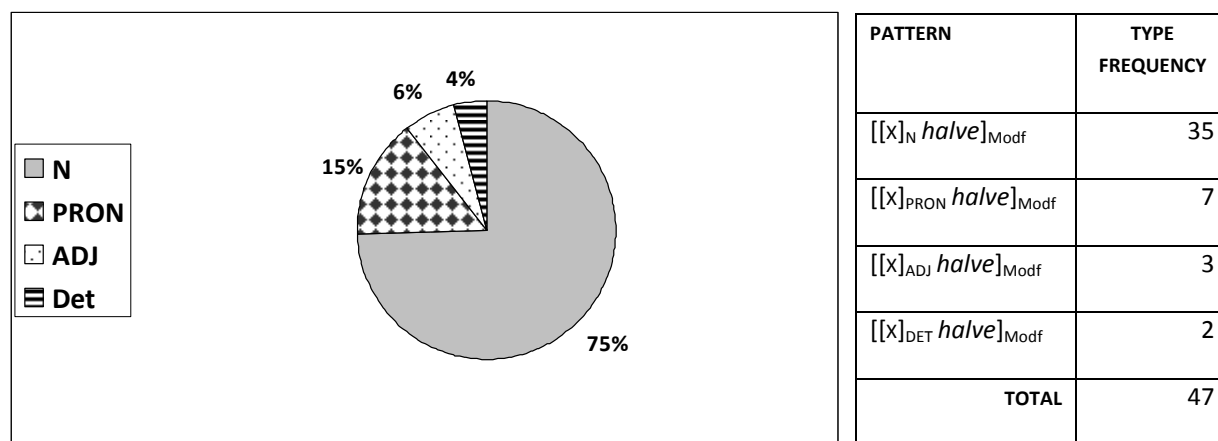
The synchronic description of *halve*-derivatives is based on an inventory of 47 lexeme types collected in the corpora 38MWC, CGN and ANW and in the dictionary Van Dale (2005) (see appendix to chapter 11).¹⁶⁷

11.2.1 Scope and productivity

According to the literature (de Haas/Trommelen 1993: 355, ANS 1997: 739), the suffix *-halve* is attached to N or possessive PRON (de Haas/Trommelen 1993: 356, Van Dale 2005/*-halve*). Figure 11.1 shows the actual distribution of input categories in the synchronic inventory of 47 *halve*-formatives.

¹⁶⁶ 'However, *-halber* shows the tendency to develop into a derivational morpheme also from a semantic perspective.' (My translation, AD)

¹⁶⁷ Observe that Dt. has numerals formed with *half*, e.g. *ander-half* 'one and a half' and modifying words with *half* designating positions in ball games, e.g. *rechts-half* 'at right-half' (Van Dale 2005). These are not formed by derivation and will not be part of the investigation.

Figure 11.1. Distribution of input categories for *-halve* in synchronic inventory.

We can infer from figure 11.1 that *-halve* is prototypically attached to nominal base words, namely in 75% of types. Pronominal input words are less common. In addition we found a few lexemes on the basis of ADJ and DET. In contrast, in Gm., there is a division of labour between *-halber* and *-halben*: the former has N as its input (e.g. *anstand-s-halber* ‘for decency’s sake’, *ordnung-s-halber* ‘for the record’) whereas *-halben* is added to PRON (e.g. *mein-et-halben* ‘as far as I’m concerned’) (Ros 1992: 104).

(1) Nominal input

N of varying morphological complexity are input to derivation with *-halve*. We find simplex N (e.g. *recht* ‘law’, *spoed* ‘hurry’), compounds (e.g. *leef-tijd* ‘age’), deverbal N (e.g. *geloof* ‘belief’, *vermaak* ‘amusement’), deadjectival N derived with *-heid* (e.g. *veiligheid* ‘safety’) and *-dom* (e.g. *ouderdom* ‘old age’). *EWN* claims that non-native input N are rare; the material confirms this. An exception is *fatsoen* ‘decency’ from Fr. We further find input N ending in *-teit* which are loan translations from Fr. N in *-té* (e.g. *realiteit* ‘reality’, *curiositeit* ‘curiosity’). Between the base N and *-halve* the linking phoneme *-s-* is inserted (de Haas/Trommelen 1993: 355).

Semantically, the choice is mostly for abstract N, which is also clear from the derived input N on *-heid/-teit/-dom*. There are, however, some pairs of synonyms which may both be input to *-halve*: *eenvoud* ‘simplicity’ / *eenvoudigheid* ‘simpleness’ and *gemak* ‘ease’ / *gemakkelijkheid* ‘easiness, comfortableness’. According to the prescriptive language portal *Taaladvies*, their use may be a regional matter: *gemak-s-halve* is standard in both Netherlandic and Belgian Dt., whereas *gemakkelijkheid-s-halve* is standard only in the Belgian variety of Dt. This can be confirmed on the basis of ANW: all 17 hits for *gemakkelijkheid-s-halve* belong to the Belgian Dt. material.

Most denominal derivatives in Van Dale (2005) are recorded in the corpora. Among the most frequent in terms of token frequency are *ambt-s-halve* ‘by virtue of one’s office, in one’s official capacity’, as in (11.1) above, *gemak-s-halve* ‘for the sake of convenience’ and *beroep-s-halve* ‘by virtue of one’s profession, professionally’, although several *heid*-derivatives are also quite frequent, e.g. *eerlijkheid-s-halve* ‘in (all) fairness’, *kortheid-s-halve* ‘for the sake of brevity’. Compare (11.2) above. Van Dale (2005) notes that *liefde-s-halve* ‘for the sake of love’ is rarely used and indeed it is not found in the corpora. A few other denominal derivatives recorded in Van Dale (2005) are not represented in the corpora either, e.g. *betamelijkheid-s-halve* ‘for the sake of decency’, *vermaak-s-halve* ‘for the sake of amusement’.

Gm. *-halber* is added to N usually with the insertion of a linking phoneme *-s-* or *-(e)n-*, e.g. *krankheit-s-halber* ‘due to illness’, *ehre-n-halber* ‘honoris causa’ but sometimes without a linking phoneme, e.g.

interesse-halber ‘out of interest’ (Ronca 1975: 58). Mind, however, that there is a formally and semantically identical independent PREP *halber* ‘because of’ (see section 11.1). Thus, there are synonymous pairs: *vollständigkeit-s-halber* / *der Vollständigkeit halber* ‘for the sake of completeness’.¹⁶⁸ This may be an argument against prototypical suffix status of *-halber*.

(2) Pronominal input

A total of 15% of *halve*-lexemes in the inventory are formed on the basis of possessive PRON, e.g. *mijn* ‘my’, *hun* ‘their’. With a pronominal base, the sequence *-ent-* is inserted with a *-t-* for ease of pronunciation (de Haas/Trommelen 1993: 356, Van Dale 2005/*-halve*). The derivatives with possessive PRON are considered archaic by Van Dale (2005) and this is confirmed by their absence in the corpora. Formally, they correspond with Gm. lexemes formed with *-halben*. On the basis of personal PRON we find *mein-et-halben*, *dein-et-halben*, *sein-et-halben*, *unser-t-halben* and *eur-et-halben*, ‘as far I/you/he/we/they am/is/are concerned’ (Ronca 1975: 57, Ros 1992: 104). Notice that there is an idiomatic use of *mein-et-halben* as an interjection meaning something like ‘for all I care’ (Heinle 2004: 128). Gm. has two additional possibilities which are absent in Dt.: based on demonstrative/relative PRON *die/das* we find *deren-t-halben* ‘for their sake’, *dessen-t-halben* ‘for that reason’. On the basis of an indefinite PRON we find *all-ent-halben* ‘everywhere’ as in (11.9), which exhibits idiomatisation according to Ronca (1975: 62). Dt. also has depronominial *all-ent-halve* ‘everywhere’ according to Van Dale (2005), but it is archaic and not recorded in the corpora.

(11.9) CG/1989/DWDS

Die Einsicht in die Notwendigkeit von Reformen gewinnt **allenthalben**, nur nicht in der obersten Führung, weiteren Raum.

‘The insight that reforms are necessary is growing everywhere except in the top management.’

(3) Adjectival input

In the material there are three *halve*-derivatives on the basis of ADJ, *gemakkelijk* ‘easy’, see (11.10) and the variant *makkelijk*, and the ADJ *eerlijk* ‘honest’ as in (11.11).

(11.10) CD/2001/CGN

nu en dan baart zo’n dwergstaat een bovenmaatse persoonlijkheid maar is er in zekere zin aan voor de moeite omdat de buitenwereld die reus **gemakkelijkshalve** in een meer herkenbare context kadert.

‘Every now and then such a tiny nation brings forth an oversized personality but in some respect this is pointless, since the outside world, for convenience, fits the giant in a more recognisable context.’

(11.11) CD/1994/ANW

De helft van het elftal, zei hij. Hij voegde er **eerlijkshalve** aan toe dat dat een verdienste van Parma was.

‘Half of the team, he said. He added in fairness that Parma took credit for that.’

All three deadjectival derivatives represent hapaxes. The lexeme *eerlijk-s-halve* ‘in all fairness’ is attested in a Dt. newspaper. It could be a contraction of denominal *eerlijkheid-s-halve*. Mind, however, as will be pointed out in 11.3.4, that there is already a 1961 ALC attestation. The form *gemakkelijk-s-halve* ‘for the sake of easiness’ is attested only in a read aloud text recorded in Belgium and *makkelijk-s-halve* (2003/ANW) is attested only in a Belgian Dt. internet text. Both could be a mix-up with the denominal Belgian Dt. form *gemakkelijkheid-s-halve*, i.e., the result of a slip of the tongue on the part of the language user.

¹⁶⁸ For Gm. *-halb*, attachment to N as in *berg(-s)-halb* ‘on or towards the side of the mountain’ and *wind-s-halb* ‘from or on the windy side’ is restricted to the Swiss variant (Ronca 1975: 56).

Gm. *-halb* attaches to a few inherently localising ADJ in the comparative form: *außerhalb* ‘outside’, *innerhalb* ‘inside, within’, *unterhalb* ‘below’, *oberhalb* ‘above’ (Ronca 1975: 56). According to Ronca (1975: 60-61) these lexemes are idiomatised: their semantic structure is intransparent and apart from *außerhalb* they are only used as PREP, e.g. *innerhalb der Familie* ‘within the family’.

(4) Determiners as input

The modifying lexemes *der-halve* ‘therefore’ and *dier-halve* ‘therefore, for that particular reason’ are derived on the basis of DET. The base words may no longer be available to present-day language users: *der* represents an inflected form of the DET *de* in older Dt. (Van Dale 2005) and *dier* is its more stressed variant. Semantically, these lexemes have characteristics of ADV and CONJ. In terms of token frequency, *derhalve* is highly frequent in the corpora, e.g. in (11.12), whereas *dierhalve* is only found in Van Dale (2005).

(11.12) CD/1993/38MWC

De koopovereenkomst werd echter ontbonden omdat er problemen over de betaling ontstonden. De graaf bleef **derhalve** eigenaar.

‘The sale agreement was, however, undone since problems emerged over payment. Therefore, the count remained the owner.’

There is a correspondence with the Gm. formatives *des-halb* ‘for this reason’ and *wes-halb* ‘for which reason’ (Ronca 1975: 56). Their base words can be analysed as case forms of the demonstrative and interrogative PRON *das* ‘this’, and *was* ‘which’, respectively. These lexemes are peripheral between ADV and CONJ (Ronca 1975: 59).

(5) Synchronic indicators of productivity

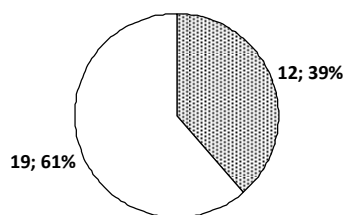
The investigation of the input words of *-halve* in the synchronic inventory revealed that the scope of the suffix is fairly wide, but it has certain limitations, which indicates that the pattern cannot be highly productive. Whereas PRON and ADJ are rare, nominal base words are better represented. They are predominantly Gmc. (with some exceptions) but these N may be both simplex and complex. As a semantic constraint holds that they typically have abstract reference.

In terms of its application rate, there are indications that *-halve* is limitedly productive. Figure 11.2 visualises the results in pie charts. Type frequency is limited with only 31 types, but almost 40% of the recorded types are not established. Almost a quarter of the types in the corpora constitute hapaxes.

Figure 11.2. Type frequencies for *-halve* in contemporary Dutch corpus data (31 types = 100%).

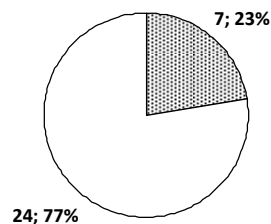
-halve : Proportion of non-established types

■ non-established □ established



-halve : Proportion of hapaxes

■ hapaxes □ frequency > 1



EWN claims that denominal derivation with *-halve* is productive, particularly with abstract N derived by *-heid*. The CD material suggests that it is indeed the denominal pattern which may be available for new formation, but there is no direct indication that the input N should be derived by *-heid*. There are four hapaxes: *ouderdom-s-halve* ‘because of old age’, *overbodigheid-s-halve* ‘needlessly, redundantly’, *recht-s-halve* ‘juridically’, *realiteit-s-halve* ‘for reality’s sake’, all in ANW. All three deadjectival derivatives represent hapaxes. Since deadjectival formatives are not recognised by lexicography, they may constitute a new deadjectival pattern which may be substandard, or these derivatives are the result of a slip of the tongue. This cannot be determined with certainty. Further instances can be found on the internet¹⁶⁹, e.g. *veilig-s-halve* ‘for safety’ and *zeker-s-halve* ‘for security reasons’. These too may be simplifications of denominal *veiligheid-s-halve* and *zekerheid-s-halve*. However, it is not inconceivable that simplifications of this kind give rise to a new, deadjectival pattern. Last but not least, it may be observed that there are no indications that the depronominal pattern is productive.

11.2.2 Modifier types

Dt. *halve*-derivatives are associated in the literature with descriptive modifier types (1)-(2) but they may also occur as interpersonal modifiers specifying the goal of the speech act (3).

(1) Classifying modifiers

In Diepeveen/Van de Velde (2010), we referred to the use of *halve*-derivatives as prenominal attributes. These are found incidentally in the corpora, e.g. *de ambt-s-halve aanpassing* ‘the official adjustment’ (1986/ANW), *ambt-s-halve aanslagen* ‘assaults in official capacity’ (2002/ANW), *een beroep-s-halve aanwezigheid* ‘a presence in one’s official capacity’ (1996/ANW). Often the modified N are verbal N, but this is not always the case.

(2) Qualifying modifiers

The modifying words with *-halve* may be used as modifiers of the VP to specify a cause. This can be found for *ambt-s-halve* in (11.1) and *ouderdom-s-halve* ‘because of old age’ (11.13) below.

(11.13) CD/2001/ANW

Een normale huur daar zou niet te betalen zijn geweest, maar het appartement van een kinderloze tante, die **ouderdomshalve** in een tehuis verdwijnt, biedt uitkomst.

‘The usual rent would not have been affordable there, but the apartment of a childless aunt, leaving for a home because of old age, offers a solution.’

For Gm. *-halben* and *-halber*, the expression of a cause was established by Ronca (1975) and for *-halben* by Ros (1992: 105). Examples for *-halber* are *krankheit-s-halber* ‘due to illness’ (11.14) and *beruf-s-halber* ‘professionally’ (11.15).

(11.14) CG/1998/DWDS

Als Mariani die Uraufführung der Aida **krankheitshalber** nicht übernehmen konnte, kam es zum Bruch mit Verdi.

‘When Mariani could not take care of the premiere of Aida due to illness, it came to a rift with Verdi.’

(11.15) CG/1999/DWDS

Auch ich verschönere die Welt. Bin schließlich **berufshalber** damit beschäftigt auszurechnen, wieviel Liter Wasser in Tempelhof und Neukölln jeden Tag durch die Filteranlagen gehen.

¹⁶⁹ Google search carried out on 09.03.2012.

'Me too, I am making the world a better place. After all I am professionally engaged with calculating how many litres of water are going through the filters in Tempelhof and Neukölln every day.'

Another possibility for Dt. *halve*-derivatives is that they provide a specification of a goal, e.g. *veiligheid-s-halve* 'for safety' in (11.16). This qualifier is often used with *verba dicendi*, e.g. *curiositeit-s-halve* 'for the sake of curiosity' (11.17) and *gemak-s-halve* 'for convenience' (11.18). For the expression of a goal in Gm., complex words with *-halber* are used, see (11.5)-(11.6) above.

(11.16) CD/1995/38MWC

De amnestieregel betrof **veiligheidshalve** een ongeveer gelijk aantal katolieken en protestanten.

'For the sake of safety the amnesty rule was granted to an almost equal number of catholics and protestants.'

(11.17) CD/1979/ANW

Curiositeitshalve is het XVIIIde eeuwse fort FINCASTLE te Nassau op de Bahamas te vermelden.

'For the sake of curiosity the 18th century fortress Fincastle in Nassau on the Bahamas is worth mentioning.'

(11.18) CD/1982/ANW

de vijfde groep bevat minstens een miljoen nederlanders. **gemakshalve** duid ik ze aan als 'de nederlandse fascisten'.

'The fifth group consists of over a million Dutchmen. For the sake of convenience I refer to them as 'the Dutch fascists.'

In Dt., there is an adverbial construction with an additional PREP *om*, e.g. *om zijn-ent-halve* 'for his sake' (Van Dale 2005/-halve). With a pronominal base, the referent constitutes the origin of the activity (Van Dale 2005/-halve). In Dt. there are no corpus examples for depronominial *halve*-derivatives; we just find *mijn-ent-halve* 'on my behalf' (11.19) in Van Dale (2005).

(11.19) CD/2005/VD

wilt u hen **mijnenthalve** groeten?

'Would you greet them on my behalf?'

With a pronominal base, another type of subjective modifier may be created; we find *onz-ent-halve* 'as far as we're concerned' (11.20) in Van Dale (2005).

(11.20) CD/2005/VD

onzenthalve mag hij dat zeker doen.

'As far as we're concerned, he may certainly do that.'

These subjective modifiers are more common in Gm., e.g. *mein-et-halber* 'as far as I'm concerned' in (11.4) above.

(3) Speech act modifiers

The modifying words with *-halve* are used independently as speech-act modifiers, providing a comment on the goal of the speech act, e.g. *kortheid-s-halve* 'to keep it short, for brevity's sake' (11.21), *overbodigheid-s-halve* 'needlessly, redundantly' (11.22) or *volledigheid-s-halve* 'for the sake of completeness'.

(11.21) CD/1999/ANW

De verzorger of opvoeder (hierna **kortheidshalve**: de ouder) verwacht of eist geregeld dat het kind te veel (of te weinig) verantwoordelijkheid draagt.

'The guardian or educator (hereafter briefly: the parent) expects or craves all the time that the child carries too much (or too little) responsibility.'

(11.22) CD/1995/ANW

Wellicht **overbodigheidshalve** wil ik bij wijze van intermezzo nog even benadrukken dat de bibliotheek vroeger systematisch was ingericht, zijn collectie op onderwerp sorteerde, ook in de magazijnen.

'Probably redundantly, I would just like to stress as an interlude that the library used to be organised systematically, it arranged its collection per subject, even in the repositories.'

(11.23) CD/2003/ANW

Volledigheidshalve en in alle eerlijkheid moet ik hier ook vermelden dat het vanaf de late 18e eeuw bergafwaarts ging met de Brakke Grond.

'For the sake of completeness and in all fairness I have to mention here that from the late 18th century onwards *de Brakke Grond* was going downhill.'

This speech-act function can also be found in Gm., e.g. the derivatives *ordnung-s-halber* 'for the record' and *kürze-halber* 'for brevity's sake' (Ronca 1975: 63, Altmann/Kemmerling 2005: 165), although I did not find any CG attestations in DWDS; at least for the latter, the synonymous phrase *der Kürze halber* appears to be slightly more common.

11.2.3 Contribution of *-halve*

The suffix *-halve* is added to N and PRON. Section 11.2.2 revealed that *halve*-derivatives function as descriptive modifiers and as interpersonal modifiers of the speech-act modifying type. The suffix contributes a grammatical value (1) in combination with a semantic value (2).

(1) Grammatical value

The addition of Dt. *-halve* turns N and PRON into modifying words (*-halve* is only incidentally added to existing modifying words), so the suffix has a grammatical value. The literature states that *-halve* derives ADV (de Haas/Trommelen 1993, ANS 1997). Van Dale (2005) classifies all lemmas for *halve*-derivatives as ADV. The corpus material confirms that *halve*-derivatives prototypically function as adverbials. However, some attributive instances in the corpus show that not all *halve*-derivatives are prototypical ADV. Since it is not recognised by lexicography, e.g. Van Dale (2005), attributive use may be a new and not (yet) accepted development. The structural potential of attributive use suggests that *-halve* does not have the categorial value of 'adverbiality' in the strict sense and it is no prototypical adverbialiser. Thus, in an integrative approach, *halve*-derivatives are divided over the peripheral part and the adverbial end of the scale.

The Gm. suffix *-halben/halber*, however, has a different status. Since no attributive instances of *halben-* or *halber-*formatives are recorded (Heinle 2004: 127), we may assume that we are indeed dealing with a grammatical value of adverbialisation. Thus, by adding *-halben/halber*, the output word is restricted to adverbial use.

(2) Semantic value

We found that Dt. *halve*-derivatives occur in various descriptive modifiers and in the speech-act subtype of interpersonal modification. The suffix brings along a semantic spectrum for which we find rather specific paraphrases in the literature (de Haas/Trommelen 1993: 355; Van Dale 2005). These may be interpreted in terms of the semantic values of GOAL, ORIGIN, CAUSE and REFERENCE; this is presented in table 11.1. Deadjectival formatives are not included. For Gm., similar values are found; the literature particularly refers to CAUSE, e.g. *krankheit-s-halber* 'due to illness', but also GOAL, e.g. *spaß-es-halber* 'for fun' (e.g. Ronca 1975, Altmann/Kemmerling 2005).

Table 11.1. Semantic spectrum of *-halve*.

VALUE		PATTERN	EXAMPLE
PRIMARY	CAUSE	[[X] _N <i>halve</i>] _{ADV?}	<i>ouderdom</i> ‘old age’ : <i>ouderdom-s-halve</i> ‘because of old age’
	GOAL	[[X] _N <i>halve</i>] _{ADV?}	<i>veiligheid</i> ‘safety’: <i>veiligheid-s-halve</i> ‘for safety’
	ORIGIN	[[X] _N <i>halve</i>] _{ADV?}	<i>ambt</i> ‘office’ : <i>ambt-s-halve</i> ‘by virtue of one’s office’
		[[X] _{PRON} <i>halve</i>] _{ADV}	<i>mijn</i> ‘my’ : <i>mijn-ent-halve</i> ‘from me’
	REFERENCE	[[X] _{PRON} <i>halve</i>] _{ADV}	<i>mijn</i> ‘my’ : <i>mijn-ent-halve</i> ‘as far as I am concerned’

(3) Rival suffixes

For the creation of descriptive modifiers, *-halve* does not have much competition due to its rather specific semantic contribution. WNT refers to semantically comparable *-wege* for denominal formatives indicating ORIGIN, but these always come in a phrase with the PREP *van* ‘from’, e.g. *ambt-s-halve* / *van ambt-s-wege* ‘by virtue of one’s office’, *beroep-s-halve* / *van beroep-s-wege* ‘by virtue of one’s profession’. For indicating GOAL, *erwijs*-derivatives may be semantically comparable, but notice the difference in their scope: *-halve* is added to N, *-erwijs* to ADJ, e.g. *billijkheid-s-halve* / *billijk-erwijs* ‘fairly, reasonably’. For the use in speech-act modifiers, there are no direct competitors in Dt. There are *weg*-formatives, but there is a difference in meaning (see chapter 17 on *-weg*) and in their scope: *-weg* takes an adjectival base whereas *-halve* takes a nominal base, e.g. *kort-weg* ‘briefly’ vs. *kortheid-s-halve* ‘for brevity’s sake’.

For Gm., I already referred to competition of denominal derivation by *-halber* with phrases with postposed independent *halber*, e.g. *vollständigkeit-s-halber* / *der Vollständigkeit halber* ‘for the sake of completeness’. Lohde (2006: 294) further refers to phrases with the PREP *wegen* and *aufgrund*, ‘due to; for reasons of’ or the construction *um ... willen* ‘for the sake of’, e.g. *wegen der Sicherheit* ‘for safety reasons’, *um der Sicherheit willen* ‘for the sake of safety’.

It has already been stressed that depronominal *halve*-formatives are not found in the CD corpus material. This may be due to competition with semantically comparable *-wege* and *-zijds*, e.g. *mijn-ent-halve/mijn-ent-wege* ‘as far as I am concerned’, *mijn-ent-halve/mijner-zijds* ‘on my part, in my name’. This is fully parallel with Gm.: Ronca (1975: 165) and Ros (1992: 104) too refer to *-wegen* as a synonym for *-halben*, e.g. *mein-et-halben/mein-et-wegen*, and also for *-halb* in *des-halb/des-wegen* (Heinle 2004: 129). Ronca (1975: 62) stresses that *halben*-formatives are archaic and that instead *-wegen* is used more and more. Another possibility constitute *seits*-formatives, e.g. *mein-et-halben/mein-er-seits* (Heinle 2004: 129).

11.3 Diachronic description

The Dutch grammarian den Hertog (1903-1904 [1892-1896]) was the first to include *-halve* as an adverb-formation pattern which he classified as compounding. The historical dictionary WNT has information on word formation with *-halve* in its entry on the N *halve* with which the suffix is historically related. To gain an insight into univerbation and grammaticalisation processes, the diachronic investigation includes the earliest attestations of sequences where *halve* and the base word are iuxtaposed, but do not form an orthographic unit, i.e., are not written together or connected by a hyphen (see appendix to chapter 11). My investigation uses existing information on the emergence of its Gm. equivalents *-halb*, *-halben* and *-halber*.

11.3.1 Origin of *-halve*

The Dt. suffix *-halve* and its Gm. equivalents *-halb/-halben/-halber* have their origin in a Gmc. root **halbō-* (Gt. *halba*, OE *healf*, OG *halba* (MG *halbe*)). Dt. *-halve* originates in the dative case form of a feminine N meaning ‘half, side, family, direction, area’ governed by a PREP. The nominative *half* is not attested, only the dative *halven* (VMNW). The Gm. suffix *-halben*, too, is originally an inflected form of the N. The N *half* survives in En. whereas Gm. uses *Hälfte* and Dt. has *helft*. However, Gm. has a PREP *halber*. There seem to be two combined sources for the word-formation pattern with *-halve/-halber*: early complex localising modifiers which may be considered univerbations (1) and grammaticalisation of adverbial constructions (2).

(1) Complex localising modifiers

In the oldest phases of the West-Gmc. languages complex localising modifiers are attested which may be considered univerbations, e.g. OG *nidarun-halba* ‘unterhalb’, *innerun halb* ‘innerhalb’, *ostar-halb* ‘eastward’ (Ronca 1975: 55, Heinle 2004: 124). They were continued in MG, e.g. *ein-halp* ‘auf der einen Seite’, *ober-halp* ‘oberhalb’. For the earliest Dt. complex lexemes with *halve*, EWN/*-halve* refers to OD. We find OD *nort-halu-on* (901-1000/ONW) which is a genitive case form of *north-halv-a* and has a static localising meaning, ‘in the north’. Further univerbations of *half* with the directions of the wind are recorded in EMD. They were often used as PREP (MNW/*halve*).

(2) From noun to suffix: the start of derivation with *-halve(n)*

Already in Gt., adverbial constructions are attested like *in thizai halbai* ‘in this respect’ (MNW/*halve*). OG displays similar adverbial phrases consisting of an introductory PREP governing case premodifying the N *Halba*, e.g. *in ala-halbôn*. These adverbials were descriptive modifiers to the VP. It has been claimed that the phrasal construction is at the basis of a process of grammaticalisation into a derivational suffix. In Gm., the unstressed PREP could be omitted already in the OG period, e.g. *ala-halbôn* and *ost-halbūn* (Ronca 1975: 57, Heinle 2004: 124).¹⁷⁰ A secondary *-t-* occurred in MG *all-ent-halben*. MG also had the construction with a possessive PRON: *von mînen halben* ‘from my side, on my behalf’, later *mîn-en(t)-halben*. The secondary *-n-* disappeared: ModG *mein-et-halben* (Ronca 1975: 57). Denominal formatives with Gm. *-halben* are recorded in MG, e.g. *brot-es-halben* ‘for the sake of bread (?)’ in which the *-s-* is a genitive ending (Heinle 2004: 127).¹⁷¹

In OD and EMD, *halven* occurred as an independent lexical N in the dative case in a construction with a PREP and a premodifying ADJ with a dative ending, e.g. *uan goed-en halu-en* ‘from a good origin’ (1265-70/VMNW/*half*), *an all-en halu-on* ‘on all sides’ (1100/VMNW/*half*). In MD, a *-t-* is inserted with *al* (*all-ent-halven*) and with possessive PRON, e.g. *van har-en-t-haluen* (1291-1300/VMNW). Independent *halven* could also be preceded by a NP in the genitive case in a construction meaning ‘from the side of x’, where the referent of x was often a person, e.g. *uan godes haluen* ‘from the side of god’ (1200/VMNW/*half*), *van des hertoghen haluen* ‘from the side of the count’ (1298/VMNW/*half*). Not only persons, but also N indicating an institution occurred, e.g. *des conuents haluen* ‘from the side of the monastery’, *vander vorzeider ghemeenten haluen* ‘from the side of the

¹⁷⁰ In this way, the PREP *halben* could emerge. The Gm. PREP *halber* has been used since the 15th ct. beside *halben* which it would eventually replace (Ronca 1975: 58).

¹⁷¹ The origin of the bound morpheme *-halber* is not entirely clear (Ronca 1975: 58). The first depronominal derivatives are attested in the 15th ct., e.g. *des-halber*, *sein-et-halber* (Heinle 2004: 125). Denominal formatives emerged and in the 19th-20th ct. the originally neuter/masculine case ending *-s* was also added to feminine N, e.g. *erziehung-s-halber*, *deutlichkeit-s-halber* (Heinle 2004: 127). From this we can infer that *-s-* became a linking phoneme (Ronca 1975: 58).

aforementioned congregation' (VMNW/half). These constructions are at the basis of denominal word formation with *-halven* (EWN/-halve).

The grammaticalisation process of *halven* from an independent word into a bound morpheme started in MD. The unstressed PREP could be omitted, sporadically in MD and more frequently in EModD. Compare the following attestations for *nood-s-halve* 'out of necessity' with PREP (11.24) and without PREP (11.25). Semantically, *halven* could be combined with abstract N and the literal meaning of 'side' is no longer present.

(11.24) EModD/1574/WNT/vastendag

Dat **om aenstaenden noots halven** een algemeyne vasteldach ende bedeldach verordineert ende gepubliceert worde.

'That for upcoming necessity's sake a general day of fasting and begging was decreed and published.'

(11.25) EModD/1598/WNT noodshalve

Tvleesch daer af is soo stinckende ende quaet, dat sommighe die daer af **nootshaluen** gheten hebben, terstont verscheyden zijn, ghelijck van fenijn.

'Its meat is so stinking and bad that some who have eaten it out of necessity died at once, as if they were poisoned.'

An indication that *halven* could still have a lexical interpretation in EModD in the 16th ct. is the presence of premodifiers of the N and the fact that sometimes DET could be inserted. Premodification indicates that the N does not form a semantic unit with *halven*. Preceding *versekerheidt-s-halven* 'as assurance' in (11.26) there is a degree modifier *meerder* 'more' and *menighte* 'crowd' (11.27) is preceded by a definite article. Moreover, for (11.27) there is the orthographic argument that *halven* and the N are written separately, which could indicate that they were not perceived as a semantic unit, but this could just as well be orthographic variation.

(11.26) EModD/1576/WNT/verzekerheidshalve

(...) doch dat men **meerder versekerheidtshalven** an den soldaten versoeken solde, oere breven mede communiceert thebben.

'(...) but that one should request the soldiers as extra assurance to communicate their letters as well.'

(11.27) EModD/1688/WNT/halve

Als sy **der menighte halven** haer wat moesten verspreyden van 't geberghte Ararat.

'When because of the crowd they had to spread over the mountain Ararat.'

However, there are various indications that *halve* was on its way to a suffix in the 16th ct. Semantically, the formative *versekerheidt-s-halve* 'as assurance' is synonymous with the fixed expression *tot (meerder) versekerheid* 'as (extra) assurance' which was found in 16th ct. Dt. (WNT/versekerheid). Thus, in *versekerheidt-s-halve*, the morpheme *halve* shared the function of the PREP *tot* and its original lexical content of 'side' is fully absent. Already in MD, metaphorical use of the N *halve*, e.g. 'on behalf, from', was common (EWN/-halve). In addition, it is striking that the *-s* is inserted behind the feminine N *versekerheid*, since *-s* is originally a neuter/masculine genitive case ending. Comparable further EModD examples, *verwantschap-s-halven* (1658/WNT), *belofte-s-halve* (1668/WNT) and *authoriteyt-s-halven* (1674/WNT). From this we can infer that *-s* became a linking phoneme in the 17th ct., which is considerably earlier than this has been reported for Gm. Orthographically, *halven* forms a unit with the preceding N in (11.25) and (11.26), which could indicate that they were perceived as a semantic unit (although this need not be the case). The process of grammaticalisation from adverbial phrase to derivational pattern is illustrated in table 11.2.

Table 11.2. Historical development of *-halve*.

OD-EMD	<i>northaluon</i>	
	[[X] _{PREP} [X] _{N/PRON} <i>halven</i>] _{AdvP}	<i>uan godes haluen</i>
MD	[[X] _{N/PRON} <i>halven</i>] _{AdvP}	<i>Ampts halven</i>
> 1500	[[X] _{N/PRON} <i>halve(n)</i>] _{Adv}	<i>zekerheidshalve</i>

There are various indications that word formation with *-halve(n)* in Dt. was productive in the 17th ct. There is a rise in the number of new types and at the same time the prepositional phrase gradually disappears (one of the last examples is *van winst-halve-n* in 1767). Examples of new types are *nood-s-halve* ‘out of necessity’ (11.25) and *plicht-s-halve* ‘in the line of duty’ (11.28).

(11.28) EModD/1582/WNT/vorst

Theeft mij oick **plichtshalven** noedich gedocht uwer F.G. te representeren de goede officien van zijne wel beminde nichte de ghevorste graefinne.

‘I also deemed it my obligation to present for your F.G. the good duties of his beloved niece the sublime duchess.’

One further indication that denominal word formation with *-halven* was established in the 17th ct., is the fact that Af. has word formation with *-halwe*, e.g. *formaliteit-s-halwe* ‘for the sake of formality’, *gerieflikheid-s-halwe* ‘for convenience’s sake’, and Af. uses this pattern quite often (Donaldson 1993: 444).¹⁷² Orthographically, however, the *n* and *halve(n)* in Dt. were often written apart until well into the 18th ct. The final *-n* was dropped occasionally in EModD and more often in the 18th ct. The spelling *-halve* without *-n* was standardised in the 19th ct. following Dt. spelling regulations of 1804 (WNT/allenthalve).

11.3.2 Functional shift

Diachronic investigation shows that *halve*-derivatives were originally used only as descriptive modifiers (1) and developed the potential to function as interpersonal modifiers (2).

(1) Descriptive modifiers

Originally, *halve*-formatives were used as descriptive modifiers in Dt. and the same holds true for Gm. (Heinle 2004: 128). The earliest formatives had a localising function in which the literary meaning ‘side, direction’ of the original lexical *n* can be recognised, e.g. in combination with the directions of the wind, in *behalve* ‘besides’ (EWN/-halve) and in depronominial *all-ent-halve* ‘from all sides, everywhere’ in (11.29).

(11.29) MD/1414-30/MNW/allenthalven

Doe dat die heidene becaden, dat si **allenthalven** waren bestaen.

‘Then the pagans recognised that they were besieged from all sides.’

Various descriptive uses are found from MD onwards as they are in MG (see Heinle 2004: 128). In Gm. the meaning of CAUSE was particularly common in the 16th-17th ct. to dominate in the 20th ct. (Heinle 2004: 128). In Dt., the specification of GOAL, e.g. *vermaak-s-halve* ‘for amusement’, is recorded in EModD. It could be previously expressed by means of a construction with *wille* ‘sake’,

¹⁷² On the link with Af., see note 126 in chapter 8.

e.g. *Omme alle zekerheys wille* ‘for the sake of full safety’ (1570/WNT/proef), *om des sedicheys wille* ‘for the sake of chastity’ (1629/WNT/zedigheit). The meaning of CAUSE is found in EModD, e.g. *plicht-s-halve* ‘in the line of duty’, see (11.28) above and ModD *zwaarte-s-halve* ‘because of its heaviness’ in (11.30).

(11.30) ModD/1719/WNT/zwaartenshalve

Na deze tyd word een straal water door deze bak, daar het gestote erts en kwikzilver in legt, gegoten, dewelke daar door heen vloeyende, alle de aarde met zich sleept, en het goud benevens de kwik **zwaartens-halven** op de grond laat leggen.

‘After this period a jet of water is poured through this container, in which lies the pounded ore and mercury, which, as it flows through that, drags the sand with it and leaves the gold with the mercury on the soil because of the weight.’

Mind that *-halve* in the causal meaning competed with *-wege*, e.g. *plicht-s-weeghe* (1645/WNT/plicht). Constructions with *wege* were also used, e.g. *van noodts weghe* ‘out of necessity’ (1506/WNT/weg). The construction with *wege* could also be used to express ORIGIN, e.g. *van hoors ampts weghene* ‘in their official capacity’. This is another domain of overlap with *-halve*, e.g. *Ampts halven* ‘by virtue of one’s office, in one’s official capacity’ in (11.31).

(11.31) EModD/1638/WNT/ambtshalve

Alsdan can de Rechter hem ex officio ofte **Ampts halven** oplegghen ende ghebieiden enz.

‘Then the judge may charge him and order *ex officio* or in his official capacity that...’

According to WNT, the ORIGIN meaning of *halve* could be extended to a REFERENCE meaning. This meaning is found on the basis of possessive PRON: ‘as far as x is concerned’, with x indicating the person or persons referred to with the PRON (compare WNT/*halve*) as in (11.20) above.

(2) Interpersonal modifiers

In the historical material I have found evidence that *-halve* could be used in domain modifiers, e.g. EModD *neerings en koophandels halven* ‘as far as trade and commerce are concerned’ (11.32) and ModD *voordeel-s-halve* ‘as far as profit is concerned’ (11.33).

(11.32) EModD/1642/WNT/halve

Amsterdam ... vond zich ... in groote welvaart en weelde, als hoevende **neerings en koophandels halven**, voor geen’ plaats in Nederlandt, uitgezeit Antwerpen, te wyken.

‘Amsterdam (...) found itself (...) in great prosperity and wealth, since as far as trade and commerce were concerned, it had to yield to no other town in the Netherlands, except Antwerp.’

(11.33) ModD/1867/WNT/voordeelshalve

Hoe meer alkohol bij de broodgisting kan worden verkregen, des te goedkooper brood wordt gebakken, zoodat **voordeelshalve** de huiselijke bakkerij het tegen de fabriekmatige niet kan uithouden.

‘The more alcohol can be won with the fermentation of the bread, the cheaper bread can be baked, so that, as far as profit is concerned, the home bakery cannot measure up to the industrial bakery.’

The domain function appears to have been quite rare and it has disappeared in CD. In contrast, the use of *halve*-derivatives as speech-act modifiers became widespread. From EModD onwards, *halve*-derivatives occurred with *verba dicendi*, e.g. *kortheid-s-halve* ‘for brevity’s sake’ in (11.34). The same function could be expressed by a prepositional construction, e.g. *om de cortheit* ‘for brevity’ (1515/WNT/cortheit) or by a construction with *wille*, e.g. *om kortheyds wille* ‘for the sake of brevity’ (1612/WNT/voldoen), *om der curiositeits wille* ‘as a curiosity’ (1864/WNT/curiositeit).

(11.34) EModD/1687/WNT/smaldeel

Een lyst (werdt) opgesteld van de scheepen daar 's Landts vloot te dier tydt uit bestondt, welke lyste, als ook der zelve verdeeling in esquadres (...), **kortheits halven**, hier wordt uitgelaaten.

'A list was prepared of the ships which the country's fleet consisted of at the time, but this list and its division into squadrons (...) is left out here for brevity's sake.'

11.3.3 Historical observations on syntactic use

The diachronic investigation shows that *halve*-derivatives developed the possibility to occur as attributive modifiers (1) and as adverbial premodifiers (2).

(1) Attributive modifier

That *halve*-derivatives have made their way from the adverbial to the prenominal attribute slot was noted by Van de Velde (2009a: 164), who referred to CD *een ambt-s-halve aantekening* 'a note in one's official capacity'. Indeed, various examples are found in the CD material, see section 11.2. Van der Horst (2008: 1959) situates attributive use of *halve*-derivatives in the 20th ct. He quotes the former Dt. queen Juliana who uttered the sentence in (11.35) in a speech on 31 January 1956 to the occasion of her daughter Beatrix' 18th birthday. Since this sentence is uttered by a member of the royal family in a carefully prepared speech, this could indicate that attributive use of *halve*-derivatives was accepted in standard Dt. in the 1950s.

(11.35) ModD/1956

Het is mij een vreugde hier vanavond aanwezig te zien de leden van de Raad van Voogdij, die over de belangen van onze oudste dochter zou hebben gewaakt (...). U deed dit òf als particulier of ambtshalve, maar ook bij **ambtshalve** leden meen ik die bereidwilligheid te hebben mogen bespeuren (...).

'I am pleased to welcome tonight the members of the Guardianship Board, which would have looked after the interests of my oldest daughter (...). You have done so either privately or professionally, but also in the professional members I believe to have observed the same willingness (...).'

The INL material reveals that *halve*-derivatives occurred incidentally in the postnominal attribute slot in the 19th ct., e.g. *met een aanslag ambt-s-halve* 'with an assault for professional reasons' (1849/ALC). A prenominal attribute is *ambt-s-halve* in (11.36).

(11.36) ModD/1857/ALC

Na de **ambtshalve** verdediging van den heer mr. F. de Haan IJz. te hebben gehoord, heeft het Hof de drie beklaagden (...) schuldig verklaard en hen veroordeeld.

'After having heard the defense by mister Master F. de Haan IJz., the Court found the three defendants (...) guilty and convicted them.'

I found an older attestation for attributive use of a *halve*-derivative in EModD, namely inflected *saeken-s-halve-n* 'for business' (11.37).

(11.37) EModD/1526/WNT/zakenshalve

J. v. L. myt my geweest tot Venloe, om den tychgelsteen ende **saekenshalven** will.

'J. v. L. came with me to Venlo for the paving stone and for business' sake.'

Attributive use of *halve*-lexemes became more frequent in the first half of the 20th ct. An example for *ambt-s-halve* is provided by Royen (1948a: 82) and we find examples for *beroep-s-halve* in ALC, e.g. *voor de beroep-s-halve geïnteresseerden* 'for the people interested on a professional basis' (1954/ALC). It is striking that the attributive examples appear to be restricted to the frequent descriptive modifiers *beroep-s-halve* and *ambt-s-halve*. If we search the internet, we only incidentally find attestations for attributive uses of other *halve*-lexemes, e.g. *de veiligheid-s-halve continuïteit*

'the continuity for safety reasons' (1992-3/internet¹⁷³). Attributive use of *halve*-derivatives is restricted to Dt. No attributive instances of *-halben/halber* are recorded in Gm. (Heinle 2004: 127). This suggests that in Gm., *-halben/halber* can be associated with the grammatical value of adverbiality. In Dt., the examples of *beroep-s-halve* and *ambt-s-halve* show that not all *halve*-derivatives are prototypical ADV so that *-halve* may be losing its status as an adverbial suffix.

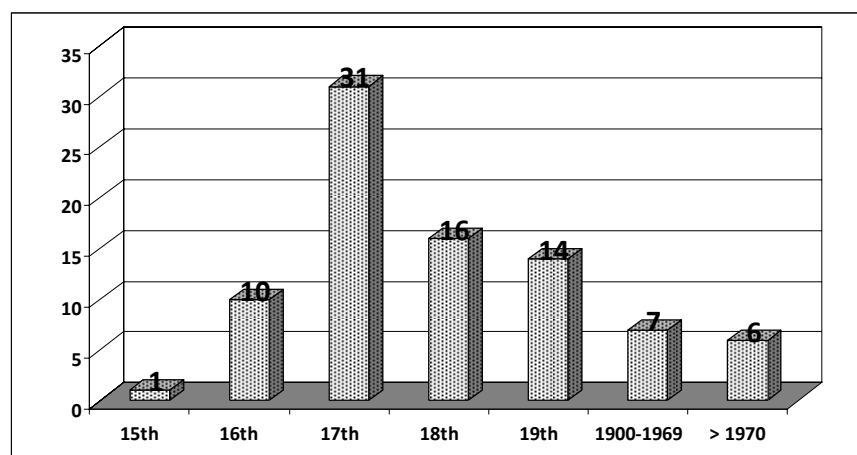
(2) Adverbial premodifier

From the 19th ct. onwards, we can observe that *halve*-derivatives enter the premodifier slot in the NP, e.g. *een der ambt-s-halve aan Fieschi toegevoegde verdedigers* 'one of the defenders officially added to Fieschi' (1836/ALC), *de ambt-s-halve door hen gevoerde briefwisseling* 'the correspondence which they conducted in their official capacity' (1853/ALC), *met beroep-s-halve verdubbelde belangstelling* 'with attention which had doubled for professional reasons' (1911/ALC), *mijn beroep-s-halve te verlenen hulp* 'the help which I should extend in my official capacity' (1952/ALC).

11.3.4 Scope and productivity from a diachronic perspective

The scope of *-halve* has changed somewhat throughout the centuries. It was initially added to the directions of the wind and to possessive PRON in the 13th ct. but these derivatives are no longer used in CD. The most recent depronominal new formation in the material is *hunn-ent-halve* 'for their sake' (1924). Instead, the denominal pattern was expanded. The first complex input N (*heid*-derivatives) are found in the 16th ct. with more variation in the 17th ct. (e.g. *-ing*, *-schap*); in the 17th ct. we also find non-Gmc. input N (e.g. *autoriteit* 'authority', *fatsoen* 'decency', *compliment* 'compliment'). In the ModD period, particularly base words in *-heid* generated new types. New from the 18th ct. onwards are, although exceptionally, ADJ as input words: *welvoeglijk* 'decent' (1790) which found continuation in the 20th and 21st ct.: *eerlijk* 'honest' (1961), *gemakkelijk* 'easy' (2001), *makkelijk* 'easy' (2003). The WNT quotation for deadjectival *welvoeglijk-s-halve* 'for decency's sake' is taken from the same text source as denominal *welvoeglijkheid-s-halve* 'for decency's sake'. It is unclear up to CD whether we are dealing with productive deadjectival derivation, with a slip of the tongue, or reduction, since corresponding complex denominal lexemes remain available and since the same linking phoneme *-s-* is used. Figure 11.3 gives an overview of the total number of new types formed with *-halve* per century including all input categories. Mind that I took into account the first attestations of sequences with *halve(n)* which were written separately; they represent semantic units, but we cannot be sure that they are perceived as one complex lexeme.

Figure 11.3. New formations with *-halve* throughout the centuries.



¹⁷³ <http://docs.vlaamsparlament.be/docs/stukken/1992-1993/g15-11-i.pdf> [last accessed 28.03.2012]

We may infer from figure 11.3 that *-halve* was productive in the 16th ct. and reached its most productive period by the 17th ct., when it produced the largest proportion of new formations throughout history. In the 18th ct. only half of this number was realised. By the 20th ct. the number of new formations decreased further. In section 11.2 I presented indications that denominal derivation by *-halve* may be available for new formation in CD. The diachronic investigation has shown that there is a total of six new types first recorded after 1970; two of them deadjectival (but see section 11.2) and four of them denominal, e.g. *realiteit-s-halve* ‘for reality’s sake’ (11.38) and *overbodigheid-s-halve* ‘superfluously’, see (11.22) above.

(11.38) CD/1971/ALC

Men had het verstandig gevonden, **realiteitshalve** het artikel maar te schrappen, met de verzekering dat men bijzonder waakzaam zal blijven.

‘One considered it wise to remove the article for reality’s sake, with the assurance to stay particularly watchful.’

If we compare the development of productivity with Gm., we find that the frequency of Gm. *halb-*lexemes started to sink from the 16th-17th ct. onwards and kept sinking ever since (Heinle 2004: 124). The number of *halben-*formatives, too, has been decreasing. In CG, *-halben* is limitedly productive and *-halb* is extinct (Ronca 1975: 66). In contrast, denominal word formation with *-halber* started rising in the 19th-20th ct. and it is claimed to be productive in CG (Ronca 1975, Fleischer/Barz 1995, Heinle 2004, Lohde 2006).

11.4 Conclusion

Although the Gmc. origin is shared with Gm. *-halben/halber*, there are indications that Dt. *-halve* developed independently into a productive suffix and that it did so sooner than Gm. *-halber*. The Dt. suffix *-halve* is the product of a process of grammaticalisation of the independent N *halve* into a bound morpheme *-halve* which could be added productively to nominal base words. This process was prepared in EModD and the pattern became productive in the 16th ct. In contrast, there are indications that Gm. *-halber* is still on its way to becoming a suffix. In many cases a complex word with *-halber* can be substituted by a synonymous phrase with independent *halber*. Thus, we may assume that Dt. *-halve* has moved further towards the grammatical end of the scale than Gm. *-halber*. The most productive period for Dt. *-halve* appears to be over, though: the denominal pattern is only limitedly productive in CD. It is not clear whether a deadjectival pattern is coming into existence.

From a diachronic point of view, we can observe the semantic development of *halve*-derivatives as descriptive modifiers to interpersonal modifiers (specifying the goal of the speech act). In CD, they combine both functions. Moreover, for the descriptive modifiers we discovered a syntactic shift. Although Gm. *-halber* only derives ADV, we found that Dt. *halve*-derivatives have made their way into the prenominal attribute slot of the NP. Although this phenomenon may be restricted to individual lexemes, particularly *beroep-s-halve* ‘professionally’ and *ambt-s-halve* ‘by virtue of one’s office’, it indicates that *halve*-derivatives may be losing their status as prototypical ADV and that *-halve* may no longer be a prototypical adverbial suffix.

12 Modifying words with *-iter*

12.1 Introduction

Among the Dt. adverbial suffixes included in the overview by Booij (2002) there is one non-Gmc. suffix, *-iter*. De Haas/Trommelen (1993) and ANS (1997), too, include *-iter* as a loan suffix for the formation of ADV and it gets an entry in Van Dale (2005). Examples of ADV ending in *-iter* are *normaliter* ‘normally’ (12.1) and *idealiter* ‘ideally’ (12.2).

(12.1) CD/1994/38MWC

Normaliter worden skiwedstrijden in de ochtenduren gehouden.
‘Normally, skiing competitions are held in the early morning.’

(12.2) CD/1991/38MWC

Idealiter is een spelling volgens prof. Paardekooper puur fonologisch.
‘Ideally, a spelling is purely phonological, according to prof. Paardekooper.’

We also find modifying words ending in *-iter* in En., e.g. *simpliciter* (12.3) and in Gm., e.g. *realiter* ‘really’ (12.4), although they are not very common.

(12.3) CE/1987/BNC

A promising line of thought, due to McDowell, is that all one requires is transfer of information
simpliciter.

(12.4) CG/1993/DWDS

Niemand könne ihm einen geeigneteren Ort nennen, und weil Körper und Seele in der Hölle gepeinigt würden, müsse es diesen Ort **realiter** geben.
‘Nobody could name him a more suitable place, and since body and soul are tortured in hell, this place should really exist.’

Contrary to what we find for Dt., *-iter* does not figure in the standard literature on En. and Gm. adverbial morphology. Instead of being formed with a suffix *-iter*, modifying words in *-iter* in En. and Gm. are considered loan words from Lt. There was a productive pattern in Lt. for the creation of ADV with *-iter* on the basis of ADJ, e.g. *simpliciter* ‘simply’ was regularly derived from *simplex* ‘simple’, *breviter* ‘briefly’ from *brevis* ‘brief’ and so on. However, in the literature on Dt. ADV formation, the suffix status of *-iter* is without dispute. Schultink (1962), too, discussed *iter*-lexemes as complex words which are the product of a derivational pattern, although he found no evidence for productivity.

In the present chapter I shall argue that the analysis for *iter*-lexemes in Gm. and En. also applies to Dt. By means of synchronic and diachronic evidence I show that the majority of modifying lexemes ending in *-iter* in Dt. are not complex words, but instead loan words from Lt. Thus, *-iter* cannot be considered as a productive derivational suffix in Dt.

12.2 Synchronic description

In the literature only the form *-iter* is recorded, it is presented as invariable and it does not carry stress. The synchronic description is based on an inventory of 29 *iter*-lexemes collected in the corpora 38MWC, CGN and ANW and the dictionary Van Dale (2005) (see appendix to chapter 12). Not included in the inventory are types which only figure in quotes from Lt., e.g., *infallibiliter*. Only lexemes which are integrated in Dt. linguistic structure are considered Dt. modifying words.

12.2.1 Scope and productivity

The dictionary Van Dale (2005) does not treat *iter*-lexemes as complex words. Instead, it labels them all as Lt. loan words. However, De Haas/Trommelen (1993: 353), ANS (1997) and Booij (2002: 133) claim that *-iter* is a suffix which is added to ADJ.

(1) Adjectival input?

De Haas/Trommelen (1993: 353), ANS (1997) and Booij (2002: 133) claim that *-iter* is added to ADJ with the structural restriction that the input ADJ are non-Gmc. Schultink (1962: 149) and ANS (1997: 739) specify that the input ADJ are formed with the foreign suffixes *-aal* or *-eel*. Indeed, a corresponding *aal/eel*-ADJ can be established for the majority of *iter*-lexemes, e.g. *normaal* 'normal', *speciaal* 'special', *verbaal* 'verbal'. With ADJ in *-eel*, we can observe a vowel change to *-a-*, e.g. *form-eel* : *form-al-iter* 'formal(ly)'. Schultink (1962: 149) believes there is a complementary formal distribution between *-iter* and *-(e)lijk*, since *-(e)lijk* cannot attach to ADJ ending in *-aal* or *-eel*.¹⁷⁴ De Haas/Trommelen (1993: 353) add that *-iter* is also attached to ADJ with the foreign suffix *-air*, but there is only one candidate in the material; observe the vowel change into *-a-*: *vulg-air* : *vulg-ar-iter* 'vulgar'. Last but not least, de Haas/Trommelen (1993: 353) connect the simplex ADJ *simpel* with *simpliciter*.

It is striking that only a small number of the *iter*-lexemes recorded in Van Dale (2005) is represented in the corpora. This may have to do with the fact that *iter*-ADV are perceived as learned and typical for formal written language (ANS 1997: 739). *Normaliter* 'normally' and *idealiter* 'ideally' are exceptions with a very high token frequency which shows that they are well-established. In addition, *normaliter* displays a variable stress pattern. The main stress of *iter*-lexemes normally lies on the syllable preceding *-iter* (*normAliter*), but in informal speech it may fall on the initial syllable of the suffix (*normalIter*) (Schultink 1962: 60, de Haas/Trommelen 1993: 353). The prescriptive Dt. language portal *Taaladvies* considers the latter stress pattern wrong.¹⁷⁵

(2) Unclear status

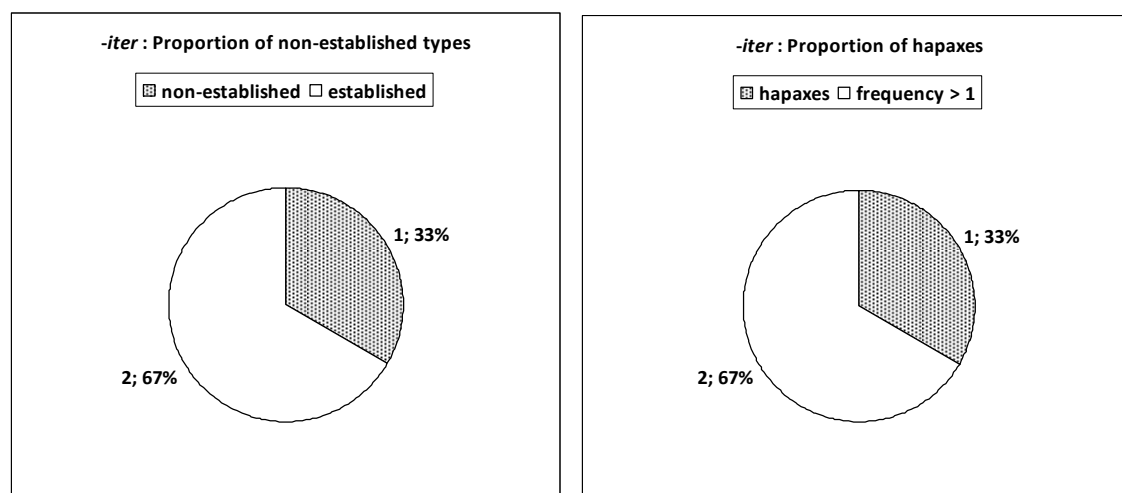
For five *iter*-words in the inventory, it is not possible to establish a Dt. base ADJ, namely *breviter* 'in short', *leviter* 'lightly', *obiter* 'casually, in passing', *pariter* 'equally', *qualiter taliter* 'so be it'. For these lexemes the only possible analysis is that they are Lt. loan words. They are not attested in the corpora, which suggests that they are archaic.

(3) Synchronic indicators of productivity

Although corresponding Dt. ADJ can be established for most of the *iter*-lexemes, there are only two types which Van Dale (2005) classifies as Dt. derivatives: *globaliter* 'globally' and *idealiter* 'ideally'. They can be connected with the *aal*-ADJ *globaal* 'global' and *ideaal* 'ideal'. There is one additional candidate for a derivational analysis in the corpus data: the lexeme *optimaliter* 'optimally' is the only type which is not established in Van Dale (2005) and it constitutes a hapax in ANW. This indicates that it could be a new formation. The pie charts in figure 12.1 visualise this information, but it should be kept in mind that the overall type frequency is negligible (only 3 types).

¹⁷⁴ Mind that we can find counterexamples for Schultink's claim in the historical material (see chapter 7 on *-(e)lijk*).

¹⁷⁵ <http://taaladvies.net/taal/advies/vraag/587> [last accessed 31.10.2011]

Figure 12.1. Frequencies for *-iter* in contemporary Dutch corpus data (3 types = 100%).

12.2.2 Modifier types

In the description of the modifier functions served by *iter*-lexemes, I shall include the three candidate derivatives *globaliter* 'globally', *idealiter* 'ideally' and *optimaliter* 'optimally' together with the lexemes labelled as loan words by Van Dale (2005). According to de Haas/Trommelen (1993: 353), *iter*-lexemes function as qualifying adverbials which typically give a specification of manner. Van Dale (2005), too, classifies most *iter*-lexemes as manner ADV, but some are classified as modal, quantifying or localising ADV.

(1) Qualifying modifiers

Although de Haas/Trommelen (1993: 353) consider *iter*-lexemes as manner ADV, these are actually nearly absent in the corpora. An example may be *moraliter* 'morally' in (12.5).

(12.5) CD/1995/38MWC

Dat is ernstig: illegaal handelen, terwijl je doet wat je **moraliter** voorgeschreven is om te doen in het belang van het volk.

'That is serious: to act illegally, while you are doing what you are morally prescribed to do for the interest of the people.'

Qualifying *moraliter* may be substituted by the corresponding unsuffixed ADJ *moreel* 'moral(ly)'. Both are grammatical alternatives for the adverbial position and share the same lexical content, compare *moreel* 'morally' in (12.6).

(12.6) CD/1994/38MWC

Volgens Boutros Ghali is de wereldgemeenschap **moreel** verplicht het geld snel beschikbaar te stellen.

'According to Boutros Ghali the world community is morally obliged to make the money available soon.'

(2) Quantifying modifiers

Van Dale (2005) classifies the lexemes *globaliter* 'globally' and *totaliter* 'totally' as quantifying ADV, e.g. in (12.7).

- (12.7) CD/1983/ANW
Is iedereen het daar **globaliter** mee eens?
'Does everyone more or less agree with that?'

It appears that just like the qualifiers, the quantifying *iter*-lexemes may be substituted by the corresponding *aal/eel*-ADJ (compare Sterenborg 1996). E.g. *globaliter* 'globally' in (12.7) could be substituted by *globaal* 'global(ly)' which is used adverbially in (12.8) without a change in lexical content.

- (12.8) CD/1995/38MWC
Ik heb de noodzakelijke verhoging als gevolg hiervan becijferd op **globaal** 200 mln.
'I calculated the necessary increase as a result of this on more or less 200 million.'

(3) Time localising modifiers

Van Dale (2005) classifies as a temporal localiser the ADV *finaliter* 'finally, eventually', see (12.9).

- (12.9) CD/1995-98/ANW
Vervolgens evoceert Bonset via synesthetische kunstgreepjes (...) hoe orgelklanken, glasscherven, fietsers, een boomkruin en waterpalen elkaar 'doordringen' tot alles **finaliter** eindigt in een: ruimte/BEN IK.
'Then Bonset evokes by means of synesthetic tricks (...) how organ music, pieces of broken glass, cyclists, a crown of a tree and posts of water penetrate each other until everything eventually ends in one: space/AM I.'

Again, the derived lexeme *finaliter* seems to be an alternative to the ADJ *final* 'final(ly)' with which it shares the same semantic content and which may be used adverbially as in (12.10).

- (12.10) CD/1995/38MWC
Via een zelf ontworpen evaluatiesysteem legden hij en zijn echtgenote het werk van een tiental architecten op de rooster. De keuze viel **final** op architect Fritz Schaffrath.
'Through a self-designed evaluation system he and his wife put the work of a dozen of architects on the rack. They finally decided upon the architect Fritz Schaffrath.'

(4) Modal and evaluative modifiers

Van Dale (2005) classifies a range of *iter*-lexemes as modal modifiers, e.g. epistemic *actualiter* 'actually', *eventualiter* 'possibly', *realiter* 'really' and *virtualiter* 'virtually'. In 38MWC we find *idealiter* 'ideally' as in (12.2) above which may be classified as an evaluative modifier; this also holds true for the hapax *optimaliter* 'optimally' from ANW, see (12.11). Another modal ADV is the highly frequent item *normaliter* 'normally', which is not semantically classified by Van Dale (2005).¹⁷⁶ It is often found in initial position, as shown in (12.1), but it may also be integrated in the clause structure as in (12.12) or function within the NP as premodifier of an attributive ADJ, e.g. *de normaliter staatsgevaarlijke spitsen* 'the normally subversive strikers' (1995/38MWC).

- (12.11) CD/1996/ANW
Optimaliter worden die embryo's later in verschillende cycli getransfereerd, echter zelden meer dan drie per cyclus.
'[on fertility treatments, jd] In the best case, the embryos are later transferred into different cycles, but rarely more than three per cycle.'

¹⁷⁶ However, *normalerwijs* 'normally' in Van Dale (2005) gets *normaliter* as synonym and is classified as a qualifier. De Haas/Trommelen (1993: 353) too claim that *normaliter* is a qualifying ADV.

(12.12) CD/1994/38MWC

Van Rossum begon voortvarend op zijn Haflinger, een Oostenrijks raspaardje dat **normaliter** als trekdier wordt gebruikt.

'Van Rossum started energetically on his Haflinger, a small Austrian full-blooded horse which is normally used as a draught animal.'

The ADV *actualiter* 'actually, really', *eventualiter* 'eventually, possibly' and *virtualiter* 'virtually' are not attested in the corpora, only *realiter* 'really' has low token frequency in ANW. In CD, language users prefer to use the corresponding *aal/eel*-ADJ adverbially, as *actueel* 'actual(ly)' in (12.13). *Normaliter*, too, can be substituted by adverbial *normaal* 'normal(ly)', see (12.14) and see Sterenborg (1996).

(12.13) CD/s.d./38MWC

Als je je bewust begint te worden van wat er zoal gebeurt en hoe het gebeurt, dan zie je die dingen aankomen lang voordat ze ook **actueel** gebeuren.

'When you are getting conscious of what is happening and how it is happening, you will see things coming long before they actually happen.'

(12.14) CD/1992/38MWC

Normaal wordt in Nederland het Maaswater verwerkt tot drinkwater.

'Normally the water of the river Maas in the Netherlands is processed into potable water.'

Mind that the same forms can get a qualifying interpretation, compare modal *actueel* and *normaal* in (12.13)-(12.14) with qualifying *actueel* and *normaal* in (12.15)-(12.16). The context is disambiguating as to whether the qualifying or modal interpretation holds; further, it should be noted that initial position as in (12.14) is more likely to trigger a modal interpretation.

(12.15) CD/n.d./38MWC

Om het gemeentelijk sociaal-economisch beleid zo concreet en **actueel** mogelijk op papier te zetten, hebben we allereerst een analyse gemaakt van de gemeentelijke modelprogramma's 1982-1986 van het CDA, de PvdA en de VVD.

'To write out the communal social-economical policy as specifically and up-to-date as possible, we first of all analysed the communal model programmes 1982-1986 of the CDA, PvdA and VVD.'

(12.16) CD/n.d./38MWC

Sommige van die aanvallen waren zo hevig dat deze mensen zich niet meer **normaal** konden bewegen.

'Some of those attacks were so intense that these people were no longer able to move normally.'

However, substitution by the *-aal/-eel* forms is not possible for the modal subtype of evaluatives: leaving out *-iter* establishes a functional change. For adverbially used *ideaal* 'ideal(ly)' in (12.17) and *optimaal* 'optimal(ly)' in (12.18), only a qualifying interpretation in terms of manner is possible since these ADJ are inherently qualifying.

(12.17) CD/1995/38MWC

De bezoekende verdedigers moesten nog wennen aan het bevroren veld toen Jacob een voorzet van Wuyts **ideaal** voor de voeten van Sabbadini legde.

'The visiting defenders still had to get used to the frozen field when Jacob placed a cross pass from Wuyts ideally in front of Sabbadini's feet.'

(12.18) CD/1992/38MWC

Om onze positie **optimaal** uit te bouwen kunnen we het ons eenvoudigweg niet veroorloven om gescheiden op te trekken, laat staan elkaar te beconcurreren.

'To develop our position optimally we can simply not afford to move separately, let alone compete with each other.'

12.2.3 Contribution of *-iter*

As pointed out in 12.1, the literature on Dt. adverbial morphology treats *iter*-lexemes as complex ADV and *-iter* as a Dt. adverbial suffix. These observations may be seen in a different light if we assume, like Van Dale (2005), that *iter*-lexemes are no complex words but rather Lt. loan words (see 12.3). In this section I investigate the contribution of *-iter* in our three candidate derivatives, *globaliter* ‘globally’, *idealiter* ‘ideally’ and *optimaliter* ‘optimally’, in terms of grammatical value (1) and semantic value (2).

(1) Grammatical value

The examples in 12.2.2 show that adding *-iter* to an *aal/eel*-ADJ results in a prototypical ADV which cannot be used attributively and cannot be inflected. What is more, the three candidate derivatives *globaliter*, *idealiter* and *optimaliter* are restricted to adverbial uses: as such, they have much more restricted syntactic valency than the corresponding *aal/eel*-ADJ *globaal*, *ideaal*, *optimaal*, which can be used attributively, predicatively and adverbially. The grammatical value of *-iter* can be understood in a restrictive sense: prototypical ADJ are moved to the class of prototypical ADV.

The online prescriptive language portal *Taaladvies* indicates that the suffix *-iter* is an adverbialiser comparable with En. *-ly*.¹⁷⁷ However, this comparison does not apply, since the *aal/eel*-ADJ may be used adverbially without additional marking (see Sterenborg 1996 and examples in 12.2.2). This is a contrast with En. *-ly* which is obligatory for adverbial deadjectival modifiers. Thus, the ending *-iter* may be left out in the descriptive modifier *globaliter*: the unmarked ADJ *globaal* can be used adverbially (see 12.8).¹⁷⁸ *Ideaal* and *optimaal* may also be used adverbially, but then the interpersonal interpretation cannot be established, so there must be a semantic value in *-iter*.

(2) Semantic value

We found that *iter*-lexemes occur in various modifier functions, both descriptive and interpersonal modifiers. Adding *-iter* may add a primary semantic value, namely turning inherently qualifying lexemes into evaluative modifiers: the interpersonal reading in *idealiter* and *optimaliter* can only be established by the presence of *-iter*. However, we found that *-iter* may be left out in the descriptive modifier *globaliter*: the unmarked ADJ *globaal* is inherently quantifying and may fulfill the same function. Thus, there does not seem to be a primary semantic value in *-iter* in this lexeme. Schultink (1962: 149) proposed that *-iter* may have a secondary semantic value which he refers to as “an aspect of solemnity”. The *iter*-ADV are usually considered as learned words and their use is typical for formal language (ANS 1997: 739). This is also stressed by the online prescriptive language portal *Taaladvies*. Schultink (1962: 160) observed that *iter*-lexemes are often used intentionally in pseudo-learned talk in an unlettered social environment to cause an effect of irony. In other words, *globaliter* is a stylistically more formal variant for adverbially used *globaal* ‘globally’.¹⁷⁹

¹⁷⁷ <http://taaladvies.net/taal/advies/vraag/587> , <http://taaladvies.net/taal/advies/vraag/403> [last accessed 31.10.2011]

¹⁷⁸ The same holds true for the interpersonal modifier *normaliter* ‘normally’, which may be substituted by unaffixed *normaal* (see 12.14).

¹⁷⁹ However, this analysis is not applicable to the highly frequent lexeme *normaliter* ‘normally’, which occurs in informal speech without any stylistic connotation.

Table 12.1. Semantic spectrum of *-iter*.

VALUE		PATTERN	EXAMPLE
PRIMARY	EVALUATIVE	[[X] _{ADJ} <i>iter</i>] _{ADV}	<i>ideaal</i> 'ideal' : <i>ideal-iter</i> 'ideally (enough)'
STYLISTIC	FORMAL	[[X] _{ADJ} <i>iter</i>] _{ADV}	<i>globaal</i> 'global(ly)' : <i>global-iter</i> 'global(ly)'

(3) Rival suffixes

The suffix *-erwijs* may compete with *-iter* in establishing an evaluative modifier, compare *idealiter/ideal-erwijs* 'ideally' (see chapter 9 on *-erwijs*). De Haas/Trommelen (1993: 353) point out that *normaliter* is synonymous to the complex Dt. lexeme *normal-erwijs*. Van Dale (2005) defines some *iter*-ADV by means of complex native synonyms formed with *-erwijs*, *-(e)lijk* and *-weg*, e.g. *casualiter* = *toevallig-erwijs* 'accidentally', *eventualiter* = *mogelijk-erwijs* 'possibly', *pariter* = *gelijk-elijk* 'equally', *verbaliter* = *woord-elijk* 'verbally', *virtualiter* = *feit-elijk* 'virtually, practically', *simpliciter* = *eenvoudig-weg* 'simply'. Considering the *iter*-lexemes as loan words, they may just be more 'formal' or 'learned' alternatives to native lexemes.

12.3 Diachronic description

In section 12.2 the question was raised whether the 29 modifying words with *-iter* in the inventory are Lt. loan words (as suggested by Van Dale 2005) or Dt. formatives (as suggested by the literature on Dt. adverbial morphology). The present section investigates this question by tracking down the origin of the 29 *iter*-lexemes and of 20 additional *iter*-lexemes from INL.¹⁸⁰ The year of the earliest recording of the 49 *iter*-lexemes in INL quotation text and ALC is given in the appendix to chapter 12. Care had to be taken since *iter*-lexemes in older Dt. are often part of Lt. quotations from glossaries, academic and theological writings. Obviously, I only included *iter*-lexemes which are integrated in Dt. linguistic structure.

12.3.1 Origin of *-iter*

The suffix *-iter* existed in classical Lt. where it came into use for ADV formation on the basis of ADJ (Ramat 2002: 21), e.g. *brevis* - *breviter* 'in short', *simplex* - *simpliciter* 'simply'. I investigated whether the 49 Dt. *iter*-lexemes already existed in Lt. The dictionary of classical Lt. by Georges (1913-1918) was taken as an authority. If the Dt. *iter*-lexeme already existed in Lt., or could be regularly formed there, this may indicate that Dt. borrowed it. On the other hand, I compared the year of the earliest attestation of the *iter*-lexeme in Dt. with that of the corresponding *aal/eel*-ADJ (on the basis of *EWN*, see appendix to chapter 12).¹⁸¹ If the ADJ is recorded earlier, it may have served as a base for derivation. If the *iter*-lexeme is attested earlier, it is probably borrowed. Care should be taken with conclusions, obviously; a form may have existed without being put in writing, etc.

¹⁸⁰ One lexeme is added from Schultink (1962), see 3.1.3.

¹⁸¹ Most *aal/eel*-ADJ are borrowed from Fr., which in turn borrowed them from Lt. Some ADJ in *-eel* have a historically older equivalent in *-aal*, e.g. *materieel/materiaal* 'material', *moreel/moraal* 'moral' (*EWN*). In most cases, Dt. has only retained the variant with *-eel*. Some ADJ were borrowed twice: first from Fr. and in the 19th century again from scientific Gm., e.g. *universeel*, *verbaal* (see the entries for the ADJ in *EWN* and *WNT*).

(1) Borrowing from Latin in Early Modern Dutch

The earliest recordings for *iter*-lexemes in Dt. are situated in EModD in the 16th ct. The only exception is *regulariter* ‘regulatory, officially’ in (12.19) from a legal text from the beginning of the 15th ct.

(12.19) MD/1401-10/MNW/splitelijc

Eenige leenen zijn splijtelijck, ander niet splijtelic; **regulariter** alle leenen in Vlaenderen zijn splijtelic by successiën ende andersins niet.

‘Some loans are divisible, others non-divisible; officially, all loans in Flanders are divisible by succession and not otherwise.’

There are several indications that the earliest recordings of *iter*-ADV represent loan words from Lt. We may assume that all of the ADV recorded in the 15th-16th ct. already existed in Lt. A few do not have their own entry in the classical Lt. dictionary, but a corresponding ADJ does (e.g. *collegialis* ‘collegiate, as a college’, *capitularis* ‘chapterly’) and since *-iter* was productively used in Lt. for the creation of ADV, the *iter*-ADV could be regularly formed. Among the earliest attestations in Dt. there are some lexemes for which no corresponding base word is available in Dt., e.g. *obiter* ‘casually, in passing’, *verisimiliter* ‘truthfully’ and *taliter qualiter* ‘so be it’. These cannot have been derived in Dt. and are certainly Lt. loans. For some other *iter*-lexemes we can identify a corresponding Dt. ADJ, but it is uncertain whether it may have served as a base for derivation by *-iter*. E.g. in Lt., *simpliciter* ‘simply’ is derived from the ADJ *simplex* ‘simple’; Dt. only has the related ADJ *simpel* ‘simple’. For *capitulariter* ‘chapterly’ (1528) only a corresponding N is attested in EModD. Therefore, a direct loan from Lt. seems more likely. A strong argument in favour of borrowing is that there are some early attestations of *iter*-lexemes which are recorded in Dt. before their corresponding base ADJ. E.g., *collegialiter* ‘as a college’ (1522) is attested before *collegiaal* (1883) and *personaliter* ‘personally’ (1525) is attested before *personeel* (1570). This chronology may suggest that the *iter*-lexemes could not have been derived in Dt., but they must have been borrowed directly from Lt.

From the perspective of language contact in the 16th ct., it is plausible that Dt. borrowed some *iter*-lexemes from Lt.¹⁸² The *iter*-lexemes typically occur in legal documents and other texts with an official character. They represent official formulae which co-occur with other official and legal terminology from Lt. or Fr., e.g. *exequiteur* ‘executor’ and *juge* ‘judge’ in (12.20). Several of these lexemes are archaic in CD (e.g. *verisimiliter* ‘truthfully’, *collegialiter* ‘as a college’) or remain restricted to a formal or legal context (e.g. *simpliciter* ‘simply’).

(12.20) EModD/1510/WNT/verisimiliter

De exequiteur (moet besorgen), dat de informatie den gedaechde gedaen zij bij missiven oft andersins, bij sulcker manieren dat de juge verstaen mach, dat de daghinghe **verisimiliter** gecomen es ter kennisse vander zelve gedaegde.

‘The executor must arrange that the defendant is informed by missive or otherwise, in such a manner that the judge may understand that the summoning has truthfully come to the notice of the defendant.’

(12.21) EModD/1500-99/WNT/waARBORG

Tot Delft ende in geheel Hollant, wanneer een vercooper syn waerborch beloofst costeloos ende schadeloos te houden, ende dat **simpliciter** sonder verbant van eenige goeden, verbint nochtans tacite alle syn goeden.

‘To Delft and all of Holland, when a salesman promises to keep his guarantee free of charge and safe, and that simply without an agreement of any goods, yet agrees tacitly all his goods.’

¹⁸² Borrowing of *iter*-ADV from Lt. can be observed for Gm. in the same period, although it is very uncommon: Bentzinger (1992: 138) quotes an EModG attestation with *solemniter* ‘solemnly’ from 1583.

Although there is strong evidence that the 16th ct. attestations for *iter*-lexemes in Dt. were directly borrowed from Lt., we cannot be entirely sure that all *iter*-lexemes are loan words, e.g., for *generaliter* ‘generally’, *principaliter* ‘principally’ and *universaliter* ‘universally’, corresponding *aal*-ADJ are recorded earlier in Dt. which could suggest they were derived (again) in Dt. (recall that the *iter*-ADV already existed in Lt.).

(2) Further borrowing in Modern Dutch

There are indications that ModD kept borrowing Lt. *iter*-ADV in the 17th, 18th and 19th ct.¹⁸³ New lexemes like *totaliter* ‘totally’, *realiter* ‘really’ and *moraliter* ‘morally’ entered the language and managed to establish themselves. However, in the 17th ct. material, there is one *iter*-lexeme which does not occur in the Lt. dictionary by Georges (1913-1918), namely *accidentaliter* ‘accidentally’ in (12.22). Notice moreover the predicative use of the *iter*-lexemes in this example, which I did not find in CD.

(12.22) EModD/1634/WNT/toevallig

Dat het **accidentaliter**, ofte toevalligh sy in den Mensche, 't gene **essentialiter**, ofte wesentlijck is in Godt.

‘That which is accidental, or chance in Man, is essential, or basic in God.’

In Lt., it was instead the ADV *accidenter* which was used in correspondence with the ADJ *accidens*. Therefore, one could assume that *accidentaliter* was formed in Dt. on the basis of an ADJ ending in *-eel/-aal*. The problem is that the ADJ *accidenteel* (1669) is recorded later than *accidentaliter* (1634) in Dt. and that no ADJ *accidentaal* can be found in the historical material. Dt. probably borrowed *essentialiter* from Lt. (it was recorded before *essentieel* and it existed in Lt.). Perhaps *accidentaliter* was formed in Dt. in analogy with *essentialiter*.

We should further take into account that ModD may have borrowed *iter*-lexemes from Church Lt. Van Dale (2005) claims that this is the case for *realiter* ‘really’, *virtualiter* ‘virtually’ and *eventualiter* ‘possibly’, which I did not find in Georges’ classical Lt. dictionary. Example (12.23) from the late 19th ct. shows that *iter*-ADV were uttered by members of the clerical state, who were obviously familiar with Lt. This example suggests that the average language user perceived *iter*-lexemes as learned and formal.

(12.23) ModD/1884/WNT/in abstractio

Deze strijd over leerlingen in abstracto en leerlingen in concreto, of liever schoolganers **actualiter** en schoolganers **potentialiter**, zooals de pastoor het bij voorkeur uitdrukte (...) bracht de gemoederen in hevige beroering.

‘This dispute on pupils *in abstracto* and pupils *in concreto*, or rather, those attending school *actually* and those attending school *potentially*, as the priest preferred to call them (...) stirred up feelings severely.’

(3) To a Dutch pattern in the 20th century?

We may assume that there was further borrowing in the 20th ct. It is striking that the two *iter*-lexemes with the highest token frequency in CD, *normaliter* ‘normally’ and *idealiter* ‘ideally’, were first recorded in the early 20th ct. (1910). Both existed in classical Lt., but apparently, they filled some recent functional gap, which allowed them to establish themselves in CD, even in non-formal register.

¹⁸³ Bentzinger (1992: 139) only quotes the Lt. ADV *praeliminariter* ‘preliminary’ in a ModG example from 1723. It seems that Gm. never borrowed the same amount of *iter*-ADV as Dt.

The 20th ct. may provide us with the first unambiguous evidence for the possible existence of a Dt. derivational pattern with *-iter*. Schultink (1962: 150) found two words in his material, *globaliter* ‘globally’ and *banaliter* ‘banally, trivially’, which cannot be borrowed from Lt. for the simple reason that for these words, no corresponding base words exist in Lt. Instead, Dt. probably borrowed the ADJ *globaal* ‘global’ and *banaal* ‘banal, trivial’ from Fr. (EWN), which both are attested earlier than the *iter*-lexemes. Schultink (1962: 149-150) illustrates the two formatives with the attested examples in (12.24) and (12.25).

(12.24) ModD/1961

Dit valt mij eerlijk gezegd (wanneer mijn berekening **globaliter** juist is) wel een beetje tegen.
‘Honestly, this is a little disappointing to me (if my calculation is more or less correct).’

(12.25) ModD/1958

De waarheid zal - **banaliter**, zoals bij zovele dingen -, wel in het midden liggen.
‘The truth lies - trivially, as for so many things - somewhere in between.’

Van Dale (2005), too, considers *globaliter* the result of derivation by *-iter* in Dt. It does the same for *idealiter*, but the fact that the corresponding ADJ *idealis* existed in classical Lt. (Georges 1913-1918) could speak for borrowing.

Apart from *banaliter* and *globaliter*, one further example of possibly a Dt. formation is *optimaliter* ‘optimally’, which is recorded in ANW (1996) and was illustrated in (12.11) above. There are indications that it was formed in CD since Lt. only had the ADJ *optimus*, for which the corresponding ADV was *optime*. The ADJ *optimaal* ‘optimal’ (1913) entered Dt. very recently. It is either borrowed from Fr. or formed in Dt. by adding *-aal* to the Lt. N *optimum*, in analogy with *maximum* ‘maximum’ : *maximaal* ‘maximal’ (EWN). It could be the case that the ADV *optimaliter* was formed as an equivalent to En. *optimally*. The fact that it is not in Van Dale (2005) supports the view that it is a new formation. It could be regional since the only hit in ANW belongs to the Belgian Dt. subset, but it has 52 hits on Dt. webpages.¹⁸⁴

In sum, there are indications that *banaliter*, *globaliter* and *optimaliter* are words formed independently in Dt. For all other *iter*-lexemes it may be assumed that they are borrowed from Lt. However, we can not entirely exclude that they, too, were formed independently, i.e., re-invented in Dt. on the basis of *aal/eel*-ADJ.

12.3.2 Functional shift

Throughout history, *iter*-ADV are associated primarily with descriptive modification (1); however, occurrences of interpersonal modifiers can be found (2).

(1) Descriptive modifiers

Some *iter*-lexemes in EModD were qualifying modifiers which gave a specification of manner to the VP, see *collegialiter* ‘in college’ (12.26), *formaliter* ‘formally’ (12.27) and *probabiliter* ‘provisionally’ (12.28). In manner ADV, *-iter* must have represented an alternative to the native suffix *-(e)lijk*: there are often variant forms with *-(e)lijk* in the historical material which seem to have been synonymous (see chapter 7 on *-(e)lijk*).

¹⁸⁴ Google search on “optimaliter” within websites with the extension ‘.nl’, [29.08.2011]. The search result was not checked manually.

- (12.26) EModD/1596/WNT/collegialiter
Terstont hiernaer gingen de Staten van Hollant **collegialiter** hem verwellecommen met een corte redene gepronuncieert bij Oldenbernevelt.
'Directly afterwards the States of Holland welcomed him as a college with a short speech pronounced by Oldenbarnevelt.'
- (12.27) EModD/1624/WNT/definieeren
De hoest kan **formaliter** ghedefinieert of bepaelt werden, dat het een stemme sy, hanghende aen de latijnghe, de locht met geweld uytgeblasen slaende.
'The cough may be defined or determined formally as a voice which is produced by the larynx which gasps out the air forcibly.'
- (12.28) EModD/1629/WNT/wiskunst
Inde welcke ick de bevveginge vanden Aerdt-cloot Wis-constelijck bewijse, dewelke ick alleene **probabiliter** in mijne Progymnasmatibus hadde ghetoocht.
'In which I mathematically prove the movement of the earth, which I had only presented provisionally in my *Progymnasmatibus*.'

The quantifier *totaliter* 'totally' is found in the 17th ct., see (12.29); for the quantifier *globaliter*, see (12.24).

- (12.29) EModD/1686/WNT/fuge
Dat Zyn Mayesteyt zyn fuge had zoeken te pretexteren om den vyand na te zetten en **totaliter** te ruineren.
'That His Majesty had tried to give his escape as a pretext to go after the enemy and ruin him totally.'

(2) Interpersonal modifiers

The use of *iter*-lexemes as interpersonal modifiers was found in the modal modifier *realiter* 'really' in (12.30).

- (12.30) ModD/1764/ALC
(...) die geene, dewelke in staat zal zyn te kunnen vertonen een Origineele Koopbrief, waaruit geblyken kan, dat Bakkeveen met de Hauler Veenen door zyn Ouderen **realiter** is gekogt (...)
'(...) the one who will be able to demonstrate an original contract of sale, which proves that Bakkeveen with the Hauler Veenen was really bought by his parents (...)'

Further modal modifiers emerge in the 20th ct., e.g. *normaliter* 'normally' as illustrated in (12.31), and evaluative modifiers e.g. *idealiter* 'ideally' in (12.32) and see (12.11) for *optimaliter* 'optimally'.

- (12.31) ModD/1925/ALC
Hun zittingstijd is **normaliter** vier jaar (...).
'Their term is normally four years (...).'
- (12.32) ModD/1928/ALC
Idealiter immers is de uitwendige prikkel voor het predikantsambt een contradictio in terminis.
'Because ideally, the external motivation for the office of clergyman is a contradiction in terms.'

Interestingly, I found one instance of a new interpersonal function in ModD in the 20th ct.: the domain modifier *vocaliter* 'vocally' in (12.33). It is an illustration from the Dt. newspaper *NRC* used by the dictionary Van Dale (1961) in its entry for *vocaliter*.

- (12.33) ModD/<1961/VD/vocaliter
Vocaliter en qua bezieling werd het zeer hoge niveau gehandhaafd.
'Vocally and as far as inspiration is concerned the extremely high standard was maintained.'

In (12.33), *vocaliter* ‘vocally’ is on a par with the phrase *qua bezieling* which is also expressing the domain function (for this construction, see section 4.4.7). I did not find further examples in CD. This may have to do with the fact that *-iter* is not required to establish the domain interpretation. We have seen in chapter 4 that unmarked denominal ADJ may function as domain modifiers in Dt., e.g. *vocaal* ‘vocal’ in (12.34).

(12.34) CD/n.d./internet¹⁸⁵

Muzikaal en **vocaal** van zeer hoog niveau en gebracht met een groot gevoel voor serieuze nuance en fijnzinnige humor.

‘Musically and vocally of an extremely high standard and performed with a great sense of serious nuance and subtle humour.’

12.3.3 Historical observations on syntactic use

Attributive use of *iter*-lexemes was not found in the INL material nor in corpus material for CD. What we do find in the INL material is that interpersonal *iter*-ADV in ModD enter the premodifier slot of the NP, e.g. *de normaliter in de dikke darm levende bacteriën* ‘the bacteria normally living in the large intestine’ (1955-56/WNT/darm). As indicated in section 12.2, interpersonal *iter*-ADV are still found as adverbial premodifiers in the NP in CD. There are various examples for *normaliter* ‘normally’, e.g. *de normaliter staatsgevaarlijke spitsen* ‘the normally subversive strikers’ (1995/38MWC) or *de normaliter niet verder gethematiseerde opvattingen* ‘the normally not further thematised opinions’ (1996/ANW). This may be a phenomenon which is spreading in CD; additional examples can be found via the internet, e.g. *idealiter* in (12.35).

(12.35) CD/2010/internet¹⁸⁶

Vanwege de **idealiter** onbeperkte hoeveelheid van de verhandelde grondstoffen (...).

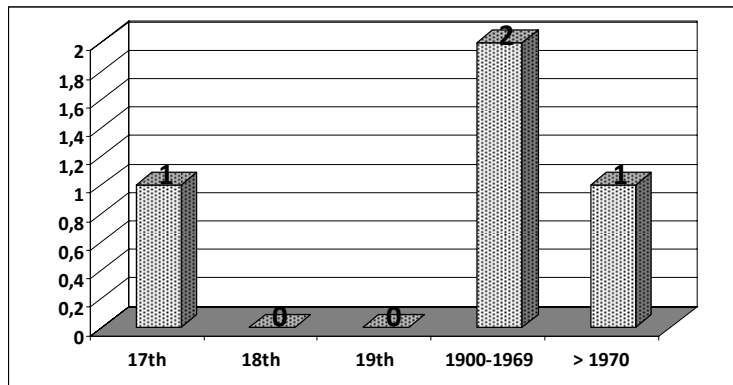
‘Because of the ideally unlimited amount of traded raw materials (...).’

12.3.4 Scope and productivity from a diachronic perspective

From the 15th ct., when the first *iter*-lexeme emerged in Dt., until the 19th ct., there is no unambiguous evidence for the existence of a derivational pattern with *-iter* in Dt. The attested *iter*-lexemes are most likely to represent loan words from Lt. A possible candidate is *accidentaliter* in the 17th ct. (see section 12.3.1); otherwise, there are only three unambiguous candidates for word formation with *-iter* in Dt. which first occur in the 20th ct. For the lexeme *idealiter*, presented as a candidate derivative in the synchronic section, it cannot be excluded that it was a Lt. loan. The lexemes *globaliter* and *banaliter* (Schultink 1962) are recorded before 1970; only *optimaliter* ‘optimally’ is coined in CD. This is set out in figure 12.2.

¹⁸⁵ http://www.dekleinekomedie.nl/programma/124/Frommermann_Peter_Blok_en_Gijs_Scholten_van_Aschatt/De_Stilte_Aan_Stukken/ [last accessed 13.09.2011]

¹⁸⁶ Haak, K.F. & R. Zwitser (2010). *Hoofdzaken van het handelsverkeersrecht*. Via *Google Books* [last accessed 28.10.2011]

Figure 12.2. New formations with *-iter* throughout the centuries.

12.4 Conclusion

This chapter confirms the assumption from the literature that lexemes ending in *-iter* function as prototypical ADV in Dt. The majority can be substituted by a corresponding ADJ, except for evaluative modifiers, where the presence of *-iter* establishes a semantic modification. However, as already proposed by Schultink (1962: 150), this is no productive ADV-formation pattern. Diachronic investigation even shows that the claim by de Haas/Trommelen (1993), ANS (1997) and Booij (2002) that *-iter* constitutes a Dt. derivational pattern must be rejected. Throughout the history of Dt., there is no unambiguous evidence for Dt. ADV formation with *-iter*. Rather, I propose that the bulk of *iter*-lexemes in Dt. should be treated just as they are being treated in En. and Gm.: as Lt. loan words. There is only incidental expansion of the class of *iter*-lexemes in CD which could be explained by analogy with existing ADV, e.g. highly frequent *normaliter* 'normally'.

13 Modifying words with *-matig*

13.1 Introduction

The suffix *-matig* is not listed among the Dt. adverbial suffixes by Booij (2002), but van der Horst (2008) discusses it in a section on adverbial morphology. An example of an adverbial *matig*-derivative is *beleid-s-matig* 'in accordance with policy' in (13.1).

(13.1) CD/1997/ANW

Begrip van deze mechanismen vormt immers een goede basis om **beleidsmatig** op te treden.
'An understanding of these mechanisms is after all the right basis to act in accordance with policy.'

Gm. has the equivalent suffix *-mäßig*, e.g. *fahrplan-mäßig* 'punctually, in accordance with the timetable' in (13.2). It is well-described in the literature (e.g. Seibicke 1963a-b, Inghult 1975, Kühnhold/Putzer/Wellmann 1978, Ros 1992, Fleischer/Barz 1995, Motsch 2004, Altmann/Kemmerling 2005, Decroos/Leuschner 2008 and an unpublished paper by Bittner 1996).

(13.2) CG/1998/DWDS

Nach einer halben Minute Aufenthalt fuhr der Zug **fahrplanmäßig** ab.
'After a stop of half a minute the train departed punctually.'

En. has no genetically related suffix. Ponelis (1993: 544) mentions the suffix *-matig* for Af. denominal ADJ formation, e.g. *instink-matig* 'instinctive(ly)', *stelsel-matig* 'systematical(ly)'; however, we do not get any further information. Fs. has modifying words ending in *-mjittich* (variant: *-matich*) e.g. *doel-mjittich* 'efficient(ly)', *gefoel-s-mjittich* 'emotional(ly)' (WFT). However, there is no such suffix in the literature on Fs. word formation. WFT does not have an entry for *-mjittich* but it considers the complex words derivatives of compounds with the N *mjitte* 'measure'.

The Gm. suffix *-mäßig* is listed among the adjectival suffixes (e.g. Fleischer/Barz 1995). It is noted as a special ability of *-mäßig* that it can derive both adverbial and adjectival modifiers (Inghult 1975), compare attributively used *zweck-mäßig-e* 'efficient' in (13.3). The possibility of creating both attributive and adverbial modifiers has been referred to as a reason for its enormous productivity (Erben 2006 : 132). The Dt. suffix *-matig*, too, is classified as an adjectival suffix by ANS (1997). An attributive example is *doel-matig* 'efficient' in (13.4).

(13.3) CG/1999/DWDS

Auch wir glauben, daß es eine **zweckmäßige** Arbeitsteilung ist, den Männern die Verteidigung des Landes zu überlassen, dagegen den Frauen die Sorge für Heimat und Herd.
'We too believe that it is an efficient division of labour when the men are responsible for defending the country while the women take care of home and household.'

(13.4) CD/1998/ANW

Voor het bereiken van een **doelmatige** afvalverwijdering is daarom gekozen voor een vorm van landelijke sturing.
'For attaining an efficient waste-disposal a form of national control has thus been chosen.'

The Dt. suffix *-matig* displays similarities with Gm. *-mäßig* on the structural level: both are established in the word-formation system and productive for the creation of both ADJ and ADV. As a historical explanation for these structural similarities, the literature has referred to suffix borrowing from Gm. (e.g. van der Sijs 2005) and other contact-induced influences (e.g. ANS 1997, Decroos/Leuschner 2008). Decroos/Leuschner (2008) pointed out that Dt. and Gm. differ pertaining to the degree to which derivation with *-matig* and *-mäßig* is conventionalised or established on the level of norm. Prescriptive activities may have played a role in the norm differences between the two

related languages: there is a long history of treating *matig*-lexemes as germanisms. Today, ANS (1997) and the prescriptive language portal *Taaladvies* list a number of established Dt. lexemes with *-matig* and reject other lexemes as potentially unacceptable and “non-Dutch”.¹⁸⁷ In this chapter I investigate the structural convergences between Dt. and Gm. diachronically and try to explain them in terms of a combination of the effects of language contact and parallel developments.

The rise of adverbial use for Gm. *mäßig*-derivatives has been connected with a semantic shift as the suffix developed the potential to derive domain modifiers (Inghult 1975). This new function has been increasingly exploited in CG (Inghult 1975, Kühnhold/Putzer/Wellmann 1978, Lenker 2002), e.g. *gattung-s-mäßig* ‘as far as genre is concerned’ in (13.5).

(13.5) CG/1999/DWDS

Ihr Stilmerkmal war die Groteske. **Gattungsmäßig** knüpfte sie an die Romanze an (...).

‘Her stylistic hallmark was the grotesque. In terms of genre she tied in with romance (...).’

I show in this chapter that Dt. *matig*-derivatives underwent the same semantic shift as their Gm. counterparts. However, it can be observed that Dt. does not exploit its potential to create domain modifiers to the same extent as Gm. This norm difference will also be dealt with.

13.2 Synchronic description

Decroos/Leuschner (2008) argue that Dt. *-matig* and Gm. *-mäßig* are semi-suffixes (and so do e.g. Altmann/Kemmerling 2005). There are formal properties which may speak against a prototypical suffix status, e.g. the pattern has its lack of input restrictions and the insertion of a linking *-s-* in common with compounds (e.g. *bestuur-s-zaak* ‘administrative matter’ and *bestuur-s-matig* ‘administratively’). However, on the basis of semantic properties, it can be argued that *-matig* and *-mäßig* are suffix-like. Dt. and Gm. share an equivalent lexical ADJ *matig/mäßig* ‘moderate(ly)’ which is derived from the N *maat/Maß* ‘measure’. Synchronically, however, Dt. *-matig* in (13.1) and (13.4) and Gm. *-mäßig* in (13.2), (13.3) and (13.5) do not have any semantic association with ‘measure’ nor any other connection with the homophonous ADJ. On the basis that they do not have a lexical meaning of their own, we can agree that *-matig* and *-mäßig* are highly suffix-like.

The synchronic description limits itself to complex lexemes in which *-matig* is a bound morpheme. Thus, first of all, I exclude the homonymous independent ADJ *matig* ‘moderate’ from the investigation as well as the derived ADJ *on-matig* ‘immoderate’. Secondly, I exclude Dt. complex lexemes for which a compound with *maat* ‘measure’ is available and which can thus be analysed as lexemes derived by *-ig*: *regelmat-ig* ‘regular(ly)’, *middelmat-ig* ‘mediocre’ (following ANS 1997), *overmat-ig* ‘excessive(ly)’ and *evenmat-ig* ‘proportional(ly)’.¹⁸⁸ Finally, I exclude so-called derivational compounds with *-ig*: *gelijk-mat-ig* ‘equal, even(ly)’, *boven-mat-ig*, ‘excessive(ly)’, *buiten-mat-ig* ‘extreme(ly)’ for which no corresponding compound with *maat* can be construed except within this particular formation (see Smessaert 2006: 38). These lexemes all contain a semantic aspect of measure.

Only included in this investigation are lexemes formed with the derivational suffix *-matig*. The synchronic description is based on an inventory of 99 *matig*-derivatives collected in the dictionary Van Dale (2005) and the corpora 38MWC, CGN and ANW (see appendix to chapter 13).

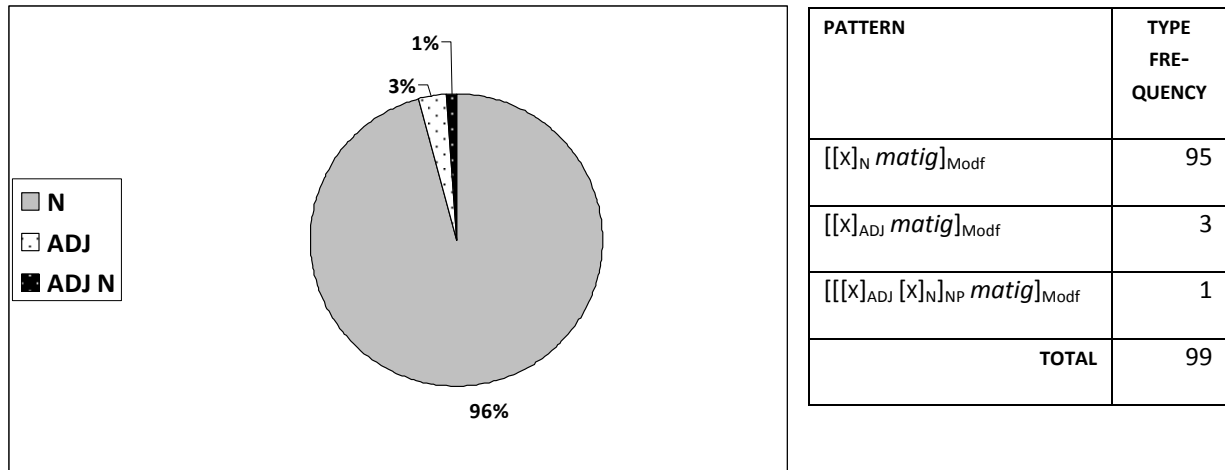
¹⁸⁷ <http://taaladvies.net/taal/advies/vraag/524> [last accessed 05.01.2011]

¹⁸⁸ As for *evenmatig* ‘proportional(ly)’, Van Loey (1970) refers to the MD compound *even-mate* ‘the same proportion’. WNT, however, suggests that *evenmaat* results from back formation from *evenmatig*.

13.2.1 Scope and productivity

ANS (1997) states that the base words for the pattern with *-matig* are N. The pie chart in figure 13.1 shows the actual distribution of input categories in the synchronic inventory of 99 *matig*-derivatives.

Figure 13.1. Distribution of input categories for *-matig* in synchronic inventory.



We may infer from figure 13.1 that *-matig* indeed prototypically attaches to N: in 96% of all types. Additionally, the material reveals three adjectival base words and one phrasal base. For Gm., too, it has been observed that *-mäßig* prototypically combines with nominal base words, e.g. *Zweck* 'goal' in (13.3), although verbal bases sometimes occur as well, e.g. *denk-mäßig* 'as far as thinking is concerned' (Fleischer/Barz 1995: 266).¹⁸⁹ There are no verbal bases in the Dt. material (but see section 13.3.4).

(1) Nominal input

The morphological structure of the input N for lexemes with *-matig* is extremely varied. Input N are simplex (e.g. *wet* 'law', *hand* 'hand'), compounds (e.g. *kost-prijs* 'cost price', *land-kaart* 'map'), derived words (e.g. *ervar-ing* 'experience', *ver-keer* 'traffic'), acronyms (*CID* for *criminele inlichtingendienst* 'criminal intelligence'). There is a strikingly high number of borrowed base N, from En. (e.g. *software*, *riff*), Fr. (e.g. *parcours* 'track', *recherche* 'investigation'), Lt. (e.g. *casus* 'case, instance', *product* 'product') and Gm. (e.g. *sjabloon* 'template'). According to Decroos/Leuschner (2008: 26), there is one formal restriction: proper names are never combined with *-matig*. The corpus material confirms this. It seems that proper names are, in contrast, suffixed with *-gewijs* (see chapter 10 on *-gewijs*). In Gm., it is no problem for proper names to be input to the pattern with *-mäßig* and in general there are hardly any structural restrictions on the base N (Kühnhold/Putzer/Wellmann 1978: 293,340, Fleischer/Barz 1995: 265). Gm. *-mäßig* attaches to simplex N (e.g. *Krieg* 'war'), compounds (e.g. *Kauf-mann* 'salesman') and derivatives (e.g. *Verfass-ung* 'constitution', *Gewohn-heit* 'habit') and it often attaches to non-native N as well (e.g. *Etat* 'budget', *Ingenieur* 'engineer'). The pattern does not have the structural limitations of *-ig* or *-isch*, which for instance cannot be added to *ung*-derivatives (Fleischer/Barz 1995: 265, Erben 2006: 132). Because of its inexhaustible domain of application, Fleischer/Barz (1995) claim that the pattern with *-mäßig* has similarities with compounding.

¹⁸⁹ Kühnhold/Putzer/Wellmann (1978: 348) argue that one could connect these bases with nominalised infinitives (*das Denken* 'the thinking') so that they are actually nominal. However, if we purely consider the form, we are dealing with a verbal stem.

In Gm., there are hardly any semantic input restrictions on the base N for *-mäßig* (Kühnhold/Putzer/Wellmann 1978: 293,340, Fleischer/Barz 1995: 265). The suffix may be added to N denoting persons (e.g. *Räuber* ‘robber’), animals (e.g. *Löwe* ‘lion’) and objects (e.g. *Schulbuch* ‘school book’), but also to N denoting something abstract (Motsch 2004: 206, Kühnhold/Putzer/Wellmann 1978: 289). For Dt., Decroos/Leuschner (2008: 26) mention the semantic restriction that *-matig* cannot be attached to N denoting a person. In Gm., it is no problem for person names (*Räuber* ‘robber’, *Ingenieur* ‘engineer’, *Kaufmann* ‘salesman’ etc.) to be input to the pattern, which implies that *-mäßig* is less semantically restricted than *-matig* (Decroos/Leuschner 2008: 26). However, a Dt. counterexample to this claim is the base word *ritter* ‘knight’ from the inventory. On the internet, further examples like *klant* ‘customer’ and *leraar* ‘teacher’ are attested, but they are unusual.

In Dt. *matig*-formatives a linking *-s-* is inserted in some cases; ANS (1997) formulates a rule for insertion of a linking *-s-* along the phonological principle whether the input N ends in the voiceless consonants *p, t, k, f, ch*, or the liquids *r* or *l*. However, they signal exceptions, e.g. *cijfer-matig* ‘in figures’. Kühnhold/Putzer/Wellmann (1978: 67) discuss the presence of the linking phoneme *-s-* in Gm., e.g. *zwang-s-mäßig* ‘compulsively’, whereas Motsch (2004: 206) refers to *-en-*, e.g. *bär-en-mäßig* ‘like a bear’. Mind that a final *-e* is usually extended to *-en*, e.g. *löwe-n-mäßig*, but not always, e.g. *routine-mäßig* (Fleischer/Barz 1995: 265).

Only a few of the denominal types mentioned in Van Dale (2005) are not displayed in the corpora, e.g. *stand-matig* ‘positional’ and *dicht-matig* ‘poetic’. All in all, the *matig*-lexemes recognised by lexicography seem to be very well-established items. In terms of token frequency, *kunst-matig* ‘artificial(ly)’ and *doel-matig* ‘suitable, efficient(ly)’ are dominant, but also *stelsel-matig* ‘consistent(ly)’, *onrecht-matig* ‘unlawful(ly)’ and *bedrijf-s-matig* ‘businesslike, efficient(ly)’ have a high token frequency. *Kunst-matig* and *stelsel-matig* display little semantic transparency: there is no semantic link with *kunst* ‘art; skill’ in (13.6) and hardly a *stelsel* ‘system’ in (13.7). The meanings of *kunst-matig* ‘artificial(ly)’ and *stelsel-matig* ‘systematic(ally)’ are idiomatic.

(13.6) CD/1992/38MWC

Met het oog daarop zijn van te voren ondergrondse gangen gegraven, om de lava **kunstmatig** een andere kant op te sturen.

‘For that reason underground tunnels have been dug beforehand, to artificially lead the lava in another direction.’

(13.7) CD/1995/38MWC

Ik vraag alleen dat ze in hun literatuurpakket één roman van een vrouw opnemen. En in mijn lessen behandel ik ook **stelselmatic** een vrouwelijke auteur ietwat uitvoeriger.

‘All I ask is that they include one novel by a woman in their literature package. And in my classes I also systematically treat one female author somewhat more elaborately.’

In Gm. there are highly idiomatic denominal *mäßig*-lexemes used predominantly in informal speech, e.g. *mord-s-mäßig* ‘lit. murder-like; terrific, whacking’ and *sau-mäßig* ‘lit. sow-like; massive, tremendous’ (Ros 1992: 123).

(2) Adjectival input

It has not been noted before in the literature, but the inventory shows by three types that *-matig* may be added to an adjectival base. For *instinctief-matig* ‘instinctively’, from a radio contribution in CGN, it is likely that it is an accidental blend of the established denominal lexemes *instinct-ief* ‘instinctive’ and *instinct-matig* ‘instinctive’. The lexeme *grof-matig* ‘roughly’ seems entirely synonym to the established derivative *grof-weg* (see chapter 17 on *-weg*). Finally, *privé-matig* ‘for private

purposes', with a Fr. base ADJ, may have been formed in analogy with established denominal *beroeps-matig* 'professionally' with which it is directly contrasted in (13.8).¹⁹⁰

(13.8) CD/1996/ANW

Gebruik je je wagen enkel **privématig** dan start je op trap 11 wat wil zeggen dat je 85 procent van de basispremie zal betalen. Heb je je wagen **beroepsmatig** nodig dan begin je op graad 14 die gelijk staat met 100 procent van de premie.

'If you use your car only for private purposes you start at level 11 which means that you pay 85 percent of the basic contribution. If you need your car professionally you start at level 14 which equals 100 percent of the contribution.'

The structural possibility to be added to an adjectival base is shared with Gm., where *-mäßig* may be combined with ADJ although this is said to be unusual. Kühnhold/Putzer/Wellmann (1978: 348) only discovered the input ADJ *heilig* 'holy' in their material and prefer to relate it the N *Heilige* 'holy person'. An internet search does reveal some examples, e.g. for *live-mäßig* 'live' there are 898 hits on Google, for *mental-mäßig* 'mentally' 236, for *sozial-mäßig* 'socially' 175 [07.01.2011].

(3) Phrasal input

There is one phrase as input in the material, the collocation *social gedrag* 'social conduct' in (13.9).

(13.9) CD/n.d./ANW

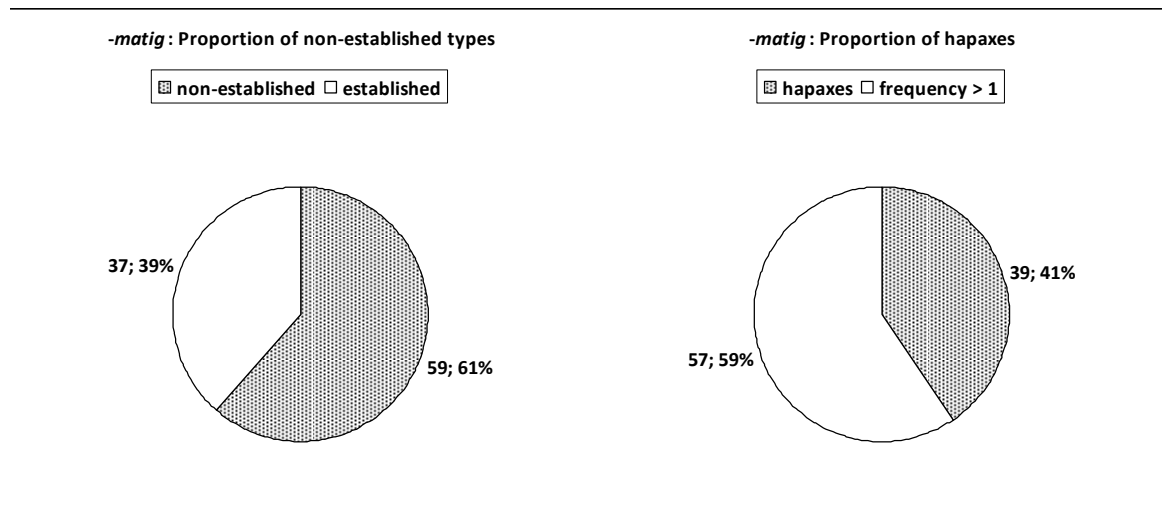
Er wordt onderzoek verricht naar het cognitief, sensomotorisch, **social-gedragsmatig** en communicatief gedrags- en ontwikkelingsprofiel bij verstandelijk gehandicapte personen met een genetische aandoening.

'Research is carried out on the cognitive, sensomotoric, social conduct-related and communicative profile of behaviour and development of mentally disabled persons with a genetic disorder.'

(4) Synchronic indicators of productivity

ANS (1997) states that *-matig* is limitedly productive in CD. In my material, there are indications that the suffix is indeed productive. The investigation of input words in the synchronic inventory has revealed that the scope of *-matig* is large: there are hardly any structural and semantic constraints on the nominal input and incidentally even adjectival and phrasal input words are allowed. The input categories of *-matig* suggest a contrast with Gm. *-mäßig*, which is assumed to have a wider scope since it also allows verbal bases (Fleischer/Barz 1995: 266; but see section 13.3). The realised productivity of *-matig* in the corpora turns out to be quite impressive in terms of type frequency: a total of 96 lexeme types are attested and the proportion of non-established types amounts to over 60%. There are 39 hapaxes among the non-established types, which is good for more than 40% of the types in the corpus material. The results are visualised in the pie charts in figure 13.2.

¹⁹⁰ Notice that these deadjectival words strike as unusual to native speakers. I thank drs. Johanna Ridderbeekx for confirming this intuition.

Figure 13.2. Frequencies for *-matig* in contemporary Dutch corpus data (96 types = 100%).

There are particularly indications that *-matig* is productive with a nominal input. Most hapaxes are denominal, e.g. *groove-matig* ‘as far as groove is concerned’ and *ervaring-s-matig* ‘experiential(ly)’. The only lexeme type in the inventory on the basis of a phrase, *sociaal-gedrag-s-matig*, represents a hapax in the corpora, see (13.9). This may indicate that *matig*-derivation is available to form modifying words on the basis of phrases, although it is hard to spontaneously come up with further examples like *openbare-orde-matig* ‘with regard to public order’ (see 14.2.1 on structurally similar formatives with *-technisch*). The deadjectival types in the material constitute hapaxes, but they all strike as unusual to native speakers (see note 190), so it is not unlikely that they represent *ad hoc*-formations.

13.2.2 Modifier types

The literature does not state explicitly with which modifier functions *matig*-derivatives can be found, but individual lexemes are connected with descriptive modifier types. The situation is different for Gm. *mäßig*-derivatives whose functions have been investigated thoroughly, e.g. by Schäublin (1972), Inghult (1975), Kühnhold/Putzer/Wellmann (1978), Ros (1992), Motsch (2004). These scholars refer to descriptive functions (both classifying and qualifying modification) and to the interpersonal function of domain modification. Corpus investigation shows that the same functions are found in Dt.

(1) Classifying modifiers

The ANW material shows that Dt. *matig*-derivatives often function as premodifying classifiers. A variety of head-modifier relations can be established, e.g. ORIGIN (*instinct-matig-e reflexen* ‘instinctive reflexes’), REFERENCE (*gedrag-s-matig-e veranderingen* ‘behavioural changes’), INSTRUMENT (*hand-matig-e instelling* ‘manual adjustment’) and FORM, e.g. *software-matig-e poorten* ‘software-based ports’ in (13.10). Predicative use is exceptional, e.g. *hardware-matig* ‘in the form of hardware’ in (13.10).

(13.10) CD/1998/ANW

Om een verbinding te maken tussen twee machines moeten de poorten van deze machines met elkaar verbonden zijn. Dat kan door middel van een kabel. De meeste poorten zijn derhalve **hardwarematig**. Op het Internet zijn er echter ook **softwarematige** poorten.

‘To connect two machines the ports of these machines need to be connected. This can happen through a cable. Therefore, most ports are in the form of hardware. On the internet software-based ports are also found.’

The classifying function has been observed for Gm. by Schäublin (1972: 90), a.o., see e.g. *maschine-n-mäßig-e Herstellung* 'mechanical production' or *kalorien-mäßig-e* 'calorific' in (13.11).

(13.11) CG/1999/DWDS

Meine Mutter war eher Bäckerin als Köchin. So erinnere ich mich an Apfelkuchen, Kirschkuchen und das **kalorienmäßige** Gegenstück zu [sic, AD] Wasserstoffbombe: Key Lime Pie.

'My mother was more of a baker than a cook. I remember apple pie, cherry pie and the calorific counterpart of the H-bomb: Key Lime Pie.'

(2) Qualifying modifiers

ANS (1997) notes that *matig*-derivatives may be used as qualifying modifiers expressing conformity with the concept denoted by the base N. The material shows that the base typically refers to concepts of law, regulation, routine, custom, system or duty. Attributive, predicative and adverbial use is attested. Consider adverbial *beleid-s-matig* 'in accordance with policy' in (13.1) above as well as *recht-matig* 'legitimate(ly)' in (13.12).

(13.12) CD/1993/38MWC

In Duitsland is opwinding ontstaan over het gebruik van lijken bij veiligheidsproeven voor auto's. (...) De universiteit van Heidelberg heeft dat bevestigd en vindt dat er **rechtmatig** gehandeld is.

'In Germany the news that corpses were used for car safety tests has caused quite a stir. (...) The university of Heidelberg confirmed that and believes that they acted legitimately.'

In Gm., too, the expression of conformity is common for qualifying *mäßig*-derivatives (Ros 1992), e.g. *fahrplan-mäßig* 'punctually, according to the timetable' in (13.2) and *gewohnheit-s-mäßig* 'as usual' in (13.13). Attributive, predicative and adverbial use is attested.

(13.13) CG/1999/DWDS

Er verließ die Terrasse, schloß die Tür hinter sich fest, ging die fünfstufige Eichentreppe hinunter, schaute **gewohnheitsmäßig** in den Huck darunter und sah dort Max hocken (...).

'He left the terrace, closed the door behind him, went down the five-step oak staircase, looked in the storage space below as usual and there he saw Max crouching (...).'

Moreover we can infer from ANS (1997) that *matig*-derivatives may be used as qualifying modifiers expressing some kind of similarity with the concept denoted by the base N. A corpus example is adverbially used *robot-matig* 'robot-fashion' (13.14) and predicatively used *fabriek-s-matig* 'factory-like' (13.15).

(13.14) CD/2002/ANW

Kort voor middernacht is het als hij bijna **robotmatig** opstaat en dingen doet die iemand anders hem beveelt te doen.

'It is shortly before midnight when he gets up almost robot-fashion and does things someone else is ordering him to do.'

(13.15) CD/1995/ANW

Wij zijn geen boeren meer, daarvoor is onze bedrijfsvoering te **fabrieksmatig**.

'We are no longer farmers, our operational management is much too factory-like for that.'

The niche of similarity is deemed to be infrequent for Dt. *matig*-derivatives and indeed we find few corpus examples. In contrast, the expression of similarity is frequently found in Gm.: the base words that *-mäßig* takes in this niche are very divergent including person names and proper names. Kühnhold/Putzer/Wellmann (1978: 340) notice that the pattern with *-mäßig* is typically used in journalistic prose for economical expressions and for unusual and striking comparisons. Compare predicative *eighties-mäßig* 'eighties-like' in (13.16). Attributive instances are also found.

(13.16) CG/1999/DWDS

Dazu hatte sie eine Annie-Lenox-Frisur, ganz **eightiesmäßig**, millimeterkurze weißblonde Haare.
 'In addition she had an Annie Lennox-hairdo, very eighties-like, with crew-cut platinum blond hair.'

Another function of *matig*-derivatives is a specification of an instrument or a mode of operation, e.g. *hand-matig* 'by hand, manually' (13.17) and *fabriek-s-matig* 'industrially' (13.18). As the latter example shows, individual *matig*-derivatives may be polysemous: compare *fabriek-s-matig* 'factory-like' in (13.18) above. The instrumental function may also be observed for Gm. *mäßig*-lexemes, e.g. *akte-n-mäßig belegt* 'proven by means of legal documents' (1989/DWDS).

(13.17) CD/n.d./ANW

Winnaars van deze belangrijke Nederlandse modeprijs krijgen de kans om de unieke creaties, die zij **handmatig** maakten, in samenwerking met de Bijenkorf in productie te nemen en aan een breed publiek te verkopen.
 'The winners of this important Dutch fashion prize get the opportunity to bring their unique creations, which are hand-made, into production in cooperation with the Bijenkorf and to sell them to a broad public.'

(13.18) CD/n.d./ANW

Ozonzalf. Dit is feite geozoniseerde olijfolie en wordt **fabrieksmatig** vervaardigd. Laat men ozon in hoge concentraties door olijfolie stromen dan raakt de olijfolie 'verzadigd' en verandert in een zalfachtige substantie.
 'Ozone ointment. This is in fact ozonised olive oil and it is industrially produced. If olive oil is permeated with high concentrations of ozone the olive oil will be 'saturated' and transforms into an ointment-like substance.'

Dt. *matig*-derivatives may further function as specifications of the origin of the event denoted by the predicate, e.g. *dwang-matig* 'compulsively' (13.19) or the goal, e.g. *beroep-s-matig* 'for professional purposes' in (13.8) above. Gm. *mäßig*-derivatives are also attested with these functions.

(13.19) CD/1997/ANW

Hij wilde dit lichaam ongedaan maken. Dus koos hij, **dwangmatig**, voor precies het tegenovergestelde van verdikken. Anorexia.
 'He wanted to have this body undone. So he chose compulsively for the exact opposite of putting on weight. Anorexia.'

Last but not least, Dt. *-matig* is used in lexemes which specify the form in which an event is presented, considered or carried out, e.g. *cijfer-matig* 'in figures, numerically' in (13.20).

(13.20) CD/1996/ANW

Cijfermatig gezien vormen de namen met een Vlaamse oorsprong de meerderheid in België, maar wat verscheidenheid betreft spant Wallonië de kroon.
 'Regarded in figures the names with a Flemish origin constitute the majority in Belgium, but as far as diversity is concerned, Wallonia takes the cake.'

Participle clauses like *cijfermatig gezien* 'lit. numerically seen, regarded in figures' in (13.20) with *verba sentiendi* are quite common in Dt. (see section 4.4.7). The *matig*-derivative modifies the VP qualitatively and the participle clause functions as a domain modifier.

(3) Domain modifiers

In the ANW material I found that *matig*-derivatives may be used independently as domain modifiers, e.g. *verkeer-s-matig* in (13.21) and *kostprijs-matig* in (13.22) (compare Diepeveen *submitted*).

(13.21) CD/1997/ANW

Door de tolheffing ligt een vergelijking met de Liefkenshoektunnel voor de hand. Gedeputeerde Hennekeij gaat de vergelijking met een tunnel die financieel en **verkeersmatig** volledig zijn start miste niet uit de weg. "Wij hebben ons huiswerk heel goed gedaan en lessen getrokken uit de financiële perikelen van de Liefkenshoektunnel (...)".

'Due to the charging of tolls a comparison with the Liefkenshoektunnel is self-evident. Representative Hennekeij is not afraid of the comparison with a tunnel which had a bad start financially and in terms of traffic. "We did our homework and learned from the financial problems of the Liefkenshoektunnel (...)".'

(13.22) CD/2004/ANW

Gelukkig kan de organisatie eveneens rekenen op een schare sympathisanten en sponsors. Zonder hun toelage en medewerking zou het geheel kwalitatief en **kostprijsmatig** niet op het bereikte niveau kunnen aangeboden worden.

'Fortunately the organisation can further count on a multitude of sympathizers and sponsors. Without their allowance and support this whole thing could never have been offered at the current level qualitatively and in terms of cost.'

This function has not yet been documented in the literature. Contrary to Dt., the domain function of Gm. *-mäßig* has gotten extensive attention in the literature, e.g. Inghult (1975), Lenker (2002). Compare *gattung-s-mäßig* 'as far as genre is concerned' in (13.5) above and see *alter-s-mäßig* 'as far as age is concerned' in (13.23).

(13.23) ModG/1983/DWDS

Die Fenster sind mit Tischdecken verhängt, aber die Glasmacherlehrlinge, die sich **altersmäßig** noch nicht zu sehr von uns entfernt haben, kennen unsere Leiden und versorgen uns mit Gucklöchern.

'The windows are covered by table-cloths, but the glazier students, who are not too distant from us as far as age is concerned, know our longing and prepare spyholes for us.'

13.2.3 Contribution of *-matig*

Deriving modifying words from N, *-matig* is a grammatical pattern (1) which may be accompanied by a broad spectrum of semantic values (2).

(1) Grammatical value

There is no doubt that *-matig* is a grammatical pattern since it derives modifying words from N. Normally *-matig* is classified in the literature as an adjectival suffix but van der Horst (2008) lists it among the adverbial suffixes. The large number of attributive instances with a variety of base words in the corpus confirms that *matig*-derivatives are by no means prototypical ADV. According to the criteria in this dissertation the products of *matig*-derivation are prototypical ADJ which can be used attributively, predicatively and adverbially and which may be inflected. It seems, however, that their adverbial use has thus far been underestimated. As domain modifiers they may be associated with adverbial modification. The same holds true for Gm. *-mäßig*, which has also been claimed to form very flexible complex words.

We found that *-matig* is incidentally added to ADJ. This is probably due to analogy and the suffix does not add any value but it appears to be fully pleonastic.

(2) Semantic value

Together with the grammatical value, *-matig* adds a semantic value to its base word. We found that *matig*-derivatives occur in descriptive modifiers of the qualifying and classifying subtype and in the

interpersonal category of domain modifiers. These categories are fully parallel to those formulated in the literature for Gm. *mäßig*-derivatives.

ANS (1997) refers to two main meanings: ‘in accordance with’ and ‘in the manner of, like’. Van Dale (2005) gives a very general meaning description of *-matig*: “met het oog op, in verband met, met betrekking tot, vanuit, volgens, overeenkomstig het in het eerste lid genoemde”. This description in fact embraces many semantic values which correspond more or less with the semantic spectrum described for Gm. *-mäßig*. It has been pointed out in the literature that Gm. *-mäßig* is highly polysemous: it can be associated with a wide spectrum of semantic values including COMPLIANCE, GOAL, IDENTITY, INSTRUMENT, ORIGIN, REFERENCE, SIMILARITY (Seibicke 1963a, Inghult 1975, Ronca 1975, Kühnhold/Putzer/Wellmann 1978, Ros 1992). According to Ros (1992), Gm. *-mäßig* is particularly productive in the REFERENCE meaning, which comes into use either in classifiers to nominal concepts, or in domain ADV. My investigation shows that a broad semantic spectrum can also be postulated for Dutch *-matig*. Table 13.2 gives an overview of semantic values represented in the material. It should be observed that the meaning contributed by *-matig* may actually be very vague, i.e., it may be difficult to identify a specific semantic value in individual complex words. The suffix may only establish a relation.

Table 13.2. Semantic spectrum of *-matig*.

VALUE		PATTERN	EXAMPLE
PRIMARY	COMPLIANCE	[[x] _N <i>matig</i>] _{ADJ}	<i>recht</i> ‘law’ : <i>recht-matig</i> ‘legitimate(ly)’
	FORM	[[x] _N <i>matig</i>] _{ADJ}	<i>cijfer</i> ‘figure, number’ : <i>cijfer-matig</i> ‘in figures’
	INSTRUMENT	[[x] _N <i>matig</i>] _{ADJ}	<i>hand</i> ‘hand’ : <i>hand-matig</i> ‘by hand, manual(ly)’
	ORIGIN	[[x] _N <i>matig</i>] _{ADJ}	<i>instinct</i> ‘instinct’ : <i>instinct-matig</i> ‘instinctive(ly)’
	REFERENCE	[[x] _N <i>matig</i>] _{ADJ}	<i>gedrag</i> ‘behaviour’ : <i>gedrag-s-matig</i> ‘behavioural’
	SIMILARITY	[[x] _N <i>matig</i>] _{ADJ}	<i>robot</i> ‘robot’ : <i>robot-matig</i> ‘robotic, like a robot’
PLEONASTIC		[[x] _{ADJ} <i>matig</i>] _{ADJ}	<i>privé</i> ‘private(ly)’ : <i>privé-matig</i> ‘private(ly)’

(3) Rival suffixes

For creating descriptive modifiers, *-matig* has several semantically comparable suffixes particularly in the niche of SIMILARITY; see section 4.4.4. In Dt., the dominant pattern for encoding SIMILARITY is *-achtig* (Hüning 2004). Other rival suffixes are *-ig* and *-erig* and the non-native suffixes *-esk* and *-iaans*. In Gm., native competitors for *-mäßig* in the SIMILARITY niche include *-haft*, *-isch*, *-artig*, *-ähnlich* and non-native suffixes include *-esk*, *-iv*, *-ös*, *-al*. In the niche of COMPLIANCE, we find complex synonyms on the level of individual lexemes, e.g. *gewoonte-matig/gewoonte-getrouw* ‘in accordance with previous practice’, *routine-matig/routin-eus* ‘routinely’. In Gm., *-mäßig* has competition from *-gemäß* in the niche of COMPLIANCE.¹⁹¹ There are synonyms to existing lexemes with *-gemäß*: *ordnung-s-gemäß/ordnung-s-mäßig* ‘according to the regulations’, but care should be taken: *Duden Richtiges und gutes Deutsch* (2007: 359) warns that there is a subtle meaning difference and it recommends

¹⁹¹ To Inghult (1975), *-gemäß* is not a suffix since a word formed with *-gemäß* can always be paraphrased by a syntactic construction with independent *gemäß*, e.g. *zeit-gemäß* = *der Zeit gemäß* ‘up to date’.

-gemäß. Another competitor in the COMPLIANCE meaning is *-lich*, e.g. *gesetz-mäßig/gesetz-lich* ‘legal(ly)’ (Kühnhold/Putzer/Wellmann 1978: 353).

In the niche of INSTRUMENT, a possible competitor is *-gewijs* (see chapter 10). In Gm. there is competition between *-mäßig* and *-lich* in this niche, e.g. *kontrakt-mäßig/kontrakt-lich* ‘contractually’ (Kühnhold/Putzer/Wellmann 1978: 373) but also *-weise* may be comparable (Inghult 1975). In the niche of ORIGIN, a competitor is *-halve*: *beroep-s-matig/beroep-s-halve* ‘professionally, by virtue of one’s office’, *plicht-matig/plicht-s-halve* ‘dutifully, as in duty bound’ (see chapter 5 on *-halve*) and *-ief*, e.g. *instinct-matig/instinct-ief* ‘instinctive(ly)’. In Gm., too, *-iv* is a competitor in this niche together with native *-lich* and *-haft* (Inghult 1975). For its REFERENCE meaning, *-matig* has competition of *-gewijs* and *-technisch* (see chapter 10 on *-gewijs* and chapter 14 on *-technisch*). Important native competitors for the REFERENCE meaning of *-mäßig* in Gm. are *-lich* and *-isch* but particularly *-technisch* (see Ruge 2004 and chapter 14 on *-technisch*) as well as non-native suffixes, namely *-al/-ell*, *-(at)iv*, *-ar/-är*, *-os/-ös* (see Kühnhold/Putzer/Wellmann 1978 and chapter 4).

With native base words, *-matig* allows the formation of synonyms to non-native lexemes: *compulsief/dwang-matig* ‘compulsive’, *manueel/hand-matig* ‘manual’, *artificieel/kunst-matig* ‘artificial’, *systematisch/stelsel-matig* ‘systematic’ and so on. Since the non-native ADJ may evoke stylistic connotations (Heynderickx 2001: 28), it seems that the lexeme formed with the native suffix *-matig* represents a useful alternative to lexemes formed with non-native suffixes. This is comparable with Gm. *-mäßig*: with non-native base words it constitutes a supplement to other suffixes which have input restrictions at this point (e.g. Gm. *-lich* and *-isch*, see Fleischer/Barz 1995: 265). Nevertheless there are some synonym pairs; Kühnhold/Putzer/Wellmann (1978: 354,373) refer to *beruf-lich/beruf-s-mäßig*, ‘professional’, *gedank-lich/gedanken-mäßig* ‘imagined, imaginary’, *geschäft-lich/geschäft-s-mäßig* ‘commercial’, *gesetz-lich/gesetz-mäßig* ‘lawful’.

13.3 Diachronic description

The semantic and syntactic properties of derivation with *-matig* are parallel with the genetically related Gm. suffix *-mäßig*, which has been investigated in the literature. We discover a large functional equivalence for these related patterns including the interpersonal function of domain modification, which has not previously been noticed in the literature for Dt. (see Diepeveen *submitted*). In the present section the two related suffixes are investigated from a historical point of view and the question shall be addressed whether the shared features are due to mutual influences or result from parallel developments.

The first reference to *-matig* in the Dt. literature can be found in the grammar by Brill (1871: 201) who established a connection with Gm. *-gemäß*. WNT in its 1904 entry *-matig* claimed that word formation with *-matig* started in analogy with Gm. *-mäßig*. Ever since then, the literature has treated *-matig* as a Gm. loan. Royen (1942) and Van Loey (1970), too, refer to the influence of Gm. *-mäßig*. Van der Sijs (2005: 102) assumes that the suffix *-matig* came into Dt. via Gm. bible translations in the 16th-17th ct. She refers to *regel-matig* ‘regular(ly)’ and *recht-matig* ‘legitimate(ly), rightful’. The widespread idea that *-matig* was borrowed from Gm. is probably based on the fact that there are so many equivalents among the Gm. *mäßig*-formatives and the attested Dt. *matig*-formatives (Decroos/Leuschner 2008: 26 and see the entries for individual lexemes in WNT). However, Theissen (1975) already found that a number of *matig*-formatives have no Gm. equivalent, which he took as an indication that *-matig* had become productive in Dt. Decroos/Leuschner (2008: 28) even assume that *-matig* may have developed independently from and parallel with Gm. *-mäßig*. These different intuitions on the origin of *-matig* are confronted with empirical data in 13.3.1. My diachronic inventory of *matig*-lexemes includes the earliest attestations of Gm. *mäßig*-formatives as listed in the study by Inghult (1975) (see appendix to chapter 13).

13.3.1 Origin of *-matig*

The description starts from existing information on Gm. *-mäβig* (1) and it goes on with Dt. *-matig* (2).

(1) Origin of German *-mäβig*

Inghult (1975) investigates the history of the native suffix *-mäβig*. It is obvious that *-mäβig* has a homonymous independent form *mäβig* ‘moderate’ as in *mäβig essen* ‘eat moderately’ (Fleischer/Barz 1995: 26). With respect to the origin of *-mäβig*, Inghult (1975) could not establish any historical connection with this independent modifier. For one thing, no independent modifier *mâzi* is recorded for OG. Neither is there a connection between *-mäβig* and *-gemäβ*: words formed with the latter morpheme emerged much later (after 1500). Inghult (1975) argues that the bound element *-mäβig* is historically associated with the independent N *Maß* ‘measure’ (OG *mâza* from West-Gmc.) and the suffix *-ig* for deriving ADJ. Likewise, Decroos/Leuschner (2008) argue that *-mäβig* is the product of a process of a reanalysis of original compounds with *Maß* suffixed by the adjectival suffix *-ig*. In the original compound, *Maß* referred to a size or dimension. Through a semantic shift, the motivation between the components of the original structure was interpreted differently. This resulted in a grammatical reanalysis in which the original connection with *Maß* was lost. The process is represented in table 13.2.

Table 13.2. Reanalysis into *-mäβig* in German.

	PATTERN	INPUT	OUTPUT
1.	[[X] _N <i>ig</i>] _{ADJ}	<i>Regelmaβ</i> ‘regularity’	<i>regelmäβig</i> ‘in similar intervals, regular(ly)’
2.	[[X] _N <i>mäβig</i>] _{ADJ}	<i>Regel</i> ‘regulation’	<i>regel-mäβig</i> ‘in accordance with regulations’

Decroos/Leuschner (2008: 27) suggest that *regelmäβig* ‘regular’ may have functioned as ‘model word’ for analogous formation which could lead to a productive morpheme *-mäβig*. Inghult (1975) situates reanalysis very early in the history of Gm. In OG there were compounds in which *Maß* still had its semantic content of size or dimension, e.g. *fodarmaziu* ‘having the size of a waggonload’ (9th ct.). Similar bahuvrihic compounds existed in OE, e.g. *pundmaete* ‘of a pound weight, weighing a pound’ and *byrðenmaete* ‘burdensome’ (Borden 1982). The OE forms have not survived; it is unclear why. In MG there were further attestations of the bahuvrihic structure with a nominal element indicating a certain size, e.g. *gelidemaezec* ‘having the size of a phalanx’ (1477). However, MG also reveals complex words formed with a nominal element which does not indicate size or dimension, e.g. *honicmaeze* (1225-1230) on the basis of *Honig* ‘honey’, *rittermässig* (ca. 1300) on the basis of *Ritter* ‘knight’ and *pfandmaezzig* (1312) on the basis of *Pfand* ‘pledge’. These complex lexemes indicated some kind of similarity between the referent and the entity denoted by the base N, e.g. *rittermässig* ‘knight-worthy, like a knight’. Notice that two variant forms, *-maeze* and *-maezic* were used; the latter established itself in a general tendency in MG to use *ig*-suffixation for differentiating ADJ from N (see Inghult 1975: 135). According to Inghult (1975), productive word formation with *-mäβig* can be demonstrated with certainty around 1650. By that time, a bound morpheme *-mäβig* can clearly be distinguished and is found to create new lexemes. Essentially, there is no corresponding compound with *Maß* for new lexemes and it is hard to establish one, too. In 1663, the grammarian J.G. Schottel already listed about 30 words formed with *-mäβig* (Inghult 1955: 13).

(2) Origin of *-matig*

The earliest attestations of Dt. words with *-matig* are situated in EModD. The inflected ADJ *riddermatig-e* ‘knight-worthy, like a knight’ is the earliest recording in INL. There is no semantic association with size or dimension.

- (13.24) EModD/1533/WNT/riddermatig
 Die eygen Landen, onder Ridder-Hofsteden behoorende (...), die gebruykt werden by **Riddermatige** luyden.
 ‘The own lands, belonging to the manors of knights (...), which were used by knight-worthy people.’

Dt. *ridder-matig* is recorded about two centuries later than its Gm. equivalent *ritter-mäßig*. This chronology and the fact that there are no earlier attestations of *matig*-lexemes with reference to size or dimension, may be taken as arguments for borrowing from Gm. Additionally there are indications from other Gmc. languages that Gm. *ritter-mäßig* was the predecessor. Söderbergh (1964) has shown that the earliest attestation of a lexeme formed with *-mässig* in Swedish is *Riddare-messig* in 1700 and there are strong indications that it was borrowed from Gm.¹⁹² This particular lexeme was relevant in the ancient feudal society where it reflected social structures and competences.

Other EModD attestations of *matig*-formatives include inflected *schrift-matigh-e* ‘scriptural’ (13.25) and *recht-matig* ‘legitimate, just’ (13.26).

- (13.25) EModD/1569/WNT/verklaring
Schriftmatighe articulen can men niet te veel maken, ghemerckt dat sij alleen dienen tot meerder verclaringhe des Godlijken Wordts.
 ‘Not too many scriptural articles can be made, considering that they only serve for further explanation of the Word of the Lord.’
- (13.26) EModD/1631/WNT/rechtmatig
 Rechtaerdigheid is een deugd des willes om te doen dat **rechtmatig** is.
 ‘Justice is a virtue of the will to do what is just.’

Dt. *recht-matig* is historically preceded by the Gm. equivalent *recht-mäßig*, which may indicate borrowing, but Dt. *schrift-matig* is attested before Gm. *schrift-mäßig* (whether Gm. *geschrift-mäßig* was recorded earlier is not clear; Inghult (1975) situates it in the 16th ct.). The lexemes *rede-matig* ‘reasonably’ and *waarheid-s-matig* ‘truthfully’, too, are recorded in EModD earlier than their Gm. equivalents (see appendix to chapter 13). In addition, EModD already displays *matig*-lexemes for which no Gm. equivalent is recorded (Inghult 1975), e.g. *stem-matig* ‘in accordance with the voice’ (13.27) and deadjectival *billijk-matig* ‘reasonably’ (13.28). This evidence may indicate that word formation with *-matig* was already an independent and productive pattern in the EModD period.

- (13.27) EModD/1593/WNT/stemmatig
 David (heeft) stracks zijn Conincklicke handt, End soete Harp (**stemmatich** opgespant) Gestelt te werck om Godes loff te melden.
 ‘David just put his royal hand and his sweet harp (strung in accordance with his voice) in action to announce the glory of God.’

¹⁹² In fact, Danish may have served as an intermediary between Gm. and Swedish since lexemes with *-mässig* are attested slightly earlier in Danish (Söderbergh 1964: 240). Söderbergh (1964: 288-289) further refers to previous borrowing from Low Gm. in Swedish; thus, the variant *ridder-mätig* was attested earlier in Swedish than *Riddare-messig* since several lexemes in *-mätig* had been borrowed from Low Gm. in the 16th-17th ct.

(13.28) EModD/1600/WNT/bilijck

Sij accordeerden de sauve garde voor de burgeren van Rees ende van Cleverham met presentatie indien dselve tegen reden eenige schaden toegevoucht waren, dat se daerof voor den Rade van State souden mogen versoucken reparatie, die heur daerop met **billickmatich** recht souden bejegenen.

'They agreed upon the sauvegarde for the citizens of Rees and Cleverham with the announcement that if these suffered any loss, they were allowed to claim recompensation from the Council of State, which would then treat them with reasonable justice.'

There is further evidence that *-matig* as a word-formation pattern was firmly established in the EModD language system. INL material reveals that *matig*-formatives served as base words for N formation with *-heid*, e.g. *rede-matig-heid* 'reasonableness' and *schrift-matig-heid* 'scripturalness' (WNT/redematig/schriftmatig) and for (pleonastic) ADV formation with *-(e)ijk*, e.g. *recht-mat-elijk* 'legitimately, rightfully' (a simplification of *recht-matig-lijk*) (1661/WNT/rechtmatig). There are further examples of the latter type in ModD, e.g. *doel-matig-lijk* 'efficiently' (1804) and *plicht-matig-lijk* 'dutifully' (1805). One final indication that the pattern was established in EModD may be that *-matig* exists in the daughter language Af.¹⁹³

Decroos/Leuschner (2008: 28) interpret the early independence and productivity of *-matig* in EModD as an indication that the suffix was not borrowed, but that it may have developed along the same path of reanalysis and grammaticalisation as Gm. *-mäßig*. This proposal first of all suggests that Dt. compounds with *maat* 'measure' form the historical basis of word formation with *-matig*, a historical connection which was also made by Van Loey (1970). Indeed, MD had compounds with *mate* 'measure' and a modifying N indicating some dimension in a bahuvrihic structure which could be used adverbially. They denoted something like 'having the measure of x, according to the measure of x', e.g. *scepel-mate* '(with) the measure of a bushel' (13.29) or *aess-mate* 'big enough for the axle of a waggon' (13.30).¹⁹⁴

(13.29) MD/1460-1486/MNW/soutvercoper

Item en sell gheen zoutvercoper meerre mate in zijn huis hebben dan **scepelmate**.

'And no seller of salt shall possess a greater amount at home than the measure of a bushel.'

(13.30) MD/n.d./MNW/markehout

Soo wie een ecken market holt houwet, ofte doch vruchtbaer ofte nutte is, omtrent **aessmaete** groot, daer brecke hie aen eenen Rijnss. gl.

'Who chops a piece of wood from the mark, whether it is fruitful or useful, approximately big enough for the axle of a waggon, this will cost him one Rhenish guilder.'

On the basis of (13.29) and (13.30) it cannot be explained where the *-ig* in *-matig* comes from: the variation between *-maeze* and *-maezic* which existed in MG cannot be found in MD. The string <matig> is recorded in EMD in the complex ADJ *middelmatich* 'mediocre, moderately' which signifies the average between two extremes (13.31).

(13.31) EModD/1566/MNW/middelmatich

Hem tottet choir kerende seyt "Orate" **middelmatich**, opdat hy gehoort mach worden.

'Turning towards the choir he [the priest] said "Orate" moderately, loud enough to be heard.'

Decroos/Leuschner (2008) propose that *middelmatig* 'mediocre' may have been a 'model word' on which later *matig*-formatives were analogically based: reanalysis occurred from *middelmat-ig* to *middel-matig* in the same way as illustrated above for Gm. However, according to my intuition, *middelmat-ig* was never reanalysed since the semantic connection with a certain dimension, i.e., the

¹⁹³ On the use of Af. as evidence, see note 126 in chapter 8. As far as *-matig* is concerned, one should be aware that Af. also borrowed from Gm.

¹⁹⁴ Interestingly, the latter example comes from the Northeastern part of the Netherlands. A close connection to Gm. is possible.

association with the compound *middelmaat* ‘average between two extremes’, was never lost. The other candidate model word in Decroos/Leuschner (2008) is *regelmatig* ‘regular’. However, this too is problematic since it cannot even be established that this lexeme originates in Dt. Van der Sijs (2005) treats *regelmatig* as a loan word from Gm. *regelmäßig*; *EWN*, *WNT* and Theissen (1975) note that the origin of *regelmatig* is uncertain. For the remaining oldest lexemes in Dt. (*riddermatig*, *schriftmatig*, *stemmatig*, *rechtmatig*) no corresponding compound with *maat* ‘measure’ can be established, from which we may infer that reanalysis had already taken place.

I conclude from the previous sections that *-matig* was originally borrowed from Gm. (e.g. *riddermatig*). There is no sound evidence for an independent process of reanalysis in Dt. However, the suffix soon became productive in Dt. which was probably facilitated through the existence of complex ADJ like *middelmatig*.

13.3.2 Functional shift

As the examples in section 13.3.1 show, *matig*-lexemes started as descriptive modifiers (1). It has been shown in the literature that Gm. *mäßig*-derivatives underwent a semantic shift: besides descriptive functions, they developed the interpersonal function of domain modification. We have seen in section 13.2 that in Dt., too, *matig*-derivatives have this interpersonal function (2). This seems to be a fairly new development.

(1) Descriptive modifiers

In EModD, *matig*-derivatives functioned as descriptive modifiers encoding specifications of SIMILARITY and COMPLIANCE, as illustrated in the examples (13.24)-(13.28) above. These meanings were retained in ModD and new semantic niches were added in this period, such as ORIGIN, e.g. *instinct-matig* ‘instinctively’ (13.32), INSTRUMENT, e.g. *fabriek(-s)-matig* ‘industrial’ (1793/WNT/vitrioliseeren) and FORM, e.g. *kroniek-matig* ‘as a chronicle’ (1846/WNT/kroniek).

(13.32) ModD/1857/WNT/instinctmatig

Instinctmatig begreep hij, dat het zaak was, de waarheid te verzwijgen.

‘Instinctively he understood that now it was a matter of concealing the truth.’

As individual lexemes established themselves they developed idiomatic meanings. The most striking example is *kunst-matig* which soon developed a meaning very divergent from its Gm. equivalent (WNT).¹⁹⁵ Originally, *kunst-matig* denoted COMPLIANCE with (the rules of) art and developed via INSTRUMENT/MANNER, ‘made through art, artificial’ to a semantically opaque lexeme in which the semantic link with art is gone: ‘unnatural’. A similar development can be found for *stelsel-matig* ‘consistent’. Van der Horst (2008) claims to have observed a new semantic niche in the 20th ct. in the example *record-matig-e financiële resultaten* ‘financial results which are a record’. We may perhaps interpret this as a classification in terms of IDENTITY.

For Gm. *-mäßig* the semantic development has been described by Inghult (1975). Originally creating descriptive modifiers encoding SIMILARITY and GOAL, the suffix expanded its semantic spectrum in the 16th ct. to COMPLIANCE. From 1650 onwards, the pattern developed several new meanings, including IDENTITY, INSTRUMENT and ORIGIN although the initial qualifying functions remained the dominant ones. Inghult (1975) and Kühnhold/Putzer/Wellmann (1978: 340,372) point at significant semantic changes in the 19th ct. The use of *-mäßig* in its original qualifying functions such as the niche of SIMILARITY

¹⁹⁵ In Gm., *kunstmäßig* was used until the 19th ct., but in the 20th ct. it got out of use. Seibicke (1963: 40) notes that it is archaic. Gm. instead uses *kunst-gerecht* ‘skilful’ in the COMPLIANCE niche.

diminished and there was an increase in the new niches, e.g. INSTRUMENT, where *-mäßig* competed successfully with *-lich*.

(2) Interpersonal modifiers

As pointed out in section 13.2.2, *matig*-derivatives in CD may function as domain modifiers. Since this function is not recognised by lexicography or the grammar and there are only implicit remarks in recent literature, it is probably new. Perhaps one of the first examples is *begrip-s-matig* ‘terminologically’ in (13.33). Further examples can be found sporadically in the 1960s, e.g. *beroep-s-matig* ‘professionally’ in (13.34) and *cijfer-matig* ‘numerically’ in (13.35). In these examples the semantic value of *-matig* can be interpreted as REFERENCE to the concept denoted by the base.

(13.33) ModD/1955/WNT/begripsmatig

Begripsmatig is het stellig gewenst om onderscheid te maken tussen zuivere wetenschap en toegepaste wetenschap en wetenschapstoepassing.

‘Terminologically it is highly desirable to differentiate between pure science, applied science and science application.’

(13.34) ModD/1961/WNT/wereld

Het contact tussen wereldbeschouwelijke en **beroepsmatig** overeenkomstige groepen: katholieken, socialisten, liberalen, arbeiders, boeren, middenstanders, industriëlen, intellectuelen uit noord en zuid.

‘The contact between groups which are equivalent as far as worldview and profession are concerned: catholics, socialists, liberals, workmen, farmers, tradesmen, industrials, intellectuals from the north and the south.’

(13.35) ModD/1959/Onze Taal

De gegevens zijn **cijfermatig** betrouwbaar, maar bedrijfskundig onhanteerbaar.

‘The data are numerically reliable, but unmanageable from the perspective of business.’

The new function appears to get more common in CD, e.g. *prijs-matig* ‘regarding the price’ (13.36) and *personeel-s-matig* ‘regarding staff’ (13.37) from the 1980s.

(13.36) CD/1981/ALC

Daarom creëerde Olivetti een werkelijk complete lijn van schrijfsystemen. (...) Daardoor is het voor u mogelijk de juiste machine (ook **prijsmatig**) op de juiste plaats te zetten.

‘This is why Olivetti created an actually complete series of writing systems. (...) Like this you can put the right machine (also as far as the price is concerned) in the right spot.’

(13.37) CD/1983/ALC

De nieuwe dienst kan samen met de al gevestigde diensten duidelijke loopbaanmogelijkheden bieden.

Personeelsmatig is het goed aangepakt.

‘The new office can offer clear career perspectives together with the already established offices. Staff-wise it is a good solution.’

The domain function for Dt. *-matig* could be due to language contact with Gm. An indication might be the fact that the Gm. domain occurrences are much older than the Dt. ones. The first domain modifiers with *-mäßig* are recorded at the start of the 19th ct., e.g. *sinn-* and *klang-mäßig* ‘regarding meaning and sound’ (13.38) and *verhältnis-mäßig* ‘proportionally’ (13.39) (Inghult 1975: 87).

(13.38) ModG/1813

so kommt ja der optische und akustische betrug des wortspiels gleichfalls auf ein solches vexierbild hinaus, dass zwar **nicht sinn- aber klangmässig** zweien wesen angehört.

‘Like this the optical and acoustic illusion of the pun is similarly disclosed in a picture puzzle, which represents two figures, not semantically, but in terms of sound.’

(13.39) ModG/1811

Blei ist **verhältnismässig** schwerer als Zinn.

'Lead is proportionally heavier than tin.'

The expression of domain modification represents the newest function of Gm. *-mäßig* (Inghult 1975). It is not entirely clear how the REFERENCE meaning (Inghult's *Einschränkung*) emerged for *-mäßig*, but Inghult (1975: 153) proposes that it may have developed out of the existing semantic values of INSTRUMENT and ORIGIN. In the 19th ct., the pattern with *-mäßig* shared the domain function with other suffixes, particularly *-lich*, which was dominant in this function, but also *-isch*, *-al*, *-är*, *-ell* and *-iv* (Inghult 1975: 153). The use of *-mäßig* in descriptive functions has diminished since 1800 and this may be connected with the increase in the domain function (Kühnhold/Putzer/Wellmann 1978: 340). The domain function has risen noticeably for *-mäßig* since 1945 to become central in the 1970s whereas the share of other suffixes such as *-isch* and *-lich* in expressing this function has diminished (Inghult 1975: 154). Thus, *-mäßig* seems to have been specialising for marking domain modification as it became particularly productive for this function (Inghult 1975, Kühnhold/Putzer/Wellmann 1978: 348).

It is possible that the massive exploitation of the domain function for *-mäßig* in Gm. served as a model for Dt. *matig*-derivatives. However, we may also be dealing with an independent development in Dt. which also took place in other Gmc. languages: Swedish and Danish started using *mässig*-derivatives as domain modifiers in the 20th ct. and it grew out to be their dominant function (Söderbergh 1964: 361ff.). In Af., too, we find examples of *matig*-derivatives used as domain modifiers, e.g. *taal-matig* 'as far as language is concerned, linguistically' (13.40).

(13.40) Af./2008/internet¹⁹⁶

Die toets van akademiese geletterdheid bepaal of jy **taalmatig** in die akademiese omgewing oor die weg sal kom. Die taalvakke op skool het iets anders ten doel.

'The test of academic literacy determines whether you will manage linguistically in the academic environment. The language classes at school have a different purpose.'

An indication for an independent development of the domain function for Dt. *matig*-derivatives may be the existence of ambiguous instances. Ambiguous examples in CD are *seizoen-matig* 'per season' in (13.41) but also *cijfer-matig* in (13.42), which may be interpreted as a qualifier meaning '(expressed) in figures' or as a domain modifier meaning 'numerically (regarded)'

(13.41) CD/1995/38MWC

Bovendien is de nieuwe quotering geen achteruitgang: in 1996 mag het wad ca. 50.000 bezoekers tegemoet zien, **seizoenmatig** betekent dat toch zo'n 3000 wadlopers per weekend.

'Moreover the new quotas are no step backwards: in 1996 the wad welcomes approximately 50 000 visitors, per season/from a seasonal perspective this corresponds with about 3000 people walking the mud flats each weekend.'

(13.42) CD/1995/ANW

De reorganisatie beloofde meer blauw op straat. **Cijfermatig** klopt dat dus wel, het subjectieve gevoel van veiligheid bij de burgers geeft een andere uitkomst.

'The reorganisation plan promised more police on the street. (Expressed) in figures/Numerically (regarded) this has become reality, but the subjective feeling of security of the citizens leads to a different conclusion.'

Independent domain modifiers may originate from participle clauses in which the *matig*-derivative modifies *verba sentiendi*, e.g. *zien* or *kijken* 'see' qualitatively and which function as domain

¹⁹⁶ <http://web.up.ac.za/default.asp?ipkCategoryID=2388&language=1> [last accessed 05.07.2011]

modifiers; compare (13.20) above. Such participle clauses can be found already in the 1950s, e.g. *cijfer-matig gezien* ‘regarded in terms of figures’ (13.43).¹⁹⁷

(13.43) ModD/1957/ALC

Welk beeld laten deze cijfers ons nu zien? In grote lijnen tonen zij ons, dat, **cijfermatig** gezien, de bevolking van het platteland op het ogenblik wel daalt, maar dat het cijfer nog steeds ligt ver boven het peil van 1940.

‘Now, which picture do these figures show us? They basically show us that, numerically regarded, the population at the country is currently decreasing, but that the figure is still high above the level of 1940.’

13.3.3 Historical observations on syntactic use

In section 13.2.2 it was made clear that CD *matig*-derivatives are used adverbially and attributively. We find attributive *matig*-derivatives throughout history (1) and in ModD they also function as adverbial premodifiers (2).

(1) Attributive modifier

Attributive examples occur throughout history and are common in ModD: *Eene (...) fabriek-matig-e bereidingswijze* ‘an industrial manufacturing process’ (1793/WNT/vitrioliseeren), *deze tooneel-matig-e wyze* ‘this theatrical manner’ (1846/WNT/tooneelmatig), *de tuin-matig-e rijenbouw* ‘the row cultivation in gardens’ (1854/WNT/tuin), *een beroep-s-matig onderzoek* ‘an investigation by virtue of one’s office’ (1897/ALC), *zeer cijfer-matig-e arbeid* ‘very arithmetic work’ (1924/ALC). For CD examples, see the synchronic section.

(2) Adverbial premodifier

In ModD, *matig*-formatives enter the attribute slot as adverbial modifiers premodifying a qualifier, first of all as qualifiers, e.g. *in een eigenaardige en stelsel-matig volgehouden spelling* ‘in a bizarre and systematically maintained spelling’ (1895/WNT/stelselmatig), *fabriek-matig vervaardigde onderdelen* ‘industrially produced parts’ (1954/WNT/fabriekmatig) and later also as domain modifiers, e.g. *beroep-s-matig overeenkomstige groepen* ‘professionally equivalent groups’ (1961/WNT/wereld). The use as an adverbial premodifier is quite common in CD, e.g. *een cijfer-matig tastbaar bewijs van waardering* ‘a numerically tangible token of appreciation’ (1993/ANW), *de norm-matig benodigde wandomtrek* ‘the girth as required by standard’ (1999/ANW), *een hand-matig aangevulde databank* ‘a manually completed database’ (2002/ANW).

The use of *mäßig*-derivatives as modifiers within the NP is also found in Gm. An early example with a descriptive modifier is *durch die nicht gleich-mässig fortschreitende Abschwachung* ‘lit. by the not constantly progressing reduction’ (1899, Willmanns quoted in Habermann 2002: 45). CG examples include descriptive modifiers, e.g. *die akten-mäßig zu belegenden Wandlungen* ‘the transformations which can/should be contractually shown’ (1999/DWDS), *eine bananen-mäßig geschälte Salatgurke* ‘a cucumber peeled like a banana’ (1999/DWDS) and interpersonal modifiers, e.g. *an bestimmte, alter-s-mäßig vorherrschende Tätigkeitsweisen* ‘at particular, age-wise prevalent ways of working’ (1971/DWDS) or *eine gefühl-s-mäßig starke Sequenz* ‘an emotionally strong sequence’ (Inghult 1975: 154). Inghult connected the emergence of this adverbial premodifier use with the rise of the domain

¹⁹⁷ In the same period there are various attestations with other ADJ, e.g. *aardrijkskundig beschouwd* ‘geographically regarded’ (1943/WNT/aardrijkskundig), *sociologisch beschouwd* ‘sociologically regarded’ (1955/WNT/begripsmatig), *morphologisch bezien* ‘morphologically regarded’ (1957/WNT/morphologisch).

function.¹⁹⁸ It is to be expected that a similar rise in adverbial use can be detected for Dt. *matig*-derivatives with the rise of the domain function. This requires a quantitative investigation, which is outside the scope of this dissertation.

13.3.4 Scope and productivity from a diachronic perspective

It can be demonstrated that *-matig* has been widening its scope throughout time, particularly in the CD period. This is first of all noticeable in terms of stratal input conditions. CD exhibits extensive borrowing from En., e.g. *riff, groove, design, internet, hardware* and these En. loan words may serve as input for *-matig*. The scope of *-matig* has further been expanding in terms of the base categories it allows. New in CD are lexemes on the basis of acronyms. They are typically *ad hoc*-formations, created to be used in a very specific context, e.g. *CID-matig* (the agreement on CID or criminal intelligence was first formulated in 1994). Compare also *CPB-model-matig* ‘according to the model of *Centraal Planbureau*’ in (13.44).¹⁹⁹

(13.44) CD/1995/8MWC

Als ik uitga van de **CPB-modelmatige** benadering van de werkgelegenheid, heeft een mindere verlaging van de kosten voor arbeid een negatief effect op de werkgelegenheid.

‘If I follow the approach to employment according to the CPB-model, a lower cutback of the costs for work has a negative effect on employment.’

An NP occurs in *sociaal-gedragmatig* and ADJ are also incidentally found as has been illustrated in section 13.2.1 (but recall that deadjectival *billijk-matig* ‘reasonably’ was attested already in 1600). Verbal bases for Dt. *-matig* are not attested in the corpus data but they can be found on the internet, e.g. *schrijf-matig* ‘as far as writing is concerned’ in (13.45) and *eet-matig* ‘as far as eating is concerned’ in (13.46).

(13.45) CD/2008-9/internet²⁰⁰

Als de leerlingen het Latijn **schrijfmatig** tamelijk onder de knie hadden, en ook de grondbeginselen van het Grieks doorhadden, begonnen ze met het literatuuronderwijs.

‘As soon as the pupils reasonably mastered Latin as far as writing is concerned and understood the basics of Greek, they started with the education of literature.’

(13.46) CD/2009/internet²⁰¹

Iedereen die naar Griekenland gaat weet altijd te rapporteren dat er **eetmatig** niets te beleven is. Ze trekken een lang gezicht en zeggen: souvlaki. Of: moussaka. En afwisseling is er ook al niet bij. Almaar Griekse salade.

‘Everyone who travels to Greece always reports that there is no enjoyment as far as eating is concerned. They grumble and say ‘souvlaki’ or ‘moussaka’. There is no variation either. Greek salad all the time.’

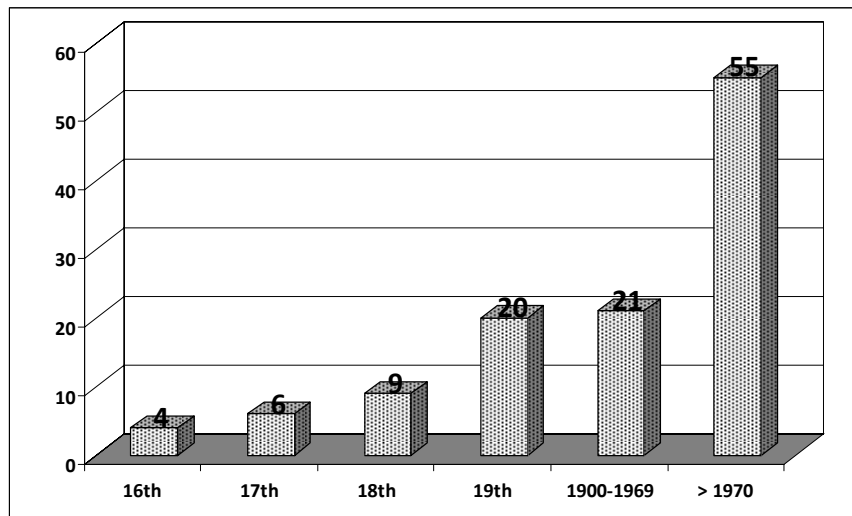
The historical material not only reveals a widening of the scope of *-matig* but also a rise in type frequency. Figure 13.3 gives an overview of the number of new types formed with *-matig* per century.

¹⁹⁸ The same connection was made by Söderbergh (1964) in his diachronic study on Swedish *-mässig*.

¹⁹⁹ <http://www.burojansen.nl/traa/h34.htm> [last accessed 28.06.2011]

²⁰⁰ <http://www.latium.nl/index.php?id=119> [last accessed 19.08.2010]

²⁰¹ <http://weblogs.nrc.nl/thuiskok/2009/05/> [last accessed 19.08.2010]

Figure 13.3. New formations with *-matig* throughout the centuries.

Decroos/Leuschner (2008: 26) refer to a rise in productivity from the 18th ct. onwards under Gm. influence.²⁰² The material provides evidence for a rise in the 19th ct. and there are indeed indications that there were influences from Gm. It is striking that the majority of *matig*-lexemes first recorded in the 19th ct. have Gm. equivalents which historically precede them (see appendix to chapter 13), e.g. *instinct-matig* 'instinctive', *beroep-s-matig* 'professional', *plan-matig* 'according to plan'. We even find direct indications for language contact with Gm.: the first attestations for *beroep-s-matig* 'professional' and *verdrag-matig* 'contractual' occur in texts that discuss events in the Gm.-speaking area. However, although Gm. influence seems likely, there are indications for independence of the Dt. pattern. First of all there are attestations for *matig*-lexemes for which a Gm. equivalent is absent in Inghult (1975), e.g. *schets-matig* '(in) outline', *kroniek-matig* 'in a chronicle', *reflex-matig* 'in a reflex'. Secondly there are differences in the use of the linking phoneme: Decroos/Leuschner (2008: 26) refer to Dt. *getal-s-matig/cijfer-ø-matig* 'in figures, numerical' vs. Gm. *zahl-en-mäßig/ziffer-n-mäßig* and we may add Dt. *dwang-ø-matig* vs. Gm. *zwang-s-mäßig*.

From figure 13.3 we may infer that productivity kept rising in the 20th ct. In the synchronic section I presented indications that *-matig* is available for new formation in CD. The diachronic investigation confirms this: there are 55 *matig*-types first recorded after 1970, which amounts to almost half of all new formations throughout history. Thus, *-matig* may be going through its most productive period today.

There is some evidence that the exploitation of the suffix *-mäßig* in Gm. and its equivalent *-matig* in Dt. may be influenced by prescriptive activities. There has been a movement in favour of the Gm. suffix *-mäßig* (1), but this was followed by a period of severe criticism (2). The same criticism can be observed in prescriptive activities involving Dt. *-matig* (3).

(1) Prescriptive activities in favour of *-mäßig*

In Gm., prescriptive activities were first directed in favour of the suffix *-mäßig*. According to research by Seibicke (1963a) lexemes formed with the suffix *-mäßig* were frequently used by the *Allgemeiner Deutscher Sprachverein* (later continued as *Gesellschaft für deutsche Sprache*) which was founded in 1885. The main goal of this association was to free the Gm. lexicon from foreign words. Until 1943

²⁰² Söderbergh (1964) in a study of Swedish *-mässig* assumes a direct link between the rise of *-mässig* in Swedish and increasing contacts with Germany.

the *Allgemeiner Deutscher Sprachverein* carried out its puristic activities by proposing native Gm. alternatives for foreign words. The pattern with *-mäßig* could be used to create Gm. synonyms for existing foreign lexemes, e.g. *bedeutung-s-mäßig* ‘semantic’ for *semantisch* and *ziffer-n-mäßig* ‘in figures’ for *digital*. The native suffix was such a good candidate for several reasons. There were no real input constraints and lexemes formed with *-mäßig* freely allow adjectival and adjectival use. Seibicke (1963b) observed that *-mäßig* allows word formation in cases where other derivational suffixes fail since they have become unproductive or have certain structural limitations. Thus, Seibicke (1963a) assumed that the prescriptive activities of the *Allgemeiner Deutscher Sprachverein* may have helped spreading the pattern in the 20th ct. Similar stimulation has not been observed for Dt. although structurally there is the same potential: *-matig* can be used to form native synonyms to foreign relational ADJ: *compulsief/dwang-matig* ‘compulsive’, *manueel/hand-matig* ‘manual’, *artificieel/kunst-matig* ‘artificial’, *systematisch/stelsel-matig* ‘systematic’ and so on. According to Heynderickx (2001: 28), it is to be expected that the non-native lexemes evoke stylistic connotations. Precisely for this reason, it seems that *-matig* is a handy alternative to romance suffixes.

(2) Criticism towards *-mäßig*

In the Gm. language area there has been a counter movement: lexemes formed with *-mäßig* had to endure severe criticism after 1945 (Inghult 1975). This criticism may have been due to a great rise in type frequency of *mäßig*-formatives but it also seems that it was directed towards a particular ‘new’ meaning, the REFERENCE niche, which was previously realised differently (Inghult 1975). Seibicke (1963a-b) gave an overview of critical writings on *-mäßig* which, he argued, lacked a sound empirical basis and which he considered unjustified since the suffix had become so conventionalised in Gm. Prescriptive criticism could not stop lexemes formed with *-mäßig* from being recognised by Gm. lexicography (Ros 1992: 146). Like this, the suffix could fully establish itself on the level of norm. However, now that it has penetrated all levels of society it is being criticised as overused trendy jargon (e.g. Sick 2005). It is used very creatively in the media, where new *ad hoc*-comparisons are created every day, e.g. *weltuntergang-s-mäßig* ‘as (if it were) the end of the world’, *lowbudget-mäßig* ‘low-budget-style’, *handycraft-mäßig* ‘handycraft-style’ (collected from Gm. radio in the period 13.10.2009-12.05.2010).

(3) Criticism towards *-matig*

The suffix *-matig* in Dt. has suffered severe criticism as well, which particularly involves puristic activities.²⁰³ At the start of the 20th ct., the expansion of *-matig* to everyday language had taken place, as we infer from Verdam (1923), who noted that those who object to *matig*-lexemes had to admit that they were used in both spoken and written Dt. As a supposed germanism, word formation with *-matig* was frowned upon by language purists during the interbellum period, e.g. by Moortgat (1925) and in the journal *Onze Taal* in the 1930s.²⁰⁴ Interestingly, puristic criticism in Dt. was directed towards part of the lexeme inventory (Decroos/Leuschner 2008: 25). This is already apparent in the WNT article on *-matig* from 1904 which differentiates between a set of established lexemes (*doel-matig* ‘effective’, *kunst-matig* ‘artificial’, *plicht-matig* ‘dutiful’, *recht-matig* ‘legitimate, rightful’, *regel-matig* ‘regularly’, *stelsel-matig* ‘systematic’, *ridder-matig* ‘knight-worthy, like a knight’), each of which gets its own entry in the dictionary, and a set of unusual lexemes, e.g. *bijbel-matig* ‘in accordance with the bible’, *fabriek-matig* ‘industrial’, *kroniek-matig* ‘as a chronicle’, *plan-matig* ‘schematic’, *rede-matig* ‘reasonable’ etc. A similar division is made in the journal *Onze Taal* in the

²⁰³ It is striking that Swedish *-mässig*, too, has been subject to puristic activities (Söderbergh 1964: 290). Swedish language critics tried to introduce the alternative *-mätig* (but mind that this is actually a loan from Low-Gm.). They were not successful.

²⁰⁴ Original quotation in *Onze Taal* (1938): “Het Duitsche achtervoegsel *-matig* moeten wij krachtig bestrijden; zet men de deur dáárvoor open, dan kan men rekenen op een onmatige aanwending van dit ‘matig’ passepartout.”

1930s and by Royen (1942) although there are some acceptance differences on the level of individual lexemes (see Theissen 1975 for an overview per lexeme).

Theissen (1975) observed that there was a new wave of criticism in the 1960s as dictionaries started treating a number of *matig*-derivatives as germanisms. In his own guide to germanisms he distinguished between different classes of *matig*-lexemes in terms of how conventionalised he believed they were at the time. The same procedure is pursued by Dt. prescriptive grammar today. *ANS* (1997) refers to a set of established, conventionalised lexemes and *Taaladvies* to an even larger set, adding that lexemes with *-matig* which do not figure in the list may be perceived by language users as “non-Dt.” and are thus potentially unacceptable. Problematic for the language user is that there is no full agreement on the level of individual lexemes. It is not possible to determine the effect of prescriptive activities on the exploitation of Dt. *-matig*. It is a fact, however, that the *matig*-derivatives have not penetrated all style registers. Native speakers of Dt. will agree that the formations in (13.44)-(13.46) as well as *nieuws-matig* ‘news-wise’ and *weblog-matig* ‘weblog-wise’ (13.47), although structurally well-formed and semantically perfectly interpretable, are marked and strike as unusual.²⁰⁵ Such lexemes seem to be a typical internet phenomenon and they are used with great creativity.

(13.47) CD/2004/internet²⁰⁶

Nieuwsmatig gebeurt er niets en **weblogmatig** al evenmin.

‘As far as news is concerned, nothing happens, nor as far as the weblog is concerned.’

The idea that *ad hoc*-formations like *weblog-matig* make an artificial impression is also represented by *Taaladvies*. They advise the careful language user to use a descriptive phrase.

13.4 Conclusion

This chapter fills a descriptive gap by discussing the Dt. suffix *-matig* which previously has been ignored in the literature, in contrast with the corresponding well-described Gm. suffix *-mäßig*. The latter has been referred to as a very flexible morpheme, in terms of its scope, semantic spectrum and the functions of its output lexemes, which combine descriptive and interpersonal functions (domain modification) and which may be freely used attributively, predicatively and adverbially. Thus, *-mäßig* differs from other suffixes for denominal derivation which have certain structural limitations, semantic specialisations or functional restrictions. Scholars have shown that *-mäßig* is highly productive in CG (Kühnhold/Putzer/Wellmann 1978: 348 etc.). The growth and importance of *-mäßig* has been connected with its capacity to allow highly ‘economical’ formations with maximal syntactic valency (Seibicke 1963b: 74-75, Ros 1992).

The present investigation reveals that all of the structural features observed for Gm. *-mäßig* apply to Dt. *-matig* as well. The suffix *-matig* combines a grammatical value (adjectivisation) with a fairly wide spectrum of semantic values. The structural equivalence of Dt. *-matig* and Gm. *-mäßig* has been explained diachronically in terms of borrowing and language contact. The Dt. suffix *-matig* was probably borrowed from Gm. (notably *riddermatig* ‘knight-worthy, like a knight’). However, it soon became productive which may have been facilitated through the existence of *ig*-derivatives like *middelmatig* ‘mediocre’. In the following centuries, as noticed by Decroos/Leuschner (2008), the suffix became very productive in Gm., which may, through language contact, have led to additional loan translations in Dt.

²⁰⁵ I base this observation on reactions of native speakers in conference talks where I presented comparable examples. I thank drs. Johanna Ridderbeekx for confirming this intuition.

²⁰⁶ <http://www.leovee.nl/weblogpl.php?x=444> [last accessed 12.01.2011]

Although Dt. *-matig* has the same structural potential as Gm. *-mäßig*, the suffixes differ with respect to their actual exploitation and the degree to which they are conventionalised. The claim by Van den Toorn (1983: 340) that Gm. *-mäßig* is expanding much more strongly than Dt. *-matig* can be confirmed. Scholars have observed that *-mäßig* is competing with other suffixes (particularly *-lich*) in various semantic niches; they even observed a tendency that synonyms with *-mäßig* are taking the place of established derived lexemes. In contrast, Dt. *matig*-derivatives appear to be divided in a small class of conventionalised lexemes on the one hand and a wide class of *matig*-lexemes which are perceived as marked in most registers on the other.

14 Modifying words with *-technisch*

14.1 Introduction

In the present chapter I shall argue that Dt. has a suffix-like morpheme *-technisch* for the formation of modifying words as *geluid-s-technisch* ‘as far as noise is concerned’ in (14.1) and *agenda-technisch* ‘as far as the schedule is concerned’ (14.2).

- (14.1) CD/1995/38MWC
Autosnelwegen zijn geweldige barrières in de dwarsverbindingen: zij vormen als regel landschappelijk en **geluidstechnisch** zeer storende elementen.
‘Motorways are huge barriers in the traverses: as a rule they are very annoying units both landscape-wise and noise-wise.’
- (14.2) CD/1993/ALC
Premier Ruud Lubbers brengt begin volgend jaar een bezoek aan Washington. (...) Dat het januari wordt lijkt vooralsnog het meest waarschijnlijk, maar als het **agendatechnisch** even tegen zit, kan het ook een of twee maanden later worden.
‘Prime Minister Ruud Lubbers is planning to visit Washington in the beginning of next year. (...) For the time being it is probably going to be January, but if things get difficult schedule-wise, it could be one or two months later.’

Although examples like (14.1) and (14.2) occur in modern written and spoken Dt., the suffix status of *-technisch* is controversial. The bound morpheme *-technisch* is mentioned by EWN as a synonym for the suffix *-gewijs* and it is treated by the Dt. prescriptive language portal *Taaladvies*.²⁰⁷ Otherwise, the pattern is completely absent in the handbooks on word formation by Booij (2002) and de Haas/Trommelen (1993), in *ANS* (1997) and in Van Dale (2005). This has to do with the fact that scholars treat modifying words like *geluidstechnisch* as the result of derivation by the suffix *-isch* on the basis of a compound with the lexical N *techniek* ‘technology, technique’, e.g. *geluid-s-techniek* ‘sound engineering’. In these nominal compounds, the preposed N functions as a classifying modifier to the head *techniek*, thus indicating a special subdomain of the applied or industrial sciences. Indeed, in (14.3) and (14.4), the modifying words *geluidstechnisch* and *computertechnisch* can be interpreted as ‘related to sound engineering’ and ‘by means of computer technology’, respectively.

- (14.3) CD/1994/38MWC
De fabrikant garandeert ons dat de nieuwe condensor de **geluidstechnische** metingen zal kunnen doorstaan.
‘The manufacturer guarantees us that the new condenser can stand the sound engineering measurements.’
- (14.4) CD/1993/38MWC
(...) gaat de computer over tot loting, hetgeen betekent dat **computertechnisch** wordt bepaald wie bij overtekening (volle zaal) wel of geen kaartje krijgt toegewezen.
‘(...) the computer is going to draw lots, meaning that it is determined by means of computer technology who will or will not get a ticket in case of over-subscription (full house).’

However, Dt. scholars overlook that in the contexts of (14.1) and (14.2) above, it is not possible to associate the modifying words semantically with technique, not even in a broad sense. The modifying word in (14.1) cannot be paraphrased using the nominal compound *geluid-s-techniek* ‘sound engineering’. As for *agenda-technisch* in (14.2), a corresponding nominal compound *agenda-techniek*

²⁰⁷ <http://taaladvies.net/taal/advies/vraag/777/> [last accessed 25.11.2011]

is even hardly imaginable. This suggests that the modifying words in (14.1) and (14.2) are formed differently than those in (14.3) and (14.4). For Gm., this formal difference was already pointed at indirectly in the 1970s by Kann (1974) and Kühnhold/Putzer/Wellmann (1978) and it was described in more detail by Ruge (2004). In the attested example in (14.5), *gentechn-isch* corresponds with the nominal compound *Gentechnik* ‘genetic engineering’, whereas for *Bikini-technisch* in (14.6) no corresponding nominal compound is available (Ruge 2004: 29).

(14.5) CG/1997

Die Einfuhr **gentechnisch** veränderter Soja bleibt vorläufig möglich.

‘The import of soy manipulated by genetic engineering remains possible until further notice.’

(14.6) CG/2000

Einzig die Mädchen guckten **Bikini-technisch** in die Röhre, denn für sie gab es keine Leihmodelle.

‘Only the girls got disappointed as far as bikinis are concerned, since they did not get any free samples.’

Gm. scholars consider *-technisch* in examples like (14.6) as a bound morpheme which, contrary to the homophonous independent ADJ *technisch* ‘technical, related to a technique’, lacks a lexical meaning of its own. The bound morpheme *-technisch* may not display the morphological properties of a prototypical suffix, hence it is analysed as a semi-suffix by Ruge (2004) and Decroos/Leuschner (2008). Only Lenker (2002) refers to *-technisch* as a suffix: on a par with *-mäßig*, it can be considered as a Gm. equivalent for En. *-wise*. Observe that in En. there is no related suffix, only an independent lexical ADJ *technic(al)*.

In this chapter I argue that Dt. *-technisch*, just like Gm. *-technisch*, can be analysed as a bound morpheme with suffix-like properties. By means of diachronic evidence, I show that derivation by *-technisch* in Dt. emerged in the second half of the 20th ct. to become very productive in the 1990s. Since word formation with *-technisch* seems to have established itself in Gm. prior to Dt., it may be tempting to assume that the Dt. pattern is a Gm. loan. I propose that the Dt. pattern may actually have been an independent development.

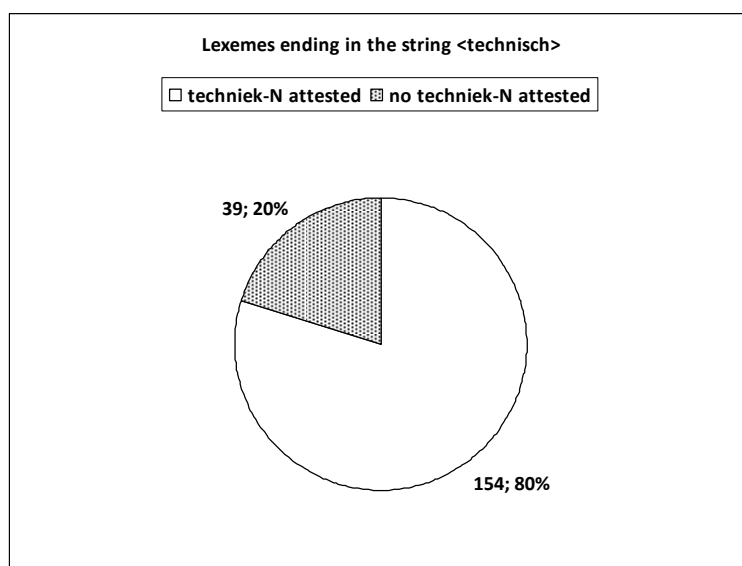
14.2 Synchronic description

The following synchronic description is based on an inventory (see appendix to chapter 14) of modifying words ending in the string <technisch> found in Van Dale (2005) and in the corpora 38MWC, ANW and CGN. First of all I manually removed the copulative compounds with the lexical ADJ *technisch* ‘technical’, e.g. *medisch-technisch* ‘medical-technical’ (see appendix to chapter 14 for the complete list). When *technisch* is combined with ADJ, chances are high that we are dealing with a copular compound in which both components are equal, i.e., both ADJ keep their lexical content and there is not one which modifies the other. There is an orthographic criterion to back up this analysis: the components are typically separated by a hyphen (the only exception is *civiltechnisch* ‘related to civil engineering’, see Van Dale 2005). I further removed modifying words which are derived by *-isch* from a formative with the lexical N *technik* and a neo-classical component, e.g. *elektro-*, *bio-*, *poly-* (consult appendix to chapter 14 for the complete list). Modifying words like *elektrotechnisch* ‘electrotechnical’ and *biotechnisch* ‘biotechnological’ can only be paraphrased by means of the nominal *technik*-compound.

The synchronic inventory (see appendix to chapter 14) of *technisch*-lexemes at the basis of this description consists of a total of 193 modifying words ending in the string <technisch>. Observe that formally, these may either be *isch*-derivatives like (14.3)-(14.4) or *technisch*-derivatives like (14.1)-(14.2). Following Ruge (2004), I checked whether a *technik*-compound is attested for the 193 modifying words (in ALC, ANW and WNT; see appendix to chapter 14). For 80% (154 types) a corresponding *technik*-compound is recorded, meaning that we must consider the possibility that

these modifying words are *isch*-derivatives: a semantic interpretation using ‘technique’ is at least structurally available. For the remaining 20% (39 types) no corresponding *techniek*-compound is attested. We may assume that it is more probable that they are *technisch*-derivatives and that it may be more difficult or even impossible to establish a semantic interpretation using ‘technique’. The pie chart in figure 14.1 gives an overview of the proportion of lexemes with and without a corresponding *techniek*-compound.

Figure 14.1. Proportion of lexemes ending in <technisch> with a corresponding *techniek*-compound in the synchronic inventory (193 types = 100%).



In actual fact, we can only call upon a semantic criterion to determine whether the modifying word is an *isch*-derivative of a corresponding *techniek*-compound, or rather a *technisch*-derivative. As Ruge (2004) points out for Gm., it should be determined for each individual concordance whether its interpretation in that particular context relies on the corresponding *techniek*-compound or not. Consider again *geluidstechnisch*: (14.3) is taken from a context of sound engineering, forcing us into an interpretation with the *techniek*-compound. On the other hand, in (14.1), no association with sound engineering or technique, even in the broad sense, is applicable. Such polysemy on the level of individual lexemes complicates the description. In many concordances, it is not even clear which interpretation and, thus, which word-formation pattern applies. E.g., *productietechnisch* in (14.7) may either be interpreted as ‘in terms of production technology’ or simply as ‘in terms of production’; *milieutechnisch* in (14.8) is interpretable as ‘regarding environmental technology’ or simply as ‘environmental’. It is barely possible to decide which pattern applies and whether or not *-technisch* may be analysed as a bound morpheme.

(14.7) CD/1995/38MWC

Ook als de bijdruk **produktietechnisch** haalbaar blijkt, zal dat niet voldoende zijn om aan de vraag te voldoen.

‘Even if additional print is feasible in terms of production/in terms of production technology, it will not be sufficient to meet the demand.’

(14.8) CD/1992/38MWC

Het plan geeft een overzicht van de organisatorische en **milieutechnische** maatregelen die moeten worden genomen om asbesthoudende materialen uit woningen en bedrijven te verwijderen.

‘The plan gives an overview of the organisational measures which have to be taken to remove asbestos material from houses and companies.’

For the 39 types without a corresponding *techniek*-compound we may assume that it is more difficult or even impossible to establish a semantic interpretation using ‘technique’. E.g. for *serietechnisch* ‘as far as television series are concerned’ in (14.9), the semantic interpretation does not include the concept of ‘technique’ and it is hard to imagine a context in which it could.

(14.9) CD/1992/38MWC

Serie-technisch zijn wij in Nederland grootgebracht op de welhaast spreekwoordelijk ‘iedere-week-een-paplepel’. Omroepen zonden hooguit een avond per week uit en het gevolg was, dat hoeveel succes een serie ook had, hij toch niet vaker dan een keer per week te zien was.

‘As far as television series are concerned, we were raised in the Netherlands on the principle ‘a spoonful every week’. The networks only broadcasted at best one evening a week and as a consequence, no matter how successful the series were, they could only be watched once a week.’

Still, these words too are not automatically *technisch*-derivatives. Although the nominal compound *oogtechniek* ‘lit. eye technique’ is not attested, *oogtechnisch* in (14.10) refers to the technique of ophthalmology.

(14.10) CD/1994/ANW

De ‘Sight Savers’ organisatie leidt mensen specifiek op het gebied voor oogzorg op. Het door hen opgezette **oogtechnisch** centrum kan steeds meer, zodat ook losse brilleglazen en monturen door hen gebruikt kunnen worden.

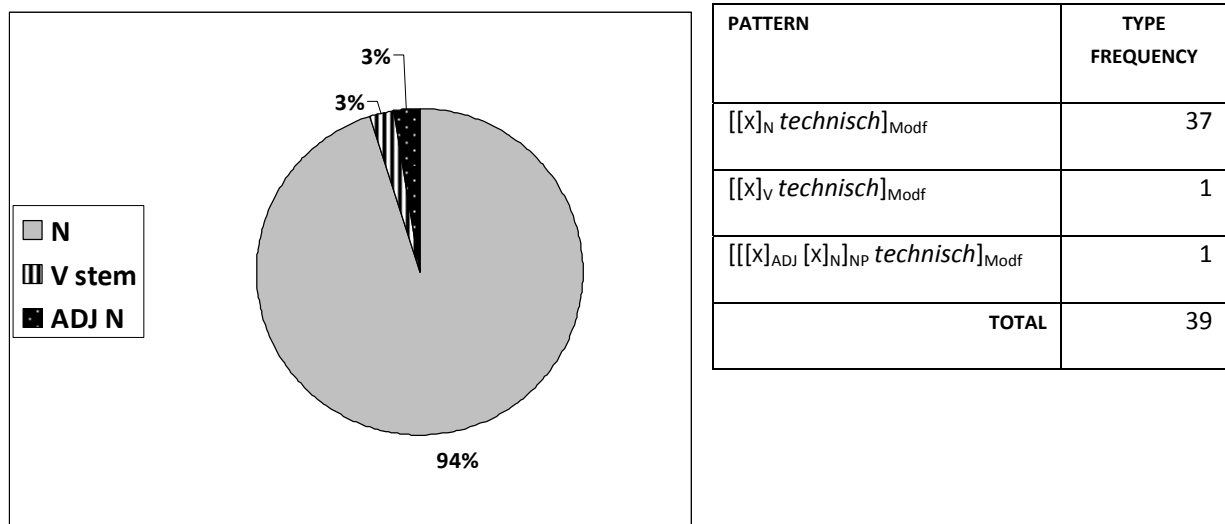
‘The ‘Sight Savers’ organisation trains people specifically on the field of eyecare. The ophthalmological centre they founded can do more and more, so that they can even use loose glasses and frames.’

It was not possible within the scope of this investigation to carry out a semantic interpretation for each individual concordance. The synchronic description will therefore only present tendencies illustrated by attested examples. As for the ambiguous tokens, it seems likely that these lie at the basis of the emergence of the word-formation pattern with *-technisch* (see section 14.3).

14.2.1 Scope and productivity

There are indications that a derivational pattern with *-technisch* is available in Dt. for the creation of modifying lexemes. Figure 14.2 shows the distribution of input categories in the synchronic inventory for the 39 modifying words ending in the string *technisch* for which there is no *techniek*-compound recorded in the material. Observe that we cannot be certain that all of these types are actually formed through derivation.

Figure 14.2. Distribution of input categories for *-technisch* in synchronic inventory.



From figure 14.2 we may infer that *-technisch* is prototypically added to N. Verbal bases occur incidentally and there is one type with a phrasal base. Mind that nominal and verbal bases cannot be straightforwardly separated, e.g. *schaak* 'chess' is attested in Van Dale (2005) as a N but it may just as well be the verbal stem of *schaken* 'to play chess' (see appendix to chapter 14). These input categories are parallel with Gm.: Kühnhold/Putzer/Wellmann (1978: 164) found that Gm. *-technisch* is combined prototypically with N (e.g. *überlieferung-s-technisch* 'tradition-related') and occasionally with V (e.g. *lern-technisch* 'study-related'). Very rarely, Gm. *-technisch* is combined with ADJ (e.g. *sozial-technisch* 'lit. social-related'); there are no examples of this kind in the Dt. inventory.

(1) Nominal input

In the synchronic material there are 130 types for which a corresponding *techniek*-compound is recorded. Van Dale (2005/*techniek*) lists the three main semantic categories of N which can be inserted in a *techniek*-compound: (a) activities, arts and crafts, skills; (b) sports or art; (c) medium or technical devices. Many of the N in the material fit into these categories, e.g. *bouw* 'construction', *spel* 'game', *materiaal* 'material'. In addition, there are many N referring to concepts of business and finances, e.g. *bedrijf* 'company', *markt* 'market'. For all of these modifying words an interpretation using 'technique' is available. Morphologically, there are simplex N (e.g. *vraag* 'question', *zee* 'sea'), derived N (e.g. *reinig-ing* 'cleaning', *veilig-heid* 'safety') and compound N (e.g. *net-werk* 'network', *lucht-vaart* 'aviation'). Borrowed base words are e.g. from Lt. (e.g. *product* 'product', *materiaal* 'material'), Fr. (e.g. *montage* 'assembly', *reclame* 'publicity') and particularly from En. (e.g. *design*, *computer*, *marketing*). We further find acronyms (e.g. *pr* 'public relations', *ICT* 'information and communication technology') as input words.

Let us now investigate the nominal input of the 37 types for which no *techniek*-compound is recorded in the material. Semantically, these input N constitute a miscellaneous class, e.g. *smaak* 'flavour', *layout* 'layout', *gebouw* 'building', *serie* 'tv series', *Star Trek* 'Star Trek', *agenda* 'calendar, schedule', *tentamen* 'exam'. The concepts these N denote often do not involve any technique, technology or method. We find morphologically simplex input N (e.g. *schoen* 'shoe', *oog* 'eye') derived N (e.g. *vergunning* 'licence', *gezond-heid* 'health', *water-schap* 'water board district') and compound N (e.g. *hout-productie* 'wood production', *jaar-telling* 'era', *bestemmings-plan* 'zoning plan'). For these N, it seems that the linking *-s* appears under the same conditions as it does for *-matig* (see chapter 13). Borrowed base words are e.g. from Lt. (e.g. *tentamen* 'exam', *agenda* 'calendar, schedule'), Fr. (e.g. *accommodatie* 'accommodation', *douane* 'customs') and particularly from En. (e.g. *chart*, *layout*). We further find acronyms (e.g. *CAO* = *Collectieve Arbeidsovereenkomst* 'collective labour agreement') and clippings (e.g. *info* = *informatie* 'information', *Arbo* = *Arbeidsomstandigheden(wet)* 'Health and Safety at Work Act'). Last but not least, proper names are allowed as input words (e.g. *Star Trek*).

Morphologically and semantically, both patterns are at first sight equally free: the input N exhibit no properties for deciding whether or not we are dealing with a *technisch*-derivative. The only significant characteristic is the fact that proper names seem to completely block an interpretation with 'technique', e.g. *Star Trek-technisch* 'in terms of Star Trek' (14.11).

(14.11) CD/1995/38MWC

Maar gelukkig, zijn opvolger lijkt een even grote nerd, zodat we de toekomst **Star Trek-technisch** gezien met vertrouwen tegemoet kunnen zien.

'But fortunately, his successor appears to be just as much of a nerd, so that, as far as Star Trek is concerned, we can have faith in the future.'

For Gm. *-technisch*, there are all kinds of simplex base words (e.g. *Flug* 'flight'), complex base words (e.g. *Orientier-ung* 'orientation'), native as well as borrowed ones (see Ruge 2004).

(2) Verbal input

In the synchronic inventory there are 25 lexemes which structurally may either be formed along the pattern $[[x]_v \textit{technisch}]$ or which may represent *isch*-derivatives from $[[x]_v \textit{techniek}]$ -compounds. For 24 deverbal lexemes a corresponding *techniek*-compound is attested (see appendix to chapter 14), which suggests that an interpretation with ‘technique’ is at least available. Taking a look at individual concordances, we find that a paraphrase by a corresponding *techniek*-compound is possible for the majority of tokens, which indicates that deverbal modifying words tend to be *isch*-derivatives rather than *technisch*-derivatives. E.g., for *vaarttechnisch* in (14.12), there is no doubt that the technique of navigation is being referred to.

(14.12) CD/1994/38MWC

Ook kapitein Van der Veer hanteert de strikte scheiding. Over **vaarttechnische** zaken wil hij niet veel kwijt. Dat moet de schipper maar vertellen.

‘Captain Van der Veer, too, follows the strict separation. He does not want to say very much about navigational matters. He leaves that to the skipper.’

However, this interpretation is no absolute rule. In (14.13), the modifying word *zeiltechnisch* probably refers to the technique of sailing, but it cannot be excluded that it just refers to the activity denoted by the *v*, without specific reference to technique (i.e., ‘related to sailing’). For *bouwtechnisch* in (14.14) the interpretation by means of the *techniek*-compound is the most likely, but it is difficult to paraphrase *woonttechnisch* by means of ‘residential technique’.

(14.13) CD/1994/38MWC

Wat mogen we beslist niet missen en wat moeten we zeker overslaan? En welke kaarten en pilots kunnen we het beste gebruiken? Alle ervaringen en adviezen, zowel toeristisch als **zeiltechnisch**, zijn van harte welkom.

‘What are we definitely not supposed to miss and what should we most certainly skip? And which maps and pilots should we use? We welcome each experience and advice, both tourism-related and related to sailing / related to sailing technique.’

(14.14) CD/1993/38MWC

In 1990 zijn alle particuliere woningen van 25 jaar en ouder geïnventariseerd op **bouwtechnische** en **woonttechnische** kwaliteit. Ingedeeld in clusters hebben ruim 700 woningen één of meer gebreken en zijn toe aan een grondige opknopbeurt.

‘In 1990 all private houses of 25 years and older were listed according to construction-related and living-related quality. Divided into clusters, over 700 houses exhibit one or more shortcomings and need solid renovation.’

The only deverbal formative for which no corresponding *techniek*-compound is attested is *typetechnisch* ‘as far as typing is concerned’ in (14.15), formed on the basis of the *v* *typen* borrowed from En. *to type*. In this particular context, it is hard to establish an interpretation using a paraphrase with ‘technique’.

(14.15) CD/2002/ANW

We komen bij elkaar voor een nieuw, ultrageheim allesvernietigend project: een site met ongein over literatuur. Eerst wilden we onze homepage degroteliteraireleeskijkknutseldoevakantiesite.nl noemen, maar dat leek ons **typetechnisch** toch niet handig.

‘We meet for a new, top secret, crushing project: a website with unfunny jokes about literature. We first wanted to call our homepage ‘degroteliteraireleeskijkknutseldoevakantiesite.nl’, but then that seemed very inconvenient as far as typing is concerned.’

(3) Phrasal input

In the corpus material there is one formative on the basis of an NP, the collocation *openbare orde* ‘public order’, see (14.16). There is no corresponding *techniek*-compound recorded and the semantic interpretation does not seem to include any concept of ‘technique’.

(14.16) CD/2002/ANW

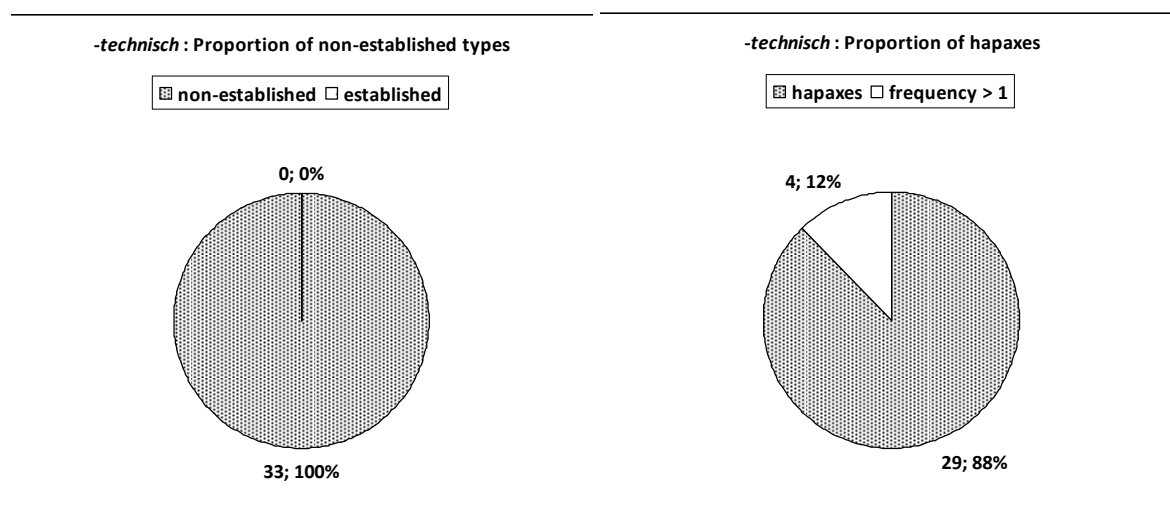
De politie is niet blij met de locatie van het duizend vierkante meter grote gebouw. Vlak langs de ruimte rijden bussen die supporters van de bezoekende club bij de Arena afzetten. “We hadden liever dat het aan de andere kant van de Arena was gekomen. Maar het is de politiek die beslist,” aldus een agent. “We geven het honk het voordeel van de twijfel maar blijven kijken of het **openbare-orde-technisch** problemen geeft.”

‘The police are not happy about the location of the building of 1000 square meters. Close by the space busses pass by which drop of the fans of the visiting team at the Arena. “We had rather it was situated at the other side of the Arena, but the politicians decide,” was the reaction of a constable. “We are giving the base the benefit of the doubt but we keep watching whether it leads to problems with regard to public order.”

(4) Synchronic indicators of productivity

The investigation of lexeme types has shown that the denominal pattern of word formation with *-technisch* is extremely flexible in terms of its input conditions: there are practically no structural and semantic restrictions on nominal base words. The application rate of *-technisch* in the corpora shows a low overall type frequency of 33 types, but an impressive proportion of non-established types: none of the lexemes is recorded in Van Dale (2005). In addition, 88% of them constitute hapaxes in the corpora. These are strong indicators of productivity. This is visualised in the pie charts in figure 14.3.²⁰⁸

Figure 14.3. Frequencies for *-technisch* (33 types = 100%).



More than half of the denominal Dt. words with a nominal base are hapaxes in the corpora. Most of the types for which no *techniek*-compound is recorded represent hapaxes (e.g. *vergunning-s-technisch* ‘related to license’, *agenda-technisch* ‘related to schedule’, *Star Trek-technisch* ‘related to Star Trek’). This could be an indication that Dt. has a word formation pattern with *-technisch* for new

²⁰⁸ It is problematic to provide counts due to the formal overlap with *isch*-derivatives of nominal *techniek*-compounds. I only counted the types for which no nominal *techniek*-compound is attested in the historical material (see appendix to chapter 14).

formation of modifying words on the basis of a wide variety of nominal input words. This is fully parallel with the genetically related Gm. suffix *-technisch*, for which the literature has already reported that the denominal pattern is highly productive. For Gm. *-technisch*, the wide scope is one of the reasons why scholars have argued against prototypical suffix status of *-technisch*: they argue that this reminds of compounding (compare chapter 10 on *-gewijs* and chapter 13 on *-matig*). The deverbal formative *typetechnisch* is a hapax in ANW which could indicate that there is new formation with verbal input words. The only phrasal type I found, too, represents a hapax in the corpora. It is hard to spontaneously come up with further examples like *sociaal-gedrag-s-technisch* ‘with regard to social conduct’ (see 13.2.1 on structurally similar formatives with *-matig*).

However, the pattern with *-isch* for deriving modifying lexemes from *techniek*-compounds is also available in Dt. This may be seen for instance from the fact that among the types for which a *techniek*-compound is attested, we also find hapaxes, e.g. deverbal *waarneemtechnisch* ‘observation-related’ (CGN) and *bokstechnisch* ‘boxing-related’ (ANW). This results in polysemy on the level of individual lexemes. Only the semantics of the context in which each individual lexeme occurs is decisive for the suitable morphological analysis, although many ambiguous cases remain. In the diachronic section I investigate the relation between *-technisch* as a suffix-like morpheme and *isch*-derivatives of nominal *techniek*-compounds from a historical point of view. I shall propose that the shared properties of Dt. and Gm. *technisch*-derivatives (functional equivalence, syntactic valency) may be the result of independent parallel developments.

14.2.2 Modifier types

Section 14.2.1 has made it clear that a confrontation of *technisch*-derivatives with *isch*-derivatives from *techniek*-compounds is required. The functions of Dt. *isch*-derivatives have been described e.g. by ANS (1997) and Heynderickx (2001). There are no observations in the literature on the functions of Dt. *technisch*-derivatives apart from my own observations (Diepeveen *submitted*) on their possibility of encoding the domain function. For Gm., however, the functions of *technisch*-derivatives have been described by Kühnhold/Putzer/Wellmann (1978) and Ruge (2004).

(1) Classifying modifiers

Dt. *isch*-derivatives may function as classifiers preceding the head N (Heynderickx 2001), e.g. *geluidstechn-isch-e metingen* ‘acoustic measurements’ in (14.3) and *vaarttechn-isch-e zaken* ‘navigational matters’ in (14.12) above. The same classifying function can be detected for *technisch*-derivatives, e.g. *vergunning-technisch* ‘licence-related’ in (14.17).

(14.17) CD/1993/38MWC

(...) het vervoer is in principe gratis in verband met **vergunningtechnische** redenen. Wel wordt van de passagiers een attentie verwacht voor de benzinekosten (...).

‘Transport is in principle free because of licence-related reasons. The passengers are expected to make a small contribution for the fuel costs.’

This is in accordance with observations for Gm.; Kühnhold/Putzer/Wellmann (1978: 164) treat all *technisch*-derivatives in their material as classifying ADJ in attributive position, e.g. *lern-technisch-e Schwierigkeiten* ‘study-related difficulties’.

(2) Qualifying modifiers

Dt. *isch*-derivatives may function as qualifiers (see Heynderickx 2001: 116ff), e.g. *computertechn-isch* ‘by means of computer technology’ specifying the instrument in (14.4). Typical qualifying examples are manner modifiers of *verba sentiendi* or *verba dicendi* (*zien* ‘see’, *bekijken* ‘look at’, *spreken*

'speak', *bezien* 'view, regard') in participle clauses, e.g. in *voetbaltechn-isch bezien* lit. 'regarded in terms of football skills', obvious reference is made to the skills of football. The participle clause functions as a domain modifier to the main predicate. The same qualifying function can be detected for Dt. *technisch*-derivatives, e.g. *Star Trek-technisch gezien* in (14.11) above and *prijs-technisch gezien* in (14.18), 'lit. regarded in terms of price, on the price'.

(14.18) CD/1994/38MWC

Prijstechnisch gezien konden de groep en de gemeente het niet eens worden.
'The group and the community could not agree on the price.'

The same type of qualifying examples with *verba sentiendi* in participle clauses are found in Gm., e.g. *urlaub-s-technisch gesehen* 'regarded in terms of holidays, holiday-wise' (Ruge 2004: 39). In Gm., too, the qualifying function is shared with *isch*-derivatives, e.g. *gentech-n-isch verändert* 'manipulated by genetic engineering' in (14.5).

(3) Domain modifiers

Dt. *isch*-derivatives may be used adverbially for restricting the applicability of the predicate (Heynderickx 2001: 69), e.g. *voetbaltechn-isch* 'as far as football skills are concerned' (14.19) and *rijtechn-isch* 'as far as driving skills are concerned' (14.20), in which cases there is a clear association with a technique.

(14.19) CD/1995/38MWC

daarmee hadden beide ploegen ook hun kruit verschoten, want in het tweede bedrijf viel er **voetbaltechnisch** weinig meer te genieten. Het werd toen met name van Harkemase Boys kant vechtvoetbal.

'Thus both teams had used up all their ammunition, because in Act Two there was not much left to enjoy as far as football skills were concerned. It then turned into fighting football particularly by Harkemase Boys.'

(14.20) CD/1995/ANW

De pas 17-jarige jonge belofte moest erkennen, dat hij enige pk's tekort kwam op de kwartliterpiloten. 'Maar **rijtechnisch** kom ik zeker niets te kort. (...)'

'The promising young pilot, only 17 years old, had to acknowledge that he missed some hp in comparison with the quarter litre pilots. 'But I can definitely keep up as far as driving skills are concerned.'

The function of domain modification can also be detected for Dt. *technisch*-derivatives. This already follows from the paraphrase by *EWN* in their entry on Dt. *-gewijs* from which we infer that *-technisch*, like *-gewijs*, can be associated with a limiting function (see chapter 10 on *-gewijs*). Compare further my own observations in Diepeveen (*submitted*). The domain function appears to be relatively common in the corpus material, e.g. (14.1)-(14.2), (14.9) and (14.15)-(14.16) above. As domain adverbials, *technisch*-derivatives may restrict the applicability of the verbal predicate, of the adjectival main predicate or of an attributive qualifying modifier. There is no paraphrase by means of 'technique' available but the modifying word is paraphrasable as 'as far as x is concerned', e.g. *vergunning-s-technisch* 'as far as the licence is concerned' in (14.21).

(14.21) CD/1995/38MWC

Ook **vergunningstechnisch** was het voor Franz Seinen Vis BV geen groot probleem. Elk schip dat uitgerust is om schelpdieren te vangen en volgens de scheepvaartinspectie op de Noordzee mag varen krijgt een vergunning.

'Also as far as the licence was concerned it was no major problem for the Franz Seinen Fish company. Each ship which is equipped to catch shellfish and which the shipping inspection allows to sail on the North Sea gets a licence.'

The domain function has been observed for *-technisch* in Gm. by Lenker (2002) and Ruge (2004). In (14.22), the domain adverbial *fernseh-technisch* ‘as far as television is concerned’ restricts the applicability of the adjectival predicate; in (14.6) above, of the verbal predicate (both examples from Ruge 2004). In both concordances there is no association with any technique, technology or skills.

(14.22) CG/1999

Gleich vorweg: Der Mittwochabend war **fernsehtechnisch** katastrophal.

‘First of all: Wednesday night was a disaster as far as television is concerned.’

14.2.3 Contribution of *-technisch*

The word-formation pattern with *-technisch* contributes a grammatical value (1) and a semantic value (2).

(1) Grammatical value

Creating modifying words out of N or V, *-technisch* has a grammatical value in both Dt. and Gm. The mixture of attributive and adverbial instances in the corpus shows that *technisch*-lexemes in both Dt. and Gm. are prototypical ADJ. Thus, *-technisch* is an adjectiviser.

(2) Semantic value

The word-formation pattern with *-technisch* has a narrow semantic spectrum; in fact it seems that it only contributes the semantic value REFERENCE. This is in accordance with Gm.: Kühnhold/Putzer/Wellmann (1978) described the semantic contribution of Gm. *-technisch* as ‘related to’. Ruge (2004: 37) believes this semantic analysis is too narrow, since he discovered examples in which *-technisch* establishes a relation of COMPLIANCE or of INSTRUMENT. However, he provides only one example for each and these are considered problematic by a native speaker of Gm.²⁰⁹ Table 14.1 gives an overview of the semantic spectrum.

Table 14.1. Semantic spectrum of *-technisch*.

VALUE		PATTERN	EXAMPLE
PRIMARY	REFERENCE	[[x] _N <i>technisch</i>] _{ADJ}	<i>agenda</i> ‘schedule’ : <i>agenda-technisch</i> ‘as far as the schedule is concerned’
		[[x] _V <i>technisch</i>] _{ADJ}	<i>typen</i> ‘to type’ : <i>type-technisch</i> ‘as far as typing is concerned’

We found that *technisch*-derivatives occur in descriptive modifiers of the classifying and qualifying subtype and in domain modifiers. Dt. *technisch*-derivatives completely share their functions with *isch*-derivatives from a *technik*-compound. This is in accordance with the findings for Gm. by Ruge (2004). Individual lexemes may be polysemous across modifier types; the context determines which type applies. Compare *vergunning-s-technisch* which is classifying in (14.17) and a domain modifier in (14.21).

²⁰⁹ I thank prof. dr. Matthias Hüning for judging Ruge’s examples.

(3) Rival suffixes

Suffixes which share the semantic value REFERENCE in Dt. include *-isch*, but also *-gewijs* (EWN and see chapter 10) and *-matig* (see chapter 13). From Lenker (2002) and Ruge (2004) we infer that in Gm., *-mäßig* is the main competitor besides *-lich* and *-isch*. Ruge (2004) investigated to what extent there is equivalence among these suffixes. Another native competitor for the REFERENCE meaning is *-mäßig* (see chapter 13 on *-matig*) as well as non-native suffixes, *-al/-ell*, *-(at)iv*, *-ar/-är*, *-os/-ös* (see Kühnhold/Putzer/Wellmann 1978).

14.3 Diachronic description

There is no information in the literature on the origin of Dt. *-technisch*. In contrast, the origin of Gm. *-technisch* was investigated by Kann (1974) as summarised in 14.3.1. The origin of the Dt. pattern is investigated in 14.3.2. on the basis of a diachronic inventory of 204 modifying words ending in the string <technisch> (see appendix to chapter 14). Included are the 193 lexemes of the synchronic inventory and 11 additional lexemes collected in WNT. I looked up the earliest attestation for each lexeme type as well as the earliest attestation of the corresponding nominal *technik*-compound. If the *technik*-compound is attested earlier, this may be an indication that the modifying word was formed parallel to it by means of the suffix *-isch*. The *technik*-compound may be attested later, which could indicate that it was created through back formation. If no *technik*-compound is attested, this may point at derivation by a bound morpheme *-technisch* (see 14.2.1).

14.3.1 Origin of *-technisch*

Before I deal with the origin of Dt. *-technisch* in (2), I summarise what is known about its Gm. equivalent in (1).

(1) Origin of German *-technisch*

Kann (1974) made some observations on the origin of the Gm. bound morpheme *-technisch* for the creation of modifiers. The derived modifying words originate in compounds with the lexical ADJ *technisch* 'technical, relating to applied and industrial sciences' which were formed parallel to nominal compounds with the N *Technik* 'technique, technology, engineering'. They typically functioned as classifying ADJ, meaning something like 'related to the domain of applied and industrial sciences indicated by the base N', e.g. *chemotechnisch* 'related to chemical engineering', *phototechnisch* 'phototechnical'. Thus, there was originally an obvious semantic and morphological connection with a technique.

At a certain point, a more general meaning of *Technik* developed, no longer associated with engineering or applied or industrial sciences, but rather with skills, methodology or organisation (compare Kühnhold/Putzer/Wellmann 1978: 512). As the affinity with the original lexical meaning of *Technik* became vague, the derived modifiers were allowed as classifiers in much more abstract contexts. Finally, through a process of semantic bleaching, *technisch* became a suffix-like morpheme. Kann (1974) situates its emergence in the mid 1960s. The first example he quotes is an inflected classifying ADJ from 1968, *aus buchungs-technisch-en Gründen* 'for booking-related reasons'. Thus, in the 1970s, the pattern allowed base words which semantically have nothing to do with any kind of technique (Kühnhold/Putzer/Wellmann 1978: 513 and Kann 1974).

I would like to suggest that *-technisch* developed the semantic value REFERENCE, which was originally contributed by *-isch* but projected onto *-technisch* in a process of reanalysis. In this process, the connection with *Technik* was completely lost. This process is represented in table 14.2.

Table 14.2. Reanalysis into *-technisch* in German.

	PATTERN	INPUT	OUTPUT
1.	[[x] _N <i>isch</i>] _{ADJ}	<i>Chemotechnik</i> 'chemical engineering'	<i>chemotechn-isch</i> 'related to chemical engineering'
2.	[[x] _N <i>technisch</i>] _{ADJ}	<i>Buchung</i> 'booking'	<i>buchung-s-technisch</i> 'related to booking'

In a final step, the Gm. suffix-like morpheme *-technisch* was recognised by grammar and lexicography; it has for instance found its way into the 2001 edition of the *Duden* dictionary (Ruge 2004: 29).

(2) Origin of Dutch *-technisch*

Judging from the critical remarks on word formation with *-technisch* on the Dt. prescriptive language portal *Taaladvies* and the absence of recognition by the literature, we are dealing with a relatively new pattern. The lexical ADJ *technisch* itself is young; it is first recorded in 1778 and it is probably a loan word from Gm. (*EWN/technisch*). The first nominal compounds with *techniek* are attested in ModD at the end of the 19th ct.: *gezondheidstechniek* 'health technique' (1886/ALC), *toneeltechniek* 'theatre technique' (1891/ALC), *verlichtingstechniek* 'lighting technique' (1894/WNT/verlichting). Modifying words ending in the string *technisch* are found in ModD in the same period: *bouwtechnisch* 'related to building technique' (1896/ALC), *cultuurtechnisch* 'related to cultural technique' (1900/ALC), *tandtechnisch* 'related to dental technique' (1913/ALC). Until the mid 20th ct., corresponding *techniek*-compounds are recorded for each of the modifying words. Mind, however, that the *techniek*-compound may be attested later than the modifying word; in fact, this is also the case for the earliest attestations. Nevertheless, the very existence of corresponding *techniek*-compounds may be taken as an indication that the modifying words are likely to be interpreted as *isch*-derivatives with the lexical content of 'technique', e.g. *bouwtechnisch* 'related to building technique' in (14.23).

(14.23) ModD/1896/ALC

Het woonvraagstuk werd van verschillende zijden nog behandeld uit een hygiënisch en **bouwtechnisch** oogpunt (...).

'The issue of housing was tackled by different sides from a hygienic perspective and from the perspective of building technique.'

In the 1940s the first modifier is recorded for which I did not find a corresponding *techniek*-compound, *prijstechnisch* 'related to (the technique of) price' (1946/ALC). However, since *kostprijstechniek* 'technique of cost price' is attested (1964/ALC), we may assume that *prijstechniek* 'technique of price' is also available. It seems that a change took place in the 1950s and 1960s when the semantic association with a technique appears to have become looser or was even completely absent for certain lexemes. For *vergunning-s-technisch* 'licence-related' (14.24) and *gebouw-technisch* 'related to building(s)' (14.25), no corresponding nominal compound with *techniek* is attested and it is hard to establish one intuitively. Rather, *-technisch* contributes the REFERENCE meaning 'related to'.

(14.24) ModD/1959/ALC

Er zijn heel wat **vergunningstechnische** moeilijkheden te overwinnen (...).

'Many licence-related difficulties need to be overcome.'

(14.25) ModD/1965/ALC

De verhuizing van de rotatiedrukkerij naar Emmeloord is dan ook van **gebouwtechnische** aard. (...) De handelsdrukkerij blijft in Balk, omdat daarvoor het pand voldoende mogelijkheden bezit.

'The move of the rotary printing establishment to Emmeloord is only of a building-related kind. (...) The printer's office stays in Balk, because the premises offer enough possibilities for that.'

As we have seen in 14.3.1, Kann (1974) situated the emergence of the suffix *-technisch* in Gm. in the mid 1960s. My data suggest the same for Dt. I believe that we may assume a parallel process: the semantic value REFERENCE was originally embodied by *-isch* but then projected onto *-technisch* in a process of reanalysis whereby the connection with *techniek* was completely lost. This process is represented in table 14.3.

Table 14.3. Reanalysis into *-technisch* in Dutch.

	PATTERN	INPUT	OUTPUT
1.	[[X] _N <i>isch</i>] _{ADJ}	<i>bouwtechniek</i> 'building technique'	<i>bouwtechn-isch</i> 'related to building technique'
2.	[[X] _N <i>technisch</i>] _{ADJ}	<i>vergunning</i> 'licence'	<i>vergunning-s-technisch</i> 'related to licence'

The pattern seems to really take off in the 1980s and 1990s when more and more modifying words are recorded for which no semantic association with *techniek* applies and no corresponding *techniek*-compound is attested, e.g. *omzettechnisch* 'as far as (the volume of) trade is concerned' in (14.26) (for more examples, see 14.3.3).

(14.26) CD/1987/ALC

Maar met het bedrijf gaat het prima. In '86 en in '87 hebben we voor bijna twee ton graffiti verwijderd. Dus wij zitten **omzettechnisch** heel goed.

'But the company is doing fine. In '86 and in '87 we removed graffiti for almost two hundred thousand guilders. So as far as the volume of trade is concerned our situation is very good.'

Dt. grammar and lexicography today still have not recognised *-technisch* as a suffix. The 1992 edition of Van Dale introduced an entry for the bound morpheme *-technisch*, although it still gets a lexical content of its own. In addition, the uncertainty of some language users may be indicated by the fact that some write the formatives with a hyphen (see ANW material).

14.3.2 Functional shift

For *technisch*-derivatives we find early uses as descriptive modifiers (1) and more recent uses as interpersonal modifiers indicating domain (2). As pointed out before it is hard to separate *technisch*-derivatives from *isch*-derivatives of *techniek*-compounds. This has to be taken into account.

(1) Descriptive modifiers

The early instances of *isch*-derivatives of *techniek*-compounds in Gm. and Dt. were typically classifying modifiers and they were often combined with the N *oogpunt* 'point of view', e.g. in (14.27). The NP as a whole functioned as a domain modifier. Compare *bouwtechn-isch* 'related to building technique' in (14.23).

(14.27) ModD/1917/ALC

Is het uit een **landbouwtechnisch** en sociaal-economisch oogpunt al of niet wenschelijk, dat in verschillende delen van Friesland het eenzijdige greidebedrijf wordt vervangen door gemengd bedrijf?

'Is it from an agricultural and social-economical point of view desirable or not, that in different parts of Friesland one-sided grassland farming is being replaced by mixed farming?'

As for *technisch*-derivatives in Gm. and Dt., they too were initially used as classifiers, e.g. ModG *ausbuchung-s-technisch-en Gründen* ‘for booking-related reasons’ (1968) and ModD *vergunning-s-technisch-e moeilijkheden* ‘licence-related difficulties’ (1959/ALC) (see 14.3.1). Further descriptive examples are *isch*-derivatives of *techniek*-compounds or *technisch*-derivatives functioning as qualifiers with *verba sentiendi* in a participle clause.

(2) Interpersonal modifiers

In Dt., *isch*-derivatives of *techniek*-compounds are found as independent domain modifiers incidentally in the 1940s and 1950s, e.g. *zangtechn-isch* ‘as far as the technique of singing is concerned’ in (14.28). There is a clear semantic association with technique.

(14.28) ModD/1946/WNT/zang

De spanning en opening der mond (...), de ligging en vorm van de tong zijn **zangtechnisch** volkomen verantwoord.

‘The tension and the opening of the mouth (...), the position and the shape of the tongue are fully justified as far as singing technique is concerned.’

In Dt., an early example of a *technisch*-derivative functioning as an independent domain modifier may be *taal-technisch* ‘linguistically’ in (14.29): an interpretation using ‘technique’ does not seem to be suitable and the corresponding nominal compound *taaltechniek* is attested much later, in 1995.

(14.29) ModD/1959/ALC

Op het gebied van het “gewone” zeilen zijn in Nederland goede boekwerken verkrijgbaar (...). Voor wedstrijdzeilen heeft men aan deze boeken slechts weinig; daartoe zou men slechts van buitenlandse werken, - mits **taaltechnisch** toegankelijk daar het vooral de Engelse en Duitse taal betreft, - gebruik kunnen maken.

‘On the field of ‘ordinary’ sailing there are good books available in the Netherlands (...). For competitive sailing these books are not very helpful; there, one could only consult foreign work, on the condition that it is linguistically accessible since it is mostly in English or German language.’

Independent domain modifiers in Dt. are more frequently found in the 1970s, but they could still be ambiguous. For *smaaktechnisch* ‘as far as flavour is concerned’ in (14.30) a semantic interpretation using technique is possible: ‘as far as the technique of flavouring is concerned’. However, the nominal compound *smaaktechniek* is not recorded in the material. For *managementtechnisch* ‘as far as the management is concerned’ (14.31), *managementtechniek* is attested (1970/ALC) but for this particular context it is hard to establish a paraphrase using this compound.

(14.30) CD/1975/ALC

Hij is een grootmeester in het mengen van kaas, weet precies wat wel en wat niet moet en is vooral **smaaktechnisch** een onontbeerlijke schakel in het ontwikkelingsproces.

‘He is a master in mixing cheese, knows exactly what should and what should not be done and particularly as far as flavour is concerned he is an indispensable link in the chain of production.’

(14.31) CD/1978/ALC

Alle ondernemingen gaan nu een zelfstandig beleid voeren en Groenhoven wordt financieel en **managementtechnisch** gescheiden van IJsunie. De bestaande commerciële banden blijven onverkort gehandhaafd.

‘All companies are now following their own policy and Groenhoven will be separated from IJsunie financially and as far as the management is concerned. The existing commercial relations remain unimpaired.’

The domain modifiers increasingly occurred in the 1980s, e.g. *bestemmingsplanttechnisch* ‘as far as the zoning plan is concerned’ in (14.32) and *vergunningstechnisch* ‘as far as the licence is concerned’

in (14.33). No corresponding *technik*-compounds are attested and an interpretation using *technik* is impossible.

(14.32) CD/1984/ALC

Werkloze jongens willen vroeger klooster kopen. (...) "**Bestemmingsplantechnisch** is hun plan wel haalbaar, maar ik weet dat er meer belangstelling is voor het klooster."

'Unemployed boys want to buy former monastery. (...) As far as the zoning plan is concerned, their plan is feasible, but I know there are further potential buyers for the monastery.'

(14.33) CD/1988/ALC

De inzet van de kolenvergassingscentrale zal volgens Ketting in het gunstigste geval pas rond het jaar 2000 aan de orde komen. "Het is **vergunningstechnisch** een novum. Het is geen gewone centrale maar een chemische installatie."

'The launch of the coal gasification installation will, according to Ketting, take place at best in the year 2000. "As far as licence is concerned, it is unprecedented. It is not a normal power station but a chemical installation.'"

It is not clear when *technisch*-derivatives first occurred as independent domain modifiers in Gm. but Kann (1974) provides examples from the late 1960s and early 1970s. There is no direct evidence that Dt. borrowed the domain function from Gm. but it may have developed naturally from descriptive instances. In Gm., particularly in the latest decades, *-technisch* has become a competitor for *-mäßig* in the domain function, as we find numerous examples in the media, e.g. on the internet (14.34)-(14.35) and in spoken Gm.

(14.34) CG/2005/internet²¹⁰

Es war **wettertechnisch** ruhig, die Sonne schaffte es zwischen Wolkenfetzen und Restnebel hindurch zu scheinen.

'Weatherwise it was calm, the sun managed to penetrate the clouds and the mist.'

(14.35) CG/2005/internet²¹¹

So werden ab dem 01.08.2005 die Fächer Mathematik und Deutsch für die Klassen 1 und 2 **stundenplantechnisch** parallel liegen.

'Thus from 01.08.2005 onwards the subjects of maths and German will be parallel for classes 1 and 2 as far as the schedule is concerned.'

Scholars are not sure whether there is a promising future for Gm. *-technisch* in domain modification due to competition with other patterns. In his scholarly paper, Ruge (2004) referred to the far-reaching functional equivalence with *-mäßig*. Lexemes formed with *-mäßig* do not suffer from ambiguity with the homophonous lexical ADJ *mäßig*. We could add to these observations that *-mäßig* can boast a long and firm history as a suffix, whereas *-technisch* still has to deal with the insecurity of language users on the acceptability of their formations. This shows from the occasional use of quotation marks (Ruge 2004: 39). We should put the supposed functional equivalence of *-technisch* and *-mäßig* into perspective, however. Lexemes formed with *-technisch* are prototypically used as classifiers or domain adverbials, whereas *-mäßig* has a broader semantic spectrum and derivatives are much more frequently found with a qualifying function. In fact, this function was historically primary (see chapter 13 on *-matig*). The popular language critic Sick (2005) does not believe in a continuation of the pattern with *-technisch* on the basis of the intuition that the tendency to use it has come to an end before it could reach the status of *-mäßig*. His explanation is that *-mäßig* is formally simpler and *-technisch* too complicated.

²¹⁰ <http://www.klartraumforum.de/forum/showthread.php?tid=3035> [last accessed 07.01.2011]

²¹¹ <http://www.bonhoeffer-schule-muenster.de/index.php?id=209> [last accessed 07.01.2011]

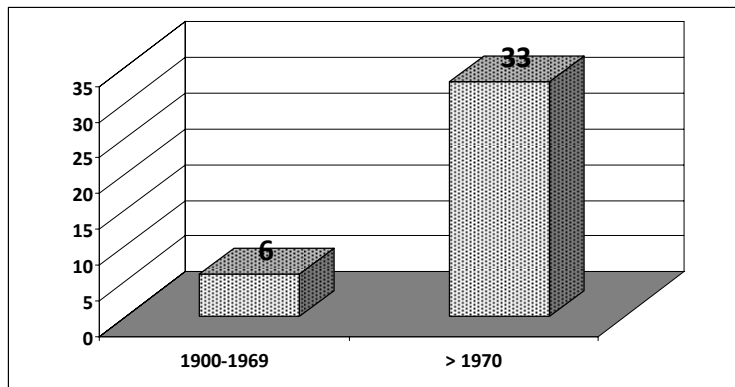
14.3.3 Historical observations on syntactic use

As pointed out in section 14.2, *technisch*-derivatives have a wide syntactic valency. Diachronically, adverbial use may have increased with the emergence of the domain function (compare section 13.3.3 on *-matig*), but attributive use remained important. Possibly a new development may be that *technisch*-derivatives as domain modifiers enter the NP, e.g. *landschappelijk en geluidstechnisch zeer storende elementen* ‘lit. landscape-wise and noise-wise very annoying units’ (1995/38MWC) in (14.1) above.

14.3.4 Scope and productivity from a diachronic perspective

We may assume that *technisch*-derivation is a very young phenomenon of the (second half of) the 20th ct. The bar chart in figure 14.4 gives an overview of the number of new types which were formed for which no corresponding nominal *techniek*-compound is recorded.

Figure 14.4. New formations with *-technisch* throughout the centuries.



There is a recent rise in the number of types for which no corresponding *techniek*-compound is recorded, particularly in the 1990s. In terms of input conditions, the fact that clippings, proper names and NPs occur only since the 1990s points at an increasing flexibility of the pattern. The most recent derivative in the material is *vuurwapen-technisch* ‘lit. related to firearms’ in (14.36). In this concordance it functions as a native alternative to the foreign word *ballistisch* ‘ballistic’.

(14.36) CD/2004/ANW

Er was nog niets onderzocht. Er was geen enkel bewijs, geen lijk, geen kogel, geen recherchespeurwerk, geen medisch rapport en geen ballistisch (**vuurwapentechnisch**) onderzoek.
 ‘Nothing had been investigated yet. There was not a single piece of evidence, no corpse, no bullet, no detective work, no medical report and no ballistic investigation.’

It has become clear from the preceding paragraphs that it remains problematic throughout history to distinguish between *technisch*-derivation and *isch*-derivation on the basis of *techniek*-compounds. There are indications that both patterns remain productive in CD since both generate new types.

In Dt. and Gm. the pattern with *-technisch* is not equally well established on the level of norm. In Gm. it apparently became productive sooner and more conventionalised. This may have had a stimulating effect on the rise of *-technisch* in Dt. in the 1990s. It is interesting that Gm. *-technisch* made its way into lexicography and scholarly work on word formation, whereas in Dt., the pattern has not gotten any recognition in the literature and is still struggling for acceptance. This is shown by the prescriptive language portal *Taaladvies* which explicitly advises language users to avoid *-technisch*, claiming that many *ad hoc*-formations are exclusively associated with trendy spoken language and

perceived as artificial or sloppy in written texts. Indeed, it is striking that there are many internet attestations for *technisch*-lexemes in ANW (particularly the non-dated items in the appendix to chapter 14). This suggests that the pattern is marked and perceived as typical of a particular style register.

14.4 Conclusion

The suffix-like properties which have been demonstrated in the literature for Gm. *-technisch* also apply to Dt. *-technisch*. There are indications that a derivational pattern with *-technisch* is available in Dt. for the creation of modifying lexemes, particularly on the basis of N. In Dt. as well as in Gm., the suffix-like morpheme *-technisch* adds the semantic value REFERENCE. The resulting lexemes function either as descriptive modifiers or domain adverbials.

Historically, *-technisch* probably emerged as a bound morpheme through a reanalysis of original modifiers derived by *-isch* from nominal *technik*-compounds. One particular semantic value of *-isch*, REFERENCE, was projected onto *-technisch* and the association with *technik* 'technique' disappeared. Structurally, there is no direct indication that Gm. influence is responsible for the emergence of Dt. *-technisch*. In both languages the pattern seems to have emerged in the 1960s. Both in Dt. and Gm., the pattern with *-isch* for deriving modifying lexemes from nominal *technik*-compounds is still available for new formation. Since the input conditions and the functions of these patterns overlap almost entirely, there is polysemy on the level of individual lexemes. Only the semantics of the context in which each individual lexeme occurs is decisive for the suitable morphological analysis, although many ambiguous cases remain. The ambiguity of individual lexemes could be an indication for ongoing change in the language system, i.e., *-technisch* is still developing the properties of a suffix.

From a contrastive perspective, it is remarkable that word formation with *-technisch* is structurally allowed by the Dt. and Gm. language system with the same semantic value, creating lexemes with the same functional possibilities, but that the pattern is not equally conventionalised in actual language usage. Dt. formatives are usually perceived as trendy jargon. However, the corpus material shows that they have penetrated different genres of both spoken and written standard Dt.

15 Modifying words with *-tjes*

15.1 Introduction

Dt. has a derivational suffix *-tjes* for the creation of modifying words which are very frequently used in spoken and written Dt. (ANS 1997). Examples are *zacht-tjes* 'softly' in (15.1) and *still-etjes* 'quietly' in (15.2).

(15.1) CD/2001/ANW
Ze kwam dichterbij hem en raakte hem **zachtjes** aan.
'She came closer to him and touched him gently.'

(15.2) CD/2001/ANW
Ze zat **stilletjes** te huilen.
'She was quietly weeping.'

Immediately striking is the formal correspondence with the nominal diminutive suffix *-tje*, e.g. *schoen-tje* 'small shoe', *mann-etje* 'small man'. Because of the correspondence with the nominal diminutive suffix and the adverbial status of the output derivatives, *tjes*-formatives have been referred to as 'diminutive ADV' (e.g. Royen 1948a: 50, Kruisinga 1949: 124). It has been stressed in the literature that such diminutive ADV are peculiar to Dt. (e.g. Royen, 1948a: 50, Shetter 1959: 83, ANS 1997: 736, Klimaszewska 1983: 20). Gm. has the diminutive suffixes *-chen* and *-lein*, e.g. *Tröpf-chen* 'small drop', *Ent-lein* 'duckling' and En. has *-kin* and *-let*, e.g. *cat-kin* and *book-let*, but they can only be added to N (see e.g. Fijn van Draat 1936, Klimaszewska 1983, Dressler/Barbaredi 1994, Stein 2007).²¹² For Gm., Dressler/Barbaredi (1994: 106) mention the dialectal ADV *sacht-chen* 'slowly' and *still-chen* 'silently'; Henzen (1965: 115) mentions *still-e-chen* as well. Diminutive ADV are however also found in Fs. (e.g. *swiet-sjes* 'sweetly', *stil-tsjes* 'quietly') (see Hoekstra 1998, Popkema 2006) and in Af. (e.g. *fyn-tjies* 'finely', *sagg-ies* 'softly') (see Ponelis 1979, Donaldson 1993).²¹³ In Af., the derivational pattern with *-tjies* is quite common, e.g. *koel-tjies* 'coolly' in (15.3).

(15.3) Af.
Sy het alles **koeltjies** gereël.
'She organised everything coolly.'

It is difficult to render the meaning of *tjes*-derivatives. The suffix stands out for its strong expressive value and affective connotation (Klimaszewska 1983, ANS 1997). There may additionally be a sense of irony in *tjes*-derivatives. In (15.4) the positive quality of *braaf*, being well-behaved, is transformed with *braaf-tjes* to a negative evaluation or even sharp criticism.

(15.4) CD/1994/ANW
Het is een buitenkans om heel even te mogen merken hoe het gezag zich handhaaft in Nederland en hoe **braaftjes** dat alom wordt aanvaard.
'It is an extraordinary chance to notice just for a moment how the authorities stand their ground in the Netherlands and how dutifully this is accepted everywhere.'

Moreover, individual *tjes*-derivatives may have highly idiomatic meanings, e.g. *zoet-tjes* '[lit. sweetly] slowly' in (15.5). They may occur in idiomatic expressions, e.g. *dunn-etjes* '[lit.] thinly' in *iets*

²¹² En. has some further diminutive suffixes, see Stein (2007: 97), but these are uncommon: smallness is normally expressed by lexical-syntactic means (Klimaszewska 1983: 12, 20).

²¹³ Observe that Raidt (1983) lists *-tjies* as an adjectival suffix. She adds that it is productive.

dunnetjes overdoen ‘to do something all over again’ or *warm-pjes* ‘[lit. warmly]’ in *er warmpjes bij zitten* ‘to be well-off’ as in (15.6).

(15.5) CD/2001/ANW

Ik ga nu **zoetjes** naar de zeventig, straks stoppen ze mij heel officieel onder de grond (...).
‘Now I am almost pushing seventy, they will soon put me under officially (...).’

(15.6) CD/2001/ANW

Ook het groeiende bezit van huizen en aandelen is een teken dat Nederland er **warmpjes** bij zit.
‘The increasing possession of houses and shares is another sign that the Netherlands is well-off.’

Finally, some *tjes*-derivatives may behave almost like modal particles, e.g. *even-tjes* ‘lit. for a while, just, only’ in (15.7). There is no indication of time duration here.

(15.7) CD/1999/ANW

Jongens toch, was die Ellen **eventjes** verschrikkelijk op het verkeerde pad.
‘O boy, had this Ellen (just) gone terribly astray.’

It is striking that *-tjes* is continually treated in the literature as an adverbial suffix, e.g. by de Haas/Trommelen (1993), ANS (1997) and Booij (2002), whereas output derivatives may be used predicatively, e.g. *still-etjes* ‘(rather) quiet’ in (15.8), and attributively, e.g. *net-jes werk* ‘decent work’ (see 3.2.2). The standard dictionary Van Dale (2005) classifies a number of *tjes*-derivatives as both ADV and predicative ADJ and others even as predicative ADJ only.

(15.8) CD/1981/ANW

Ze is **stilletjes** maar ze ziet er goed uit.
‘She is rather quiet but she looks nice.’

The treatment of *-tjes* as an adverbial suffix is connected with the general assumption that it is a suffix sequence consisting of the diminutive suffix *-tje* and the adverbial suffix *-s* (e.g. Booij 2002, De Vooy 1967: 259). Apart from some intuitions (e.g. Schultink 1962, van der Horst 2008), very little is known about the actual emergence of this sequence and processes of reanalysis. Whereas *-tjes* is very poorly described, the Dt. nominal diminutive has been described in detail (e.g. Bakema/Defour/Geeraerts 1993 for Dt., Leclercq 2003 for Dt. and Gm., Klimaszewska 1983 for Dt., Gm. and Polish). The present chapter investigates the adverbial suffix *-tjes* and its relation with the nominal diminutive. I will argue, however, that *-tjes* deserves to be treated as a suffix in its own right, both for synchronic and historical reasons. Its status as an ‘adverbial’ suffix needs to be revised. In terms of its semantic contribution, *-tjes* may not be reduced to the addition of an affective connotation.

15.2 Synchronic description

The synchronic description of *tjes*-derivatives is based on an inventory of 112 lexeme types collected in the corpora 38MWC, CGN and ANW and in the dictionary Van Dale (2005) (see appendix to chapter 15). The suffix *-tjes* is also referred to as *-jes* in the literature. It is realised in different allomorphs which occur in complementary distribution, namely *-jes*, *-tjes*, *-pjes* and *-etjes* (e.g. *fris-jes* ‘rather cool’, *even-tjes* ‘for a while’, *kalm-pjes* ‘calmly’, *domm-etjes* ‘rather dumb’). The distribution of the allomorphs is determined by the phonological structure of the base word (for a full description, see Schultink 1962, de Haas/Trommelen 1993 or ANS 1997). The allomorphy displayed in the derived modifiers is almost entirely parallel with the allomorphy found in the nominal

diminutive.²¹⁴ As indicated in section 15.1, this is a reason for scholars to consider *-tjes* as a suffix sequence of the diminutive suffix *-tje* and the adverbial suffix *-s* (e.g. Booij 2002: 133). The allomorphy for *-tjes* in Dt. is comparable with Fs. and Af. (see Hoekstra 1998 and Donaldson 1993, respectively).²¹⁵

It should be observed that there is geographical and stylistic variation in the form of the suffix *-tjes*. Whereas *-tjes* is the standard suffix in CD, the variants *-kens* and *-ies* are restricted to substandard or regional Dt. The latter are therefore not treated in the synchronic description. In Netherlandic Dt., the variant *-ies* as in *zachies* 'softly' is used predominantly in the western region. According to Schultink (1962: 133-4), it is productive in substandard language. In his investigation on dialectal variation of the Dt. diminutive suffix, Pée (1936) included the derived word *still-etjes* 'quietly'.²¹⁶ As he expected, he found the same dialectal variation for *-(e)tjes* as for the nominal diminutive suffix. According to Schultink (1962: 133-4), the variant *-kens* is not productive in CD. In Netherlandic Dt., *kens*-derivatives are restricted to literary or elevated style. ANS (1997: 737) points out that *-(e)kens*, e.g. *still-ekens* 'quietly', is typical for colloquial Belgian Dt. In CGN, which was originally conceived as a corpus of spoken standard Dt., the Belgian Dt. material contains a huge amount of tokens with *-ke(n)s*. Types include *bleek-s-kes* '(rather) pale', *eff(fe)-kes* 'for a while', *flauw-kes* '(rather) feebly', *ju(i)st-ekes* 'only just', *still-ekes(aan)* 'gradually', *straks-kes* 'soon', *zwak-s-kes* 'weekly'. That the pattern may be available for new formation in colloquial Belgian Dt. is indicated by new formations with En. loan words which can be found on the internet, e.g. *cool-kes* 'rather cool'.²¹⁷ Donaldson (1993: 437) mentions Af. *-kens* as a variant which figures e.g. in *sag-kens/sagg-ies* 'softly'. In Fs., too, there is variation, e.g. *ef-kes/eff-ies* 'for a while' (Pannekeet 1979: 99) and *no-kes, no-kes* 'well, well' (Popkema 2006: 126) but the variant *-kes* is no longer productive (Hoekstra 1998: 161).

15.2.1 Scope and productivity

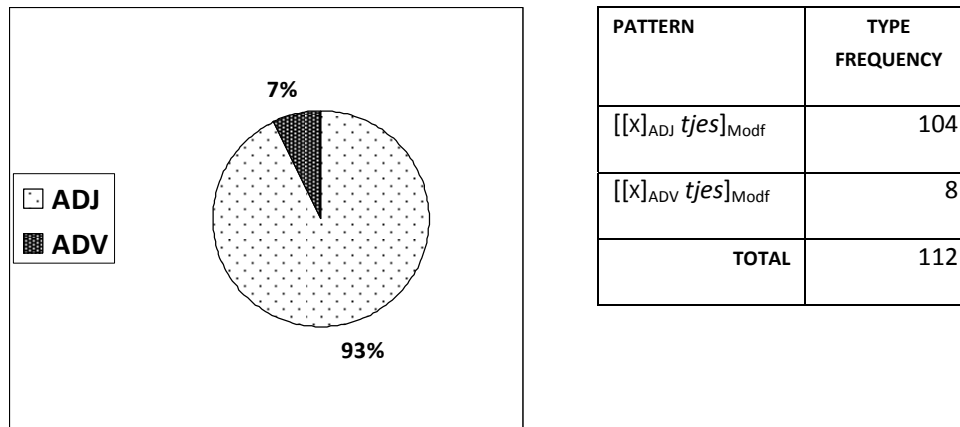
ANS (1997: 736) claims that the possible input categories of *tjes*-derivation are ADJ and ADV. Figure 15.1 shows the actual distribution of input categories for the 112 *tjes*-lexemes in the synchronic inventory.

²¹⁴ There is only one difference: the nominal diminutive suffix has a fifth allomorph *-kje* which is attached to N ending in *-ing* (De Haas/Trommelen 1993: 352). This allomorph lacks since modifying words ending in *-ling* (e.g. *mondeling* 'oral', *plotseling* 'suddenly') do not allow the presence of the diminutive suffix. In general, the amount of allomorphy displayed in the diminutive is unseen in any other suffix in CD (Bakema/Defour/Geeraerts 1993: 121).

²¹⁵ Mind that Popkema (2006: 126) considers *-jes* and *-tsjes* different Fs. suffixes. Mind that in Af., there are intricate rules for the pronunciation of the diminutivised word, e.g., the vowel quality of the base may change.

²¹⁶ Only halfway, Pée realised that he should incorporate the suffix *-tjes* for ADV derivation in his investigation, so some data are missing (Pée 1936: 15-16).

²¹⁷ <http://www.natuur-forum.be/phpBB3/viewtopic.php?f=108&t=114&start=120&st=0&sk=t&sd=a> [last accessed 07.12.2011]

Figure 15.1. Distribution of input categories for *-tjes* in synchronic inventory.

We may infer from figure 15.1 that *-tjes* is predominantly added to ADJ; only 7% of all *tjes*-lexemes are derived from prototypical ADV. Af. and Fs. incidentally display additional base categories, e.g. Af. *selwer-tjies* 'oneself' and *almal-tjies* 'everyone' are formed on the basis of a PRON (Shetter 1959: 90) and Fs. *no-kes, no-kes* 'well, well' on the basis of an interjection (Popkema 2006: 126).

(1) Adjectival input

There are sporadic remarks on input restrictions for the formation of *tjes*-lexemes in the literature.²¹⁸ De Haas/Trommelen (1993: 352) state that *-tjes* can only be attached to Gmc. ADJ. This is interesting since the nominal diminutive pattern with *-tje* easily takes non-Gmc. N as its input, e.g. *cadeau-tje* 'small present' (Klimaszewska 1983: 23). In the corpus material we find several *tjes*-derivatives on the basis of non-Gmc. ADJ which are well-established, as can be inferred from the adapted Dt. spelling: *banaal* 'banal, trite', *fijn* 'fine', *flauw* 'faint, feeble', *fraai* 'fine, lovely', *pover* 'poor, miserable', *proper* 'neat, clean', *simpel* 'simple', *sober* 'sober, plain', *soepel* 'supple, pliable'. They have their origin in Fr. *banal, fin, flou, vrai, pauvre, propre, simple, sobre, souple* (see EWN and Van Dale 2005). According to de Haas/Trommelen (1993: 352), morphologically complex ADJ are uncommon as input to word formation with *-tjes*. Exceptions they refer to are *ig*-derivatives, e.g. *lucht-ig* 'light, airy', *rust-ig* 'calm', which occur in the material, e.g. *roz-ig* 'rosy', *smer-ig* 'dirty', etc. For the Fs. equivalent, too, Hoekstra (1998: 161) has found that there are many base ADJ in *-ich*.

Scholars have made some observations on the semantics of input ADJ. According to Shetter (1959: 84), *-tjes* is only attached to gradable qualifying ADJ and this corresponds with the material.²¹⁹ Van Loey (1970: 232) claimed that the base ADJ express the semantic concepts SMALL or NICE. This is supported by Klimaszewska (1983: 23) who illustrates that *zwak* 'weak' and *fijn* 'fine, nice' are allowed, whereas *sterk* 'strong' and *grof* 'coarse' are awkward. Shetter (1959: 84), too, added that *-tjes* is also awkward in combination with *dik* 'thick, fat', *hard* 'hard', *koud* 'cold' and *heet* 'hot'. Indeed, such qualities are rare in the material, but they are not impossible, e.g. *koud-jes* is attested in Van Dale (2005).²²⁰ A large number of base ADJ in the material fits within the SMALL concept, e.g. *mager* 'slim', *matig* 'moderate', *krap* 'tight', *strak* 'tight'. By extension, several qualifying ADJ denote some kind of weakness, e.g. *slap* 'slack, weak', *zwak* 'weak', *brak* 'brackish', *murw* 'mellow', or modesty, e.g. *gewoon* 'common', *sober* 'moderate'. Various base ADJ fit within the subjective NICE concept, e.g. *lekker* 'nice', *lief* 'lovely'. ADJ denoting tidiness may also be classified in the NICE category, e.g. *net* 'neat', *proper* 'clean', as well as ADJ denoting the positive qualities of ease and fluency in style or movement, e.g. *los* 'loose', *vlot* 'fluent'. The concepts SMALL and NICE are, however,

²¹⁸ For restrictions on the input of Dt. nominal diminutive formation, see Klimaszewska (1983: 22-23).

²¹⁹ Exception: *half* 'half' denotes a degree itself and consequently cannot be graded.

²²⁰ In addition, *grof-jes* 'coarsely' is attested in WNT/ peperolie, *dik-jes* 'rather fat' is recorded in WNT/wollig.

too limited to capture the semantics of the input ADJ for *-tjes*. The suffix is also added to ADJ denoting negative qualities, e.g. *sjofel* 'shabby', *slordig* 'sloppy' and *smerig* 'dirty' and to the objective qualities of pace, e.g. *traag* 'slow'; temperature, e.g. *fris* 'fresh'; colour, e.g. *blauw* 'blue'; and a mixed group, including *geil* 'horny', *voorzichtig* 'careful', etc.

The most frequent deadjectival derivatives in terms of token frequency in the corpora are *net-jes* 'neatly', *zacht-jes* 'softly' and *still-etjes* 'quietly'. Deadjectival *tjes*-derivatives may be semantically intransparent: (one of) their meaning(s) may deviate from the meaning of the base. Highly idiomatic meanings were illustrated for *zoet-jes* 'lit. sweetly' in (15.5) and *warm-pjes* 'lit. warmly' in (15.6) above. Of the 104 deadjectival *tjes*-types in the inventory, three quarters are recorded in Van Dale (2005). From this large number we infer that *tjes*-derivatives are well-established in standard Dt. It is, however, striking that 24 of these are only recorded in the dictionary and do not occur in any of the corpora. This could indicate that a great deal of *tjes*-derivatives mentioned by Van Dale (2005) are in reality archaic or uncommon. The dictionary itself mentions e.g. for *puntig-jes* 'neat' that it is archaic.

(2) Adverbial input

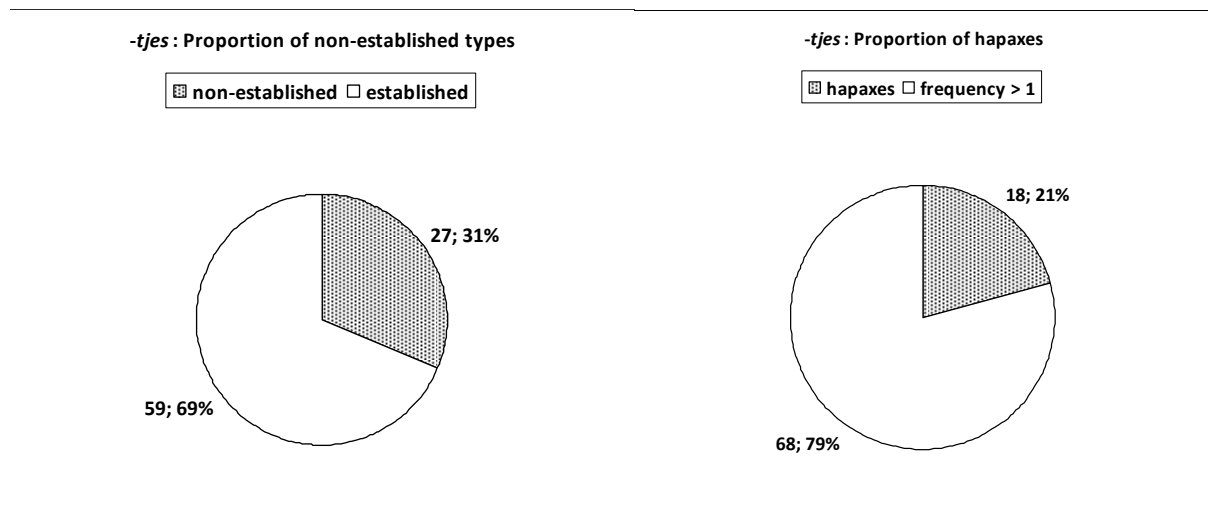
Prototypical ADV listed in the literature (e.g. ANS 1997: 736) as input to the pattern with *-tjes* include *even* 'for a moment', *samen* 'together', *straks* 'soon', *wel* 'well' and *stiekem* 'in secret'. Since the latter can be used attributively and inflected (e.g. *een stiekem-e_{INFL} relatie* 'a secret relationship', Van Dale 2005), one may argue that it is no prototypical ADV. We may add from the inventory the base ADV *iets* 'somewhat' and *pas* '(only) just, lately'. Semantically, this group is mixed but about half of them are temporal locators (*even*, *straks*, *pas*). Compare Fs. deadverbial *nys-kes* '(only) just, lately', which is also a time indicator (Popkema 2006: 126). In Af., we even find complex temporal ADV in this class, consider the formatives *netnou-tjies* 'just now', *netnoumaar-tjies* 'presently' (Shetter 1959: 90).

All types mentioned in Van Dale (2005) are attested in the corpora but one: *pas-jes* 'recently' is labelled 'archaic'. In terms of token frequency, *even-tjes* 'for a moment' is the most common deadverbial derivative in the corpora and in fact, it is one of the most frequent *tjes*-derivatives per se. As I pointed out in section 15.1, *even-tjes* has an idiomatic meaning and may even have characteristics of a modal particle, see (15.7) above (on modal particles, see chapter 4). The derivative *well-etjes*, too, is highly idiomatic, compare (15.9) where it is used in its typical predicative construction.

- (15.9) CD/2001/ANW
 Zo is het **welletjes**, Catherine, en ik ga het je maar één keer zeggen.
 'That will do, Catherine, and I won't tell you again.'

(3) Synchronic indicators of productivity

By studying the lexeme types in the synchronic inventory we found that the scope of *-tjes* is fairly wide, particularly when it comes to the restrictions on adjectival input words. Qualities expressed by the input word include both objective dimensions and subjective evaluations. There are indications from the application rate in the corpora that derivation with *-tjes* constitutes a productive pattern. There is a fairly high overall type frequency of 86 types. Almost one third of them are non-established. There are 18 hapaxes, which is good for over 20% of the types in the corpus material. The pie charts in figure 15.2 visualise these proportions.

Figure 15.2. Frequencies for *-tjes* in contemporary Dutch corpus data (86 types = 100%).

The corpora do not provide any additional deadverbial *tjes*-derivatives. As such, there is no direct indication that the deadverbial pattern is available for new formation in CD. However, the corpora display 27 deadjectival *tjes*-types which are not established in Van Dale (2005). Among these are 18 hapaxes, e.g. *banaal-tjes* 'ordinary' and *rozig-jes* 'rosy' in ANW, *geil-tjes* 'horny' in 38MWC, *brak-jes* 'brackish' and *bruin-tjes* 'rather brown' in CGN. This could be an indication that only deadjectival derivation with *-tjes* is available for new formation.

15.2.2 Modifier types

Van Dale (2005) does not provide any semantic properties for the suffix *-tjes*; it is simply a suffix "for deriving adverbs from adjectives". However, in the dictionary entries, the individual derivatives end up in different semantic classes. All of them have a descriptive function.

(1) Qualifying modifiers

We may infer from the literature that *tjes*-derivatives are predominantly used as qualifying modifiers indicating manner. Consider deadjectival (15.1) and (15.2) above and see *geil-tjes* 'sexily, in a sexy manner' in (15.10). Pannekeet (1979: 99) refers to semantic equivalence between Dt. and Fs. and gives a description in which manner is central; compare also Popkema (2006: 200). For Af., too, Ponelis (1979: 344) notes that *ies/etjies*-derivatives are often used as manner specifications.

(15.10) CD/1995/38MWC

Mooie jongens zonder bierbuik bewegen **geiltjes** op de muziek.
'Handsome boys without a beer belly move sexily to the music.'

Predicative instances of qualifiers are also found in the corpora; see deadjectival *still-etjes* 'quietly' in (15.7) above and see *kalm-pjes* 'calm' in (15.11) or *fris-jes* 'cool' in (15.12). Predicative use can be more frequently observed for some derivatives than for others.

(15.11) CD/1995/ANW

De handel was **kalmpjes** en liep vooruit op het vakantiedagje dat de banken vandaag nemen.
'Trade was calm and anticipated on the bank holiday.'

- (15.12) CD/2001/ANW
 Het was **frisjes** in de kamer.
 'It was cool in the room.'

One particular qualifying subtype which deserves mention concerns the specification of pace where the *tjes*-derivative is typically followed by the particle *aan* 'on', compare En. *steady on*. The collocation is often written in one word: Van Dale (2005) has the entries *zachtjesaan*, *zoetjesaan* and *stilletjesaan*, all three mean something like 'gradually, little by little, by and by'. Consider *kalmpjesaan* 'easily, slowly' (15.13) and *stilletjesaan* 'gradually' (15.14). Observe however that there are ADJ without *-tjes* which can be combined with *aan* in the same way, e.g. *stilaan* 'gradually', *langzaam* 'slowly' (Van Dale 2005). There may be a very subtle difference in meaning, with *aan* stressing the interpretation of pace.

- (15.13) CD/2002/ANW
 Hij bestelt nog maar een biertje bij zijn borrel – **kalmpjesaan**, het is nog geen vier uur.
 'He orders another beer to go with his drink – easy now, it's not even four o'clock.'

- (15.14) CD/1996/ANW
 Ik voel me opgelucht en kan mijn plannen **stilletjesaan** weer ontvouwen.
 'I feel relieved and I can gradually unfold my plans again.'

Not only deadjectival but also deadverbial derivatives may function as qualifying modifiers; compare *saam-pjes* 'together' in (15.15). Deadverbial *even-tjes* 'for a moment' in (15.16), or its variant *effen-tjes*, may express duration.

- (15.15) CD/1983/ANW
 volgens mij heb je talent. wij gaan **saampjes** naar amsterdam, en daar ga jij alles eens heel fijn opschrijven.
 'I believe you are talented. We are going to Amsterdam together and over there you are going to put it all in writing.'

- (15.16) CD/2003/ANW
 Over vijf minuten ga ik weer mee. **Eventjes** liggen en dan ben ik weer helemaal tiptop.
 'I will join you again in five minutes. I'm just going to lay down for a moment and after that I will be fine.'

(2) Quantifying modifiers

As a quantifier functions the deadverbial derivative *iets-jes* 'somewhat', e.g. (15.17).

- (15.17) CD/1994/ANW
 Alles ging net **ietsjes** te vlug, waardoor hij zijn kracht niet optimaal in snelheid omzette.
 'Everything just went slightly too fast, so that he didn't optimally transform his power into speed.'

(3) Localising modifiers

Temporal localisers are found, e.g. deadverbial *pas-jes* 'recently, a moment ago' (Van Dale 2005) and *strak-jes* 'later, in a moment' in (15.18).

- (15.18) CD/1987/ANW
 Als ik nu weiger, dan word ik **strakjes** weer bont en blauw geslagen.
 'If I refuse now, I will get beaten up again in a moment.'

Compare Fs. deadverbial *nys-kes* '(only) just, lately', which is also a time indicator (Popkema 2006: 126) and Af. *netnou-tjies* 'just now', *netnoumaar-tjies* 'presently' (Shetter 1959: 90).

15.2.3 Contribution of *-tjes*

The suffix *-tjes* is special in that it is added to existing modifying words, particularly to qualifying ADJ but also to quantifying or localising ADV. Section 15.2.2 revealed that *tjes*-derivatives predominantly function as descriptive modifiers of the qualifying subtype. The suffix combines a grammatical value (1) with a semantic value (2) in an intricate combination.

(1) Grammatical value

It is stated in the literature that Dt. *-tjes* is an adverbial suffix which derives ADV from ADJ. First of all it should be noted that *-tjes* is not grammatically required: for all of the examples given in section 15.2.2 holds that the qualifying *tjes*-derivative may be substituted by its base word without the sentence becoming ungrammatical.²²¹ Schultink (1962: 133) claimed that rather the *tjes*-derivatives have a more limited syntactic valency than their base ADJ: whereas these can be used attributively, predicatively and adverbially, the output derivatives are restricted to adverbial use. However, the latter assumption proves to be incorrect. Predicative use is possible for all deadjectival *tjes*-derivatives (Van Loey 1970: 232, Royen 1948a: 50, De Vooys 1967: 259, Klimaszewska 1983: 29). Although Van Dale (2005) classifies the majority of deadjectival *tjes*-derivatives as ADV, this dictionary also lists some derived words with *-tjes* as both ADV and predicative ADJ and some even as predicative ADJ alone.²²² In addition, even attributive use may occur, although restrictedly (see ANS 1997: 736) (see section 15.3.2). This suggests that the deadjectival *tjes*-derivatives are no prototypical ADV. They are no prototypical ADJ either, since they cannot be inflected. This is in accordance with the claim made by Schultink (1962: 133) that the output derivatives have a more limited syntactic valency than the input ADJ. The grammatical contribution by *-tjes* is such that it moves prototypical ADJ to the class of invariable items, restricting the original syntactic valency of these ADJ: *tjes*-derivatives are not allowed in attributive position in a syntactic context where inflection is required. In sum, the output derivatives of *-tjes* are intermediate items on the ADV-ADJ scale and *-tjes* is no prototypical adverbial suffix.

When it is added to prototypical ADV, *-tjes* does not contribute a grammatical value. ANS (1997: 736) states that deadverbial derivatives are restricted to adverbial use, with the exception of *well-etjes*, which may be used predicatively and which Van Dale (2005) even labels as a predicative ADJ. Deadverbial *tjes*-derivatives do not seem to allow attributive use.

(2) Semantic value

On the basis of their semantic transparency, *tjes*-lexemes can be situated on a scale from derivational formatives (e.g. *still-etjes* 'quietly') to idiomatic lexemes (e.g. *zoet-jes* 'lit. sweetly, gradually') to particle-like elements (e.g. *even-tjes* 'lit. for a moment, just, only'). The semantic value of *-tjes* has been related to the primary semantic value DIMINUTIVE. Shetter (1959: 83) believed that the semantic spectrum of *tjes*-derivatives is analogous with nominal diminutives. Others have referred to an independent value for *-tjes*. De Haas/Trommelen (1993: 352-353) refer to the primary quantifying contribution of APPROXIMATION and paraphrase the semantic value of *-tjes* as 'quite ADJ,

²²¹ The same holds true for Af. (Donaldson 1993) and Fs., for that matter.

²²² The same holds for Fs., where the derivatives *sjofel-tsjes* 'shabby' and *gewoan-tsjes* 'ordinary' are even exclusively used predicatively (Pannekeet 1979: 99, Popkema 2006: 144). In Af., predicative use seems to be quite restricted: it is only mentioned for *warm-pies* 'warmly' in colloquial Af. (Donaldson 1993: 95). This implies that the Af. derivatives may be more like prototypical ADV than their Dt. and Fs. equivalents.

more or less ADJ'. We may interpret this as follows: the suffix expresses that the quality denoted by the input ADJ does not hold entirely, but almost, e.g. *bleek* 'pale' : *bleek-jes* 'rather pale'. A similar primary semantic value is assumed for the Fs. equivalent by Hoekstra (1998: 161).

Scholars agree that *-tjes* has a strong expressive value (e.g. Shetter 1959, Schultink 1962, Klimaszewska 1983, ANS 1997). Pannekeet (1979: 99) assumed the same for the Fs. equivalent. The expressive value could be related with the nominal diminutive, which often combines the semantic modification of becoming smaller with emotional information (see Fijn van Draat 1936, Klimaszewska 1983, Bakema/Defour/Geeraerts 1993). In languages other than Dt. diminutivised N often only have an ameliorative connotation (Klimaszewska 1983: 10). Positive feelings expressed by the nominal diminutive include e.g. appreciation, endearment and hominess. Negative feelings may also be expressed; they include depreciation, disparagement and contempt (see Bakema/Defour/Geeraerts 1993).²²³ In Af., too, a range of semantic connotations can be demonstrated for the nominal diminutive (Hoge 1932, Donaldson 1993: 87). It is not entirely clear which of the expressive values in diminutivised N may also be encoded by *-tjes* in modifying words. Bakema/Defour/Geeraerts (1993: 136) claim that the semantic contribution in non-nominal diminution is in general much more vague and abstract than it is in nominal diminution.

To sum up, the following secondary semantic contributions of *-tjes* have been referred to:

- Klimaszewska (1983: 20) refers to the semantic value of REINFORCEMENT: *-tjes* intensifies the positive quality which is inherent in the base ADJ (compare also te Winkel 1862: 106). E.g., in *lekker* 'nicely' : *lekker-tjes* '(very) nicely', *-tjes* reinforces the positive connotation which is inherent in *lekker* 'tastful, nice'. Klimaszewska's interpretation of REINFORCEMENT is only applied to positive qualities, particularly of the NICE category, but it may be extendable to negative qualities.
- Schultink (1962: 132) refers to an affective, subjective-evaluative connotation which he describes as 'cosy-friendly'. ANS (1997: 737), too, refers to an affective meaning.
- Hamans (1985: 29) refers to a downtoning effect, i.e., the quality in the *tjes*-derivative may be perceived as less strong than the quality inherent in the base; e.g. *stiekem* 'sneakily, surreptitiously' : *stiekem-pjes* 'secretly, quietly'. This downtoning effect could be related to the pragmatic value of mitigation in nominal diminutives which is found in various European languages (Dressler 2009).
- Schultink (1962: 132), Klimaszewska (1983: 40) and ANS (1997: 737) refer to the ironic character which *-tjes* may exhibit: a seemingly friendly expression may in fact contain a negative evaluation or even sharp criticism, see e.g. *braaf-jes* 'dutifully, obediently' in (15.4) above.

In other cases, the literature only associates a stylistic effect with the addition of *-tjes*. Particularly when added to ADV, the suffix does not add a new meaning aspect according to de Haas/Trommelen (1993: 352-353). WNT claims that adding *-tjes* only results in a more informal lexeme. However, we may also have an affective connotation in deadverbial derivatives, e.g. in *saam-pjes* 'together' in (15.15) which has the connotation of 'cosiness'.

²²³ This kind of expressiveness is absent in the En. diminutive. Fijn van Draat (1936: 36) observes that the Dt. nominal diminutive suffix denotes "a number of emotional values which no English ending has the power to express" and which in translation cannot be rendered by means of the words *little* or *small*. Instead, En. uses "some adjective or verb that in itself is expressive of the emotion" (Fijn van Draat 1936: 39).

The foregoing observations indicate that not one single meaning relation can be defined which *-tjes* establishes with its input word. Examples require individual semantic interpretations which are context-dependent. In sum, the semantics of *-tjes* range from a primary contribution of APPROXIMATION to affective connotations and even strong pragmatic values. The semantic values of *-tjes* are collected in table 15.1; observe that they may even be combined and that many derivatives have idiomatised meanings.

Table 15.1. Semantic spectrum of *-tjes*.

VALUE		PATTERN	EXAMPLE
PRIMARY	APPROXIMATION	[[X] _{ADJ} <i>tjes</i>] _{ADV?}	<i>bleek</i> 'pale' : <i>bleek-jes</i> 'rather pale'
SECONDARY	AFFECTIVE	[[X] _{ADJ} <i>tjes</i>] _{ADV?}	<i>warm</i> 'warm' : <i>warm-pjes</i> 'snugly'
		[[X] _{ADV} <i>tjes</i>] _{ADV?}	<i>samen</i> 'together' : <i>saam-pjes</i> 'together'
	IRONY	[[X] _{ADJ} <i>tjes</i>] _{ADV?}	<i>braaf</i> 'well-behaved' : <i>braaf-jes</i> 'dutifully, obediently'
	MITIGATION	[[X] _{ADV} <i>tjes</i>] _{ADV?}	<i>stiekem</i> 'sneakily, surreptitiously' : <i>stiekem-pjes</i> 'secretly, quietly'
	REINFORCEMENT	[[X] _{ADJ} <i>tjes</i>] _{ADV?}	<i>lekker</i> 'nicely' : <i>lekker-tjes</i> '(very) nicely'
STYLISTIC	INFORMAL	[[X] _{ADV} <i>tjes</i>] _{ADV?}	<i>samen</i> 'together' : <i>saam-pjes</i> 'together'

(3) Rival suffixes

For indicating the primary value of APPROXIMATION, *-tjes* may be comparable with *-(e)lijk*, e.g. *licht-jes/licht-elijk* '(rather) lightly' and with *-achtig* and *-ig*, e.g. *bruin-tjes/bruin-ig/bruin-achtig* 'rather brown'. For the secondary value of REINFORCEMENT, *-tjes* is semantically comparable with *-weg* although the latter may be more keen to combine with ADJ denoting negative qualities. For some qualifying ADJ, there are synonymous *weg*-derivatives, e.g. *vlot-jes/vlot-weg* '(very) smoothly' (Van Dale 2005). In terms of its expressive value or affective connotation, *-tjes* has no rival among the Dt. suffixes. Rivalry appears to be firmer for Af. *ies*-derivation: Donaldson (1993: 448) refers to the pattern of reduplication. Synonyms are opposed to each other in (15.19).

- (15.19) Af.
 Sy het my **skelm-skelm** / **skelmpies** briefies gestuur.
 'She sent me notes on the sly.'

However, there are indications that reduplication and *ies*-derivation in Af. are not entirely interchangeable either. A first indication is the fact that the *ies*-formatives can themselves be reduplicated, e.g. *liggies-liggies* 'lightly', *fyn-fyntjies* 'finely' (Donaldson 1993: 448, Raidt 1983: 163). Raidt (1983: 169ff), associates an additional meaning aspect with the pattern of reduplication: she claims that it expresses an iterative aspect. This has not been reported for *ies*-derivatives.

15.3 Diachronic description

The lexicographer Kiliaan (1599) systematically provided words ending in the velar variant *-kens* as translations for Lt. ADV and the grammarian Christiaan Van Heule (1625) already listed a number of ADV ending in *-kens* in his *Nederduytsche Grammatica ofte Spraec-konst*. However, although there is

plenty of literature on the history of the nominal diminutive in Dt. (e.g. te Winkel 1862, Kloeke 1923, Van Loey 1970, Marynissen 1998), nearly nothing has been published on the history of *-tjes*. The historical dictionary WNT has a basic entry on *-tjes* in which it states that the suffix historically constitutes a sequence of a diminutive suffix and the adverbial suffix *-s*. To gain an insight into processes of reanalysis, the diachronic investigation includes the earliest attestations of formatives with (variants of) the diminutive suffix (see appendix to chapter 15).

15.3.1. Origin of *-tjes*

The literature assumes that the suffix *-tjes* is a suffix sequence consisting of the (nominal) diminutive suffix *-tje* (or rather, its velar variant *-ken*) and the adverbial *-s* (e.g. Booij 2002, De Vooy 1967: 259). The development of *-ken* from diminutive to adverbial suffix is discussed in (1), followed by (2), which describes the reanalysed form *-kens*. Finally, (3) discusses the palatalised variant *-tjes*.

(1) From diminutive to adverbial suffix: *-ken*

For Old West-Gmc. the diminutive suffix **(i)kīn* has been reconstructed (see Ponelis 1993: 160).²²⁴ The OG suffix *-(c)h* (attested mainly in proper names) and OE *-ock* (e.g. *hillock*, *buttock*, see OED/*-ock*) show that the diminutive ‘power’ is principally incorporated in the velar consonant *-k* (see te Winkel 1862: 97).²²⁵ In OD, the diminutive suffix *-kīn* is attested, which appears in MD as *-kijn*. Nominal diminutives formed with the OD suffix *-kin* are attested in the 12th ct., predominantly in proper names, e.g. *Ecbertus Has-kin* ‘Egbert the hare’ (1191-1200/ONW/hasikīn). VMNW has dozens of entries for denominal diminutives, so the pattern was probably already very productive in EMD. In each case, the diminutive suffix is attached to N to indicate that it is small, e.g. *vader-kin* ‘little father’, *vinger-kijn* ‘little finger’ etc.

The first attestations of the diminutive suffix occurring in modifying words are recorded in EMD, namely in the 13th ct. material of VMNW. The form *iwent-ken* ‘somewhat, a little bit’ is recorded in a glossary as a translation for Latin *aliquantulum*, the diminutive form for *aliquantum* (1240/VMNW/iwentkin). Likewise, *luttel-ken* ‘a little; a while’ is given as a translation for Latin *paulisper* (1240/VMNW/luttelkin). With Royen (1948a: 52) we may ask the question how and why the diminutive suffix emerged in these modifying words. For formatives like *luttel-ken* the explanation could be that they arise from diminutive N which were used in an adverbial construction, as proposed for *clein-kine* ‘a little’ by Overdiep (1949: 258). This is certainly imaginable, but the material shows that other diminutivised ADV precede *clein-kine* to which this analysis is not applicable (compare Royen 1948: 53 who also argues against this analysis). In the 13th ct. material we find *alleens-kijn* ‘bit by bit’ as in (15.20). The complex base ADV *alleens* (*al*, *eens* and the ending *-s*) denoted something like ‘the same’. According to VMNW/*alleenskine*, the suffix *-kine* reinforced the inherent modification, i.e. ‘the same all over again’.

(15.20) EMD/1285/VMNW/alleenskijn
god die wel doet. Moete gheuen dat ic mijn bloet. **Alleenskine** niet offren moete.
‘May God, who acts well, give that I must not offer my blood over and over again.’

However, in other EMD formatives, there is no comparable reinforcement, e.g. *stille-kine* ‘gently; secretly; quietly’ in (15.21), derived from the adverbial base *stille* (VMNW/*stillekine*).

²²⁴ Compare CE *cat-kin*, *lamb-kin* (Stein 2007).

²²⁵ Van Loey (1970: 232) stresses that only very few diminutives are attested in the older Gmc. languages. In Gt., the nominal diminutive was formed with the suffix *-il*, compare *barn-il-ô* ‘small child’ from *barn* ‘child’ (te Winkel 1862: 93). This was inherited in Gm. *-lein* and MD *-lijn* (te Winkel 1862: 95). For an overview of nominal diminutive endings in older Dt., see te Winkel (1862) and Van Loey (1970).

(15.21) EMD/1285/VMNW/stillekine

Mar hi murmurde vtermate. **Stillekine** onder die tande.
'But he murmured extremely. Quietly beneath his teeth.'

In cases like (15.21) it is possible that the diminutive suffix was added to stress the adverbial character of the form, the same way *-like* did (see chapter 7 on *-(e)lijk*).²²⁶ Overdiep (1949: 258) points at semantic and formal parallels between *-kine* and *-like*, suggesting that the productivity of adverbialising *-like* stimulated ADV formation with *-kine*. However, it cannot be excluded that *-kine* made an additional semantic or pragmatic contribution. In this respect, Overdiep (1949: 258) referred to analogy with the nominal diminutive: due to the range of emotional values the nominal diminutive could express, the suffix could be extended to adjectival and adverbial base words. Van Loey (1970: 232) refers to a "remarkable analogy formation" which probably originates in children's language. Van Dale (2005/*-etjes*) too refers to children's language. I cannot provide evidence for this analysis on the basis of my material.

In the southern regions, the suffix *-kine* weakened into *-ken* (De Vooy 1967: 200). Until the 15th ct., only a small number of modifying lexemes with *-ken* is recorded (see appendix to chapter 15). As such, there is no real sign of productivity for the creation of modifying words (contrary to nominal diminution).

(2) The reanalysed form *-kens*

From the 15th ct. onwards, existing *ken*-formatives could get an adverbial *-s* attached, compare *scoon-kine* in (15.22) and *schoon-kin-s* 'beautifully, gently' in (15.23). Further examples followed in the 16th ct., e.g. *sacht-ken-s* 'softly', *teer-ken-s* 'tenderly'.

(15.22) MD/1351/MNW/schoonkine

Dan so trecket ute beide te gadere so **scoonkine**, dat gi niet bi uwer haest thout uut en trect sonder dyser.
'Then pull both out [of the wound] at the same time, so gently that you don't, in your hurry, pull out the wood without the iron.'

(15.23) MD/1467-80/MWN/schoonkine

De grave van S (...) trac met den sinen al **schoonkins** te Cortteryke waert.
'The count of S. went steadily with his family to Kortrijk.'

The emergence of the additional *-s* can be explained by the popularity of this morpheme in adverbials, i.e., an original case ending which had been reanalysed as a derivational suffix (see chapter 2 and see chapter 8 on *-(e)lings*). Initially, the forms with and without *-s* appeared side by side. However, in the 16th ct., the first new formations with *-kens* appeared for which no predecessor without *-s* is represented in the material, e.g. *soet-kens* 'sweetly', *ziec-xkens* 'sickly', *fyn-kens* 'finely' and *dunn-ekens* 'thinly' in (15.24) and on the basis of a Fr. base word, *fraey-kens* 'nicely, elegantly' (see appendix to chapter 15). This could be an indication that the sequence *-kens* was already reanalysed as an independent suffix for ADV formation in the 16th ct.

(15.24) EModD/1595/WNT/dunnetjes

Men salder dit navolgende Poeder, met den eersten seer **dunnekens** in stroyen.
'One shall sprinkle the following powder very thinly in it (= the wound).'

²²⁶ Mähl (2004: 63) even treats Middle Low Gm. ADV in *-ke*, *-ken* and *-kes* (e.g. *bil-ken* 'reasonable', *sunder-ken* 'especially') as contracted variants of *-like*, *-liken* and *-likes*. This analysis may apply to individual cases but it is unlikely that it can also account for EMD *kine*-formatives.

One further indication that *-kens* had reanalysed into an independent suffix in the 16th ct. is the fact that Kiliaan (1599) systematically provided *kens*-formatives as translations for Lt. ADV, e.g. Lt. *parvulum*: Dt. *kleinkens* ‘a little’ and Lt. *sulce*: Dt. *soetkens* ‘sweetly’. Interesting is also that *kens*-ADV may appear as synonyms for *lick*-ADV, e.g. *suete lick oft suetkens aentasten* ‘to touch gently’. This points at a primarily adverbialising function. However, an exception is *teerkens* ‘tenderly’, which Kiliaan (1599) gives as a translation for the Lt. ADJ *tenellus*. Predicative use of *kens*-derivatives indeed occurs in EModD, e.g. *still-ekens* ‘calm, windless’ (15.25).

(15.25) EModD/1598/WNT/stilletjes

Den 10. kreghen wy seven seylen int gesichte, doch overmits ‘t **stillekens** was costen wy by haer niet gecomen.

‘On the 10th we caught sight of seven sails, but since it was calm we could not sail to them.’

By the 17th ct., the pattern with *-kens* was well-established. The variant without *-s* had become very unusual. One of the last examples is *fraey-ken* ‘nicely, elegantly’ in (15.26), written by Erasmus.

(15.26) EModD/1644/WNT/fraai

Schickt altoos datse **fraeyken** ghekleedt sijn en met u levrey gheteyckent.

‘Make sure that they (your servants) are nicely dressed and characterised by your livery.’

The Dt. grammarian Christiaan Van Heule (1625) included a class of ‘downtoning ADV’ (“Versachtende Bywoorden”) ending in *-kens* in his *Nederduytsche Grammatica ofte Spraec-konst*, including *schoonkens*, *zachskens*, *fraeykens*, *fijnkens*, *alleynskens*, *zoetkens*, *teerkens*. Thus, Van Heule (1625) must have perceived the forms in *-kens* as a class with a more or less systematic correspondence between form and meaning.

(3) The palatalised variant *-tjes*

In the period in which *-kens* was establishing itself, a phonetic change took place in the diminutive suffix causing the velar consonant in *-ken* to become palatal under the influence of a following long vowel (Van Loey 1970: 230, De Vooyts 1967: 200). The palatal variant originates in the central region of the Dt.-speaking area, namely in the dialects of Holland.²²⁷ The new form was rendered in Dt. orthography: from the 14th ct. onwards, the diminutive ending was occasionally spelled as *-tgen* (*-tiaen* in some North Hollandic texts). Later, *-tjen* lost its final *-n* and got reduced to *-tje* (Van Loey 1970: 229; Marynissen 1998: 253). This phonetic change, which has been investigated and described extensively for the nominal diminutive, can also be observed in ADV. Variants spelled with *-tgens* are first recorded in the 16th ct., e.g. *sacht-gens* besides *sacht-kens* ‘softly’ and *zoet-gins* besides *soet-kens* ‘sweetly, gently’. Variants spelled with *-tje(n)s* are rarely found in the 16th ct., e.g. *kleyn-tjens* ‘tiny’ but they are common in the 17th ct., e.g. *sieck-jes* ‘sickly’ and *fraey-tjes* ‘nicely, elegantly’. Until the 17th ct. all of these variants were used side by side, even in the same text. Thus, Erasmus used *fraey-tjes* ‘nicely, elegantly’ as in (15.27) besides *fraey-ken* in (15.26) above.

(15.27) EModD/1644/WNT/fraai

Ghy hebt dien knoop **fraeytjes** ontknoopt.

‘You untied that knot nicely.’

In the same way as it has been observed for the nominal diminutive (van den Toorn et al. 1997: 415), the palatalised variant spread and became dominant in a large part of the Dt. region from the 17th ct.

²²⁷ The development of the nominal diminutive suffix can be represented as *-tken* > *-tjen* > *-tje* (Marynissen 1998: 266).

onwards.²²⁸ The number of new types with *-kens* in the INL material decreased dramatically. Instead, new types formed with *-tge(n)s* are found from the 16th ct. onwards which lack a preceding *kens*-formative, e.g. *licht-gens* 'lightly', *moi-tges* 'beautifully, nicely', *relick-gens* 'fairly'. In the 17th ct. there was an actual explosion of new types with the variant *-tje(n)s*, e.g. *bleek-jes* 'palely', *zwak-jes* 'weakly', *los-jes* 'loosely'. Significantly, the adverbial *-s* is always present, i.e., I did not find any modifying words ending only in *-tge(n)* or *-tje(n)*. All new types recorded in the 16th-17th ct. contain the adverbial *-s* as a rule. This indicates that the palatalised form *-tjes* is no sequence, but it has probably been an autonomous suffix from the beginning. In other words, the sequence *-ken-s* must have been reanalysed and established as a suffix by the time the palatalised variant took over. The formal chronology of the suffix and its variants can be represented by table 15.2.

Table 15.2. Formal chronology of *-tjes*.

13 th - 15 th ct	<i>-kine/-ken</i>
16 th ct	<i>-kens, -tgens</i>
17 th ct	<i>(-kens), -tgens/-tje(n)s</i>
> 1700	<i>-tjes</i>

Evidence for the completed reanalysis of the sequence with *-s* by the 17th ct. can be found in the daughter language Af., where the modifying words contain the adverbial *-s* as a rule. The older, non-palatalised variants of the diminutive survive in regional Dt., e.g. in colloquial Belgian Dt. and in standard Af. where *-tjies* is pronounced with a velar (see Ponelis 1993 on *-tjie*).²²⁹

15.3.2 Functional shift

Throughout history, *tjes*-derivatives and their velar variants are associated with descriptive modification (1). There are only incidental occurrences of interpersonal modifiers (2) and there is no evidence for a functional shift.

²²⁸ The expansion of the palatal variant *-tje* for the nominal diminutive from the west to the rest of the Dt. language area has been connected with the supremacy and prestige of the Hollandic region, which went through its prosperous Golden Age in the 17th ct. However, there are early attestations of palatalisation in other regions as well, so that Hollandic influence cannot be entirely responsible (Van Loey 1970: 229-230 and Marynissen 1998). There are even indications that the phonetic development from velar *-ke* to palatalised *-tje* took place independently in Flanders (Marynissen 1998: 258). There have been attempts to (re)introduce the southern dialectal *-ke* in the North: as the Dt. translation of the State Bible was prepared, *-ke* was selected (Marynissen 1998: 266). Although this was the authority for uniform written Dt., *-ke* did not make it into standard Dt., but *-tje* did. In spoken language, *-ke* managed to survive, namely in certain Dutch dialects, especially in the Brabant area, but also in colloquial supraregional Belgian Dutch (Vandekerckhove 2005: 390). In written language, however, this is different: the majority of texts produced in northern Belgium have used the palatal form *-tje* since the mid 18th ct. (Marynissen 1998: 260).

²²⁹ This is interesting since it has been shown that palatalisation had already taken place in the Hollandic dialects in the 17th ct., by the time South-Africa was colonised. Since Hollandic dialects are predominant in the Dt. base of standard Af. (Ponelis 1993: 121), it would be extraordinary if the Af. standard pronunciation of the diminutive should be based on other dialects. The Hollandic pronunciation of *-tjie* with a palatal consonant is, however, found in a southwestern vernacular variety of Af. (Ponelis 1993). It further remains unclear where the vowel [i] in the Af. diminutive ending comes from; it seems unlikely that it is a continuation of the older (M)D, so it may have developed in Af. out of *-je*, similar to the development in *dank je* > *dankie* 'thank you' (see Klooke 1950 and Ponelis 1993).

(1) Descriptive modifiers

As the examples in 15.3.1 show, the earliest attestations had descriptive functions. Consider EModD *sacht-gens* ‘softly’ which functions as a qualifying modifier in (15.28).

(15.28) EModD/1570/WNT/zachtjes

Twee longheren Christi, te samen onderlingen **sachtgens** sprekende.
‘Two young men of Christ, quietly talking to each other.’

As pointed out before, it is not clear which semantic value the suffix originally contributed to its input ADJ. Although scholars pointed out that the meaning of smallness was historically primary for the nominal diminutive (Klimaszewska 1983: 8), this cannot be demonstrated in the same way for modifying words. In early attestations like *luttel-ken* ‘a little’, the concept of smallness is inherent in the base *luttel* and not provided by the suffix. Rather, it seems that *-ken* in this case was a reinforcer, i.e., making what was already small even smaller. This effect can be extended metaphorically to the temporal domain, in terms of short duration (Bakema/Defour/Geeraerts 1993), e.g. *luttel-ken* could be an indicator of duration: ‘for a while’, synonymous with EModD *wijl-kens*. Besides reinforcement, *-tjes* may express APPROXIMATION in EModD, e.g. *swack-jes* ‘(rather) weak, delicate’ in (15.29).

(15.29) EModD/1620/WNT/zwakjes

Hy is heel weeckelijck, veel sieck, **swackjes** van natueren.
‘He is very weak, often sick, delicate by nature.’

Already in EMD, the derivatives prototypically functioned as qualifying modifiers, usually specifying manner to the VP as *sacht-gens* ‘softly’ in (15.28) above. Thus it has been argued, e.g. by WNT/*-tjes*, that it was the suffix which provided the specification of MANNER, i.e., ‘in an ADJ manner’. However, already in MD, qualifying ADJ did not require a suffix to function adverbially (see chapter 3). In addition, predicative uses of *tjes*-derivatives are attested in EModD, e.g. *swack-jes* in (15.29) above or *sieck-jes* ‘sick(ly)’ in (15.30). These examples indicate that *-tjes* was not a creator of manner ADV.

(15.30) EModD/1600-10/WNT/ziek

Wel benje noch **sieckjes**, ghy sieter soo **blieckjes**.
‘Well, are you still sick, you look so pale.’

At all times we should be aware of the emotional and stylistic values of *-tjes*. There is evidence that these may have been around for centuries, if not from the beginning. The Dt. grammarian Christiaan Van Heule (1625) included several *kens*-lexemes in his class of downtoning ADV (see 15.3.1) which implies that the derivatives were perceived as having a mitigating effect. Further evidence shows that there was a stylistic characteristic connected with the use of *tjes*-derivatives in EModD. According to WNT/*-tjes*, *kens/tjes*-derivatives are found much in poetic language. It is known that nominal diminutives were common in 17th ct. erotic poetry, e.g. love poems by P.C. Hooft (te Winkel 1862: 88, Shetter 1959: 75, De Vooys 1967: 203) and Vondel (te Winkel 1862: 89). Example (15.31) illustrates how Hooft played with the diminutive in a poem, using it in both N and modifying words, e.g. *wuf-jes* ‘frivolous’ and *suf-jes* ‘drowsy’.

(15.31) EModD/1627/WNT/suf

De zoete zinnetjens nu luchtigh zijn en **wufjes**, En in een ooghenblik weêr mijmerigh en **sufjes**.
‘The sweet little senses are now light and frivolous, and in a moment contemplative and drowsy.’

In the 18th ct., *tjes*-derivatives were in vogue in particular social layers (van der Horst 2008). Important in this respect is the innovative work of the female authors Betje Wolff and Aagje Deken (van den Toorn et al. 1997: 450). It is no coincidence that they are among the most quoted authors in WNT (van den Toorn et al. 1997: 450-451 and see chapter 5). In their epistolary novel *Sara*

Burgerhart (1782), they used a wide range of varieties of Dt. to satirise different social circles. An excessive use of diminutives characterised the sanctimonious attitude of the strict protestants (Shetter 1959: 75, De Vooy 1967: 203, van den Toorn et al. 1997: 452). Wolff and Deken not only coined many diminutive N but also many *tjes*-derivatives, including the majority of types in the 1780s in the diachronic inventory (see appendix to chapter 15). They used complex base words, e.g. *ig*-derivatives (e.g. *neder-ig* 'humble') but also *lijk*-derivatives (*vlese-lijk* 'carnal, physical') and French loan words (e.g. *koket* 'coquettish'). Consider *stemmig-tjes* 'soberly' and *nederig-tjes* 'humbly' in (15.32).

(15.32) ModD/1782/WNT/stemmig

Een Popje ... **stemmigjes** en **nederigjes** gekleet, ... in plaats van die zotjes en springertjes.
'A little doll... dressed soberly and humbly... instead of those little fools and fillies.'

In the 19th ct., still, the suffix *-tjes* remained a strong stylistic and expressive device in the literature. The writers Kloos and Van Deyssel, both belonging to the literary movement of the *Tachtigers* (a reaction on romanticism), used diminutives with a strong affective connotation (Royen 1948a: 51). The partakers of this movement are known for their creative word formations which have often been restricted to their own artistic language (van den Toorn et al. 1997: 418). We should keep in mind that written language was strongly cultivated in the 18th and 19th ct. and that it differed substantially from spoken language (van den Toorn et al. 1997: 419).

In ModD of the 17th, 18th and 19th ct., *-tjes* was an instrument to reflect particular style registers and emotional connotations in literary texts. Stylistic effects to the use of *tjes*-derivatives are still referred to with respect to ModD in the 20th ct. According to WNT, *tjes*-derivatives are part of an informal register, whereas Overdiep (1949: 257) noted that *-tjes* belong to a pleasant, cosy or persuasive style. Moreover, the use of the pattern has been associated with particular social groups. In 20th ct. academic literature, the nominal diminutive has been associated with women's language. This position can be found in a scholarly paper by the Dt. linguist Kruisinga (1951) but also De Vooy (1967: 203) referred in his grammar to the frequent use of the nominal diminutive in women's speech. Maybe this is partly due to the vocabulary of the 18th ct. female writers Wolff and Deken. Schultink (1962: 132), however, stressed on the basis of the material which he collected that the use of the *tjes*-pattern is by no means restricted to women. Recently, we find that particular *tjes*-lexemes, e.g. *tof-tjes* 'fabulous', are sometimes associated with the language of homosexuals (see comments on internet fora²³⁰).

Although *tjes*-derivatives may be connected with emotional and stylistic connotations, individual derivatives may have lost their original expressive values in CD, a process known as *neutralisation* (Klimaszewska 1983: 30; see chapter 5). Thus, *net-tjes* 'neat(ly)', one of the most common *tjes*-lexemes in CD, is fully conventionalised and appears to be free from any affective value or connotation: it is not stylistically marked. In addition, individual derivatives developed special meanings which are distant from the meaning of the base ADJ. Bakema/Defour/Geeraerts (1993) pointed at the development of specific meanings in nominal diminutives, but this process can also be found with individual *tjes*-derivatives; e.g. *vet-tjes* 'fat' specialised in the domain of printing, referring to 'bold face' and I already referred to *zoet-tjes* 'slowly' in (15.5). With respect to nominal diminutives, Klimaszewska (1983: 24,30ff) connects the processes of neutralisation and idiomatisation with the high frequency of the diminutive pattern in Dt. When the diminutivised form is used more often than its base, the suffix may lose its expressive value (e.g. *lied-je* is fully conventionalised to refer to a song, no different from its base *lied*). This observation may be extended to modifying words formed with *-tjes*, e.g. *net-tjes*.

²³⁰ <http://partyflock.nl/topic/1031369/PAGE/764.html> and <http://www.n1ntendo.nl/topic/21859/1/het-grote-liefdestopic> [last accessed 01.03.2011]

(2) Interpersonal modifiers

The only interpersonal modifiers which I discovered in the historical material are the modal ADV *waarachtig-jes* ‘truly’ in EModD and *warempel-tjes* ‘truly, actually’ in ModD, see (15.33)-(15.34).

(15.33) EModD/1612/WNT/waarachtigjes

En dat ick die wesen sou, 'k en durf niet **waeraftichgens**.

‘And that I should be him (= that fool), really I wouldn’t dare.’

(15.34) ModD/1865/WNT/warempel

'k Loof **warempeltjes**, dattet schepsel doof is geworden.

‘I actually believe this poor thing has become deaf.’

The modal meaning is inherent in the base words *waarachtig* ‘truly’ and *warempel* ‘truly, actually’. Therefore it is not clear what the suffix *-tjes* contributed; we may be dealing with analogy.

15.3.3 Historical observations on syntactic use

We have seen that predicative use of *tjes*-derivatives is recorded already in EModD. Attributive use is found in CD (1). We also find that *tjes*-derivatives enter the NP as premodifiers in the 20th ct. (2).

(1) Attributive modifier

In the INL material, instances of attributive use of *tjes*-derivatives are very rare. In ModD of the early 19th ct. we find an example with a nominalised infinitive: *het zoet-jes loopen* ‘lit. the slow walking’ (1808/WNT/zoetjes). Royen (1948a: 55), Kruisinga (1951: 126) and Schultink (1962: 133) still claimed that *tjes*-lexemes did not function as preposed attributes to N. However, Roose (1964: 87) strongly disagreed with his colleagues: he believed that instances like *zacht-jes gefluister* ‘quiet whispering’ and *net-jes werk* ‘neat work’ are “fully conventional”. Geerts et al. (1984) were very careful in their first edition of the reference grammar *ANS* where they stated that these derived words are “exceptionally” used attributively by “some language users”. In the revised edition, *ANS* (1997: 737) left out the restrictor “exceptionally”. This may either indicate a growing acceptance of the phenomenon or a recent trend.

In the CD material, attributive use occurs only in spontaneous dialogue. Attributive use occurs with nominalised infinitives, e.g. *het zacht-jes prevelen van verwensingen* ‘the quiet murmuring of curses’ (1978/ANW), *het zacht-jes donkeren van het wachtvertrek* ‘the slow darkening in the waiting room’ (2002/ANW), *het net-jes opruimen* ‘the neat tidying’ (2002/ANW). However, attributive use is incidentally found with non-verbal N, e.g. *een net-jes woord* ‘a polite word’ (2000/CGN) and *iets-jes hoofdpijn* ‘a slight headache’ (2002/CGN). This could indicate that Dt. *tjes*-derivatives may be gradually losing their status as prototypical ADV. That this could be a natural development is suggested by the fact that attributive instances are also found in Af. and Fs. For Af., Donaldson (1993: 445) only refers to ‘n *net-jies-e hemp* ‘a nice (neat) shirt’. For Fs., Hoekstra (1998: 161) claims that only idiomatised derivatives allow attributive use; e.g. *net-sjes-e klean* ‘nice (neat) clothes’, *in fyn-tsjes-e opmerking* ‘a knowing remark’. This restriction also applies to inflection; e.g. the COMP *net-sjes-er* ‘nicer’ is fine, whereas **slûch-jes-er* ‘sleepier’ is ungrammatical (Hoekstra 1998: 161). However, Pannekeet (1979: 99) also mentions *zacht-jes-er* ‘more softly’.

It is remarkable that Af. and Fs. allow prenominal inflection, e.g. *net-jies-e/net-sjes-e* whereas Dt. *tjes*-derivatives cannot be inflected. This is probably due to phonological reasons (Roose 1964: 87). There are no inflected corpus examples. Google finds over 4500 hits for inflected *net-jes-e* ‘neat’, but at first sight many of them are typos and/or occur in a context which contains further mistakes

and/or appears to be written by non-native speakers. In ANW we do find incidental hits for the COMP *net-jes-er* 'more neatly'. Interestingly, the form is mentioned in *Wikipedia* in an article on frisisms in Dt., which may indicate that Dt. occurrences are due to language contact.²³¹ I found examples of further inflected Dt. COMP forms in the literature, but these are all restricted to dialect, e.g. *zoet-jes-er* 'more gently', *still-ekez-er* 'more quietly', *zach-jez-er* 'more softly' (Van Loey 1970: 232, Royen 1948a: 52, Schultink 1962: 133).

(2) Adverbial premodifier

The *tjes*-derivatives may enter the NP as premodifiers of attributes in ModD, e.g. *Een vlakken en net-jes gevlyden akker* 'a smooth and neatly harrowed field' (1779/WNT/vlijen), *eene net-jes gekleede dienstmaagd* 'an elegantly dressed servant-girl' (1793/WNT/woonhuis), *zijn (...) los-jes geknoopte das* 'his loosely knotted tie' (1888/WNT/knoopen), *de er zoo gewoon-tjes uitziende man* 'the so very ordinary looking man' (1909/ALC). This is fairly common in CD, e.g. *even-tjes opengeklapte luxaflexen* 'temporarily opened blinds' (1982/ANW), *net-jes uitgedoste vrouw* 'nicely dressed-up woman' (1983/ANW), *enkele eerder zwak-jes verantwoorde meisjes- en jongensvoornamen* 'some rather poorly justified first names for girls and boys' (1997/ANW), *een iets-jes beter daglicht* 'a somewhat brighter light of day' (2003/ANW), etc.

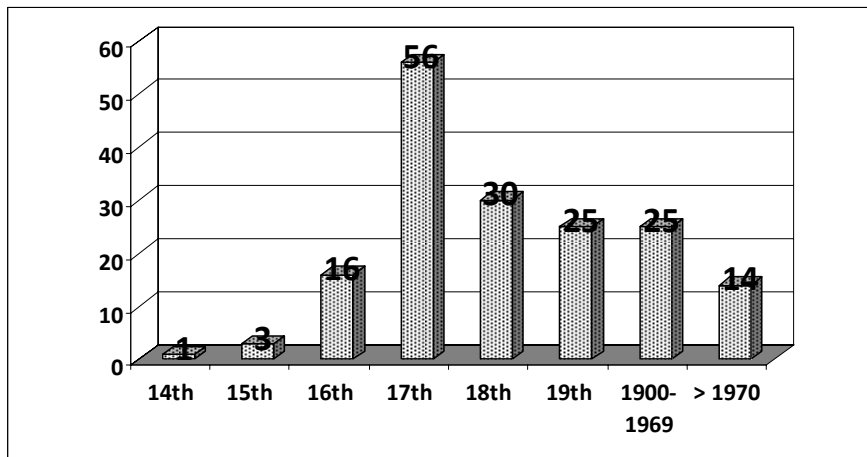
15.3.4 Scope and productivity from a diachronic perspective

If we have a look at the scope of *-tjes* throughout the centuries, we see that it has remained fairly stable since EModD. In the 17th ct. we find complex base words ending in *-(e)lijk* and *-ig*, e.g. *zoet-elijk* 'sweet', *lucht-ig* 'light, airy'. Non-native base words became popular in the 17th ct., including the early Fr. loans *pover* 'poor, moderate', *proper* 'clean', *sober* 'moderate' and Lt. *perfect*. In the 18th ct., Betje Wolff and Aagje Deken coined many *tjes*-derivatives with complex base words, e.g. *ig*-derivatives (e.g. *neder-ig* 'humble') but also *(e)lijk*-derivatives (e.g. *vles-elijk* 'carnal, physical') and Fr. loan words (e.g. *koket* 'coquettish'). In the WNT material and in ALC new derivatives are found in the 20th ct. on the basis of *ig*-derivatives (e.g. *inn-ig* 'profoundly') and foreign ADJ (e.g. *amicaal* 'amicable'), but also on the basis of ADV (e.g. *samen* 'together', *iets* 'somewhat, a little').²³²

Based on type frequency, it seems that the pattern with *-kine* for modifying words never became really productive. Rather the suffix *-kens*, resulting from reanalysis of a sequence of *-kine* and the adverbial *-s*, became productive in the 16th ct. The number of new formations with *-tjes* may be set out per century as in the bar chart in figure 15.3. I only included complex words with the presence of the final *-s*. Their first attestation was taken as the basis even when formatives without *-s* occurred earlier. All variants (*-tjes*, *-kens*, *-tgens*) have been taken into account.

²³¹ <http://nl.wikipedia.org/wiki/Frisisme> [last accessed 9.02.2012]

²³² Schultink (1962) provides a list of further new derivatives; I did not include these in my investigation.

Figure 15.3. New formations with *-tjes* throughout the centuries.

We may infer from figure 15.3 that type frequency exploded in the 17th ct. with the highest proportion of new formations throughout the history of Dt. It was the palatalised variant *-tjes* which caused this explosion and became the standard form of the suffix. Thus, the intuition by van der Horst (2008) that *tjes*-derivation became popular and frequent in the 17th ct. can be supported by the material.²³³ His idea that *tjes*-derivation was at its peak in the 18th ct. cannot be confirmed in terms of the number of new types: the material suggests that productivity decreased slightly in ModD. As pointed out in section 15.3.2, in the 17th, 18th and 19th ct., *-tjes* was an instrument for very creative word formation in literary texts. This is confirmed by the fact that many of the types coined in this period occur only once in the material of WNT. For some, the dictionary editors stated explicitly that they perceived these derivatives as unusual, e.g. *smeeg-jes* 'smoothly'. In the 18th ct., the authors Betje Wolff and Aagje Deken coined many *tjes*-derivatives, in fact the majority of *tjes*-derivatives in the 1780s (see appendix to chapter 15). Still, many types coined in the 17th, 18th and 19th centuries survived into CD and became conventionalised (e.g. *net-jes* 'neatly', *even-tjes* 'for a while'). In the 19th ct., *tjes*-derivation was firmly established, which can be inferred from the fact that it figures in the grammar by Brill (1871).

According to Schultink (1962) and van der Horst (2008) *-tjes* remained productive in the 20th ct., which my material confirms. A total of 14 deadjectival types first emerge in CD whereas there are no new deadverbial types after 1970. The most recent deadverbial type in the material is *iets-jes* (1968/ALC). In section 15.2, I observed that a quarter of the deadjectival *tjes*-types in the CD inventory are recorded only in the corpora and not in Van Dale (2005). The diachronic investigation revealed that they do not all represent new formations. Actual new formations from CD include the *ig*-derivatives *roz-ig-jes* 'rosy' and *smer-ig-jes* 'shabbily', the formatives *dapper-tjes* 'bravely', *stramm-etjes* 'stiffly', *tamm-etjes* 'tame, dull', *brak-jes* 'brackish' and *leep-jes* 'shrewdly' and non-Gmc. *banaal-tjes* 'banal, trite'. All in all, it seems that *tjes*-derivation is limitedly productive in CD. The same picture of limited productivity is reported for the corresponding pattern in Fs. and Af. (Pannekeet 1979: 99, Donaldson 1993: 95, Raidt 1983: 167).²³⁴

However, internet attestations show that *-tjes* may be more freely available for new formation in CD than suggested by the synchronic inventory. The suffix may be added to base words which were recently borrowed from En., e.g. *relaxed* and *cool*, see examples (15.35)-(15.36). However, we should

²³³ Interestingly, Shetter (1959: 75) also refers to an increasing use of the nominal diminutive in the 17th ct., which was the prosperous Golden Age for Holland, "a period of great prosperity in which a bourgeois hominess and contentment began to find expression in literary form". However, this explanation is very Hollandocentric and does not account for the rise of diminutives in other regions like Flanders and South-Africa.

²³⁴ Donaldson (1993: 447) claims that in Af. the competition of reduplication is strong.

note for *cool-tjes* that the native homophone *koel-tjes* ‘cool(ly)’ with almost the same meaning was already coined in Dt. in the 17th ct.

(15.35) CD/2011/internet²³⁵

De reactie van Magath is nogal **cooltjes**, alsof het hem niet zoveel uitmaakt.
‘The response of Magath is rather cool, as if he doesn’t care very much.’

(15.36) CD/2010/internet²³⁶

Toen bleek het ineens allemaal niet meer zo **relaxedjes** aan te gaan.
‘Then all of a sudden things did not go so smoothly anymore.’

If we search the internet, we find that *-tjes* may be added to *(e)lijk*-derivatives, e.g. *vriend-elijk* ‘friendly’ (15.37) and even to *erwijs*-derivatives, e.g. *spelend-erwijs* ‘by playing’ (15.38). The latter, found in a discussion forum on football, sounds artificial and may not be acceptable to all native speakers.

(15.37) CD/2007/internet²³⁷

Daarin zitten 2 witte mannen die bij alles altijd heel **vriendelijkjes** blijven glimlachen.
‘There are 2 white man in there who keep smiling awfully kindly all the time.’

(15.38) CD/2004/internet²³⁸

Ons team heeft die **spelenderwijsjes** vernederd.
‘Our team humiliated them without any effort.’

15.4 Conclusion

Compared to the Dt. adverbial suffixes discussed in this dissertation, the suffix *-tjes* is certainly unique. It also has a special status in the West-Gmc. languages. An equivalent suffix for deriving modifying words can be found in the daughter language Af. and in Fs., but there is no comparable suffix in En. and Gm. The special status of *-tjes* pertains to its semantic contribution which usually includes the expression of some emotion, stylistic effect or irony, which may be combined with the primary value of APPROXIMATION. Over time, *-tjes* has lost its typical role as a creative expressive device in literary texts, which was prominent from the 17th until the 19th ct. Many of the derived words coined in this period do not survive today and others developed very specific meanings. The data indicate that the pattern is limitedly productive.

Particularly complex is the relation of *-tjes* with the nominal diminutive suffix *-tje*. The traditional assumption that *-tjes* is historically a sequence consisting of the nominal diminutive *-tje* and the adverbial *-s* needs to be modified. No modifying words with *-tje* are recorded: reanalysis of the velar predecessor *-kens*, consisting of the original diminutive suffix *-kine* and the adverbial *-s*, was complete before the 17th ct., when the palatalised variant spread from the north.

I have shown that *-tjes* is no prototypical adverbial suffix but it may be on its way to becoming an adjectival suffix. Predicative use has always been common, but recently, attributive use has been documented and it may be on the rise. However, *tjes*-derivatives shun inflection for phonological reasons, which is an obstacle for a full exploitation of attributive use.

²³⁵ <http://www.voetbalzone.nl/doc.asp?uid=133516> [last accessed 28.02.2011]

²³⁶ <http://floorenevilla.waarbenijj.nu/?page=message&id=3385950> [last accessed 28.02.2011]

²³⁷ <http://www.veit.nl/115911-canon-g9/3> [last accessed 28.02.2011]

²³⁸ http://gathering.tweakers.net/forum/list_messages/940064/35 [last accessed 04.02.2011]

16 Modifying words with *-waarts*

16.1 Introduction

The suffix *-waarts* is included in the overview of Dt. adverbial suffixes by Booij (2002). It gets its own entry in Van Dale (2005) as well as a short description in ANS (1997) and de Haas/Trommelen (1993). Examples are *noord-waarts* ‘northwards, to the north’ (16.1) and *huis-waarts* ‘homewards, home’ (16.2).

(16.1) CD/1992/38MWC
Aeneas voer **noordwaarts** tot de monding van de Tiber en ontmoette koning Latinus.
‘Aeneas sailed northwards to the Tiber estuary and met king Latinus.’

(16.2) CD/1995/38MWC
Degenen die het overleefden, keerden ontgoocheld **huiswaarts**.
‘Those who survived returned home disillusioned.’

The suffix *-waarts* is equivalent with En. *-ward(s)*, e.g. *back-wards* (16.3) and Gm. *-wärts*, e.g. *rückwärts* ‘backward(s)’ (16.4).

(16.3) CE/1993/BNC
He gave a sigh and let his head fall **backwards**.

(16.4) CG/1985/DWDS
Langsam hob ich die Arme und machte einen Schritt **rückwärts** ins Zimmer.
‘I slowly raised my arms and made a step backwards into the room.’

In En., the final *-s* can be left out in adverbial modifiers, e.g. *for-ward* and *back-ward* in (16.5).

(16.5) CE/1990/BNC
We have to look **forward**, not **backward**.

According to OED, there is (at least potentially) a parallel formation in *-ward* beside every ADV in *-wards* and vice versa. Quirk et al. (1985: 1556) claim that *-ward* without *-s* is usual in printed American En., whereas *-wards* is usual in British En. and in spoken American En.²³⁹ The forms have a different syntactic distribution: whereas the forms with *-wards* are always adverbial, those with *-ward* may occur in prenominal attributes (Marchand 1969: 351, Quirk et al. 1985: 1556), e.g. *back-ward* in (16.6).

(16.6) CE/1991/BNC
We passed with never a **backward** look and arrived in Al Ain in well under three hours.

Just like En. *-wards* is blocked from attributive position, Gm. *-wärts* is too. Instead, Gm. uses *-wärt-ig*, e.g. inflected attributive *rück-wärt-ig-en* ‘backward’ (16.7) (see also chapter 4).

²³⁹ OED notes that the forms “are so nearly synonymous (...) that the choice between them is mostly determined by some notion of euphony in the particular context; some persons, apparently, have a fixed preference for the one or the other form”. OED further observes that *-wards* may be preferred 1) to include a notion of manner, as in *to walk back-wards*; 2) to express a direction more precisely, in contrast with other possible directions. Thus, there may be a subtle meaning difference between *to travel east-ward* and *to travel east-wards*.

(16.7) CG/1983/DWDS

Im **rückwärtigen** Gebiet beginnt das Einrücken von Truppen in den Westwall.
 'In the rear area the troops start marching to the Westwall.'

The foregoing observations suggest that in En. and Gm. we are dealing with a suffix sequence consisting of *-ward/-wärt* and the adverbial *-s* as opposed to Gm. adjectival *-ig* (e.g. Ros 1992). For Dt., too, the literature suggests that *-waarts* is historically a suffix sequence of *-waart* and the adverbial *-s* (compare *-(e)lings* in chapter 8 and *-tjes* in chapter 15). I will show in this chapter that contrary to its En. and Gm. equivalents, Dt. *-waarts* is fully reanalysed and should be considered a suffix in its own right. Moreover, Dt. *waarts*-derivatives are unique since they allow attributive use and inflection, e.g. inflected *zij-waarts-e* 'sideward' in (16.8).

(16.8) CD/n.d./ANW

De heupen moeten een **zijwaartse** beweging maken t.o.v. de ski's en geen draaibeweging.
 'The hips have to make a sideward movement in relation to the skis, not a turning movement.'

I shall argue in this chapter that, in contrast with En. *-wards* and Gm. *-wärts*, which are prototypical adverbial suffixes, Dt. *-waarts* is an adjectival suffix.²⁴⁰

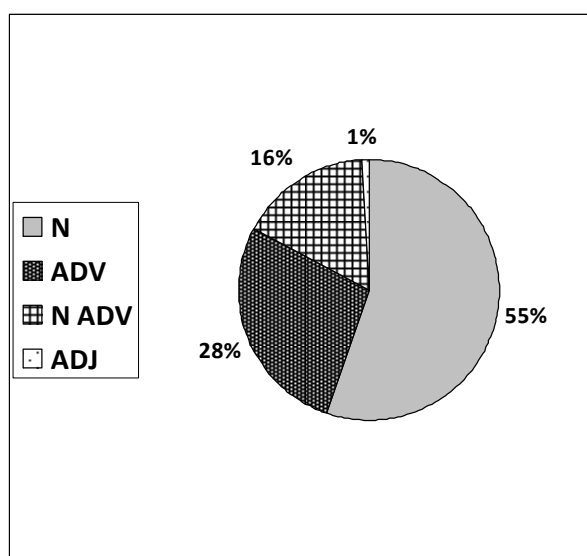
16.2 Synchronic description

The synchronic description of *waarts*-derivatives is based on an inventory of 105 lexeme types collected in the corpora 38MWC, CGN and ANW and in the dictionary Van Dale (2005) (see appendix to chapter 16).

16.2.1 Scope and productivity

The input categories for derivation with *-waarts* according to the literature are N and ADV (ANS 1997: 740) and phrases like *stroom-op-waarts* 'upstream' (de Haas/Trommelen 1993: 356). Figure 16.1 shows the actual distribution of input categories in the synchronic inventory.

Figure 16.1. Distribution of input categories for *-waarts* in synchronic inventory.



PATTERN	TYPE FREQUENCY
$[[X]_N \textit{waarts}]_{\text{Modf}}$	58
$[[X]_{\text{ADV}} \textit{waarts}]_{\text{Modf}}$	29
$[[[X]_N [X]_{\text{ADV}}]_{\text{AdvP}} \textit{waarts}]_{\text{Modf}}$	17
$[[X]_{\text{ADJ}} \textit{waarts}]_{\text{Modf}}$	1
TOTAL	105

²⁴⁰ A number of *wärts*-lexemes may govern the genitive case; then they should be considered PREP (Heinle 2004: 217, Eisenberg 2002: 67).

We may infer from figure 16.1 that *-waarts* is prototypically added to nominal base words. However, an adverbial base word may be found in over a quarter of the lexeme types. Phrasal bases are also quite common (but see the comment in (3) on their structure). In addition I found one single deadjectival lexeme. These input categories correspond more or less with En. and Gm. (see Quirk 1985, Hamawand 2007; Ronca 1975, Ros 1992, Lohde 2006). Denominal examples are En. *earth-ward(s)* and *theatre-ward(s)*, Gm. *tal-wärts* ‘to the valley’ and *stadt-wärts* ‘to town’. Formed with directional ADV are e.g. En. *north-ward(s)* and Gm. *west-wärts* ‘to the west’ and on the basis of directional particles we find e.g. En. *for-wards* and Gm. *ab-wärts* ‘downwards’. The phrasal pattern is found in Gm. *fluß-ab-wärts* ‘downstream’ but it is absent in En. An exceptional deadjectival derivative from Gm. is *ander-wärts* ‘elsewhere’.²⁴¹

(1) Nominal input

The suffix *-waarts* may be added to a variety of N which are mostly semantically concrete (nature landmarks, (parts of) buildings, body parts, etc.). The input N are mostly native (e.g. *huis* ‘house’, *werk* ‘work’) but they may occasionally be borrowed (e.g. from Fr. *douche* ‘shower’, *lingerie* ‘lingerie’, *democratie* ‘democracy’; from Lt., *villa* ‘villa’). In terms of token frequency, *huis-waarts* ‘homeward, to home’ and *zij-waarts* ‘sideward’ are the most common. Morphologically simplex N dominate in the inventory; there is only one compound *boek-handel* ‘book shop’ and derived N appear to be completely blocked from the pattern. This may have to do with the semantic restriction that the input N denotes a concrete entity. This restriction was formulated for Gm. *-wärts* by Ronca (1975: 132,123). These N must be able to get some kind of spatial interpretation. En. *-ward* takes concrete N as its input (Hamawand 2007); I have not found any further restrictions in the literature.

Input N are mostly singular, but some input N have the plural marker *-en*: *vriend-en* ‘friends’ and *duin-en* ‘dunes’. In the corpora there are quite some types on the basis of toponyms, e.g. *Amsterdam*, *Leuven*. Their number of tokens is low. Fleischer/Barz (1995) refer to Gm. *frankreich-wärts* ‘in the direction of France’, also on the basis of a toponym, and compare En. *Chicago-ward(s)*, although Quirk (1985: 1556) stresses that such formatives are only common if jocular.

(2) Adverbial input

Among the adverbial bases for derivation with *-waarts* I include prototypical ADV (e.g. *beneden* ‘down’, *thuis* ‘at home’) and directional items which are on the prepositional end of the scale (e.g. *voor* ‘for, before’). The latter are particularly well represented in the corpora and these *waarts*-derivatives are established in Van Dale (2005). In terms of token frequency, *voor-waarts* ‘forwards’, *op-waarts* ‘upwards’ and *neer-waarts* ‘downwards’ are among the most common. The lexemes formed with the directions of the wind are also frequent, e.g. *oost-waarts* ‘eastwards’ and they may be combined, e.g. *zuid-oost-waarts* ‘to the southeast’; *WNW-waarts* is formed on the basis of an abbreviation for ‘west-north-west’. For the archaic lexeme *der-waarts* ‘thither(wards)’, which is restricted to solemn language or used with an ironic effect, e.g. (16.9), the base word may no longer be available to present-day speakers of Dt. and the same holds true for *her-waarts* ‘hither(wards)’ and *wer-waarts* ‘to where’; see section 16.3.

(16.9) CD/ 1993/38MWC

De functionaris spoedde zich dan in allerijl **derwaarts**, het glimmende gezicht in de nek op weg naar de geneugten des levens.

‘The officer then rushed thitherwards with great dispatch, the shiny face in the neck on his way to the joys of life.’

²⁴¹ Heinle (2004) classifies *ander-wärts* as depronominal.

(3) Phrasal input

I refer to a phrasal input type in examples like *stroom-op-waarts* ‘upstream’ and *berg-af-waarts* ‘downhill’, whose internal structure may be represented as $[[[X]_N [X]_{ADV}]_{NP} waarts]_{Modf}$. However, it may be argued that their structure is actually $[[X]_N [[X]_{ADV} waarts]_{Modf}]_{Modf}$, i.e., that they are no *waarts*-derivatives but compounds made up of a N (e.g. *stroom* ‘stream’) with an existing deadverbial *waarts*-derivative (e.g. *op-waarts* ‘upward’). What speaks for the derivational analysis is that certain phrases exist autonomously, e.g. *berg-af* ‘downhill’. The phrasal input type is rather common in the material. There are a number of well-established lexemes which are recognised by lexicography (Van Dale 2005) and which are highly frequent in the corpora, e.g. the pair *stroom-op-waarts/stroom-af-waarts* ‘upstream/downstream’ and *land-in-waarts* ‘inland’.

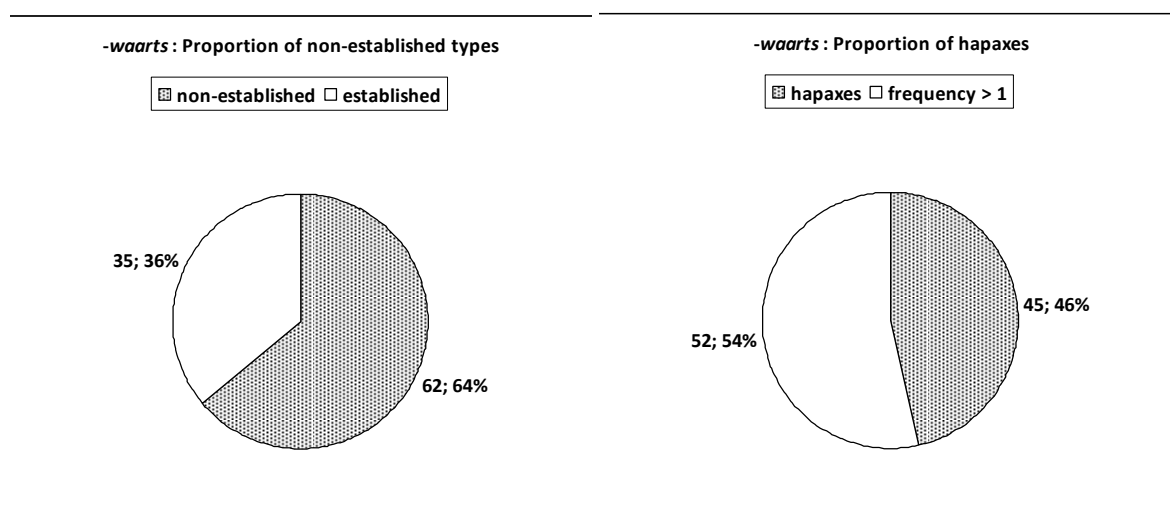
(4) Adjectival input

The deadjectival lexeme *ander-waarts* ‘in another direction, to somewhere else’ is attested in Van Dale (2005), but it is added that this lexeme is rarely used (compare Gm. *ander-wärts*). It has no attestations in the corpora.

(5) Synchronic indicators of productivity

We may infer from the investigation of input words in the synchronic inventory that particularly denominal derivation with *-waarts* appears to be available for new formation. There is a wide scope since there is an enormous number of N with a concrete reference (including toponyms). There may be evidence for a new pattern on the basis of toponyms but this shall be verified in the diachronic section. The application rate for *-waarts* in the corpora provides evidence for high productivity. The overall type frequency is almost 100 and the ratio of non-established types amounts to 64%. Nearly half of the types in the corpus material are hapaxes. The results are visualised in the pie charts in figure 16.2.

Figure 16.2. Frequencies for *-waarts* in contemporary Dutch corpus data (97 types = 100%).



Particularly denominal derivation with *-waarts* shows indications for productivity. Among the denominal derivatives in the corpora there are 33 hapaxes. There may also be evidence for new formation with an adverbial base word. Not established are infrequent *terug-waarts* ‘lit. on the way back-wards’ and the hapaxes *heen-waarts* ‘lit. on the way-wards’ and *voorop-waarts* ‘lit. in front-wards’, as well as some lexemes on the basis of combined directions of the wind. The corpora contain some hapaxes and infrequent lexemes with a phrasal input, e.g. the pair *stad-in-waarts/stad-*

uit-waarts ‘into town/out of town’ and even phrases formed with proper N, e.g. *Nijl-af-waarts* ‘down the Nile’, which are not in Van Dale (2005). This may suggest that the pattern is available for new formation. There is no evidence that the deadjectival pattern is available for new formation in CD.

16.2.2 Modifier types

Dt. *waarts*-derivatives are associated in the literature with the descriptive function of localising modification (e.g. ANS 1997). Applying the classification by Rijkhoff, we may add classifying modification.

(1) Classifying modifiers

Van Dale (2005/*-waarts*) and ANS (1997: 740) observe that *waarts*-lexemes are attested as prenominal attributes. In that case we may analyse them as classifiers of the nominal head. There are plenty of prenominal classifiers in the corpus. The *waarts*-derivatives usually specify direction with NPs implying movement, e.g. *een achter-waarts-e salto* ‘a backward somersault’ (1992/38MWC), *de zogenaamde zij-waarts-e slag* ‘the so-called sideward stroke’ (1994/38MWC), *een neer-waarts pad* ‘a downward path’ (1995/38MWC), *een lij-waarts schip* ‘a leeward ship’ (1995/38MWC). The *waarts*-derivatives may also specify the origin of a movement, e.g. *een plotselinge harde zij-waarts-e wind* ‘a sudden gust of wind from the side’ (1992/38MWC) and stative location, e.g. *de wind-af-waarts-e zijde van de stad* ‘the off-wind part of town’ (1981/ALC), *de land-in-waarts-e kant* ‘the inland side’ (1995/38MWC).

In the material we also find several postposed classifiers, postmodifying the referent. These include: *mijn tocht berg-op-waarts* ‘my expedition uphill’ (1977/ANW), *snelzwemmen, buik-waarts* ‘fast swimming, on the belly’ (1989/ANW), *de tocht zuid-waarts* ‘the trip southward’ (1990/38MWC), *een grote sprong op-waarts* ‘a great leap upward’ (1994/38MWC), *grote overstromingen stroom-af-waarts* ‘massive flooding downstream’ (1995/38MWC), *een ziekenwagenrit leuven-waarts* ‘an ambulance ride to Leuven’ (1995/38MWC), *de trein huis-waarts* ‘the train home’ (1995/38MWC), *een enorme stap voor-waarts* ‘a giant step forward’ (1995/38MWC).

(2) Localising modifiers

There are two different types of localising modifiers with *-waarts*. The most common type is the one specifying direction with a VP which expresses motion (‘moving towards x’), e.g. (16.1) and (16.2) above. The other type is a specification of location at a certain site with a VP which is static. Thus, individual lexemes may be polysemous, compare *land-in-waarts* ‘inland’ combined with a VP of movement in (16.10) and with a static VP in (16.11).

(16.10) CD/1993/38MWC

Met het rijzen van de zeespiegel verplaatst zich bovendien het gehele systeem strandwal - wadden - waddenkust **landinwaarts**.

‘As the sea level rises, eventually the entire system of shore - sand flats - wadden coast moves inland.’

(16.11) CD/1995/38MWC

Overigens liggen de meeste cultuur- en landschapshistorisch waardevolle gebieden meer **landinwaarts** waar de zeeklei zo zwaar is dat de grond alleen geschikt is voor grasland.

‘For that matter, most areas which are valuable as far as culture and landscape history are concerned, are situated more inland where the sea clay is so heavy that the soil is only suitable for meadows.’

In individual lexemes, the specification of direction may be interpreted in a figurative sense, e.g. *berg-af-waarts* ‘downhill’ in (16.12).

(16.12) CD/1994/38MWC

De laatste tijd gaat het snel **bergafwaarts** met Suriname. Veel mensen leven in armoede.
 'In recent times Surinam is going quickly downhill. Many people are living in poverty.'

The same two types of localising modifiers and the same polysemy for individual lexemes are found with Gm. *wärts*-derivatives, e.g. *ost-wärts* may mean 'in the east' or 'to the east', depending on whether the VP is static or dynamic (Ronca 1975: 128, Heinle 2004: 218). In En., too, there are related meanings indicating static location or movement (Hamawand 2007). Compare *outward* in *the outward appearance* (static: 'external') and *outward mail* (direction: 'going out').

Individual lexemes may be specialised, e.g. Gm. deadverbial *aus-wärts* 'outside, outdoors' (16.13) and deadjectival *ander-wärts* 'elsewhere' (16.14) are usually combined with static VPs to express location at a certain place (Ros 1992: 129-130).

(16.13) CG/1994/DWDS

Sie sitzt brav zu Hause, und Stavro amüsiert sich **auswärts** mit Touristinnen.
 'She is staying at home piously whereas Stavro is having fun outdoors with female tourists.'

(16.14) CG/1983/DWDS

Warme - wird bei uns die Wurst genannt, die **anderwärts** Bockwurst heißt.
 'Warme is what we call the sausage that is elsewhere known as *Bockwurst*.'

Notice that stative *aus-wärts* 'outside' may occur in a predicative construction with a copula (Eisenberg 2002: 67), see (16.15).

(16.15) CG

Das Spiel ist **auswärts**.
 'Lit. The game is outside; It is an away game.'

If *auswärts* is used for indicating direction, CG may add an introductory PREP to specify the direction, a practise which is also found with other derivatives, e.g. *von rückwärts* 'lit. from backwards', *nach abwärts* 'lit. to downwards', and which is frowned upon by prescriptive grammar (Ronca 1975: 129).

16.2.3 Contribution of *-waarts*

The illustrations in 16.2.2 have shown that *waarts*-derivatives are specialised in the descriptive function of localising modification. The suffix is mainly added to N but also to existing modifying words (ADV). In all cases it combines a grammatical value (1) with a semantic value (2).

(1) Grammatical value

The addition of *-waarts* moves N into the category of modifying words, in which case there is obviously a grammatical value. The literature labelled this value as an adverbialising pattern. This claim is clearly problematic. The corpus material has confirmed that *waarts*-derivatives are no prototypical ADV: they are frequently used as prenominal attributes in which case they are inflected according to the requirements of Dt. grammar. This potential of *waarts*-derivatives is recognised in the reference grammar ANS (1997: 740) and by lexicography, e.g. Van Dale (2005) states that *-waarts* forms ADV which may be occasionally used as ADJ and it classifies individual lemmas either as ADV, as both ADV/ADJ, or as ADJ. In view of my corpus findings, I propose that it is best to consider *-waarts* as a prototypical adjectival suffix. It also contributes its adjectivising value when it is added to ADV: adding *-waarts* extends the morphosyntactic valency of the base to enable prenominal attributive use and inflection.

This analysis cannot be expanded to Gm. *-wärts* since *wärts*-derivatives are only used adverbially in CG (Ronca 1975: 130); the same holds for En. *-wards* (Quirk et al. 1985). En. uses *-ward* in the prenominal attribute position and in Gm. prenominal attributive use of *wärts*-derivatives is blocked by the presence of *-wärtig* (see section 16.1).

(2) Semantic value

The suffix *-waarts* combines its adjectival value with a semantic value. The semantic contribution of *-waarts* is usually described as DIRECTION (e.g. Van Dale 2005). We may infer from the material that there is a slightly broader semantic spectrum since *waarts*-derivatives are also used for specifying the ORIGIN of a movement and for indicating SPATIAL LOCATION with static VPs. The semantic potential of *-waarts* is illustrated in table 16.1.

Table 16.1. Semantic spectrum of *-waarts*.

VALUE		PATTERN	EXAMPLE
PRIMARY	DIRECTION	[[X] _N <i>waarts</i>] _{ADJ}	<i>huis</i> 'house' : <i>huis-waarts</i> 'to home'
		[[X] _{ADV} <i>waarts</i>] _{ADJ}	<i>buiten</i> 'outside' : <i>buiten-waarts</i> 'to the outside'
		[[[X] _N [X] _{ADV}] _{AdvP} <i>waarts</i>] _{ADJ}	<i>mond</i> 'mouth' / <i>in</i> 'in' : <i>mond-in-waarts</i> 'into the mouth'
	ORIGIN	[[X] _N <i>waarts</i>] _{ADJ}	<i>zij</i> 'side' : <i>zij-waarts</i> 'from the side'
	SPATIAL LOCATION	[[[X] _N [X] _{ADV}] _{AdvP} <i>waarts</i>] _{ADJ}	<i>land</i> 'land' / <i>in</i> 'in' : <i>land-in-waarts</i> 'inland'
PLEONASTIC		[[[X] _N [X] _{ADV}] _{AdvP} <i>waarts</i>] _{ADJ}	<i>berg</i> 'hill' / <i>op</i> 'up' : <i>berg-op-waarts</i> 'uphill'

Exceptionally, *-waarts* may be pleonastic; e.g. *berg-op-waarts* is synonymous to unsuffixed *bergop* 'uphill' in adverbial use, compare (16.16) and (16.17). However, adding *-waarts* enables attributive use, see section 16.2.2., so there is a grammatical value involved.²⁴²

(16.16) CD/1981/ANW

zonder afspraak wandelen wij verder **bergopwaarts**, het pad voert zachtjes naar links (...).
'without agreement we walk further uphill, the path bends slightly to the left (...).'

(16.17) CD/n.d./ANW

Langzaam sjokt de kleine karavaan **bergop**. Het pad is smal.
'Slowly the small train of people lumbers uphill. The path is narrow.'

(3) Rival suffixes

In Dt., *-waarts* has no competition from other word-formation patterns for its semantic spectrum. Alternatively there are only phrasal strategies with PREP (see chapter 4). For the semantic value of ORIGIN, there is a comparable suffix *-(e)lings*, e.g. *zijde-lings* 'from the side' (see chapter 8 on *-(e)lings*). But these suffixes are in some kind of distribution since *-(e)lings* combines with abstract N and PRON whereas *-waarts* is added to concrete N.

²⁴² That is, if we assume that *bergopwaarts* is derived from *bergop*, which needs not be the case, see section 16.2.2.

There is limited rivalry in Gm., e.g. *-lich* in *seit-wärts/seit-lich* 'sideways' and *-lings* in *rück-wärts/rück-lings* 'backwards' (Ros 1992: 129 and see chapter 8 on *-(e)lings*). Another competitor is word formation with *her* and *hin* (Heinle 2004: 219). For formatives which indicate SPATIAL LOCATION, Ronca (1975: 166) refers to *-orts* and *-halben* (*ander-wärts/ander-n-orts* 'elsewhere', *aller-wärts/aller-orts/all-ent-halben* 'everywhere').

In the domain of motion, En. has not only *-ward* but also *-bound*, but since the latter is specialised in indicating destination rather than direction there is a subtle difference between *home-ward/home-bound* or *north-ward/north-bound* (Hamawand 2007). With the directions of the wind, En. may further use *-ly* for encoding DIRECTION or ORIGIN, e.g. *easter-ly* (see Marchand 1969: 330) and *-n* for LOCATION, e.g. *easter-n* (Hamawand 2007).

16.3 Diachronic description

Words formed with *-waarts* are already listed in the oldest grammars of Dt., e.g. Spiegel (1584), and there are many examples in the dictionary by Kiliaan (1599). The historical dictionary WNT includes some etymological information in its entry on *-waarts*. The suffix *-waarts* historically constitutes a sequence of a suffix *-waart* and the adverbial suffix *-s*. The suffix *-waart* in turn is historically related with a homonymous lexical ADV. To gain an insight into processes of univerbation, grammaticalisation and reanalysis, the diachronic inventory includes the earliest attestations of sequences where *waart(s)* and the base word are juxtaposed, but do not form an orthographic unit, i.e., are not written together or connected by a hyphen (see appendix to chapter 16). The investigation uses existing information on the emergence of the Gm. equivalent *-wärts* (see e.g. Heinle 2004) and En. *-ward(s)* (see e.g. OED).

16.3.1 Origin of *-waarts*

Dt. *-waart(s)*, En. *-ward(s)* and Gm. *-wärts* have their origin in a Gmc. element **-werþ-* (variant forms **-wardō* and **-werþo*; Gt. *wairþ*). It can be traced back to a PIE root meaning 'to turn', compare Lt. *vertere*, e.g. *Romam versus* 'to Rome' (Marchand 1969: 351). This element no longer survives independently in Dt., En. and Gm. There seem to be two combined sources for the word-formation pattern with *-waart(s)/-ward(s)/-wärts*: early complex localising modifiers which may be considered univerbations with the localising element *wert* 'turned, aimed, having a certain direction' (1) and grammaticalisation of adverbial constructions (2).

(1) Complex localising modifiers

Gt. already formed complex modifiers with the localising element *wairþ*. It distinguished between an accusative form, e.g. *jaind-wairþ-s* 'thither, there', and a genitive form, e.g. *and-wairþ-is* 'across'. Similar complex modifiers are found in the oldest phases of the West-Gmc. languages, e.g. OE had *þider-weard* 'thitherward' and *up-weard* 'upward' (OED). In OE, the case system was no longer very consistent, so that forms with and without *-(e)s* co-occurred: besides e.g. *þider-weard* and *up-weard* we find *þider-weard-es* and *up-weard-es* (9th ct./OED). OG differentiated between a localising ADV in the accusative form, *wert*, and its genitive form, *wertes* (Heinle 2004: 212). There are OG univerbations of *wert(es)* with directional particles like *aus* 'out', *auf* 'up', *in* 'in' but also with the ADV *heim* 'home', *da* 'there' and the directions of the wind.

Similarly, OD has the sequence *zo word-es* 'towards' (1151-1200/ONW), written separately, and in EMD we find the univerbations *dar-wart* 'thither', *her-wert* 'hither', *war-waert* 'whither' (1240/VMNW) in which *wart* is preceded by a directional ADV. EMD has further combinations with directional particles, e.g. *achter-wart* 'backward' (16.18) and with the directions of the wind, e.g.

nord-ward ‘northward’, *ost-ward* ‘eastward’ and *suud-ward* ‘southward’ (16.19). In EMD, forms with and without *-s* co-occurred.

(16.18) EMD/1265-70/VMNW/achterwert

Bidie so harde van mesdaden Die arme sile was versuart Ende so gedeiset **achterwart** (...).
‘With those so severe crimes the poor sole was heavy and thus recoiled backwards (...)’

(16.19) EMD/1272/VMNW/suutwert

tland (...) dat strect **nordward** toten hereweghe ende **ostward** tote willems lande van nieumonstra. ende **suudward** tote bouden f boudens f woeps lande.
‘the land (...) which stretches northwards to the highway and eastwards to the land of Willem of Nieumonstra and southwards to the land of Bouden Boudens Woeps.’

Der-waarts ‘thither’, *her-waarts* ‘hither’ and *wer-waarts* ‘whither’ are considered archaic in CD; the other types are still used.

(2) From adverb to suffix: the start of denominal derivation with *-waart*

Apart from the complex ADV formed with localising ADV and directional ADV or particles, the older phases of the West-Gmc. languages display adverbial constructions with a N or a PRON indicating a reference point followed by *wert/weard/ward* and preceded by a PREP governing case. In these localising constructions, the PREP specified the direction and *wert/weard/ward* expressed ‘motion towards’, thus accentuating the directional aspect. An OE example with the N *mynstre* ‘monastery’ is (16.20), with the PRON *him* (16.21).

(16.20) OE/c1000/OED/-ward

He..hine..bær **to mynstreweard**.

(16.21) ME/1387-8/OED/-wards

Aungels blisse that **to-him-wardes** was coming.

There are various examples from EMD, e.g. *ten eten-e ward* ‘lit. to food ward; to dinner’ (16.22) and MD, e.g. *ten palays-e wert* ‘lit. to the palace ward; at the palace’ (16.23).

(16.22) EMD/1236/VMNW/wert

Also dan dat eten gereit es; so mot men de belle luden. ende so moten si hem alle reden **tenetene ward**.
‘When the dinner is ready, then one has to ring the bell and then everyone has to go to dinner.’

(16.23) MD/1465-85/MNW/wert

Als hy sach **ten palayse wert** (...).
‘When he looked at the palace ...’

The general hypothesis in the literature (e.g. OED, WNT, Royen 1948a: 231, Heinle 2004) is that such phrasal constructions are at the basis of a process of grammaticalisation of *waart* into a suffix for denominal word formation. First of all the introductory PREP was omitted, such that the combination of the N with *wert/weard/ward* was perceived as a localising compound. In the OED entries the earliest examples without a PREP are 17th ct. EModE instances, e.g. *heaven-wards* and *hell-wards* in (16.24).

(16.24) EModE/1662/OED/hellwards

Do not look **Heaven-wards** by a profession, and **Hell-wards** by your conversation.

It became a word-formation pattern which was expanded to other N to form localising modifiers. Many examples in OED, labelled “nonce-words (adv.)”, show that in ModE in the 19th ct. (e.g. with Thackeray) the pattern of word formation with *-ward(s)* on the basis of N, proper names and PRON was used very freely, e.g. *perfection-wards* (1845/OED/*-wards*), *pancake-wards* (1867/OED/*pancake*), *Russia-wards* (1887/OED/*-wards*). For Gm., the earliest examples of omitted PREP are found in the MG period, e.g. *berge-wert* ‘mountainwards’ and *rück-wärts* ‘backwards’ (Heinle 2004: 214). According to Heinle (2004: 212) we cannot assume derivation with *-wert* in Gm. until the EModG period when *wert* ceased to exist as an independent ADV.

For Dt., WNT notes that the PREP was incidentally omitted in MD. Up to the 17th ct., constructions with and without a PREP co-occurred; compare for *loef-waart* ‘windward’ the construction with a PREP in (16.25) and the construction without a PREP in (16.26).

(16.25) EModD/1621-25/ WNT/loefwaart

Corts nae de middach sagen wy een van de Eylanden van Martin Vaz, **te loefwaert** aen backboort van ons.

‘Shortly after noon we saw one of the islands of Martin Vaz, to windward to port of us.’

(16.26) EModD/1623/WNT/loefwaart

Men siet een kleyne balck een groot geveert bestieren, En dwingen nae zijn lust, nu voor, nu by den wind, Dan **loef** dan **lywaert** aen.

‘One sees a small beam steering a huge ship and force it as he pleases, now into the wind, then with the wind, now windward, then leeward (on).’

In the 17th ct. we no longer find a preceding phrasal construction and there was a derivational pattern with a certain frequency. It is not clear when Dt. *waart* ceased to be used independently. Observe that Kók (1649) still considered *waarts* as an ADV; see below.

Besides the grammaticalisation hypothesis, the second hypothesis on the origin of denominal word formation is that it developed in analogy with the existing localising ADV formed with directional particles and the directions of the wind (compare Ronca 1975: 123 for Gm.). The truth is probably a combination of both hypotheses. For Dt., we may assume that the suffix *-waart* for denominal derivation emerged through grammaticalisation of a former ADV *waart* in an adverbial construction, but it is highly probable that this pattern was applied in analogy with existing univerbations like *achter-waart(s)* ‘backward’ and *noord-waart(s)* ‘northward’. The development of *-waart* is illustrated in table 16.2.

Table 16.2. Historical development of *-waart*.

OD-EMD	<i>darwart, suudward</i>	
	[[X] _{PREP} [X] _{N/PRON} <i>waart</i>] _{AdvP}	<i>ten palayse wert</i>
MD	[[X] _{N/PRON} <i>waart</i>] _{AdvP}	<i>solen wert</i>
> 1500	[[X] _{N/PRON} <i>waart</i>] _{ADV}	<i>lywaert</i>

(3) The variant *-waarts*: reanalysis

For Gm., it has been shown that the genitive form with *-s*, *-wert-s*, expanded from the ModG period onwards (Ronca 1975: 124). It became dominant in the 16th ct. and it took over from *-wert* for good in the second half of the 17th ct. (Heinle 2004: 212). For Dt., van der Horst (2008) claims that *-s* was rarely added in MD but that *-waart-s* was getting more common in EModD from the 16th ct. onwards.

In fact, the additional *-s* was already widespread in MD, before grammaticalisation had come to an end, as my material shows, e.g. *tot vene-waert-s* ‘to the moor’ (16.27). It can be confirmed that the sequence *-waart-s* became more systematic and dominant in the EModD and ModD period, e.g. *loef-waarts* ‘windward’ (16.28).

(16.27) MD/< 1383/VMNW/venewaerts
3 morghen lants, (...) aen den Steenwech, streckende **tot venewaerts**.
‘6 acres of land, (...) at the paved road, stretching to the moor.’

(16.28) ModD/1721-22/WNT/loefwaart
Het Cocos-Eyland (...), leggende in ‘t Zuyden **loefwaerts** van ons omtrent 9 à 10 mylen.
‘The Cocos-Island (...), situated in the south about 9 or 10 miles windward of us.’

That the sequence with *-s* became dominant from EModD onwards can be inferred from dictionaries and grammars of that period. Kiliaan (1599) quite systematically had lemmas with *-waerts* and Kók (1649) discussed word formation with *waarts* in his grammar.²⁴³ Kók (1649) illustrated that *waarts*, which he considered as an ADV, may follow a PREP (*op, voor*) or another ADV (*elder*) to form a new word.²⁴⁴ If we study the INL material of the 17th ct., we find that many new types were formed directly with *-waarts* (e.g. *kajuit-waarts* ‘to the ship cabin’, *bad-waarts* ‘to the bath’, *piek-waarts* ‘to the peak’) so that we may assume that reanalysis had taken place. Observe, however, that lexemes without *-s* still co-occurred with *waarts*-derivatives. Significant in this respect is that the grammar by Moonen (1706) only lists localising ADV with *-waert*. In the INL material we can observe that by the 19th ct., the form without *-s* is only found sporadically (e.g. *woestijn-waart* ‘desertward’). W.G. Brill (1871) referred to *-waarts* adding that this element “has more or less descended to the rank of a mere ending”. By the 20th ct., the bare suffix *-waart* has gone completely out of use in Dt.

16.3.2 Functional shift

Throughout history, *waarts*-derivatives have been associated with descriptive functions only. The semantic spectrum of the suffix remained more or less stable. The meanings of direction and spatial location have been present all the time. Heinle (2004: 218) referred for Gm. *-wärts* to occasional temporal meanings. We find this in WNT for Dt. as well; a temporal meaning is recorded for e.g. *her-waarts* ‘lit. hither; to/from today’ in (16.29) and *voor-waarts* ‘lit. forward; from now on, in the future’ (16.30) but also in *rug-waarts* ‘lit. backwards; back (from now)’ (see WNT).

(16.29) EModD/1569-78/WNT/herwaarts
Binnen 14. of 15. dagen **herwaerts**.
‘Within 14 or 15 days from today.’

(16.30) EMD/1276-1300/VMNW/vorewaert
Dine oghen (...) en selent **vorwert** sien niet meer.
‘Your eyes (...) shall from now on see it no more.’

²⁴³ Original quotation (Kók 1649: 56): “Daar-en-boven worden de By-woorden t'zaâm-ghe-zet met Naam-woorden; als, *eêr-tijdts*, enz. óft met By-woorden; als, *Eêr-ghisteren*, *elder-waarts*, enz. óft met Voor-zetsels; als, *op-waarts*, *onder-waarts*, *voor-waarts*, *after-waarts* enz.”

²⁴⁴ He did not explicitly state that the resulting compounds are ADV, contrary to his Lt. predecessor Vossius (Dibbets 1995: 300).

16.3.3 Historical observations on syntactic use

For *waarts*-derivatives throughout the history of Dt., attributive use is common (1) and they are found to enter the premodifier slot in the NP (2).²⁴⁵

(1) Attributive modifier

WNT points at adjectival use of individual *waarts*-lexemes or it directly assigns a double label (e.g. *uit-waarts* ‘outwards’, *west-waarts* ‘westward’, *wind-waarts* ‘windwards’). In some cases there are separate lemmas, e.g. *voor-waarts* (ADV) vs. *voor-waartsch* (ADJ) ‘forward(s)’ and denominal *rug-waarts* (ADV) vs. *rug-waartsch* (ADJ) ‘backward(s)’ (on the spelling issue involving *-s/-sch*, see chapter 8 on *-(e)llings*). That *waarts*-derivatives occur as prenominal attributes was further noticed by Kruisinga (1949: 119) and Roose (1964: 92) and it is recognised by contemporary lexicography: starting from the 1992 edition, the dictionary Van Dale notes that *waarts*-derivatives are sometimes used adjectivally.

In the material, attributive use of *waarts*-derivatives can be observed at abundance in EModD, e.g. *ter wet-waerts interpretacie* ‘for legislative interpretation’ (1515/WNT/wetwaart(s)), *hun thuys-waert veeren* ‘their homeward voyage’ (1556/WNT/veren), *’t rug-waerts keeren* ‘the turning back’ (1634/WNT/rugwaarts), *de uit-waard-er Oceaen* ‘the outward ocean’ (1635/WNT/uitwaarts), *de west-waerts-e pylaer* ‘the westward pillar’ (1669/WNT/westwaarts), *wint-waers ty* ‘windward tide’ (1671/WNT/windwaarts), *’t Op-waarts klauteren* ‘the climbing upwards’ (1685-95/WNT/opwaarts). Further examples in ModD include: *het voor-waard genoteerde* ‘the previous note’ (1717/WNT/voorwaarts), *op de voor-waartsch-e plaetse in den wagen* ‘in the front seat of the car’ (1760/WNT/voorwaartsch), *eene uit-waardsch-e breuk* ‘an outward fracture’ (1792/WNT/uitwaarts), *’t gedurig her-waards en der-waards reizen* ‘the continuous travelling there and back’ (1733/WNT/herwaarts), *’t kim-waarts dalen* ‘the sinking to the horizon’ (1840/WNT/kim), *een in-waardsch-e bocht* ‘an inward bend’ (1861/WNT/inwaarts), *Eene buiten-waartsch-e beweging* ‘a movement to the outside’ (1873/WNT/buitenwaarts), *eene op-waartsch-e drukking* ‘an upward pressure’ (1885/WNT/opwaarts), *de meest tuin-waartsch-e gewelfribben* ‘the vault ribs nearest to the garden’ (1936/WNT/tuin). For CD examples, see section 16.2.

Tourbier (1928) found the first attributive occurrence in En. for *in-wards* in 1550 but Marchand (1969: 351) claims that the formatives with locative particles have always been both ADJ and ADV. According to OED, too, attributive *up-ward* already occurred in OE. OED continues that a tendency towards attributive use is noticeable in EModE in the 16th ct., e.g. *an earthly downe-ward looke* (?1560/OED/hellward), *theyr home-ward wayes* (1566/OED/homeward), *the Rere-ward bataille* (1581/OED/rearward). Further attributive examples are recorded in ModE, e.g. *Thither-ward footsteps* (1796/OED/thitherward), *with heaven-ward eye* (1796/OED/heavenward). Attributive use expanded the most in the 19th ct. ModE examples are found in Tourbier (1928) and OED and they are not only denominal: *Their hither-ward career* (1831/OED/hitherward), *the death-ward throbbing* (1854/OED/deathward), *the God-ward tendency* (1861/OED/godward), *The Earth-ward Pilgrimage* (1870/OED/earthward), *the church-ward summons* (1870/OED/churchward).²⁴⁶ As all of the foregoing examples show, it is the variant *-ward* which is used attributively, not the form *-wards* with final *-s*.

As observed by Ronca (1975: 130), *wärts*-derivatives in CD are only used adverbially. Attributive use of *wärts*-derivatives is probably blocked by the presence of *-wärt-ig* (see chapter 3 and 4). Diachronic investigations show that attributive use of *wärts*-derivatives is practically absent throughout the

²⁴⁵ Throughout history, predicative use remains uncommon in all three languages.

²⁴⁶ OED however notes for some cases that attributive use was confined to literary use.

history of Gm. Heinle (2004: 217) mentions one instance from Goethe, *nach aus-wärts-er richtung* ‘in outward direction’.²⁴⁷

(2) Adverbial premodifier

Adverbial use within the NP, that is, localising another modifier, is found in ModD, e.g. *de twee voorwaards gemelde Vrienden* ‘the two before mentioned friends’ (1763/WNT/voorwaarts), *een (...) buiten-waards uitstaanden voet* ‘an outwards pointing foot’ (1785/WNT/buitenwaarts), *de stroom-op-waarts uitgeworpen ankers* ‘the anchors cast upstream’ (1861/WNT/stroomafwaarts). In CD we find further examples, e.g. *de dood-waarts ebbende uren* ‘the hours creeping towards death’ (1977/ANW), *een berg-op-waarts gelegen bron* ‘a spring situated uphill’ (1995/ANW).

In Gm. the use of *wärts*-derivatives as premodifiers is found from the 18th ct. onwards; Heinle (2004: 217) illustrates this with *seit-wärts gewendetes blatt* ‘sideways turning leaf’. For CG, Ronca (1975: 125) quotes *Das erd-wärts gerichtete Haupt* ‘the head which is directed to the ground’, *mit seiner ein-wärts gebogenen Hand* ‘with his inward bended hand’.

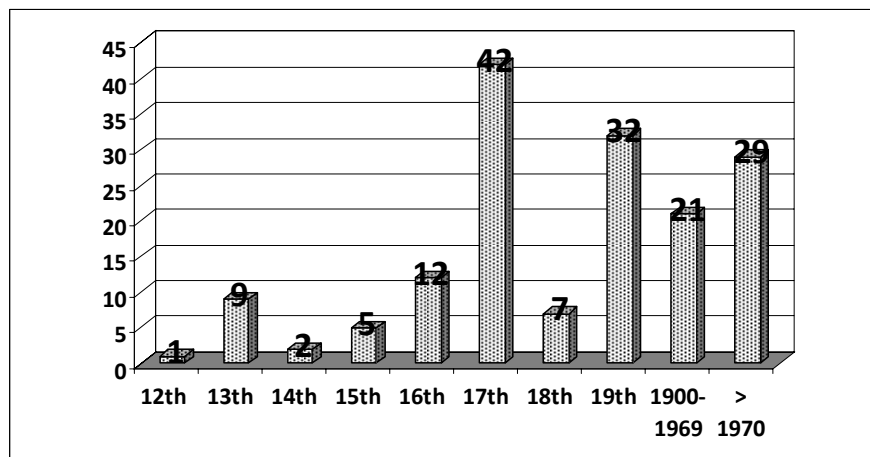
16.3.4 Scope and productivity from a diachronic perspective

The diachronic investigation has shown that the oldest complex words with *-waart(s)* were formed with localising ADV and directional elements. The most recent formative on the basis of a directional element originates in MD: *af-waarts* ‘offward, downward’ (1451-1500). Deadjectival derivation has been limited to *ander-waarts* ‘elsewhere’ coined in the MD period. PRON occur in the EModD period, e.g. *zijn-ent-waarts*, but after *u-waarts* ‘towards you’ in the 18th ct. they are found no more. Deadverbial word formation remains available throughout time but only to a very limited extent. The most recent deadverbial formatives are *weer-waarts* ‘lit. (back) again-wards’ (1983/ANW) and *voorop-waarts* ‘lit. in front-wards’ (n.d./ANW). The directions of the wind are combined from the 16th ct. onwards, e.g. *noord-oost-waarts* (WNT/noordoost).

The Dt. pattern with nominal input words was initially restricted to Gmc. simplex N. It widened its scope to Fr. base words by the 19th ct., e.g. *paleis-waarts* ‘to the palace’, *galerij-waarts* ‘to the gallery’. Borrowed base words from further languages appear in the 20th ct., e.g. with Italian *crescendo*. Toponyms are allowed as input words from the 20th ct. onwards, e.g. *Brussel-waarts* ‘to Brussels’ (1937/ALC). Complex input N are allowed in the CD period, e.g. with a pluralised N: *vriend-en-waarts* ‘to the friends’ (1995/ANW) and with a compound: *boek-handel-waarts* ‘to the book shop’ (1996/ANW). Complex combinations with a N and a directional ADV were new from the 19th ct. onwards, e.g. *stroom-op-waarts* ‘downstream’ (1829/ALC). This pattern kept generating new formations in the 20th ct., the most recent one in the material being *mond-in-waarts* ‘into the mouth’ (1981/ANW). Toponyms (names of rivers) could occur as the initial component in the 19th ct., e.g. *Nijl-af-waarts* ‘down the Nile’ (1885/ALC).

The number of new formations with *-waarts* may be set out per century in figure 16.3. I only included complex words formed with *-waarts*, i.e., with the presence of the final *-s*. Their first attestation was taken as the basis even when formatives without *-s* occurred earlier.²⁴⁸

²⁴⁷ A postposed attribute attested in Goethe is *alle wege welt-wärts* ‘all the ways to the world’ (Heinle 2004: 218). Post-attributive instances can be found in EModE as well, but they are not frequent; an example is *in reference to their state God-ward* (1676/OED/godward). Dt. post-attributes are found in EModD, e.g. *eenige bladen voor-waarts* ‘some pages forward’ (1691/WNT/voorwaarts) and more numerous in ModD, e.g. *een goeden stap voor-waarts* ‘a great step forward’ (1841/WNT/voorwaarts), *eene wandeling berg-op-waarts* ‘a walk uphill’ (1864/WNT/bergopwaarts), *een tocht pool-waarts* ‘a trip to the pole’ (1914/ALC), *de stroming zee-in-waarts* ‘the current into sea’ (1931/ALC).

Figure 16.3. New formations with *-waarts* throughout the centuries.

As figure 16.3 shows, there is a peak in the 17th ct., with a proportion of over a quarter of the total of new types. In this period the author P.C. Hooft used the pattern very creatively and many further examples are found in the context of navigation in reports of overseas journeys in the Hollandic Golden Age and further non-fictional texts concerning navigation. We find that after a decrease in the 18th ct., there is an increase from the 19th ct. onwards.²⁴⁹ The diachronic investigation reveals that the actual number of new formations in CD is lower than suggested by the synchronic data. In actual fact, many derivatives were already attested in older phases of Dt. In CD new formations are found predominantly in literary and journalistic prose, e.g. *boekhandel-waarts* ‘to the book shop’ (1996/ANW).²⁵⁰ *Ad hoc*-formatives are typically formed with toponyms, e.g. *Vlaardingen* (1984/ANW), *Hansbeke* (1996/ANW). The most recent denominal new formation is *democratie-waarts* ‘towards democracy’ in (16.31).

(16.31) CD/2003/ANW

Alleen ‘westerse’ Irakezen kunnen in zijn ogen politieke en administratieve functies op zich nemen en Irak **democratiewaarts** leiden.

‘In his eyes only ‘western’ Iraqi can take up political and administrative functions and guide Iraq towards democracy.’

Let us now compare the findings for the productivity of Dt. *-waarts* with Gm. on the basis of Heinle (2004: 214). In MG the number of denominal new formations was low but it increased strongly in the 16th and 17th centuries and remained high until the 19th ct. Most of these forms became conventionalised. The number of hapaxes was particularly high in the 19th ct. There were many combinatory forms such as *berg-ab-wärts* ‘downhill’; this pattern remained productive in the 20th ct., also with toponyms, e.g. *donau-ab-wärts* ‘down the Danube’ (Ronca 1975: 133, Lohde 2006: 293). According to Ronca (1975: 132,123) the denominal pattern also remains productive with the restriction that the input words are concrete N which can get a spatial interpretation. Heinle (2004: 211) finds some denominal new formations in the 20th ct., e.g. *feind-wärts* ‘towards the enemy’, *fuß-wärts* ‘towards the foot’ and *welt-wärts* ‘towards the world’.

²⁴⁸ Mind that I took into account the first attestations of sequences which were written separately (if these are not preceded by a PREP); they represent semantic units, but we cannot be sure that they are perceived as one complex lexeme.

²⁴⁹ The decrease in the 18th ct. may be due to a bias in the INL material, see chapter 6.

²⁵⁰ It is striking that a considerable number of *waarts*-lexemes in ANW is coined in 1996 in the Belgian quality newspaper *De Standaard*. I was not able to verify whether one and the same author is responsible for this.

Complex words based on PRON coined in older phases of Gm. are e.g. *all-wärts* 'everywhere', *beid-erwärts* 'to both', *manch-erwärts* 'to many', which are nowadays archaic (Heinle 2004: 215 and Ronca 1975: 123). Derivatives on the basis of ADJ emerged sporadically in EModG. These include e.g. *ander-wärts* 'elsewhere' and *weit-wärts* 'to far away' (Ronca 1975: 123 and Heinle 2004: 215). Surprisingly, in CG, a new deadjectival *wärts*-derivation was coined in the 1970s, namely *frisch-wärts* 'lit. freshwards' within the context of an advertisement for the refreshing beverage *Coca-Cola* (Ronca 1975: 123).²⁵¹ This *ad hoc*-formation became quite popular in the 1970s and was for instance used in the title of a radio play in 1974: *Frischwärts in die große weite Welt des totalen Urlaubs* 'lit. Freshwards into the big wide world of total holiday'. That such deadjectival *wärts*-derivatives are still perceived as marked is witnessed by the fact that *frischwärts* is part of the title of a volume by Denkler et al. (2008) on language change and 'language decay' in German.

16.4 Conclusion

I have shown in this chapter that Dt. *-waarts* should be considered as a suffix in its own right. Reanalysis of the former sequence *-waart-s* had already taken place by the 16th ct. The origin of *-waart* for denominal derivation should probably be explained through a combination of two processes: grammaticalisation of a phrasal construction with the independent ADV *waart* and analogy formation with existing complex ADV formed on the basis of directional ADV and the directions of the wind.

In CD, derivation with *-waarts* is still productive. Throughout time particularly the denominal pattern has widened its scope and increased its application rate. The semantic spectrum of *-waarts* has remained stable: derivatives are predominantly associated with the descriptive function of localising modification, particularly specifying the direction of a movement. This is fully parallel with the genetically related equivalents, En. *-wards* and Gm. *-wärts*. However, I have argued in this chapter that there is a significant contrast between these equivalents and Dt. *-waarts* in terms of their grammatical value. Whereas En. *-wards* and Gm. *-wärts* are prototypical adverbial suffixes, Dt. *-waarts* should be classified as an adjectival suffix: its output derivatives are prototypical ADJ.

²⁵¹ This advertisement can be viewed together with information on its context on p. 24 of the brochure *Coca-Cola Journal. Sonderausgabe "75 Jahre Coca-Cola in Deutschland"* (2004) which is available online at the website of *Coca-Cola Erfrischungsgetränke AG*: http://www.cceag.de/download_galerie/75_Jahre_Journal.pdf [last accessed 16.04.2012]

17 Modifying words with *-weg*

17.1 Introduction

The suffix *-weg* is included in the overview of Dt. adverbial suffixes by Booij (2002) and it gets a short description in de Haas/Trommelen (1993) and ANS (1997). WNT presents the synchronic status of *-weg* as a matter of debate. It classifies individual words formed with *-weg* alternately as derivatives, compounds and univerbations. In Hüning/Diepeveen (2009), a first attempt to describe *-weg* both synchronically and diachronically, we argued that deadjectival lexemes like *ruw-weg* ‘roughly’ in (17.1) and *kort-weg* ‘shortly, briefly’ in (17.2) can be considered derivatives and that *-weg* is a suffix.

(17.1) CD/2001/ANW

Spectaculair oogt het nieuwste transportmiddel Segway niet. **Ruwweg** kun je het omschrijven als een ‘gehalveerde’ scooter.

‘The newest vehicle Segway does not exactly look spectacular. It can be roughly described as a scooter cut in half.’

(17.2) CD/1992/38MWC

De Nationaal-Socialistische Beweging in Nederland, of **kortweg** de NSB, was - zoals iedereen weet - pro-Duits.

‘The National Socialist Movement in the Netherlands, or briefly the NSB, was - as everyone knows - pro-German.’

However, we also observed that *weg* may have a different status when it occurs in highly idiomatic lexemes like *verreweg* ‘lit. far away; by far, much’ in (17.3). Another idiomatic lexeme is *gaandeweg* ‘lit. going the way; gradually’ in (17.4). This is not to be confused with (uncommon) constructions with a present PART like (*al*) *pratende/werkende weg* ‘while talking/working’ in which *weg* is an independent lexical element (Van Dale 2005).²⁵²

(17.3) CD/1990/38MWC

De Elbe is **verreweg** de smerigste van alle Oostduitse rivieren.

‘The Elbe is by far the the most polluted of all East German rivers.’

(17.4) CD/2001/ANW

In het begin heeft ze behoorlijk aan zichzelf getwijfeld, maar **gaandeweg** groeide ze in haar werk.

‘In the beginning she was very insecure about herself, but she has gradually grown in her work.’

Last but not least, we found in Hüning/Diepeveen (2009) that deadjectival *weg*-formatives may have highly idiomatic meanings as well and in fact, they may behave almost like modal particles (see chapter 4), e.g. *dom-weg* ‘lit. stupidly; just, quite simply’ in (17.5).

(17.5) CD/2002/ANW

‘Ze kon **domweg** goed met geld omgaan’, zei ik tegen Tigg, ‘in feite was ze zuinig, en daarom kon ze zich af en toe een uitspatting veroorloven.’

‘She was just good at managing money’, I told Tigg. ‘In fact she was thrifty, and that’s why she could indulge in excesses every once in a while’.

In order to understand the connection between these different forms and with *weg* as an independent ADV ‘away’, this chapter investigates not only the synchrony but also the diachrony of *weg*-lexemes. We have to take contrastive considerations into account: De Vooy (1967: 260)

²⁵² Compare Fs. *pratende-wei* ‘while talking’, *sliepende-wei* ‘while sleeping’ (Hoekstra 1998: 162, Popkema 2006: 127).

proposed that the Dt. derivational pattern with *-weg* may have its origin in Gm., which has deadjectival formatives like *schlecht-weg* 'plainly, absolutely', *kurz-weg* 'briefly' and *glatt-weg* 'completely, flatly', e.g. (17.6).

(17.6) CG/1981/DWDS

In der Soldatensprache wurden diese schwedischen Korporale **kurzweg** 'die alten Schweden' genannt. 'In soldiers' slang these Swedish corporals were called simply 'the old Swedes.'

The Gm. suffix *-weg* is treated a.o. by Ronca (1975), Ros (1992), Fleischer/Barz (1995), Heinle (2004), *Duden* (2009), Altmann/Kemmerling (2005) and Lohde (2006) and these descriptions show that the pattern is limited to a small class of modifying words which cannot be expanded.²⁵³ In Gm., most *weg*-lexemes are idiomatic, e.g. *vor-weg* 'before, first of all' and *durch-weg* 'completely, without exception' (Fleischer/Barz 1995: 286), compare (17.7).²⁵⁴

(17.7) CG/1997/DWDS

Interessanterweise sind die ökologischen Vorreiter heute fast **durchweg** kleinere Länder, die mit dem Weltmarkt stark verflochten sind. 'Interestingly enough, the ecological pioneers are nowadays almost without exception smaller countries which are closely interwoven with the world market.'

In En., we find individual complex modifiers like *half-way* and *mid-way*, but no contemporary pattern with *-way* can be established (e.g. it is absent in Stein 2007; Marchand 1969: 358 notes that it has never been strong and that it is now extinct). En. has a suffix *-ways*, representing the genitive of *-way* (Marchand 1969: 357, Stein 2007: 176), e.g. *cross-ways* and *side-ways*, usually with a nominal input apart from some archaic formatives like *least-ways*. In CE, however, the suffix *-ways* is considered as a variant of the (much more common) suffix *-wise* (see chapter 10 on *-gewijs*).²⁵⁵

Although Dt. *-weg* shares its origin and some characteristics with Gm. *-weg* and perhaps also with En. *-way*, the present chapter will show that Dt. *-weg* had its own development which led to a unique synchronic status. This status may only be shared with Af. and Fs.: the former has productive word formation with *-weg*, e.g. *gewoon-weg* 'simply', *lig-weg* 'slightly' (Donaldson 1993: 444) and Fs. has *-wei*, e.g. *stil-wei* 'quietly', *rûch-wei* 'roughly', which is claimed to be more productive than Dt. *-weg* (Hoekstra 1998: 162), but without empirical foundation.²⁵⁶ It is outside the scope of this study to give a detailed comparison of Dt. *-weg* and its Fs. equivalent, but I will provide empirical evidence that *-weg* is still productive, be it only to a limited extent.

17.2 Synchronic description

The following synchronic description is based on an inventory of 57 *weg*-lexemes collected in the corpora 38MWC, CGN and ANW and the dictionary Van Dale (2005) (see appendix to chapter 17). Observe that Dt. also has modifying words formed with *-wege*. This is a different suffix which shall not be part of this investigation.²⁵⁷ The same holds for Gm. *-wegen* and *-wegs* (see Ronca 1975, Ros 1992).

²⁵³ Only Ronca (1975: 135) refers to limited productivity.

²⁵⁴ On the complicated accentuation in Gm. *weg*-derivatives, see e.g. Altmann/Kemmerling (2005: 166).

²⁵⁵ Historically, *-ways* is the genitive form of *way*. Due to its similarity with *-wise*, it was interpreted as a variant of this suffix (Jespersen 1952: 306).

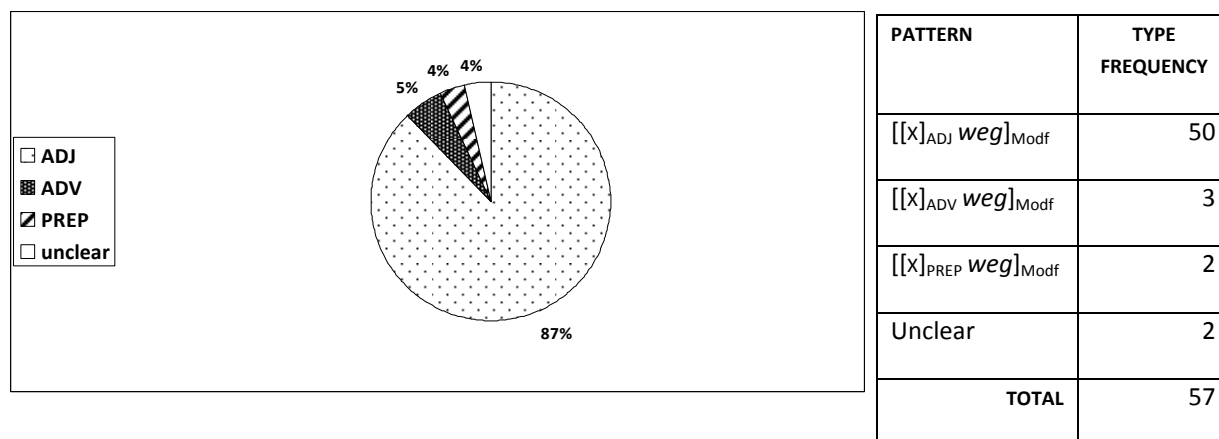
²⁵⁶ Boersma (2007) provides figures in an unpublished paper, but these are only based on type frequencies in dictionaries.

²⁵⁷ Not considered is further the lexeme *pakweg* 'approximately' which is the imperative form of the v *wegpakken* 'take away'.

17.2.1 Scope and productivity

According to de Haas/Trommelen (1993: 355), *-weg* is attached to ADJ and exceptionally to ADV. Figure 17.1 shows the actual distribution of input categories for the 57 *weg*-lexemes in the synchronic inventory.

Figure 17.1. Distribution of input categories for *-weg* in synchronic inventory.



From figure 17.1 we may infer that *-weg* is indeed predominantly added to ADJ: in 87% of the types. There are only three types which we may classify as deadverbial. Additionally, there are two types on the basis of directional ADV or PREP and two lexemes with an unclear structure. Gm. *-weg*, too, is added to ADJ (e.g. *glatt-weg* ‘completely, flatly’) and to directional elements (e.g. *hin-weg* ‘across, beyond’, *durch-weg* ‘completely, without exception’) (Ronca 1975: 134-135). In Fs., *-wei* is added to ADJ (e.g. *simpel-wei* ‘simply’, *stil-wei* ‘quietly’) and to ADV (e.g. *jimmer-wei* ‘all the time, time and again’, *stil-tsjes-wei* ‘quietly’) (Hoekstra 1998: 162, Popkema 2006: 127).

(1) Adjectival input

The suffix *-weg* predominantly attaches to qualifying ADJ. It is striking that there several synonymous base words are input to *-weg*: *simpel*, *gewoon* and *eenvoudig* all mean ‘simple’. The input ADJ are normally Gmc. according to de Haas/Trommelen (1993: 355) but they mention the exception *brutaal* ‘cheeky’ which was borrowed from Fr. From the inventory we may add Fr. *naïef* ‘naïve’. The input ADJ are normally morphologically simplex according to de Haas/Trommelen (1993: 355) although they mention the exception *ge-woon* ‘simple’ (which is historically derived, but synchronically intransparent). On the basis of the material we can come up with further morphologically complex bases: *ig*-derivatives, e.g. *eenvoud-ig* ‘simply’, *lull-ig* ‘shitty’ and *(e)lijk*-derivatives, e.g. *natuur-lijk* ‘naturally’ (observe that *vrolijk* ‘joyful’ and *belachelijk* ‘ridiculous’ are no longer transparent in CD but they are historically derived by *-(e)lijk*). In Fs., too, complex ADJ may be input to *-wei*, e.g. the temporal ADJ *daag-likes* ‘daily’ (Boersma 2007: 8). In Gm. we find few deadjectival *weg*-formatives and they typically have simplex base words, e.g. *glatt-weg* ‘completely, flatly’, *schlecht-weg* ‘plainly, absolutely’ and *kurz-weg* ‘briefly’ (Ros 1992: 130, Ronca 1975: 135). Ros (1992: 130) argues that the lexemes *rund-weg* ‘frankly, straight, categorically’ and *schlank-weg* ‘simply, just’ are idiomatic.

Most deadjectival formatives in Van Dale (2005) are recorded in the corpora. In terms of token frequency, there are some highly frequent items, including *simpel-weg* ‘simply’, *half-weg* ‘halfway’, *gewoon-weg* ‘simply’, *eenvoudig-weg* ‘simply’, *kort-weg* ‘shortly, briefly’. Some are idiomatised as illustrated in (17.5) above. In addition, the derivative *half-weg* as in (17.8) is a special case since it may be used as a PREP and is synonymous with *halver-wege* ‘midway’ (Van Dale 2005).

(17.8) CD/1996/ANW

Halfweg de trap draaide hij zich om.
'Halfway up the stairs he turned around.'

Only a few deadjectival derivatives recorded in Van Dale (2005) are not represented in the corpora, e.g. *stil-weg* 'quietly' and *flink-weg* 'firmly'.

(2) Adverbial input

De Haas/Trommelen (1993) refer to the *tjes*-derivative *los-jes* 'loosely' which may be input to *-weg* (see chapter 15 on *-tjes* for the categorial status of *tjes*-derivatives). The established lexeme *losjes-weg* 'loosely' is represented in the corpus material and so is *droog-jes-weg* 'drily'. The latter is not established in Van Dale (2005) and it constitutes a hapax, which may indicate new formation. Notice that Fs. too has *wei*-formatives with *tsjes*-derivatives, e.g. *los-jes-wei* 'loosely' and *stil-tsjes-wei* 'quietly' (Boersma 2007: 8). Fs. additionally has the possibility of attaching *-wei* to other types of ADV, e.g. the temporal ADV *jimmer* 'always, all the time' and the complex ADV *tyd-lings* 'gradually', which does not seem to be possible with Dt. *-weg* (Boersma 2007). Notice that Dt. *verre-weg* 'by far, much' is classified as deadverbial although present-day language users may no longer be familiar with the base word, which is the MD ADV *verre* 'far'. See (17.3) above for an example.

(3) Prepositional input

A prepositional first component can be established for *onder-weg* and *over-weg*, which both have idiomatised meanings: *onder-weg* 'on the road, along the way' (compare Gm. *unter-wegs*) has a localising meaning, e.g. (17.9), whereas *over-weg* is mostly used in a collocation, *overweg kunnen met* meaning 'getting along with', e.g. (17.10).

(17.9) CD/2001/ANW

Onderweg beleeft Mowgli spannende avonturen met de beer Baloe die hem begeleidt.
'Along the way Mowgli has exciting adventures with the bear Baloo who accompanies him.'

(17.10) CD/1998/ANW

Zij kan met dieren waarschijnlijk beter **overweg** dan met mensen.
'She probably gets along better with animals than with people.'

The Gm. deprepositional formatives *durch-weg* 'completely, without exception' (17.7) and *hin-weg* 'across, beyond' are also highly idiomatised.

(4) Unclear status

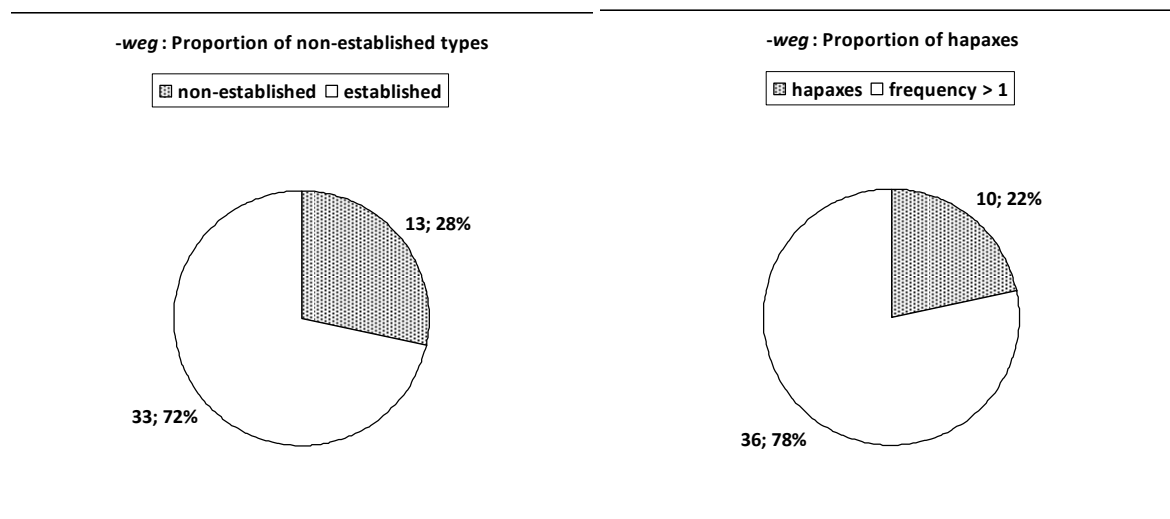
For two modifying words with *-weg* the structure is unclear. *Gaandeweg* 'gradually' may be a univerbation of the phrase *gaande de weg* 'lit. going the way' (present PART *gaande* 'going', DET *de* 'the' and N *weg* 'road'). It usually gets an idiomatised interpretation denoting pace, e.g. (17.4) above and it has high token frequency. Very unusual is *valsgaweg* 'viciously', labelled as regional by Van Dale (2005) and without corpus attestations. It may be a univerbation of the ADJ *vals* 'false' and the imperative form of the v *gaan* 'go', but the status of *-weg* is unclear; even WNT cannot help us out on the etymology.

(5) Synchronic indicators of productivity

The study of lexeme types in the synchronic inventory has shown that deadjectival derivation by *-weg* is more flexible than previously assumed in the literature, but all in all, the suffix has a restricted scope. The application rate of *-weg* in the corpora indicates that the suffix may be available

for new formation. The realised productivity of *-weg* in CD is restricted to 46 types. Still, particularly deadjectival *weg*-derivation seems to be more frequent than the related pattern in Gm. (compare Heinle 2004). The proportion of non-established types with *-weg* in the corpora amounts to 28%. There are ten hapaxes, which represents 22% of the types in the corpus material. The results are visualised in the pie charts in figure 17.2.

Figure 17.2. Frequencies for *-weg* in contemporary Dutch corpus data (46 types = 100%).



There are indications that only deadjectival and deadverbial word formation with *-weg* constitute derivational patterns that are still available for new formation (see also Hüning/Diepeveen 2009). The corpora display deadjectival lexemes which Van Dale (2005) has not recorded. There are nine deadjectival hapaxes, e.g. *sloomweg* 'inertly, sluggishly' and *vrolijkweg* 'joyfully' in ANW. In addition, it is possible that there is new formation on the basis of *tjes*-ADV.

17.2.2 Modifier types

Although de Haas/Trommelen (1993) only state that *-weg* derives manner ADV, Barbiere/van Oostendorp (2001) and Hüning/Diepeveen (2009) have pointed at the interpersonal function of evaluative modification. In this section I shall show that quantifying and speech act modifiers should be included in the repertoire of *weg*-derivatives as well.

(1) Qualifying modifiers

There are examples of deadjectival *weg*-derivatives functioning as qualifiers to the predicate; e.g. *sloomweg* 'sluggishly' (17.11), *vlotweg* 'fluently, promptly' (17.12) and *simpelweg* 'simply' (17.13).

(17.11) CD/2001/ANW

De keu kwam tegen een paar ballen terecht, die **sloomweg** in beweging traden.

'The cue hit some billiard balls, which sluggishly began to move.'

(17.12) CD/1996-98/ANW

Felice deed zelf ook een lire in het zakje met: "‘t Is een heel makkie", waarmee hij **vlotweg** probeerde te verwoorden dat iets erg makkelijk was.

'Felice himself put his oar in by "It is a very piece of cake", his way of trying to express promptly that something was very easy.'

(17.13) CD/n.d./ANW

Kan een dergelijke vraag zo **simpelweg** beantwoord worden?
'Can such a question be answered so simply?'

The *weg*-formatives on the basis of *tjes*-derivatives, e.g. *los-jes-weg* 'loosely, casually', also function as qualifiers, see (17.14). Notice that the *weg*-derivative may function as an attribute to the verbal N *breien* 'to knit'.

(17.14) CD/n.d./ANW

Improvisatie is niet het **losjesweg** aan elkaar breien van een paar noten maar bewust componeren op het moment zelf.
'Improvising is not just the casual tying up of some notes but it is intentional composing at the very moment.'

The qualifying function is particularly common with past PART of *verba dicendi*. The participle clause then functions as a speech act modifier to the utterance. Examples are *ruw-weg* 'roughly' in (17.1) above and *simpel-weg* 'simply' in (17.15). Observe in (17.15) that the VP *simpel-weg gezegd* 'put simply' in its entirety functions as a speech act modifier to the utterance.

(17.15) CD/1993/ANW

Simpelweg gezegd, het loonde in de jaren dertig om zich aan te sluiten bij de native Americans, terwijl het vandaag de dag politiek en sociaal meer oplevert om enige afstand te bewaren tot deze groep.
'Put simply, in the thirties it was worthwhile to join the native Americans, whereas today it is politically and socially more rewarding to keep some distance from this group.'

The qualifying function in participle clauses with *verba dicendi* is the most common function of *weg*-derivatives in Gm., particularly *glatt-weg* 'completely, flatly' but also *rund-weg* 'frankly, straight, categorically' (Ronca 1975: 142, Heinle 2004: 223).

(2) Quantifying modifiers

Quantifiers formed with *-weg* include *grof-weg* 'roughly, about, around' in (17.16) and the synonymous *ruw-weg* (17.17). The idiomatised lexeme *verreweg* 'much, by far, far and away' may be added (see section 17.2.1).

(17.16) CD/2000/ANW

Het aantal 'gewone' abortussen bedraagt per jaar **grofweg** 30.000.
'The number of 'ordinary' abortions amounts to around 30.000 per year.'

(17.17) CD/1995/38MWC

19 december: rebellerende Serviërs roepen de onafhankelijkheid uit van de Krajina-regio's, **ruwweg** een derde van het Kroatische grondgebied.
'19 December: rebellious Serbs declare the independence of the Krajina regions, roughly one third of the Croatia territory.'

(3) Evaluative modifiers

Barbiers/van Oostendorp (2001) and Hüning/Diepeveen (2009) pointed out that *weg*-formatives on the basis of qualifying ADJ may function as evaluative modifiers. A corpus example is *belachelijk-weg* 'ridiculously (enough)' in (17.18).

(17.18) CD/2000/ANW

De broer waarvan sprake in deze brief is de mens waarmee ik opgroeide in een tehuis ergens in het Zoete Land Van Waas. Lenteweelde heette **belachelijkweg** dat tehuis (...).

'The brother mentioned in this letter is the guy I grew up with in a children's home somewhere in the sweet Land Van Waas. Ridiculously enough, that home was called Spring Wealth.'

Near a VP, *weg*-derivatives may be ambiguous between a qualifying and an evaluative reading. Thus, in (17.19), *bot-weg* 'bluntly' may refer to the rude manner in which the man spoke, but it may also constitute an evaluation by the speaker that it was blunt of this man to say what he said.

(17.19) CD/1996/ANW

'We zien elkaar in de rechtbank', zei hij **botweg**. Om haar vervolgens achterna te lopen en uit te nodigen op de thee.

'We will see each other in court', he said, bluntly. And then he ran after her to invite her for tea.'

It was already observed in section 17.1 that certain *weg*-derivatives may behave like modal particles. This is shown in (17.5) above for *dom-weg* 'stupidly, simply'; see further (17.20) for *gewoon-weg* 'plainly'. As modal particles, the contribution of the lexemes can be paraphrased as 'just, (quite) simply'.

(17.20) CD/1993/38MWC

Treinverkeer is ernstig verstoord en in veel gevallen **gewoonweg** onmogelijk.

'The railway traffic is seriously obstructed and in many cases plainly impossible.'

There are no observations about such modal particles in Gm., but *rund-weg* 'frankly, straight, categorically' in (17.21) may be an example.

(17.21) CG/1999/DWDS

Häufig wird einfach behauptet, der Geschlechtsakt brauche nicht erlernt zu werden. Das ist **rundweg** falsch. Unwissenheit schadet!

'It is often just claimed that the sexual act does not need to be trained. That is utterly wrong. Ignorance is good for nought!'

(4) Speech act modifiers

We have seen above that *weg*-derivatives may specify manner on *verba dicendi* in participle clauses which function as speech-act modifiers. The *weg*-derivative may also function independently as a speech-act modifier, e.g. *kort-weg* 'briefly' in (17.22) and *ruw-weg* 'roughly, in a nutshell' in (17.23).

(17.22) CD/2002/ANW

Besparingen worden besteed aan groene diensten, zoals landschapsbeheer, natuurbeheer en ontwikkeling van het platteland. De Roo: "**Kortweg**, goed voor boeren, burgers en beesten."

'Savings are spent on green services, like conservation of the landscape, nature conservancy and rural development. De Roo: "Briefly, good for farmers, citizens and animals."'

(17.23) CD/2002/ANW

De film gaat, **ruwweg**, over de midlife-crisis van de 42-jarige Lester Burnham (...).

'The film is, in a nutshell, about the midlife crisis of 42-year-old Lester Burnham (...).'

The speech-act function is also known for Gm. *weg*-derivatives, e.g. *Ecklers Schließchen oder kurz-weg das Schließchen* 'Ecklers little castle or, briefly: little castle' (1946/DWDS). However, Gm. does not require *-weg*, e.g. *Acetylsalicylsäure, kurz ASS* 'acetylsalicylic acid, briefly: ASS' (1999/DWDS).

17.2.3 Contribution of *-weg*

The Dt. suffix *-weg* is predominantly added to prototypical ADJ. Section 17.2.2 revealed that *weg*-derivatives occur across different modifier functions, both descriptive and interpersonal. One and the same derivative may occupy different modifier functions, e.g. *ruw-weg* 'roughly' is a qualifier in (17.1), a quantifier in (17.17) and a speech-act modifier in (17.23). Below I investigate the grammatical value of *-weg* (1) followed by its semantic value (2); finally, I treat the rival suffixes (3).

(1) Grammatical value

It is stated in the literature that Dt. *-weg* derives ADV from ADJ and Van Dale (2005) classifies all lemmas as ADV. The corpus material confirms that *weg*-derivatives indeed prototypically function as adverbials. This means that they have a more limited syntactic valency than their base ADJ: whereas these can be used in all modifier slots (attribute, predicate and adverbial), the output derivatives are restricted to adverbial use. This indicates that *-weg* is an adverbialising suffix. As only counterevidence we find incidental occurrences of *weg*-derivatives as preposed attributes to a verbal N.

Adding *-weg* is grammatically required in the quantifying function and in the interpersonal functions. However, *-weg* is not grammatically required in the qualifying function: recall that in Dt. inherently qualifying ADJ may be used adverbially without special marking, i.e. qualifying *weg*-lexemes may be substituted by their base word without the sentence becoming ungrammatical (e.g. *sloom/sloom-weg* 'sluggishly'). The same holds true for Gm., e.g. *glatt/glatt-weg* 'completely, flatly' (Ronca 1975: 138) and *rein/rein-weg* 'simply, just' (Fleischer/Barz 1995: 287). Compare also Fs. *linich/linich-wei* 'limberly' (Hoekstra 1998: 162).

(2) Semantic value

The general intuition in the literature is that *-weg* contributes the semantic value MANNER (de Haas/Trommelen 1993: 355, ANS 1997: 740), but this cannot be confirmed. In qualifying descriptive modifiers, *-weg* is not required: the qualifying meaning is inherent in the base word. We may assume that *-weg* adds a secondary semantic value. ANS (1997: 740) observes that *weg*-derivatives often come with a negative connotation, but it should be taken into account that this negative value is inherent in several base words (e.g. *bot* 'blunt', *dom* 'stupid', *ruw* 'rough'). Rather, we may assume that there is a secondary value of REINFORCEMENT: *-weg* intensifies the inherent negative quality, as it may also intensify an inherent positive quality (e.g. *gul* 'generous', *vlot* 'smooth'). This has been suggested by Heinle (2004: 224) for Gm. *-weg* in *dreist-weg* 'rashly'. This analysis may be extended to Dt.²⁵⁸

Hoekstra (1998: 162) points out that Fs. *-wei* contributes the primary semantic value of DURATIVE when it is added to present PART, e.g. *pratende-wei* 'while talking' (compare Dt. *al pratende weg* in section 17.1; Dt. would normally use *al pratend*). The DURATIVE value is also present when *-wei* is added to temporal ADV, e.g. *jimmer-wei* 'all the time, time and again'. WFT states that, more specifically, *-wei* expresses REINFORCEMENT of the inherent durative aspect in temporal ADV and in PART.²⁵⁹ This particular use is not found for Dt. *-weg* since it is normally added to inherently qualifying base words.

²⁵⁸ It is, however, not clear what *-weg* contributes to *tjes*-derivatives like *los-tjes*, where *-tjes* itself may already function as a reinforcer.

²⁵⁹ In addition, Hoekstra (1998: 162) proposed that there is a DURATIVE value in deadjectival *wei*-derivatives, e.g. *linich-wei* 'limberly', where *-wei* encodes that an activity in its full duration takes place in a limber manner.

However, *-weg* may be added to inherently qualifying ADJ to create other modifier types: not only quantifiers but, particularly, interpersonal modifiers of the evaluative or illocutionary (speech-act modifying) type. Table 17.1 presents the whole semantic spectrum. We should take into account that many formatives are idiomatised, both in Dt. and in Gm. For this reason the deprepositional lexemes have been left out.

Table 17.1. Semantic spectrum of *-weg*.

VALUE		PATTERN	EXAMPLE
PRIMARY	QUANTIFIER	[[x] _{ADJ} <i>weg</i>] _{ADV}	<i>grof</i> 'rough' : <i>grof-weg</i> 'roughly (measured)'
	EVALUATIVE	[[x] _{ADJ} <i>weg</i>] _{ADV}	<i>dom</i> 'stupid' : <i>dom-weg</i> 'stupidly (enough)'
	ILLOCUTION	[[x] _{ADJ} <i>weg</i>] _{ADV}	<i>kort</i> 'short' : <i>kort-weg</i> 'briefly, to put it shortly'
SECONDARY	REINFORCEMENT	[[x] _{ADJ} <i>weg</i>] _{ADV}	<i>sloom</i> 'slow, sluggish' : <i>sloom-weg</i> 'sluggishly'

(3) Rival suffixes

The suffix *-weg* has some competitors both in creating descriptive and interpersonal modifiers. De Haas/Trommelen (1993: 355) refer to *-erwijs* as a synonym of *-weg* for the formation of deadjectival qualifiers. They argue that there is a functional distribution driven by the formal properties of the base word: whereas *-erwijs* attaches to morphologically complex ADJ, *-weg* attaches to simplex ADJ. In Hüning/Diepeveen (2009) we already argued that this is not entirely correct and it was confirmed in section 2.2 that *-weg* may also be added to complex ADJ, e.g. *natuurlijk-weg/natuurlijk-erwijs* 'naturally' (and see chapter 9 on *-erwijs*). Also *-(e)lings* creates synonyms: *blind-weg/blind-elings* 'blindly' (Van Dale 2005 and see chapter 8 on *-(e)lings*) although *blind-elings* is the normal word.²⁶⁰ As far as *tjes*-derivatives as base words are concerned, there is no competition with other suffixes: adding *-weg* is the only possibility.

As a reinforcer of positive or negative quality, *-weg* is semantically comparable with *-tjes*. Thus, for some qualifications, there are synonymous *tjes*-derivatives, e.g. *vlot-weg/vlot-tjes* 'smoothly' (Van Dale 2005).

As a marker for interpersonal modifiers, *-weg* has the equivalent *-erwijs* for the evaluative subfunction. It should be added though that the lexical construction [ADJ + *genoeg*] is even more common, e.g. *belachelijk-weg/belachelijk genoeg* (Barbiers/van Oostendorp 2001, Hüning/Diepeveen 2009 and Diepeveen 2011a; see section 4.4.9). In the subfunction of speech-act modifiers, we could refer to synonymous *iter*-lexemes, e.g. Van Dale (2005) mentions the lexical synonyms *kort-weg/breviter* 'briefly' and *simpel-weg/simpliciter* 'simply'. However, *-iter* cannot be considered as a rival suffix: see chapter 12 on the questionable suffix status of *-iter*.

Gm. *weg*-formatives are semantically comparable with certain *dings*-formatives, e.g. *schlecht-weg/schlecht-er-dings* 'plainly, absolutely' and *glatt-weg/glatt-er-dings* 'completely, flatly' are synonyms (Ronca 1975: 167-168, Ros 1992: 130). The suffix *-dings* is described by Ronca (1975: 39). Another comparable suffix is *-hand*, e.g. *kurz-weg/kurz-er-hand* 'briefly, immediately' may be synonymous (Ronca 1975: 167). Other synonyms are found in compounding, e.g. *durch-weg/durch-*

With Boersma (2007), I consider this semantic analysis questionable. There is no inherent durative aspect in qualifying ADJ like *linich* 'limber' which could be reinforced by *-wei*.

²⁶⁰ Observe that Fs. only has *blyn-wei* (Hoekstra 1998: 164).

aus ‘completely, without exception’ and *schlecht-weg/schlecht-hin* ‘plainly, simply, just’. Fleischer/Barz (1995: 287) refer to synonymous *rund-weg/rund-heraus* ‘frankly, straight, categorically’.

17.3 Diachronic description

The historical dictionary WNT has a detailed entry on *-weg* and some observations were made by Hüning/Diepeveen (2009). The suffix *-weg* is historically related with a homonymous lexical ADV. To gain an insight into univerbation and grammaticalisation processes, the diachronic investigation includes the earliest attestations of sequences where *weg* and the base word are iuxtaposed, but do not form an orthographic unit, i.e., are not written together or connected by a hyphen (see appendix to chapter 17). My investigation uses existing information on the emergence of the Gm. equivalent *-weg*.

17.3.1 Origin of *-weg*

The suffix *-weg* has its origin in the MD ADV *wech* ‘away’. This ADV in turn originates in a phrase consisting of the PREP *en* ‘on’ and a case form of the N *wech* ‘way’, see EMD *enwech* and compare OE *onweg/aweig*, OG *in węc/enwęc*. Their Gmc. basis is the v *wigan* ‘moving forward’ (Heinle 2004: 219).

(1) Complex localising modifiers

In MD and MG, the ADV *enwech/enwęc* was reduced to *wech/weg*. The ADV *wech* is recorded in EMD in complex modifiers containing directional particles or the directions of the wind, e.g. *onder-weghe* ‘on the way’, *oost-wert-wech* ‘eastward from there’ (VMNW) and *oest-weegh* ‘east from there’ (17.24). These can be considered as univerbations with a localising function. The same holds for MD *over-weg* ‘on the road’, which would develop its idiomatic meaning in ModD.

(17.24) EMD/1280/VMNW/oostwech&hughelin

Clemme valewards hofstede houd vive+ende+tachtentich roeden. Onder hughelijns .f. boudens **oest+weegh** jn die vromet.

‘Clemme-Valuwaards-Hofstede consists of 85 rods, below Hughelin F. Boudens land eastwards in the pasture.’

Other complex modifiers which occur in MD are *al-weg* ‘always’, *eens-weg* ‘once and for all’ and *verre wech* ‘lit. far away, by far’ (17.25) with an ADV as their first component. Compare OE *ealneweg* ‘always’ (Weġna 1996: 43). In these lexemes, the lexical meaning of *weg* ‘away, from there’ has faded throughout time.

(17.25) MD/1451-80/MNW/verre

Dat derde is ende **verre wech** dat beste.

‘The third one is by far the best.’

(2) From adverb to suffix: the start of deadjectival derivation with *-weg*

The ADV *wech* could be added to another modifier in MD to stress continuity or force of an activity (MWN), e.g. *Eenparelick wech* ‘unanimously’ (1562-92/MNW) and *eewelic wech* ‘eternally, over and over’ in (17.26). The resulting adverbial phrase functioned as a descriptive modifier to the VP.

(17.26) MD/1485/MNW/wech

Van den zade (comt) wederomme cruut ende also voort van dien zade zaed ende cruud **eewelic wech** ende emmermeer.

‘From the seed come herbs again and from that seed come seed and herbs eternally and for ever more.’

We may assume that this phrasal construction is at the basis of a process of grammaticalisation of autonomous *weg* into a derivational suffix *-weg* (compare Hüning/Diepeveen 2009). The adverbial phrases spread in ModD, e.g. predicatively used *slegt weg* ‘simply’ in (17.27) or, on the basis of a *tjes*-derivative, *slecht-jens wegh* in (17.28).

(17.27) EModD/1683/WNT/slechtweg

De derde heeft (...) een knoop- of zak-neusdoekje om de hals, en is al d’andere rest voorts anders niet als **slegt weg**.

‘The third one has (...) a scarf or handkerchief around the neck and is further nothing but plain.’

(17.28) EModD/1659/WNT/slecht

(...) hebben om hoofd een witte Zarcole, ghelijck de Janitsers, maer sonder goude boorden ofte andere cieraet, maer **slechtjens wegh**.

‘(...) have on their heads a white zarcole, like the Janissaries, only without golden bands or other ornaments, but plain.’

According to van der Sijs (2005: 110) we can assume a derivational suffix *-weg* in the 18th ct. The process of grammaticalisation from adverbial phrase to derivational pattern is illustrated in table 17.2.

Table 17.2. Historical development of *-weg*.

EMD	<i>onder+weghe, verre wech, oest+weegh</i>	
MD	$[[x]_{\text{ADJ}} \text{weg}]_{\text{AdvP}}$	<i>eewelic wech</i>
EModD	$[[x]_{\text{ADJ}} \text{weg}]_{\text{ADV}}$	<i>slegt weg</i>
> 1700	$[[x]_{\text{ADJ}} \text{weg}]_{\text{ADV}}$	<i>vlotweg</i>

For *-weg* to become a productive word-formation pattern, this presupposes expansion to other ADJ to form qualifying modifiers. An increase in type frequency shows that the addition of *-weg* is extended to various ADJ in the 18th ct, e.g. *los weg* ‘lightly, casually’ as in (17.29).

(17.29) ModD/1724/WNT/losweg

Aangezien die plaatsing van ‘t Promontorium Prasum van Ptolomeus op 15 graaden, te veel met de rechte situatie van de Kaap der goede Hope (...) verschilt, en dit gantsch niet tot hun oogmerk dienen zou, zoo zegt men maar **los weg**, dat Ptolomeus een misslag op 15 graaden (...) heeft.

‘Since the position of the Promontorium Prasum by Ptolemy at 15 degrees differs too much from the actual situation of the Cape of Good Hope (...), and this does not fit their purpose, they say casually that Ptolemy has an error of 15 degrees.’

The majority of formatives coined in the 18th ct., including *los-weg*, are established and have become frequent in CD. An indication that word formation with *-weg* may have been established already in the EModD period may be the fact that the daughter language Af. has word formation with *-weg*, e.g. *gewoon-weg* ‘simply’, *lig-weg* ‘slightly’, and that the pattern is very productive there (Donaldson 1993: 444; see note 126 in chapter 8 on the link with Af.).

It is, however, striking that in the 18th ct., *weg* and the preceding ADJ did not form an orthographic unit: they were separated by a space in writing. This may indicate that the sequence was not perceived as a complex lexeme, although this may just be a matter of spelling variation. Orthographically, it became more and more common to join *weg* and the preceding ADJ in writing in the 19th ct.; this happened for various existing sequences (e.g. *vlot weg* > *vlotweg* ‘smoothly’) but new formations are also found (e.g. *rondweg* ‘frankly’). In the 20th ct., it was regular practice to write *weg* and the base in one word.

(3) Dutch vs. German *-weg*

As noted in section 17.1, De Vooy's (1967: 260) proposed that the Dt. deadjectival pattern with *-weg* may have its origin in Gm. We already argued in Hüning/Diepeveen (2009) that there is not much evidence in favour of this explanation. It is true that Gm. *schlecht-weg* ‘plainly, absolutely’ and *glatt-weg* ‘completely, flatly’ were recorded earlier than Dt. *slecht-weg* and *glad-weg*; Heinle (2004) situates these Gm. derivatives in the 16th ct. This chronology could indicate that deadjectival derivation by *-weg* existed in Gm. prior to Dt. and that it may have served as a model. However, the number of Gm. derivatives is very small and Dt. can boast a range of new formations in the 18th ct. which have no Gm. equivalents. Thus, it is more probable that we are dealing with parallel developments in the two languages (Hüning/Diepeveen 2009) and that the pattern soon became much more productive in Dt. than in Gm.²⁶¹

17.3.2 Functional shift

I discovered semantic changes for *weg*-derivatives which may have given rise to a functional shift from descriptive modification (1) to interpersonal modification (2).

(1) Descriptive modifiers

The earliest *weg*-derivatives functioned as qualifiers. We infer from WNT that the formatives with *weg* were used to translate Fr. derived qualifying ADV like *hardi-ment* ‘rashly’ and *cru-ment* ‘cruelly’ in a 18th ct. dictionary by Marin, e.g. *te bot, te plat, te ruw weg* ‘too bluntly’ (1703-1793/WNT/botweg). Compare *natuurlijk-weg* ‘naturally’ (17.30). There are various attestations with *verba dicendi*, e.g. *koud-weg antwoorden* ‘to reply coldly’ (17.31), *kort-weg verklaren* ‘to explain briefly’ (17.32) with a negative connotation.

(17.30) ModD/1901/WNT/worden

Zijn verlangen was, **natuurlijkweg**, na zijn eerste verdriet geworden.
‘His desire had developed naturally after his initial grief.’

(17.31) ModD/1868/WNT/vastklampen

Al was een jongman nog zoo deftig, als hem het geldslijk ontbreekt, dan draait ge uw hoofd nog naar eene andere streek en antwoordt hem **koud weg**. Maar heeft hij den naam van rijk te zijn, dan klampt ge er u aan vast als een braamstruik.

‘Even if a young man was very elegant, if he didn’t have money, you would turn your head elsewhere and answer him coldly. But if he is known to be rich, you would cling to him like a bramble.’

(17.32) ModD/1872/ALC

Zij verklaarde hem **kortweg**, dat zij de nieuwe orde van zaken verfoeide (...).
‘She explained to him briefly that she detested the new state of affairs (...).’

²⁶¹ Obviously, it would be interesting to look into the history of Fs. *-wei* but this is not possible within the scope of this dissertation.

We may wonder why this pattern was introduced in ModD since there already were productive suffixes for the creation of qualifying descriptive modifiers, particularly *-tjes* but also *-(e)lijk*. In WNT we find several synonymous pairs, e.g. *vlot-jes/vlot-weg* ‘smoothly’ and *vaag-weg/vaag-jes/vag-elijk* ‘vaguely’. Nevertheless, the qualifying function remained intact for *weg*-derivatives even in CD; this may be due to its secondary semantic value (see section 17.2.3).

(2) Interpersonal modifiers

The *weg*-derivatives which were common as qualifying modifiers with *verba dicendi* in the 19th ct. developed an interpersonal function: they came into use as independent speech act modifiers in the 19th-20th ct. Compare *kort-weg* ‘briefly’ (17.33).

(17.33) ModD/1885

Kortweg, om duidelijk te spreken, deze voorgenomen rondreis beteekent niets anders dan: het gepleegde onrecht nog vergrooten door belediging.
‘Briefly, to say it clearly, the planned tour does not mean anything else than: yet to increase the harm done by insult.’

Speech-act modifiers were previously expressed in Dt. with phrasal constructions, e.g. *in corten* ‘lit. in short; briefly’ (17.34).

(17.34) EModD/1569-1600/WNT/deur

In **corten**, sy en sien deur noch venster aen, sy schietent u tot de veren toe int lijf.
‘Briefly, they criticise all persons alike, and their comments go to the bone.’

Descriptive derivatives with *-weg* additionally developed the ability to function as evaluative modifiers. This can be observed in the 19th ct., in the ironic evaluative *leuk-weg* ‘amusingly’ in (17.35).

(17.35) ModD/1852/WNT/verduwen

’t Is een walvisch, die mij nadert, En met loddrig oog aanschouwt, En mij, als een andren Jonas, **Leukweg** naar zijn maag verdouwt.
‘A whale approaches me and beholds me with a drowsy eye. Amusingly enough, he shoves me into his stomach as I were another Jonah.’

Evaluative modifiers are commonly formed in the 20th ct., e.g. *naïef-weg* ‘naively’ (17.36) and see section 17.2.2.

(17.36) CD/1996/ANW

Enkele dagen later joeg Jambers enkele krasse bejaarden de circuspiste in. Een van hen was een type dat kleinkinderen vroeger **naïefweg** met oma aanspraken, al was het maar omdat dit wijf er de leeftijd voor had.
‘A few days later Jambers drove some spry old people into the circus ring. One of them was the kind of person whom kids, naively enough, used to call grandma only because the old bag had the right age for it.’

In section 17.2, I pointed at the highly idiomatic behaviour of certain *weg*-derivatives as modal particles, paraphrasable by ‘just’. In the INL material, idiomatised uses can be found at least from the 19th ct. onwards, e.g. *bot-weg* ‘lit. bluntly; simply, just’ (17.37).

(17.37) ModD/1894/WNT/botweg

Uitdrukkingen (...) die noch beeldrijk, noch schilderachtig, maar **botweg** triviaal zijn.
‘Expressions (...) which are not rich in imagery, nor pictorial, but just plain trivial.’

This idiomatic use may have emerged in analogy with derivatives like *gewoon-weg*, *simpel-weg* and *eenvoudig-weg* ‘simply’ in which the meaning of ‘simpleness’ is inherent in the base, consider (17.28).

(17.38) ModD/1887/WNT/zuid

De Zuid-Nederlanders verstaan echter ons Noord-Nederlanders veel beter als wy **gewoon weg** onze dageliksche spreektaal gebruiken in de eene of andere gouspraak, dan wanneer wy, in de meening duidelijker te zullen zijn, schoolsch en boeksch spreken.

‘The southern Dutchmen understand us northern Dutchmen much better when we simply use our everyday spoken language in one or the other regional variant, than when we, under the impression that we will be clearer, speak schoolishly and bookishly.’

Idiomatisation may arise from ambiguous interpersonal cases in which the meaning of the base may or may not still be present. In (17.39), (a) *dom-weg* may be interpreted as an evaluation by the speaker that it was stupid (*dom*) of himself not to send the form back; or (b) *dom-weg* is used as a mere downtoner, i.e. not sending the form back is just an excuse; or (c) there is a combination of both interpretations.

(17.39) CD/1994/ANW

Wedstrijdsecretaris Rinie van Beek van Alcides laat desgevraagd weten de schuld op zich te nemen. ‘Ik ben **domweg** vergeten het formulier terug te sturen’, zegt hij.

‘Game secretary Rinie van Beek of Alcides lets us know that he takes all the blame.

a. ‘Stupidly enough, I forgot to send the form back’, he says.’

b. ‘I just forgot to send the form back’, he says.’

c. ‘Stupidly enough, I just forgot to send the form back’, he says.’

In unambiguous examples like (17.40), the lexical meaning of the base word, here *bot* ‘blunt’, can no longer be established.

(17.40) CD/1993/ANW

Videoconferencing is niet enkel en alleen een manier om **botweg** kosten te besparen. Het is ook een manier om geld te verdienen.

‘Videoconferencing is not only a method for just saving costs. It is also a way to make money.’

17.3.3 Historical observations on syntactic use

As indicated in section 17.2, *weg*-derivatives are usually found in CD as adverbial modifiers but recently, they may occur as attributes in the NP (1) or as adverbial premodifiers in the NP (2).

(1) **Attributive modifier**

In Hüning/Diepeveen (2009) we have shown that a number of *weg*-derivatives are used as prenominal attributes and inflected regularly in CD. We illustrated this with the following internet examples: *simpel-wegg-e* ‘plain, sheer’ (17.41), *bot-wegg-e* ‘blunt, flat’ (17.42) and *grof-wegg-e* ‘rough’ (17.43).

(17.41) CD/2006/internet²⁶²

Ook doe je onrecht aan Keynes zelf door hem als **simpelwegge** onzin te bestempelen.

‘You also do Keynes wrong by designating him as sheer nonsense.’

²⁶² <http://www.meervrijheid.nl/index.html?jb-klassiek-liberalisme.htm> [last accessed 27.10.2011]

(17.42) CD/2004/internet²⁶³

Jij zelf bent het type voorbeeld van de NIET-integratie, van de **botwegge** weigering te integreren.
'You are yourself the typical example of non-integration, of the blunt refusal to integrate.'

(17.43) CD/2003/internet²⁶⁴

Laat het duidelijk zijn dat er in de praktijk dus veel meer bij komt kijken dan dit en dat dit een **grofwegge** uitleg is.
'Let it be clear that in practice there is much more involved than this and that this is a basic explanation.'

Such inflected examples cannot be found in the corpus. What we do find are examples of attributive use with verbal N, a syntactic environment which does not require inflection, e.g. *het simpel-weg genieten* 'the simple enjoyment' (1978/ANW), *het simpel-weg kopiëren* 'the simple copying' (n.d./ANW), *het dom-weg oprichten van een afwijzingsfront* 'the simple erection of a refusal front' (1996/ANW) and *het bot-weg afremmen van de kanker-bevorderende effecten* 'the blunt brake on effects leading to cancer' (n.d./ANW). The examples with verbal N are at the basis of attributive use of *weg*-derivatives as illustrated in (17.41)-(17.43). I found one 19th ct. example for *bot-weg* 'bluntly' (17.44).

(17.44) ModD/1872/WNT/zelf

Een ietwat gereserveerde houding zal ieder begrijpen, het **botweg** zwijgen als zelfafdanking door den zelfgenoegzamen tegenstander worden geïnterpreteerd.
'A slightly reserved attitude will be understood by everyone, but blunt silence is interpreted by the arrogant enemy as self-destructive.'

The attributive examples in (17.41)-(17.43) may not be acceptable to all native speakers of Dt. but they may be an indication that *weg*-derivatives are no longer restricted to adverbial use. Thus, *-weg* may be losing its original adverbialising value. Rather, the modifying value of *-weg* to its input ADJ causes the language user to prefer the derivative instead of the unaffixed input ADJ.

Attributive use of *weg*-derivatives is not allowed in Gm. (Ronca 1975: 142). However, it is attested in Fs. and recognised by lexicography: *WFT* notes that there are *wei*-derivatives which can be used as attributive modifiers, e.g. *it rûch-weij-e deistige libben* 'the rough daily life' (1973/WFT/rûchwei); mind the inflectional ending. Attributive examples can be found in Fs. earlier than in Dt., e.g. *in sliucht-wei menske* 'a simple person' (1867/WFT/sljochtwei), *in smout-wei praetsje* 'a nice conversation' (1915/WFT/smoutwei).²⁶⁵

(2) Adverbial premodifier

In INL material of the late 19th ct., we find attestations in which a descriptively used *weg*-derivative premodifies the prenominal qualifier, e.g. *het brutaal-weg aangekondigde doel* 'the boldly announced goal' (1887/WNT/brutaalweg). Such examples can also be found in CD, but they are uncommon, e.g. *het kort-weg De Maasbode geheten boek* 'the briefly as 'De Maasbode' designated book' (1995/ANW), *met het eenvoudig-weg geniale robuuste Wolf pootijzer* 'with the simply brilliant solid dibber by Wolf' (n.d./ANW). Compare in Gm. *Wegen des durch-weg gleichförmigen Aufbaus der*

²⁶³ <http://forum.politics.be/archive/index.php/t-19097.html> [last accessed 27.10.2011]

²⁶⁴ <http://www.telecomvergelijker.nl/thread/1744/18> [last accessed 27.10.2011]

²⁶⁵ It should be stressed that En. *way(s)*-derivatives, too, occur in the prenominal attribute slot. Tourbier (1928) already paid attention to this phenomenon from a diachronic point of view. He found examples in the 19th ct., e.g. *with cross-way movement* and *any side-ways deflection*. In CE, *way(s)*-derivatives are sometimes found in the postnominal attribute slot, e.g. *the capability of rotation clock-wise and counterclock-wise* (Payne/Huddleston/Pullum 2010 and see chapter 3).

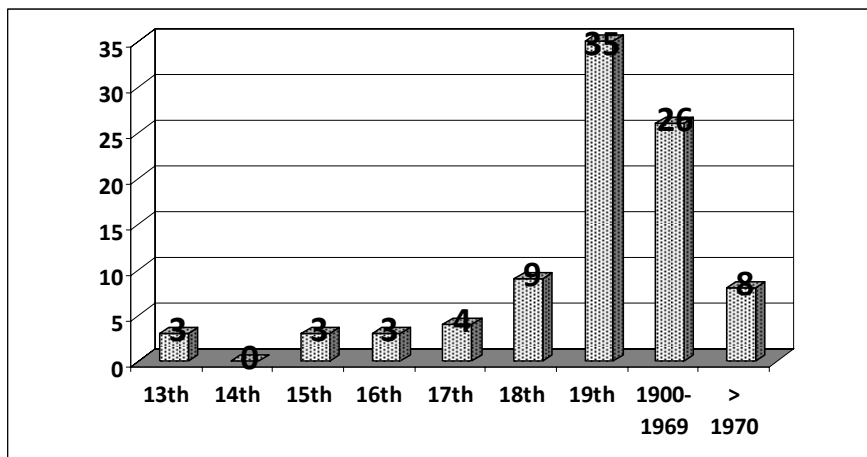
Lipiddoppelschichten ‘because of the completely similar structure of the double lipidic layers’ (1996/DWDS).

17.3.4 Scope and productivity from a diachronic perspective

It was shown in 17.3.1 that Dt. word formation on the basis of ADJ got started in the 18th ct. An indicator of productivity is the lack of formal conditions on the ADJ, which could be simplex (e.g. *bot* ‘blunt’) or complex (e.g. *eenvoud-ig* ‘simple’) as well as borrowed from Fr., e.g. *cordaat weg* ‘briskly’ was coined by the Dt. authors Wolff and Deken, who used *-weg* very creatively. By the 19th ct., we find further complex ADJ (e.g. *bond-ig* ‘concise’) and non-Gmc. ADJ (e.g. *brutaal* ‘cheeky’) as well as past PART (e.g. *ge-rust* ‘easy’). In the 19th ct., the first *tjes*-ADV are found as input words, e.g. *droog-jes* ‘drily’, *los-jes* ‘loosely’. In the 20th ct., besides further *ig*-derivatives (e.g. *lull-ig* ‘shitty’) we find *lijk*-derivatives (e.g. *natuur-lijk* ‘natural’) and additional *tjes*-ADV, e.g. *rustig-jes* ‘calmly’, *zoet-jes* ‘gently, slowly’ and *luchtig-jes* ‘lightly’.

Figure 17.3 gives an overview of the number of new types formed with *-weg* per ct. (including the earliest univerbations). Mind that I took into account the first attestations of sequences which were written separately; they represent semantic units, but we cannot be sure that they were perceived as one complex lexeme.

Figure 17.3. New formations with *-weg* throughout the centuries.



As figure 17.3 shows, type frequency was rising gradually and exploded in the 19th ct. In the 20th ct., the number of types remained high. In the synchronic section I presented indications that deadjectival derivation by *-weg* is available for new formation in CD. The diachronic investigation has shown that a number of supposed new formations are actually already recorded before 1970. For only eight derivatives it could be confirmed that they are attested after 1970, including *belachelijk-weg* ‘ridiculously’, *dwars-weg* ‘intractably’, *lullig-weg* ‘shitty’, *sloom-weg* ‘inertly’, *stroef-weg* ‘stiffly’. The intuition of de Haas/Trommelen (1993: 355) that the pattern is still productive needs to be adapted: with only eight new *weg*-types first recorded after 1970 the pattern is only limitedly productive. That the pattern is still available to speakers can be shown by the fact that we find further new formations on the internet, even with English base words, e.g. *cool-weg* ‘in a cool way’.²⁶⁶ Whereas the Dt. deadjectival pattern kept producing new formations in the 20th ct., its Gm. equivalent fell back: Heinle (2004) counted only five new types.

²⁶⁶ For instance: <http://www.folkroddels.be/artikels/15034.html> [last accessed 16.04.2012]

I proposed in section 17.2 that the pattern which takes *tjes*-derivatives as input may still be available for new formation. However, the diachronic investigation has shown that the hapax *droog-jes-weg* 'drily' from CGN was already recorded in the 19th ct. and that the last new formation is *zoet-jes-weg* 'gently, slowly' in 1910, so there are no new *weg*-formatives on the basis of *tjes*-derivatives after 1970.

17.4 Conclusion

The Dt. suffix *-weg* is the product of a process of grammaticalisation of the independent ADV *weg* into a bound morpheme *-weg*. This process started in MD when the form *wech* could be added to ADV to stress continuity or force of an activity. Although the Gmc. origin is shared with Gm. *-weg* and En. *-way*, Dt. *-weg* probably developed independently. Moreover, it was the only suffix which became really productive. On an empirical basis it may be stated that today, the deadjectival pattern is only limitedly productive. In the past, *-weg* was added to *tjes*-ADV, but this pattern appears to be no longer available. That the scope of *-weg* got more restricted may be an indicator of decreasing productivity.

From a diachronic point of view, we can observe the semantic development of *weg*-derivatives as descriptive modifiers to interpersonal modifiers. In CD, they combine both functions. For descriptive modifiers, *-weg* provides a modification which may in some cases be interpreted as the reinforcement of an inherently negative (or positive) value. For interpersonal modifiers (namely, evaluative and speech-act modifiers), *-weg* functions as an obligatory marker. We discovered moreover that certain interpersonal *weg*-derivatives may be developing into particle-like elements. These items are moving on the opacity scale away from *weg*-derivatives to synchronically intransparent lexemes.

Finally, we found that *weg*-derivatives are making their way into the NP and even to the prenominal attribute slot. Although this phenomenon may still be marginal, it indicates that *weg*-derivatives may be losing their status as prototypical ADV and that *-weg* is losing its status as a prototypical adverbial suffix.

Part III

Synthesis

18 Synthesis

Het algemene beeld van de woordvorming in de drie talen geeft een sterke overeenkomst te zien tussen het Duits en het Nederlands, met een heel afzonderlijke positie van het Engels. (...) [D]e middelen tot aanvulling en uitbreiding van de woordenschat (...) de hele koers waarin de ontwikkeling gaat, ze zijn voor Nederlands en Duits grotendeels dezelfde. Hier geen divergentie, maar duidelijke convergentie.²⁶⁷

Coenraad Bernardus Van Haeringen (1956: 62)

18.1 Introduction

This dissertation started by the common assumption that Dutch has a category of ADV which may be extended through word-formation patterns. I have argued that the label ‘adverbial morphology’ needs a different definition than it has previously received in the literature. Adverbial and adjectival morphology are no discrete categories but they are best viewed as scalar notions. The distinction is motivated by the morphosyntactic properties of the output words of the patterns which range from invariable lexemes restricted to non-attributive positions to lexemes which are fully flexible.

The central aim of this dissertation was to fill a descriptive gap in the field of Dutch word formation. I prepared synchronic and diachronic descriptions of the derivational suffixes traditionally known as ‘adverbial suffixes’ and of two additional morphemes. These descriptions were supported by empirically founded information available on English and German equivalents. Corpus-based investigation of Dutch adverbial morphology allows us to revisit some claims made in the literature which were stated on the basis of introspection and made-up examples.

This dissertation relies on notions of prototype theory and concepts of a functional approach to language with two central implications. On the one hand, I proposed an integrated approach to complex ADV and ADJ as ‘modifying words’. On the other hand, I proposed an approach to adverbial and adjectival suffixes as patterns for ‘modifying’ words. The more general aim of this dissertation was to involve Dutch in the international debate on modification and word formation and their diachrony.

An overview is given in section 18.2 of the main findings on the origin, scope and productivity of the eleven investigated word-formation patterns listed in (2.2). In section 18.3, I focus on the properties of their output lexemes as ‘modifying words’. In section 18.4, I discuss the relation between modification and word formation from a combined synchronic-diachronic perspective. Some contrastive observations involving Dutch, English and German are presented in section 18.5. This last chapter is rounded off with some final remarks in section 18.6.

²⁶⁷ ‘The overall picture of word formation in the three languages reveals a strong resemblance of German and Dutch and a very separate position of English. (...) The means for completing and extending the vocabulary (...) and the entire course of development are largely the same for Dutch and German. Here no divergence, but clear convergence.’ (My translation, AD)

18.2 Dutch adverbial morphology

18.2.1 Suffixes and their origin

The linguistic elements included in this dissertation are the adverbial suffixes listed by Booij (2002): *-(e)lijk*, *-(e)lings*, *-erwijs*, *-gewijs*, *-halve*, *-iter*, *-tjes*, *-waarts*, *-weg*; additionally, the adjectival suffix *-matig* (ANS 1997) and the morpheme *-technisch*, so far absent in work on Dutch word formation. Adopting the view that grammaticality is gradient, it could be confirmed by synchronic and diachronic evidence that some of the investigated elements are more suffix-like than others. An overview of the findings is given in figure 18.1.

Figure 18.1. Classification of investigated suffixes in a gradient approach.

LEXEME-SUFFIX SCALE		
Prototypical lexemes	Intermediate items	Prototypical suffixes
lexemes ending in <i>-iter</i>	<i>-technisch</i>	<i>-(e)lijk</i> , <i>-(e)lings</i> , <i>-erwijs</i> , <i>-gewijs</i> , <i>-halve</i> , <i>-tjes</i> , <i>-waarts</i> , <i>-weg</i> , <i>-matig</i>

As may be inferred from figure 18.1, my investigation has shown that *-iter* does not deserve a place in the Dutch suffix inventory: rather, empirical evidence points into the direction that lexemes ending in *-iter* have been borrowed from Latin (see chapter 12). Secondly, I provided arguments that the controversial morpheme *-matig* is a prototypical suffix (see chapter 13). Note that *-erwijs* and *-gewijs*, too, may be considered as prototypical suffixes (see chapters 9 and 10). Finally, I argued that *-technisch* is developing suffix-like properties and may be added to the Dutch suffix inventory (see chapter 14).

In table 2.1, I presented a basic overview of the generally accepted sources of Dutch adverbial suffixes. Most of the existing observations could be confirmed and completed by more specific information. Table 18.1 gives an overview of the chronology.

Table 18.1. Suffix sources and chronology.

PERIOD		CHARACTERISATION	EXAMPLES
Gmc.		ADV with <i>*lik-ō(d)</i> ; <i>*ingōn</i>	
		univerbations with <i>*werp</i>	
OD	> 800	ADV with <i>-o/-e</i> ; <i>-liko</i> ; <i>-inghe</i> , <i>-linc</i> , <i>-linghe(n)</i>	<i>ferro</i> 'far', <i>lange</i> 'long': <i>rehlico</i> 'rightly'; <i>nieuwinghe</i> 'recently', <i>mundelinge</i> 'orally'
		univerbations of ADV with autonomous N <i>halve</i>	<i>northaluon</i> 'in the north'
		adverbial phrases with autonomous N <i>wijze</i>	<i>in wurme wise</i> 'in serpentine form'
EMD	> 1200	ADV with <i>-like</i> ; ADV with diminutive suffix <i>-kine/-ken</i>	<i>sachtelike</i> 'softly'; <i>stillekine</i> 'quietly'
		univerbations with autonomous ADV <i>weg</i> , <i>waart(s)</i> ; and with autonomous N <i>wijze</i>	<i>oest+weegh</i> 'to the east from there'; <i>darwart</i> 'thither'; <i>ghelikerwise</i> 'in the same manner'; <i>zaghewise</i> 'saw-shaped'
		adverbial phrases with autonomous ADV <i>weg</i> , <i>waart(s)</i> and with autonomous N <i>halve</i> , <i>wijze</i>	<i>ten palayse wert</i> 'to the palace'; <i>uan godes haluen</i> 'from the side of god'; <i>in droeuer wise</i> 'in a sad way'; <i>in crucewijs</i> 'crosswise'
MD	> 1300	emergence of <i>gewijze</i> as a variant of <i>wijze</i> and grammaticalisation process	<i>cruuswijs</i> 'crosswise', <i>in cruusghewise</i> 'crosswise'
		grammaticalisation process of <i>halve</i> and <i>waart(s)</i> and of <i>wijs</i> following inflected ADJ	<i>scolen wert</i> 'to school'; <i>zoeterwijs</i> 'in a sweet manner'
	> 1400	ADV with <i>-lic</i> , <i>-liken</i> ; with <i>-ken-s</i> and reanalysis into <i>-kens</i> ; with <i>-ling-s</i> and reanalysis into <i>-lings</i>	<i>boudelic</i> 'bravely'; <i>schoonkins</i> 'gently, steadily'; <i>nieuwelincs</i> 'recently'
		grammaticalisation process of <i>weg</i>	<i>eewelic wech</i> 'for ever more'
EModD	> 1500	productive derivation with <i>-halve</i> ; with <i>-waart</i> ; with reanalysed <i>-kens</i> and palatalised <i>-tgens</i>	<i>plichtshalven</i> 'in the line of duty'; <i>lywaert</i> 'leeward'; <i>lichtgens</i> 'lightly'
		borrowing of Latin <i>iter</i> -lexemes	<i>simpliciter</i> 'simply'
		<i>ig</i> -lexemes from compounds with autonomous N <i>maat</i> ; borrowing from Gm. <i>-mäßig</i> and start of productive derivation with <i>-matig</i>	<i>middelmatich</i> 'mediocre', <i>Riddermatige</i> 'knight-worthy', <i>stemmatich</i> 'in accordance with the voice'
	> 1600	reanalysis of <i>-waart-s</i> into <i>-waarts</i> and productive derivation; reanalysis of <i>-er + wijs</i> into <i>-erwijs</i> and productive derivation	<i>loefwaerts</i> 'windward'; <i>eerlykerwys</i> 'in fairness'
		productive derivation with the variants <i>-gewijs</i> , <i>-tgens/-tje(n)s</i> ; and with reanalysed <i>-(e)lings</i>	<i>vlagsgewys</i> 'flag-shaped'; <i>losjes</i> 'loosely'; <i>schrylinx</i> 'astride'
		reanalysis of <i>-ig-lijk</i> into <i>-iglijk</i> ?	<i>angstichlick</i> 'fearfully'
ModD	> 1700	productive derivation with <i>-weg</i>	<i>vlotweg</i> 'fluently'
	> 1950	reanalysis of <i>isch</i> -derivatives of nominal compounds with the N <i>techniek</i> and productive derivation with <i>-technisch</i>	<i>prijstechnisch</i> 'related to (the technique of) price'; <i>vergunningstechnisch</i> 'as far as licence is concerned'

The oldest of the investigated suffixes is *-(e)lijk*.²⁶⁸ Paths of grammaticalisation of an autonomous lexeme could be reconstructed for *-erwijs*, *-gewijs*, *-halve*, *-vaart(s)*, *-weg*; this appears to have been the main source of the investigated Dutch suffixes. Grammaticalisation processes took place predominantly in the Middle Dutch period and they may have been facilitated by the existence of early univerbations. The suffix *-weg* is the most recent product of grammaticalisation.

The investigation provided insight in the addition of the adverbial *-s* to existing suffixes *-(e)ling*, *-ken* and *-vaart* and the reanalysis of the sequences as independent suffixes *-(e)lings*, *-tjes* and *-waarts*. This process started in the Middle Dutch period and led to new productive suffixes in the Early Modern Dutch period. It was shown that *-tjes* does not originate in a sequence in the strict sense: it results from palatalisation of reanalysed *-kens* (see chapter 15).

My investigation further resulted in some new findings. The existing idea that *-iter* is an adverbial suffix borrowed from Latin cannot be supported since there is no direct evidence that it ever became productive in Dutch (see chapter 12). There is only incidental (analogical?) word formation with *-iter* in the Modern Dutch period. The widespread claim that *-matig* was originally borrowed from German *-mäßig* seems likely, but it very soon became productive in Dutch (see chapter 13). The same holds true for *-technisch* which developed suffix-like properties only very recently (see chapter 14).

18.2.2 Productivity

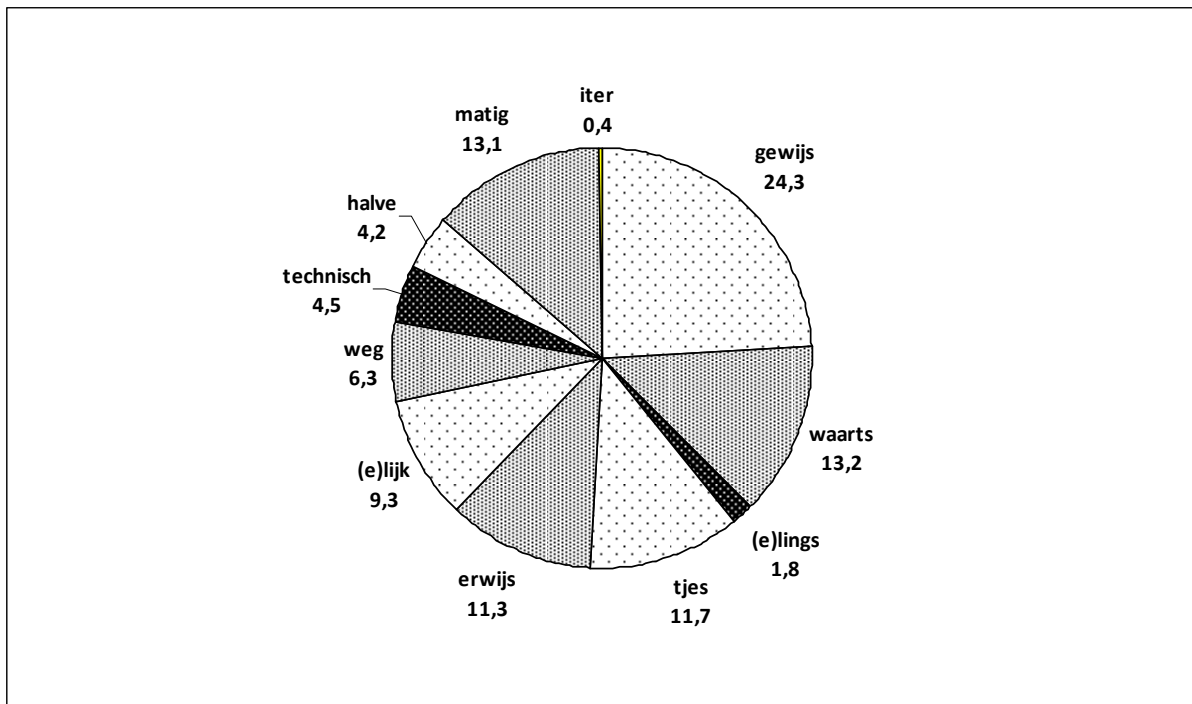
In the existing literature, the adverbial suffixes have been referred to as ‘not very productive’ in contemporary Dutch without empirical underpinning (see section 2.4.1). Different intuitions among scholars led to different estimations of the degree of productivity of the individual patterns as has been illustrated in table 2.2. In this dissertation I aimed at providing a more accurate account of productivity on the basis of the inspection of corpus data. As explained in the methodology (section 6.2.4), I have chosen to limit the investigation to two basic measures of productivity, which I jointly refer to as the ‘application rate’ of a suffix. The first basic measure of productivity concerns the number of different attested formations or types in the corpus material. As pointed out in section 4.2.2, high ‘realised productivity’ alone does not inform us on the present potential of an affix to create new words, therefore the ‘expanding productivity’, i.e., the number of hapaxes in the corpus material, is added as a second measure (cf. Baayen 2009). If both realised productivity and the rate of expansion are high, we may assume that we are dealing with a productive pattern. Care has to be taken, however, since hapaxes are not necessarily newly coined words: they may already be established in the language. Therefore, a total of four criteria for determining productivity is included: (1) realised productivity (overall type frequency); (2) non-established types; (3) rate of expansion (proportion of hapaxes); (4) number of neologisms. Type frequency data in % are provided to compare the suffixes; for details and figures, I refer to the chapters on individual suffixes. In (5) the investigated suffixes are set out on a scale of productivity according to their application rate as given by the four criteria.

²⁶⁸ Mind that I have not investigated the reinterpretation of former case endings, e.g. the emergence of adverbial *-o* and adverbial *-s*.

(1) Realised productivity: type frequency

The first criterion for measuring the degree of productivity of the investigated suffixes involved determining type frequency by simple type counts in the corpus material (ANW, CGN, 38 MWC). The pie chart in figure 18.2 gives an overview of the proportion of lexeme types collected in the synchronic corpus material for Dutch.²⁶⁹ The proportion of lexeme types for each suffix has been calculated relative to the total number of derived modifying lexemes for all suffixes in the corpus material (total of 734 lexeme types = 100%). For absolute figures I refer to the chapters on the individual suffixes.

Figure 18.2. Proportion in % of lexeme types per suffix in contemporary corpus data (734 types = 100%).



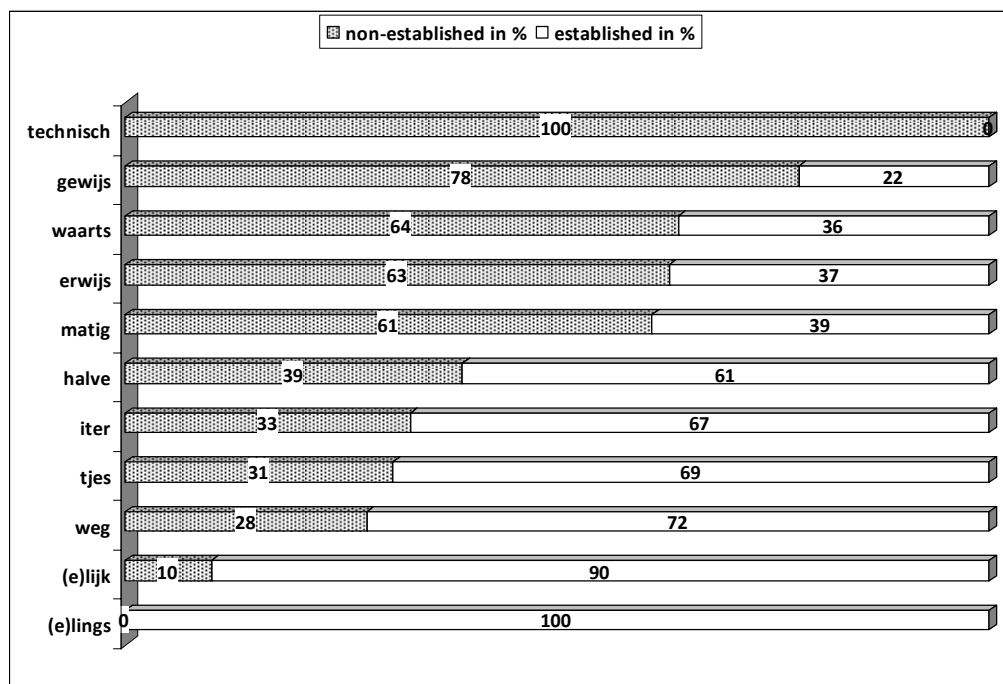
We may infer from figure 18.2 that *gewijs*-derivatives represent the highest proportion of lexeme types in the corpus data with 24,3% which is almost one fourth of all lexeme types. The suffix *-gewijs* thus has the highest realised productivity of the investigated suffixes. It is followed by *-waarts* and *-matig*. Together these three suffixes make up almost half of the lexeme types in the corpora. The suffixes *-tjes*, *-erwijs* and *-(e)lijk* are good for an intermediate proportion of lexeme types which is still above the average (9,1%). Realised productivity is low for the other suffixes in the investigation: *-weg*, *-technisch*, *-halve* but particularly *-(e)lings* and *-iter*. For the latter the proportion of lexeme types in the corpora is near zero: it is no productive suffix.

²⁶⁹ The types which only occur in the dictionary and not in the corpus are not counted here but they are included in the appendix to each chapter. Figure 18.2 is based on the synchronic inventories except for *-technisch*: as explained in chapter 14 it is problematic to provide counts due to the formal overlap with *isch*-derivatives of nominal *techniek*-compounds. I only counted the types for which no nominal *techniek*-compound is attested (see diachronic inventory in the appendix to chapter 14).

(2) Non-established types

The second criterion used for measuring the degree of productivity of the adverbial suffixes pertains to the number of non-established types (= potential new formations) in the corpora, with Van Dale (2005) as a frame of reference. For each suffix I determined the proportion of non-established types (in %) and the proportion of established types (in %) vis-à-vis the overall type frequency in the corpora. In the bar chart in figure 18.3 the proportions of non-established types of all investigated suffixes are compared.

Figure 18.3. Proportion in % of non-established types per suffix in contemporary corpus data.



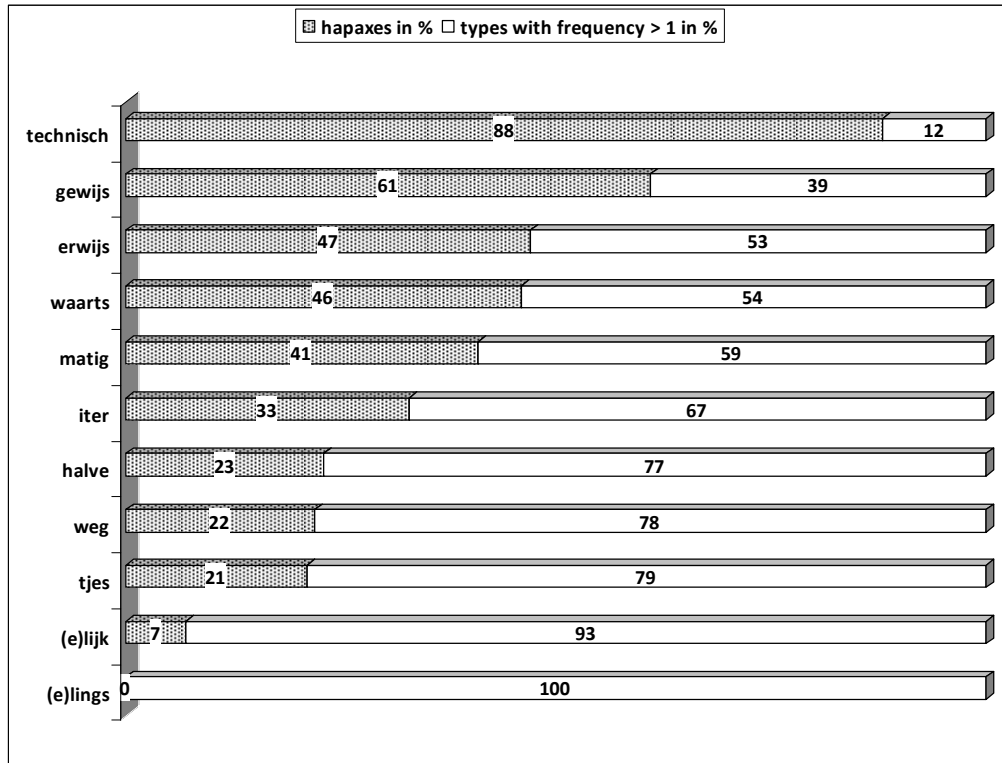
For *-technisch*, *-gewijs*, *-waarts*, *-erwijs* and *-matig*, the majority of lexemes attested in the corpora are not established in Van Dale (2005). In comparison with the other suffixes they have a high proportion of non-established types which is situated much above the average of 46,1%. This is a strong indication that these suffixes are available for new formation. For *-technisch* the proportion of non-established types amounts even to 100%, which suggests that all types attested in the corpora are new formations. There is an intermediate proportion of non-established lexeme types for *-tjes* and *-halve*. The same holds true for *-iter*, but recall that its type frequency is near zero, see (1). We may infer from figure 18.3 that all types recorded in the corpus material for *-(e)lings* are listed in Van Dale (2005). For *-(e)lijk*, too, holds true that 90% of types are established lexemes and *-weg* also has a high proportion of established types. This may indicate that these suffixes are barely used to create new lexemes.

The actual number of new formations in contemporary Dutch (after 1970) can only be determined after the diachronic investigation, see (4).

(3) Expanding productivity: proportion of hapaxes

The third criterion for measuring the degree of productivity of the adverbial suffixes involved determining the proportion of hapaxes in the corpora. Thus, I determined the proportion of hapaxes vis-à-vis the overall type frequency per suffix.²⁷⁰ In the bar chart in figure 18.4 the proportions of hapaxes of all investigated suffixes are compared.

Figure 18.4. Proportion in % of hapaxes per suffix in contemporary corpus data.



We may infer from figure 18.4 that the highest number of hapaxes is found for *-technisch*, followed by *-gewijs*. In fact, the majority of non-established lexemes formed with these suffixes occur only once in the corpus material. This indicates a high rate of expansion for these suffixes. For all of the other suffixes the majority of non-established lexemes has a token frequency higher than one. On the basis of their fairly high proportion of hapaxes, *-erwijs*, *-waarts* and *-matig* indicate a fairly high rate of expansion (see table 18.2).

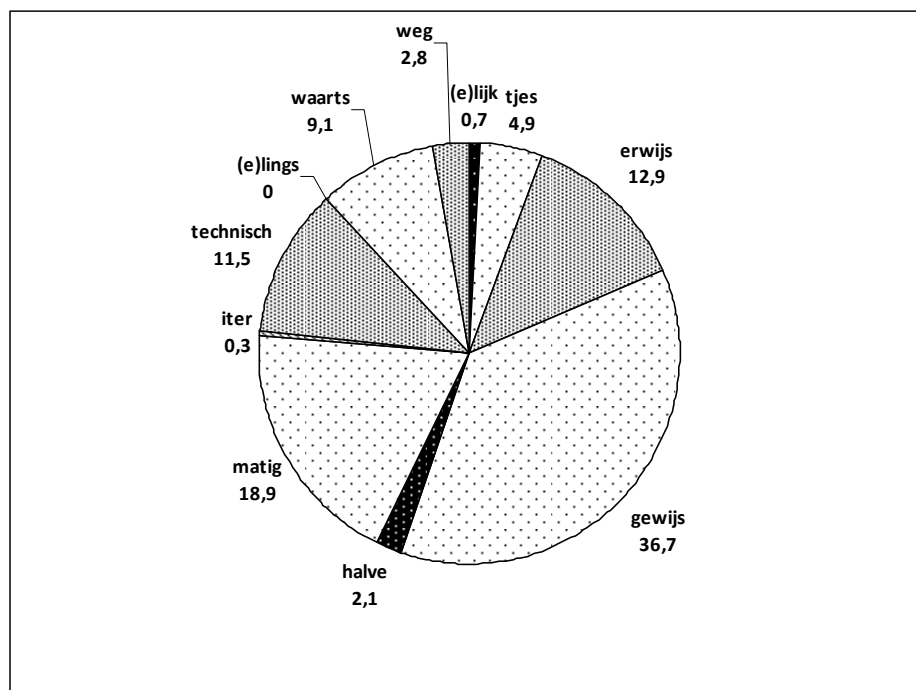
In contrast, the expanding productivity for *-halve*, *-weg* and *-tjes* is low. There are barely any hapaxes with *-(e)lijk* and none with *-(e)lings* which could be an indication that they are unproductive. Figure 18.4 suggests that *-iter* has a fairly high proportion of hapaxes, but since its overall type frequency is near zero, we may assume that it is not available for new formation.

²⁷⁰ Recall that I only counted hapaxes among the non-established types in the corpora. This means that types which occur only once in the corpus material, but which are also attested in Van Dale (2005), are not included in the counts.

(4) Number of neologisms in contemporary Dutch

Essentially, productivity has been considered in this dissertation as dynamic and as the product of diachronic change. In (1)-(3) the degree of productivity of the adverbial suffixes was determined provisionally on the basis of contemporary Dutch data. Figure 18.3 gave an overview of the type frequency of potential new formations with each investigated suffix in contemporary Dutch by counting the number of non-established lexemes. However, the actual number of new formations in contemporary Dutch can only be determined when the novelty of the types collected in the synchronic dataset is checked in diachronic material. Thus, I investigated the INL material (and additionally, ALC material) to find out when the derivatives of the synchronic inventory were first attested (for the procedure, see section 6.4, see each individual chapter and consult the appendix to each chapter).²⁷¹ Thus, I found that a number of types which we presumed were ‘new’ are actually already attested before 1970 (see diachronic inventories in the appendix). Figure 18.5 shows the proportion of new formations which emerged after 1970.²⁷²

Figure 18.5. Proportion in % of new formations per suffix in contemporary Dutch (> 1970) after the inclusion of diachronic data (286 types = 100%).



We may infer from figure 18.5 that the suffixes *-gewijs* and *-matig* stand out with a large proportion of new formations in contemporary Dutch. Together they are responsible for more than half of all new formations in the material. The suffixes *-erwijs*, *-tjes*, *-technisch* and *-waarts* have generated an intermediate number of neologisms in contemporary Dutch. The inclusion of diachronic data further provides empirical evidence that *-(e)lijk*, *-halve* and *-weg* have barely produced new types after 1970. Finally, *-(e)lings* and *-iter* are not available for new formation in present-day Dutch.

²⁷¹ For *-halve*, *-weg*, *-erwijs*, *-gewijs* I included the first attestations of sequences which are not written together (but which are not preceded by a preposition). Although they seem to be semantic units, we cannot be sure of their status as complex words. For the suffixes representing reanalysed sequences I counted only those with *-s*, e.g. *-(e)lings*, *-waarts*, *-tjes*. Their first attestation was taken as the basis even when formatives without *-s* occurred earlier. For *-tjes* I also included types formed with the variants *-kens/-gens*. For *-technisch* I only counted types for which no nominal *techniek*-compound is attested. For the 20th-21st ct., types established in Van Dale (2005) are included in the counts.

²⁷² There are no new counts for *-technisch*, see note 269 and see chapter 14.

(5) Overview: application rate

On the basis of the criteria discussed in (1)-(4), productivity in terms of application rate is represented in table 18.2. The suffixes are partitioned into three groups (low, intermediate and high application rate) according to their score on each criterion. A statistically developed procedure was used to make this classification:²⁷³

- Classified as ‘low’ are suffixes with a score lower than the mean score minus half a standard deviation;
- Classified as ‘intermediate’ are suffixes with a score higher than the mean minus half a standard deviation;
- Classified as ‘high’ are suffixes with a score higher than the mean plus half a standard deviation.

Assuming a normal distribution of the application rate, this procedure leads to three classes with an approximately equal number of members.

Table 18.2. Productivity in terms of application rate.

CRITERION	APPLICATION RATE		
	Low	Intermediate	High
(1) Overall type frequency	<i>-(e)lings, -halve, -iter, -technisch</i>	<i>-(e)lijk, -erwijs, -tjes, -weg</i>	<i>-gewijs, -matig, -waarts</i>
(2) Proportion of non-established types	<i>-(e)lijk, -(e)lings, -weg</i>	<i>-halve, -iter, -tjes</i>	<i>-erwijs, -gewijs, -matig, -technisch, -waarts</i>
(3) Proportion of hapaxes	<i>-(e)lijk, -(e)lings, -weg</i>	<i>-erwijs, -halve, -iter, -matig, -tjes</i>	<i>-gewijs, -technisch, -waarts</i>
(4) Number of neologisms	<i>-(e)lijk, -(e)lings, -halve, -iter, -weg</i>	<i>-erwijs, -tjes, -technisch, -waarts</i>	<i>-gewijs, -matig</i>

From table 18.2 we infer that only the suffix *-gewijs* has a high score on all four criteria. In terms of application rate, it is the most productive suffix. The suffixes *-matig* and *-waarts* have a high score on three out of four criteria which indicates high productivity. The suffix *-technisch* has a low overall type frequency, but all types attested in the corpus are non-established and there is a high proportion of hapaxes, which is also indicative of fairly high productivity. The suffixes *-halve*, *-erwijs*, *-tjes* have intermediate values on the investigated criteria which suggests limited productivity. We find that the suffix *-(e)lijk* and *-(e)lings* score low on the criteria so that there are no indications that they are productive. For *-iter* there is an intermediate proportion of non-established types and hapaxes, but this result is negligible since the overall type frequency is almost zero (only three lexemes in absolute figures). As I already pointed out before, *-iter* is no available Dutch suffix.

On the basis of the results on the four criteria concerning application rate displayed in table 18.2, we are now able to give a more accurate account of productivity, see figure 18.6. The suffixes included in this investigation (except for *-iter*, which is no available Dutch suffix) may be set out on a scale ranging from unproductive to (highly) productive. I used the following procedure:

²⁷³ I am very grateful to Dr. Katrin Roth for her help.

- Classified as ‘unproductive’ are suffixes with a low score on all four criteria or on three out of four criteria.²⁷⁴
- Classified as ‘productive’ are suffixes with a high score on all four criteria or on three out of four criteria.
- All remaining suffixes are classified as ‘semi-productive’.

Figure 18.6. Degree of productivity of investigated suffixes.

PRODUCTIVITY SCALE								
Unproductive			Semi-productive			Productive		
<i>-(e)lings</i>	<i>-(e)lijk</i>	<i>-weg</i>	<i>-halve</i> , <i>-tjes</i> , <i>-erwijs</i>	<i>-technisch</i>	<i>-matig</i> , <i>-waarts</i>	<i>-gewijs</i>		

It was stated in the literature (see section 2.4.1) that none of the suffixes is very productive in contemporary Dutch. What figure 18.6 suggests, is that this generalisation has to be modified: compared to each other, several suffixes are actually fairly productive, some even highly productive. I shall look for further support for these results from the scope of the patterns.

18.2.3 Scope

Section 18.2.2 was concerned with the application rate of the investigated suffixes as one interpretation of productivity. Productivity may further be interpreted qualitatively in terms of the scope or potential domain of application of the derivational suffixes (see sections 4.2.6 and 6.3.4). The wider the scope, the more freely a suffix may be added to new base words. It may be assumed that the most flexible patterns are the most productive. On the basis of attested data (see inventories in the appendix) I was able to present a more detailed picture on the scope of the investigated suffixes than the existing literature (see table 2.3 and 2.4 on the properties of input words documented in the literature). The presentation in the following sections focuses on formal observables, namely (1) input categories; (2) input constraints regarding morphological complexity; (3) stratal input constraints.²⁷⁵ An overview is given in (4).

(1) Input categories

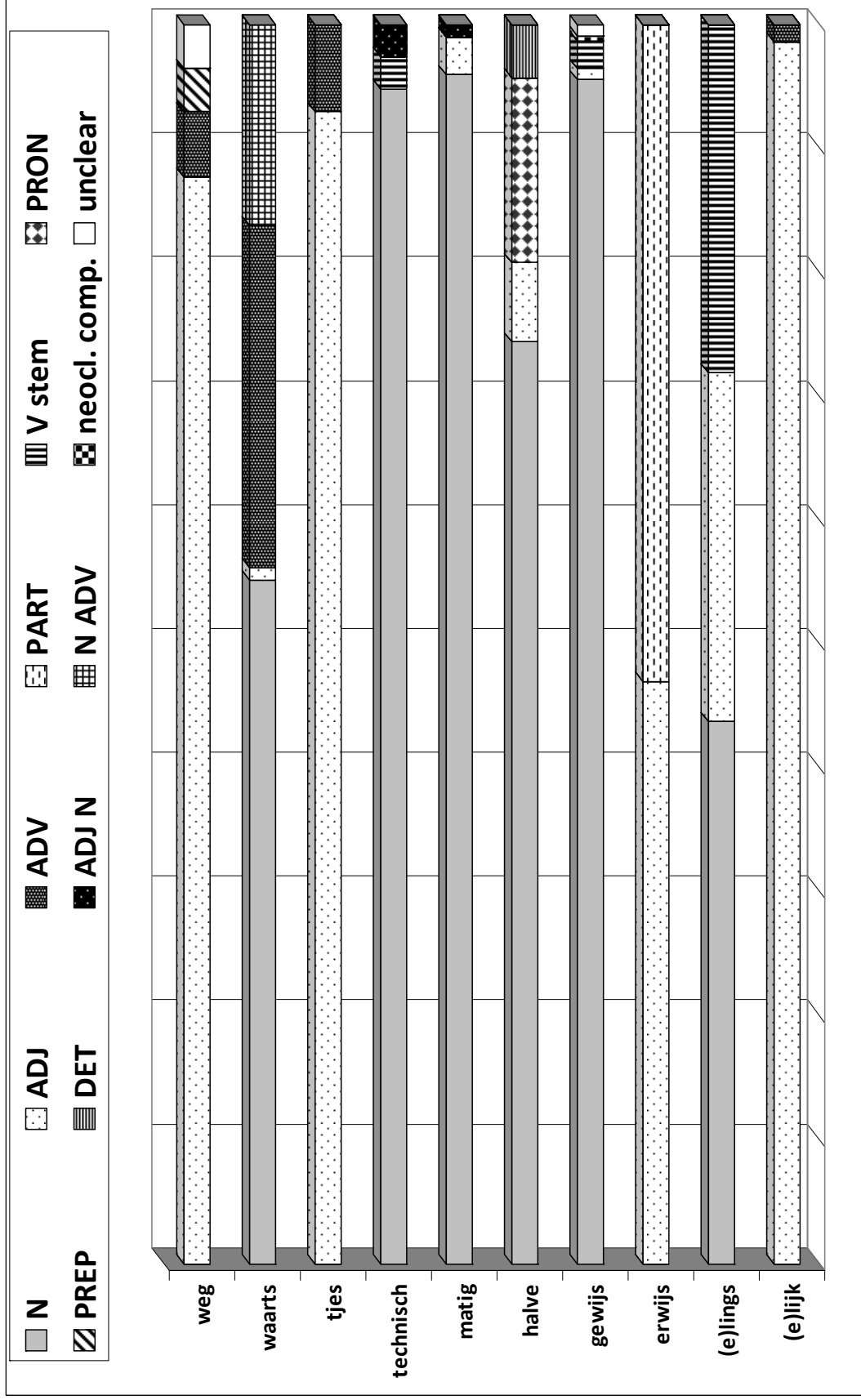
The bar chart in figure 18.7 gives an overview of the distribution of input categories per suffix based on the synchronic inventories of these suffixes.²⁷⁶ For details and figures I refer to the chapters on individual suffixes and to the inventories in the appendix.

²⁷⁴ The suffix *-weg* is available for new formation, see chapter 17; however, in comparison with the other suffixes in the investigated set, its degree of productivity is very low.

²⁷⁵ This presentation may suggest that the semantics of the base words are unimportant for the application of word-formation patterns, but these are actually crucial. It has even been argued that semantics are much more important than syntactic category information (e.g. Trips 2009: 235). For the presentation in this chapter, however, I have to restrict myself to formal observables, but I refer to the chapters on the individual suffixes for some information on semantic input constraints. Phonological input constraints have not been studied in this dissertation; this may be a matter for further investigation.

²⁷⁶ *-iter* was left out since I do not assume suffix status for this element, see above. Opaque lexemes are subsumed under ‘unclear’.

Figure 18.7. Distribution of input categories per suffix (%).



Inspecting figure 18.7, we find that the main input categories are N and ADJ, followed by V if we include both PART and stems. This corresponds with what was earlier documented in the literature (see table 2.3). In my synchronic inventory all suffixes occur with an adjectival input except for *-technisch*. *-halve* is the only suffix which may be attached to the categories of PRON and DET, *-erwijs* is the only suffix which may be added to the category of PART and *-weg* is the only suffix which may be added to PREP. A phrasal input is only found for *-waarts* and incidentally for *-matig* and *-technisch*.²⁷⁷

Although it is no exception that the suffixes are added to more than one input category, we may infer from the proportions that each suffix has a strong preference for a particular input category. For *-gewijs*, *-halve*, *-matig* and *-waarts* this is clearly the nominal category whereas *-(e)lijk*, *-tjes* and *-weg* are predominantly added to ADJ.²⁷⁸ A diverging suffix is *-erwijs* which allows ADJ and PART in almost the same proportion. The suffixes *-(e)lings* and *-waarts* prefer N but they also have fairly large proportions of lexemes with other input categories. To a lesser extent this also holds true for *-halve*.

From figure 18.7 we infer that the suffixes which are most flexible in terms of the number of different input categories which are recorded in the material are *-gewijs*, *-halve*, *-waarts* and *-weg*. They are each found with four different input categories. This is a greater flexibility than previously documented in the literature (see table 2.3).²⁷⁹ We find for instance that *-halve* is sometimes added to ADJ (see chapter 11).

(2) Input constraints regarding morphological complexity

Table 18.3 gives an overview of the morphological complexity of the prototypical input categories (simplex or complex base words) as found in the synchronic inventory of lexemes. The question marks indicate that there are no attestations for the input category in question in the synchronic inventory, but they seem structurally possible and/or they are attested on the internet. For detailed information I refer to the chapters on individual suffixes.

Table 18.3. Structural input constraints.

	[x] _N		[x] _{ADJ} /[x] _{ADV}		[x] _V /[x] _{PART}	
	SIMPLEX	COMPLEX	SIMPLEX	COMPLEX	SIMPLEX	COMPLEX
<i>-(e)lijk</i> ²⁸⁰	-	-	✓	✓	-	-
<i>-(e)lings</i>	✓	-	✓	-	✓	-
<i>-erwijs</i>	-	-	?	✓	✓	✓
<i>-gewijs</i>	✓	✓	?	(✓)	(✓)	?
<i>-halve</i>	✓	✓	?	(✓)	-	-
<i>-matig</i>	✓	✓	✓	(✓)	?	?
<i>-technisch</i>	✓	✓	-	-	(✓)	?
<i>-tjes</i>	-	-	✓	(✓)	-	-
<i>-waarts</i>	✓	(✓)	✓	✓	-	-
<i>-weg</i>	-	-	✓	✓	-	-

If we compare the empirical findings in table 18.3 with the information stated in the literature (see table 2.3), we may now make some specifications on the basis of attested data. For instance, we can confirm that *-weg* may take complex base words and that *-tjes* has a preference for simplex base words. On an empirical basis I show that *-(e)lings* is only recorded with simplex base words whereas

²⁷⁷ On the question whether we are really dealing with phrasal input in the case of *-waarts*, see chapter 16.

²⁷⁸ Recall that I only included deadjectival and deadverbial *-(e)lijk* in this investigation.

²⁷⁹ Notice that the base words for *-waarts* which I classified as ADV are sometimes classified in the literature as PREP. Exhibiting characteristics of both categories, they may be argued to have an intermediate status.

²⁸⁰ See note 278.

-matig may be added to both simplex and complex base words, which has not been noted earlier in the literature. We find that *-technisch*, too, allows both simplex and complex bases. We may infer from table 18.3 that the least flexible suffix is *-(e)lings*, which only allows simplex base words.

(3) Stratal input constraints

Table 18.4 gives an overview of stratal input constraints (Germanic or non-Germanic base words) for the prototypical input categories. The information is provided on the basis of the lexemes in the synchronic inventory (see appendix).

Table 18.4. Stratal input constraints.

	[X] _N		[X] _{ADI} /[X] _{ADV}		[X] _V /[X] _{PART}	
	Gmc.	non-Gmc.	Gmc.	non-Gmc.	Gmc.	non-Gmc.
<i>-(e)lijk</i>	-	-	✓	✓	-	-
<i>-(e)lings</i>	✓	-	✓	-	✓	-
<i>-erwijs</i>	-	-	✓	✓	✓	✓
<i>-gewijs</i>	✓	✓	(✓)	(✓)	(✓)	(✓)
<i>-halve</i>	✓	(✓)	(✓)	?	-	-
<i>-matig</i>	✓	✓	(✓)	(✓)	?	?
<i>-technisch</i>	✓	✓	-	-	(✓)	?
<i>-tjes</i>	-	-	✓	✓	-	-
<i>-waarts</i>	✓	✓	✓	?	-	-
<i>-weg</i>	-	-	✓	(✓)	-	-

If we compare the findings in table 18.4 with the observations documented earlier in the literature (see table 2.4), *-tjes* and *-waarts* turn out to be more flexible than previously documented: they may be added to non-native base words. We find that *-erwijs* more easily allows borrowed base words than previously documented, whereas borrowed base words are unusual for *-halve*. It can further be specified that *-(e)lings* is only added to native base words whereas *-matig* is easily added to borrowed base words. Finally, *-technisch*, too, allows both native and borrowed bases. What is generally striking is the high amount of English nominal base words for the Dutch suffixes (e.g. *-gewijs*). If a Dutch suffix may be easily added to recently borrowed English words, this may be taken as an indication for productivity.

(4) Gradient representation of suffix scope

From table 18.3-18.4 above we may infer that *-gewijs*, *-matig* and *-waarts* turn out to constitute flexible patterns. These findings concerning scope correspond with the results on the application rate in section 18.2.2, which are together strong indicators for productivity. One of the most restricted suffixes is *-(e)lings*, which does allow various input categories, but only morphologically simplex and native base words. This also corresponds with the findings on its application rate in 18.2.2.

The results in (1)-(3) reveal that some suffixes (partly) share the same scope. There is evidence for this in the synchronic inventory, e.g. we find the denominal pairs *ervaring-s-matig/ervaring-s-gewijs*, *design-matig/design-technisch* and exceptionally even three variants, *bedrijf-s-matig/bedrijf-s-gewijs/bedrijf-s-technisch*. Deadjectival pairs include *vlotjes/vlotweg*, *losjes/losweg*.

18.2.4 Scope and productivity from a diachronic perspective

In the diachronic part of the suffix descriptions one of the purposes was to trace changes in productivity for the investigated suffixes throughout the history of Dutch. For this purpose I investigated the basic formal characteristics of the base words recorded in the INL material diachronically. In each chapter on an individual suffix I presented basic observations on changes in the scope of the suffix. I counted the number of neologisms or new formations for each suffix per ct., i.e. the number of derivatives that were newly coined based on first attestation dates in the dictionary. This count included not only the types from the synchronic dataset but also additional types in the historical dictionaries (for the procedure, see methodology in section 6.4 and see appendix; see also note 271). I determined the proportion of new formations per ct. for each suffix (for the absolute numbers, see the chapters on individual suffixes).²⁸¹ The bar chart in figure 18.8 compares the proportion of new formations per ct. for each suffix. I left out *-iter*, since, as I already argued, *-iter* has never been and can still not be considered a suffix available for new formation (the overall number of types included in the material, i.e., words which cannot be borrowed from Latin, is restricted to four). For details and absolute figures I refer to the chapters on the individual suffixes.

²⁸¹ This too is not unproblematic, see chapter 6, e.g. there may be a bias in the INL material for the 18th ct. It should further be added that the data for the historical periods and contemporary Dutch are not balanced: INL dictionary material was used for the period until 1970, and corpus data were used for the period after 1970 (see chapter 6). A greater amount of data may be responsible for the rise in frequency in the 20th ct.

Any conclusions on the basis of these historical data should be handled with care (see chapter 6 on methodology), but we may infer some general tendencies. We may for instance infer from figure 18.8 that the suffix which became productive the soonest in Dutch is *-(e)lijk*: the highest proportion of new formations can be observed in the Early Middle Dutch material. Lexemes formed with *-(e)lijk* are already recorded in the Old Dutch period. Lexemes with *-waarts*, *-erwijs* and *-weg* already occur in Early Middle Dutch but their status is unclear. The same unclear situation remains in Middle Dutch when, all in all, few new formations are observed for the investigated suffixes. A dramatic change can be observed in the Early Modern Dutch period: the proportion of new formations with *-(e)lijk* and *-waarts* rises and in addition, *-(e)lings*, *-erwijs*, *-gewijs*, *-halve*, *-matig* and *-tjes* become productive. In the 17th ct., *-(e)lings*, *-halve*, *-tjes* and *-waarts* reach their most productive period in terms of the proportion of new formations.

In the Modern Dutch period, *-weg* becomes productive and produces its largest proportion of new formations throughout the history of Dutch. The number of neologisms with *-matig* is on the rise and a high number of new formations can still be observed for *-(e)lings*, *-erwijs*, *-gewijs*, *-halve*, *-tjes* and *-waarts*. In contrast, the number of new formations of *-(e)lijk* decreases dramatically in the Modern Dutch period. With the 20th ct. come some changes. The number of new formations with *-halve* and *-(e)lings* diminishes strongly. The expansion of *-matig* however continues and *-technisch* generates its first lexemes. Finally, in contemporary Dutch, the number of new formations with *-technisch* rises substantially. Moreover, *-erwijs*, *-gewijs* and *-matig* reach their most productive period in terms of the proportion of new formations.²⁸² The suffix *-waarts* too keeps generating many new lexemes. In contrast, the number of new formations with *-tjes* and *-weg* decreases and *-(e)lijk* and *-(e)lings* do not generate any new types.

18.3 The category of ‘modifying words’

This section focuses on the output lexemes of the investigated derivational patterns as ‘modifying words’, see section 4.3.4. On the basis of morphosyntactic properties, the complex modifying words can be classified as prototypical ADV, prototypical ADJ or intermediate items (18.3.1). The second point is the distribution of these complex lexemes across semantic modifier types (18.3.2).

18.3.1 Adverbs and adjectives

A basic problem which I identified in section 2.5.1 is the classification of output derivatives as either ADV or ADJ. I have shown that this classificational problem has its roots in the way ADV and ADJ as parts of speech are defined in the Dutch grammatical tradition (see chapter 3). On semantic-functional grounds, we may assume one continuum of ‘modifying words’ (see section 4.3.4). Contrary to ADV and ADJ this constitutes a cross-linguistically valid category. On morphosyntactic grounds we may assume a scalar distinction between adverbial and adjectival lexemes which is language-specific. In Dutch the defining criteria pertain to the morphosyntactic valency of lexemes, i.e. their use in syntactic structure (adverbial, predicative, attributive) and their morphological ability to inflect with the obligatory ending *-e* in prenominal position. Dutch prototypical ADV cannot be used as prenominal attributes and do not allow the inflectional ending *-e*.

In table 2.5, I have given an overview of the reported morphosyntactic valency of lexemes formed with the investigated suffixes in contemporary Dutch. My empirical study on the basis of attested data shows that this overview needs corrections. Particularly attributive use and inflection are found in the material for more suffixes than previously documented in the literature. An overview is given in table 18.5 (*-iter* is not included). The brackets indicate that a particular use is only incidentally

²⁸² The data for *-gewijs* should be handled with care. The diachronic inventory of *gewijs*-lexemes is entirely based on the lexemes in the synchronic inventory (see appendix to chapter 10).

recorded or restricted, e.g. when attributive use is limited to the use as premodifiers of infinitival N. Recall that for the variants *-gewijze/-erwijze* and for *-halve*, inflection cannot be separated from the form of the suffix, which ends in a schwa, hence the question marks for inflection in table 18.5.

Table 18.5. Morphosyntactic valency of output derivatives.

	ADVERBIAL	PREDICATIVE	ATTRIBUTIVE	INFLECTION
-(e)lijk	✓	✓	✓	✓
-(e)lings	✓	✓	✓	✓
-erwijs	✓	-	(✓)	?
-gewijs	✓	✓	✓	?
-halve	✓	-	✓	?
-matig	✓	✓	✓	✓
-technisch	✓	-	✓	✓
-tjes	✓	✓	(✓)	-
-waarts	✓	✓	✓	✓
-weg	✓	-	(✓)	(✓)

Attributive use is frequent for *-gewijs/-gewijze*. The existence of a form with schwa may be an advantage or even a trigger for attributive use. However, attributive use is much less common for *halve*-derivatives and lexemes formed with *-erwijs/-erwijze* do not normally allow attributive use, except incidentally as premodifiers of infinitival N. The suffix *-tjes* shuns inflection, which is probably due to phonological reasons. It restricts the morphosyntactic valency of prototypical ADJ to the extent that its output lexemes are invariable, i.e. they are not allowed in attributive position in a syntactic context where inflection is required. Thus, *tjes*-derivatives are only used attributively in restricted conditions (but they are freely used predicatively). For *-weg* the situation is unclear. In the corpus we only find attributive use in contexts which do not require inflection. That inflection is structurally possible is however shown by internet examples. Although they may be perceived as marked, these examples indicate that *-weg* may be losing its position as a prototypically adverbial suffix.

On the basis of the findings from table 18.5 we may set out Dutch suffixes on a continuum of grammatical functions going from prototypically adverbial to prototypically adjectival suffixes with intermediate items. Prototypically adverbial suffixes produce ‘prototypical ADV’: they restrict the morphosyntactic valency of the input word in such a way that derivatives are normally not allowed in the prenominal attribute slot particularly in a context where inflection is required. According to this definition, we find that the inventory of Dutch adverbial suffixes is much smaller than it has previously been claimed to be, e.g. if one consults the list in (1.1). The result is shown in figure 18.9.

Figure 18.9. Dutch ‘adverbial’ and ‘adjectival’ suffixes in a gradient approach.

CONTINUUM OF GRAMMATICAL FUNCTIONS		
Adverbial suffix	Intermediate	Adjectival suffix
<i>-erwijs</i> <i>-tjes</i> <i>-weg</i>	<i>-halve</i>	<i>-(e)lijk, -(e)lings, -gewijs, -matig, -waarts, -technisch</i>

Interestingly, the only prototypical adverbial suffixes are the ones with predominantly adjectival base words. Denominal derivation typically results in prototypical ADJ or intermediate items (*-halve*). A topic for further research would be the connection between syntactic use and specific modifier types more closely. Some tendencies are pointed at in the individual chapters. For instance, only qualifying lexemes formed with *-(e)lijk* may be used attributively and inflected while derivatives which function

as quantifiers or interpersonal lexemes are not used prenominally and are not inflected (see chapter 7).

18.3.2 Modifier types

The problem of the semantic interpretation of the output lexemes of our derivational patterns was introduced in section 2.5.2. There was no systematic account of the potential functions of derived modifying words in Dutch. The cross-linguistically valid classification of modifier types presented in this dissertation (see 4.4) provided a framework for the semantic interpretation of modifying words in Dutch. By a qualitative inspection of attested data, I tried to determine the functional potential of the Dutch derivatives. Through language comparison, we found that Dutch may encode a greater variety of modifier types through word formation than it has been acknowledged in the literature. Dutch modifying lexemes formed by the adverbial suffixes have previously predominantly been associated with descriptive functions. The empirical studies in this dissertation provide evidence that interpersonal meanings are also encoded by the ‘adverbial’ suffixes.

Table 18.6 sets out the distribution of the investigated suffixes across modifier types. This figure may be compared with table 4.8.

Table 18.6. Investigated Dutch derivational suffixes across modifier types on an empirical basis.

LEVEL	MODIFIER SUBFUNCTION		DUTCH SUFFIX
Descriptive modifiers	classifier		<i>-(e)lings, -gewijs, (-halve), -matig, -technisch, -waarts</i>
	qualifier		<i>-(e)lijk, -(e)lings, -erwijs, -gewijs, -halve, -matig, -technisch, -tjes, -weg</i>
	quantifier		<i>(-)(e)lijk, -(e)lings, -weg, -tjes</i>
	localiser	time	<i>(-)(e)lijk, -(e)lings, -tjes</i>
		place	<i>-(e)lings, -waarts</i>
Inter-personal modifiers	domain modifier		<i>-gewijs, -matig, -technisch</i>
	propositional modifier	modal	<i>-(e)lijk, -erwijs</i>
		evaluation	<i>(-)(e)lijk, -erwijs, -weg</i>
	speech-act modifier		<i>-halve, -weg</i>

Table 18.6 makes it very clear that one function may be encoded by a variety of linguistic forms. The modifier type with which the largest variety of investigated Dutch suffixes are associated is the qualifying function. Apart from *-waarts*, all investigated suffixes can be associated with this function. The classifying function may also be encoded by many different suffixes and more so than previously documented (compare table 4.8). It could be confirmed that quantifiers and time localisers are only marginally derived by suffixes, whereas for place localisers, *-waarts* is highly productive while *-(e)lings* is now extinct. Together with *-tjes* these suffixes are only associated with encoding descriptive functions.

The other investigated suffixes, however, are polyfunctional: they derive not only descriptive but also interpersonal modifiers. I already proposed elsewhere (Diepeveen 2011a-b, Diepeveen 2012, Diepeveen *submitted*) that Dutch suffixes may be associated with interpersonal modification types. It could be confirmed that contemporary Dutch has three productive suffixes at its disposal for the creation of domain modifiers. In addition, it could be shown that Dutch has a class of speech-act lexemes. The semi-productive suffix *-weg* occurs both in evaluative and speech-act modifiers. These findings indicate that speakers of Dutch do not have to resort to phrasal strategies for encoding interpersonal modification but that they may also rely on word formation. They may even have more than one suffix at their disposal. However, see section 18.5.2: possibilities in the language system may not (yet) be conventionalised in the language community.

18.4 Modification and word formation

Three central issues are addressed in this section: the role of suffixes as modifiers of words (18.4.1), a functional-semantic shift (18.4.2) and a syntactic shift (18.4.3).

18.4.1 Suffixes as modifiers of words

As pointed out in chapter 4, one of the aims in this dissertation was to investigate the semantic contribution that the suffixes may add to their base words, i.e., to determine their potential of ‘modifying’ existing words. In each chapter or suffix description I established a semantic spectrum based on a set of (cross-linguistically valid) values (see chapter 4). In table 18.7, I take the opposite perspective and set out for each semantic value which patterns have the potential to contribute this value.²⁸³ This gives us an overview of the extent to which the investigated suffixes are semantically comparable or unique (irrespective of productivity). For the notion of suffix synonymy, I refer to chapter 4.

Table 18.7. Semantic values contributed by investigated suffixes.

VALUE	PATTERN	EXAMPLE
PRIMARY	APPROXIMATION [[x] _{ADJ} (e)lijk] _{ADJ} [[x] _{ADJ} tjes] _{ADV?}	<i>kouw-elijk</i> ‘rather cold’ <i>bleek-jes</i> ‘rather pale’
	CAUSE [[x] _N halve] _{ADV?}	<i>ouderdom-s-halve</i> ‘because of old age’
	COMPLIANCE [[x] _N matig] _{ADJ} [[x] _{ADJ} erwijs] _{ADV}	<i>recht-matig</i> ‘legitimate(ly)’ <i>logisch-erwijs</i> ‘logically, according to logical principles’
	DIRECTION [[x] _N (e)lings] _{ADJ} [[x] _N waarts] _{ADJ} [[x] _{ADV} waarts] _{ADJ} [[x] _N [x] _{ADV} waarts] _{ADJ}	<i>rugg-elings</i> ‘backwards’ <i>huis-waarts</i> ‘to home’ <i>buiten-waarts</i> ‘to the outside’ <i>mond-in-waarts</i> ‘into the mouth’
	DISTRIBUTIVE [[x] _N gewijs] _{ADJ} [[x] _N (e)lings] _{ADJ}	<i>druppel-s-gewijs</i> ‘drop by drop, in drops’ <i>beurt-elings</i> ‘by turns’
	EVALUATIVE [[x] _{ADJ} erwijs] _{ADV} [[x] _{PART} erwijs] _{ADV} [[x] _{ADJ} iter] _{ADV} [[x] _{ADJ} (e)lijk] _{ADV} [[x] _{ADJ} weg] _{ADV}	<i>komisch-erwijs</i> ‘funnily (enough)’ <i>beschamend-erwijs</i> ‘shamefully (enough)’ <i>ideal-iter</i> ‘ideally (enough)’ <i>wijs-elijk</i> ‘wisely’ <i>dom-weg</i> ‘stupidly (enough)’
	FORM [[x] _N matig] _{ADJ} [[x] _N gewijs] _{ADJ} [[x] _N (e)lings] _{ADJ}	<i>cijfer-matig</i> ‘in figures’ <i>kruis-gewijs</i> ‘crosswise’ <i>kruis-elings</i> ‘crosswise’
	GOAL [[x] _N halve] _{ADV?}	<i>veiligheid-s-halve</i> ‘for safety’
	ILLOCUTION [[x] _{ADJ} weg] _{ADV}	<i>kort-weg</i> ‘briefly, to put it shortly’
	INSTRUMENT [[x] _N matig] _{ADJ} [[x] _N gewijs] _{ADJ} [[x] _{PART} erwijs] _{ADV}	<i>hand-matig</i> ‘by hand, manual(ly)’ <i>liaan-gewijs</i> ‘by lianas’ <i>vragend-erwijs</i> ‘by asking’
	MANNER [[x] _{ADJ} erwijs] _{ADV} [[x] _V gewijs] _{ADJ} [[x] _V (e)lings] _{ADJ}	<i>natuurlijk-erwijs</i> ‘naturally, in a natural way’ <i>kruip-s-gewijs</i> ‘in a crawling way, by crawling’ <i>rak-elings</i> ‘in a grazing manner, closely’
	MODAL [[x] _{ADJ} erwijs] _{ADV}	<i>logisch-erwijs</i> ‘logically, which is logical’
	ORIGIN [[x] _N matig] _{ADJ} [[x] _N halve] _{ADV?} [[x] _N (e)lings] _{ADJ}	<i>instinct-matig</i> ‘instinctive(ly)’ <i>ambt-s-halve</i> ‘by virtue of one’s office’ <i>zijde-lings</i> ‘from aside’

²⁸³ Notwithstanding these generalisations we should of course be aware of idiosyncratic properties and additional meaning aspects in individual lexemes. I refer to the suffix descriptions for examples.

		[[x] _N <i>waarts</i>] _{ADJ} [[x] _{PRON} <i>halve</i>] _{ADV}	<i>zij-waarts</i> 'from the side' <i>mijn-ent-halve</i> 'from me'
	QUANTIFIER	[[x] _{ADJ} (<i>e</i>) <i>lijk</i>] _{ADV} [[x] _{ADJ} <i>weg</i>] _{ADV}	<i>hog-elijk</i> 'highly' <i>grof-weg</i> 'roughly (measured)'
	REFERENCE	[[x] _N <i>matig</i>] _{ADJ} [[x] _N <i>gewijs</i>] _{ADJ} [[x] _N <i>technisch</i>] _{ADJ} [[x] _V <i>technisch</i>] _{ADJ} [[x] _{PRON} <i>halve</i>] _{ADV}	<i>gedrag-s-matig</i> 'behavioural' <i>schoen-s-gewijs</i> 'as far as shoes are concerned' <i>agenda-technisch</i> 'as far as the schedule is concerned' <i>type-technisch</i> 'as far as typing is concerned' <i>mijn-ent-halve</i> 'as far as I am concerned'
	SIMILARITY	[[x] _N <i>matig</i>] _{ADJ} [[x] _N <i>gewijs</i>] _{ADJ} [[x] _{ADJ} (<i>e</i>) <i>lijk</i>] _{ADJ}	<i>robot-matig</i> 'robotic, like a robot' <i>dakpan-s-gewijs</i> '(overlapping) like roof-tiles' <i>ziek-elijk</i> 'morbid'
	SPATIAL LOC.	[[x] _N (<i>e</i>) <i>lings</i>] _{ADJ} [[x] _N [x] _{ADV}] _{ADVP} <i>waarts</i>] _{ADJ}	<i>rugg-elings</i> 'on the back' <i>land-in-waarts</i> 'inland'
	TEMPORAL LOC.	[[x] _{ADJ} (<i>e</i>) <i>lings</i>] _{ADJ}	<i>kort-elings</i> 'shortly, soon'
	TENDENCY	[[x] _{ADJ} (<i>e</i>) <i>lijk</i>] _{ADJ}	<i>bang-elijk</i> 'timid'
SECONDARY	AFFECTIVE	[[x] _{ADJ} <i>tjes</i>] _{ADV?} [[x] _{ADV} <i>tjes</i>] _{ADV}	<i>warm-pjes</i> 'snugly' <i>saam-pjes</i> 'together'
	IRONY	[[x] _{ADJ} <i>tjes</i>] _{ADV?}	<i>braaf-jes</i> 'dutifully, obediently'
	MITIGATION	[[x] _{ADV} <i>tjes</i>] _{ADV}	<i>stiekem-pjes</i> 'secretly, quietly'
	PEJORATIVE	[[x] _{ADJ} (<i>e</i>) <i>lijk</i>] _{ADJ}	<i>ouw-elijk</i> 'oldish, elderly'
	REINFORCEMENT	[[x] _{ADJ} (<i>e</i>) <i>lijk</i>] _{ADJ} [[x] _{ADJ} <i>tjes</i>] _{ADV?} [[x] _{ADJ} <i>weg</i>] _{ADV}	<i>zoet-elijk</i> 'sticky-sweet' <i>lekker-tjes</i> '(very) nicely' <i>sloom-weg</i> 'sluggishly'
STYLISTIC	FORMAL	[[x] _{ADJ} <i>iter</i>] _{ADV} [[x] _{ADV} (<i>e</i>) <i>lijk</i>] _{ADV}	<i>global-iter</i> 'global(ly)' <i>laatst-elijk</i> 'recent(ly)'
	INFORMAL	[[x] _{ADV} <i>tjes</i>] _{ADV}	<i>saam-pjes</i> 'together'
PLEONASTIC		[[x] _{ADJ} <i>matig</i>] _{ADJ} [[x] _{ADJ} <i>erwijs</i>] _{ADV} [[x] _{ADJ} <i>gewijs</i>] _{ADJ} [[x] _{ADJ} (<i>e</i>) <i>lijk</i>] _{ADJ} [[x] _{ADJ} (<i>e</i>) <i>lings</i>] _{ADJ} [[x] _N [x] _{ADV}] _{ADVP} <i>waarts</i>] _{ADJ}	<i>privé-matig</i> 'private(ly)' <i>mogelijk-erwijs</i> 'possibly' <i>theoretisch-gewijs</i> 'theoretically' <i>herhaald-elijk</i> 'repeated(ly)' <i>blind-elings</i> 'blind(ly)' <i>berg-op-waarts</i> 'uphill'

Table 18.7 shows that some of the Dutch investigated suffixes mainly contribute a secondary value, e.g. the strongly expressive suffix *-tjes*, which is absolutely unique. The suffix *-weg* may reinforce an inherent negative or positive quality. Among the suffixes with a primary semantic value there are some with a fairly unique contribution, e.g. *-halve* and *-waarts*.

On the other hand, we also find rival suffixes: patterns which share the same primary semantic value and which may be added to the same base word. It has already been pointed out that *-gewijs*, *-matig* and *-technisch* are rival suffixes in terms of their scope and the modifier functions they may encode; and they also have an overlapping semantic spectrum. This formal variety in Dutch is another piece of evidence that the Humboldt-principle does not correspond to linguistic reality (compare Hüning 2004: 548-9 on *-achtig*). Nuyts (2001: 30) argues: "If there are alternative expressions for one semantic category, then there must be reasons for their existence, which cause them to be used in (sometimes slightly) different ways". It is a topic for further investigation whether the variation on the field of modification is indeed motivated and if so, how rival suffixes organise the division of labour.

It may be inferred from table 18.7 and from the chapters on individual suffixes that certain suffixes make a very restricted lexical contribution whereas others have a wider semantic spectrum. Thus there is a continuum ranging from semantically specialised to polysemous suffixes. The position of the investigated suffixes may be determined on the basis of the number of semantic values they convey. Conveying only one semantic value, *-technisch* is highly specialised, and so is *-waarts* with three values which may all be associated with some aspect of location. Conveying four values, *-halve* and *-weg* are intermediate. The other suffixes have a wider semantic spectrum, conveying six or more values. This is visualised in figure 18.10.

Figure 18.10. Polysemy of Dutch 'adverbial' suffixes.

POLYSEMY SCALE					
Specialised		Intermediate		Polysemous	
<i>-technisch</i>	<i>-waarts</i>	<i>-halve, -weg</i>	<i>-erwijs</i>	<i>-gewijs, -matig, -tjes</i>	<i>-(e)lings, -(e)lijk</i>

What this account has made clear is that the Dutch adjectival and adverbial suffixes combine grammatical and lexical functions. They may not only transcategorise existing words (e.g. N to modifying words, prototypical ADJ to prototypical ADV) but they may also 'modify' existing words, i.e. contribute a range of primary and secondary semantic values. Unfortunately there was no room in this dissertation for a complete account of the semantic values of each suffix with quantitative aspects of their relative frequency and productivity. This is also a topic worth further investigation.

18.4.2 Functional shift

There is a wide literature on the direction of semantic-functional change. A major functional change has been documented in the literature involving the functional category of modification and its linguistic encoding across languages (see 5.2). More specifically, the direction is from descriptive to interpersonal modification, i.e., from the representational level (description of the event) to the interpersonal level (the exchange). First of all, attested language data of English and German show that descriptive modifiers are historically primary whereas interpersonal modifier types emerged later. Secondly, scholars found that there has been a recent explosion of interpersonal modifiers, particularly evaluative and domain modifiers. In English and German, this functional shift co-occurs with a change from phrasal expression to a more economical mode of expression, namely word formation, for encoding the interpersonal modifier types.

The synchronic investigation already revealed that interpersonal meanings may indeed be encoded by the investigated suffixes in contemporary Dutch. The diachronic investigation served to find out on the basis of attested historical Dutch data when these suffixes became associated with interpersonal modifier types and which diachronic processes may have taken place to enable this. Figure 18.11 gives an overview of the chronology of descriptive functions (marked in light grey) and interpersonal functions (marked in darker grey) for suffixes associated with both subclasses, on the basis of historical Dutch data.

Figure 18.11. Chronology of descriptive and interpersonal functions.

	OD	EMD	MD		EModD		ModD				CD
	<1200	>1200	>1300	>1400	>1500	>1600	>1700	>1800	>1900	>1950	>1970
-(e)lijk	qualifying										
	modal					?evaluative					
-erwijs						qualifying					
						?evaluative		modal, evaluative			
-gewijs			qualifying								
										domain	
-halve					qualifying						
						?speech act					
-matig					qualifying		classifying				
										domain	
-technisch										class., qual.	
											domain
-weg							qualifying				
								evaluative, speech act			

The investigation of Dutch provides further evidence for the cross-linguistic functional shift from descriptive to interpersonal modification documented in the literature (see chapter 5). This functional shift was enabled in most cases through processes of meaning extension and a change in semantic scope of descriptive derivatives. Thus, *-gewijs*, *-technisch* and *-matig* may have developed the domain function through their use as qualifiers of *verba sentiendi* in participle clauses or through their use as prenominal classifiers. A semantic shift took place whereby the derivative was, so to say, lifted out of the phrasal or clausal expression and could perform the domain function autonomously. Similarly, the suffix *-weg* may have developed its speech-act modifying function through its use as a qualifier with *verba dicendi* in participle clauses. For *-erwijs*, Van de Velde (2005) has already shown that it underwent a semantic shift whereby qualifiers of manner of the verbal predicate were reinterpreted as evaluations of the entire proposition. He has demonstrated by quantitative data that this interpersonal function became prototypical to deadjectival *erwijs*-lexemes. It would be an interesting topic for further research whether similar prototypicality effects can be established for the other suffixes, i.e., whether these may be becoming special markers of interpersonal modifier types.

18.4.3 Syntactic shift

A syntactic shift has been referred to in the literature on Dutch, English and German involving ADV as modifying words (see section 5.3). There are two aspects to this syntactic shift: the expansion of the syntactic valency of prototypical ADV (1) and the extension of the attributive modifier slot of the NP (2). These aspects have been investigated for words derived by suffixes with the traditional label of 'adverbial suffixes' and for *-matig* and *-technisch*.

(1) Expansion of the syntactic valency of prototypical ADV

The aim was to find out on the basis of attested historical Dutch data when attributive use of derived ADV is first recorded in Dutch, whether it is indeed a recent phenomenon, and if it may have been increasing from a diachronic point of view. My dissertation provides further evidence for the adjectivisation of original ADV. As shown in table 18.5 above, attributive use of derived modifiers is more widespread among the adverbial suffixes in present-day Dutch than it has been assumed so far.

However, my qualitative investigations of historical Dutch data show that the phenomenon is not as new as it has been assumed to be.

Prenominal attributive use of lexemes formed with the investigated suffixes can already be detected in earlier phases of Dutch. Although *-(e)lijk* is a special case, its derivatives have been used attributively throughout time, although there may be a trend giving rise to more cases, even for interpersonal lexemes. Words formed with *-waarts* have been used attributively from the moment the pattern was productive in the Early Modern Dutch period. Attributive use of words formed with *-gewijs* has been discussed abundantly in chapter 10; the phenomenon is not at all new but it was already widespread in the 16th ct., particularly in scientific literature. Words formed with *-(e)ling* without the final *-s* exhibit attributive uses in Early Modern Dutch, but there are also many examples for derivatives with the reanalysed suffix, i.e., *(e)lings*-lexemes, in the 17th ct. Starting with the 19th ct., even deadjectival formatives are found in attributive position. Words formed with *-halve* are incidentally found in the prenominal attributive slot in the 19th ct., perhaps more frequently from the 20th ct. onwards. In the material, derivatives with *-tjes*, *-weg* and *-erwijs* are only used attributively to infinitival N and only incidentally so. Perhaps an early example for *-weg* is found in the 16th ct., an unambiguous one in the 19th ct. and also for *-tjes*, whereas for *-erwijs* examples are only found in contemporary Dutch. Recent internet examples show that attributive use may be expanding to non-verbal N for *-weg*; this use is not acceptable to all native speakers (particularly when there is an inflectional ending).

It is interesting that this structural potential of prenominal attributive modification has existed for the derived lexemes for such a long time, but that its actual exploitation seems to exhibit a remarkable rise in the Modern Dutch period (compare the observations in individual chapters, although further, quantitative research is required). Perhaps there is a connection with the growing desire of the Dutch language user for more economical expression.

Erben (2006: 132) has claimed for German *-mäßig* and *-weise* that one of the reasons why they have become so productive in contemporary Dutch is the fact that they produce flexible items which may be used both adverbially and attributively. It is striking that the other German suffixes do not allow attributive use, e.g. *-lings* and *-wärts* whereas their Dutch counterparts do. Recall that German has *-wärtig* for deriving directional ADJ.

(2) Extension of the attributive modifier slot of the NP

The second aspect of the syntactic shift documented in the literature concerns the extension of the attributive modifier slot (see section 5.3.2). Not only descriptive modifiers (e.g. degree ADV) occur as adverbial premodifiers, but in recent times, also interpersonal modifiers may enter this slot. My qualitative inspection of Dutch corpus data has found evidence in support of this development.

Derived descriptive modifiers occur as adverbial premodifiers in Early Modern Dutch: degree modifiers formed with *-(e)lijk* occur as premodifiers in the 16th ct. and descriptive modifiers with *-(e)lings* in the 17th ct. Both patterns are found more often in premodifying position in the Modern Dutch period. Premodifying use is further recorded for *gewijs*-derivatives, *erwijs*-derivatives, *tjes*-derivatives and *waarts*-derivatives in the 18th ct. They are followed by *halve*-derivatives, *matig*-derivatives and *weg*-derivatives in the 19th ct. Finally, (borrowed) *iter*-lexemes occur as premodifiers in the 20th ct. and *technisch*-derivatives exhibit this use in contemporary Dutch. Expanded NPs with complex premodifiers are widespread in contemporary Dutch. For some suffixes this use is more widespread than for others; for *-gewijs*, for instance, attestations are numerous. The phenomenon that interpersonal modifiers enter the attributive modifier slot of the Dutch NP is a fairly recent phenomenon for which evidence was found in this dissertation, but which requires further

investigation. Thus, Dutch empirical evidence provides further evidence in favour of Rijkhoff's (2008a) claim that NPs accommodate the same types of modifier categories as clauses.

18.5 Dutch, English and German in contrast

The final section of this chapter brings together some considerations on Dutch in contrast with English and German, first of all with respect to the notions of adverbial and adjectival morphology (18.5.1) and secondly, with respect to the role of word formation for encoding modification (18.5.2).

18.5.1 Adverbial and adjectival morphology

It is widely known that throughout the history of English, ADV marking by *-ly* was regularised and resulted in a formal demarcation of a category of adverbially used words (see section 3.3.3). In the literature the grammatical function of *-ly* as a suffix for syntactic recategorisation has been stressed repeatedly. This has been one of the reasons for scholars to situate *-ly* on the inflectional end of the derivational-inflectional continuum of morphemes (see section 4.2.4 for argumentations).

That English diverges from Dutch and German in terms of adverbial marking has also been pointed at in the literature. Thus, I referred to the shared history of Dutch and German ADV and ADJ, which throughout time display a growing degree of overlap (see chapter 3). As a result of diachronic developments, unmarked ADJ may be used adverbially. In the literature a grammatical function of adverbialisation has been assumed for the suffixes connected with Dutch and German ADV formation. On the basis of my integrated approach to ADJ and ADV, I have critically investigated this grammatical role. I have pointed out in section 18.3.1 first of all that the inventory of Dutch adverbial suffixes is actually much smaller than it has previously been claimed to be. From a contrastive perspective it should be stressed that what is an adverbial suffix is language-specific, i.e., genetically related suffixes in German and Dutch (and English, for that matter) need not both be adverbial suffixes. This may be inferred from figure 18.12 in which I have tried to set out the different functions of shared suffixes. Notice that Dutch has an adverbial suffix of its own which it does not share with English and German, namely the suffix *-tjes* (which is only found in Afrikaans and Frisian) (see chapter 15).

Figure 18.12. Dutch, German and English 'adverbial' and 'adjectival' suffixes in a gradient approach.

		CONTINUUM OF GRAMMATICAL FUNCTIONS			
		Adverbial suffix		Intermediate	Adjectival suffix
DUTCH		<i>-erwijs</i>	<i>-tjes</i> <i>-weg</i>	<i>-halve</i>	<i>-(e)lijk, -(e)lings, -gewijs, -matig, -waarts, -technisch</i>
GERMAN		<i>-erweise, -halben/halber, -lings, -wärts, -weg</i>			<i>-lich, -mäßig, -technisch, -weise</i>
ENGLISH		<i>-ly, -wards</i>		<i>-ward, -wise</i>	

18.5.2 Modification and word formation

As pointed out earlier, ADJ and ADV may be treated together on the basis of their shared function of modification, but it may be argued that suffixes, too, may function as modifiers, namely as modifiers of existing words. For the Dutch suffixes in my investigation this approach was discussed in 18.4.1 where the possible semantic contributions of these suffixes have been listed. It was pointed out in the chapters on the individual Dutch suffixes that they often have contributions in common with their German equivalents. For the details I refer to these chapters. It is striking that Dutch and German have a set of genetically related suffixes which may contribute specific semantic, expressive, or stylistic values to modifying words, whereas equivalent suffixes are absent in English apart from *-wards* and *-wise*. As for *-ly*, its semantic contribution is very vague, which may be seen as an additional argument in favour of an inflectional analysis of this suffix. The foregoing observations provide further evidence for the claim by Van Haeringen (1956: 60) that the Dutch and German word-formation systems are very similar when it comes to derivation, whereas the English word-formation system is different.

It is the vagueness of English *-ly* which enables *ly*-ADV to be highly polyfunctional modifying words. They are found across all modifier types and individual lexemes may perform different modifying functions (see chapter 4). Dutch and German derived modifying words, too, are to some extent polyfunctional. I refer to section 18.3.2 for observations on the modifier functions with which the investigated Dutch suffixes may be associated. If we compare these possibilities with the equivalent suffixes in German we find structural similarities. For instance, Dutch and German share suffixes for the creation of domain modifiers (Dutch *-matig* and *-technisch*, German *-mäßig* and *-technisch*). However, Dutch also shares the possibility of *-gewijs* to encode domain modification with English *-wise*. There are also equivalences when it comes to encoding evaluative meanings: Dutch may use *-erwijs*, similarly to German *-erweise*. Historically, the observed structural similarities between the languages may be partly due to language contact and partly to independent parallel developments (see chapters on individual suffixes for discussion).

From a diachronic point of view, the use of derivatives in interpersonal functions is younger than their use in descriptive functions (see section 18.4.2). This can also be inferred from the fact that Dutch speakers cultivated *-weg* for encoding interpersonal functions (evaluative and speech-act modification). What the structural similarities noted above suggest, is that there is a converging development in Dutch, English and German towards the encoding of modification and its subfunctions by single (complex) lexemes.

There are, however, differences between Dutch, English and German as to what extent shared structural possibilities are exploited or conventionalised in the language community. Whereas the use of a certain suffix with a certain function is established as a normal realisation in one language, it may be perceived as marked for the equivalent suffix in the other language even if these are closely related. For instance, German uses *-erweise* much more systematically for encoding evaluative modification than Dutch uses *-erwijs*. The same holds for German *-mäßig* and Dutch *-matig* for both qualifying and domain modification. English also uses *-wise* more systematically in domain modifiers than Dutch uses *-gewijs*. All in all, Dutch does not exploit its word-formation patterns for encoding interpersonal modifiers as much as English and German. An explanation for this difference between system and norm may be that Dutch uses phrasal strategies for encoding modification very productively and that these constitute the normal realisation of interpersonal functions. I already proposed the importance of descriptive phrases in Dutch with the PREP *qua* for domain modification and with the modifier *genoeg* for evaluative modification (see sections 4.4.7, 4.4.9 and see Diepeveen 2011a and Diepeveen *submitted*). It is a topic for further investigation how phrasal strategies and derivational strategies in Dutch organise the division of labour and it remains to be seen in which direction further developments will go.

18.6 Final remarks

Dutch word formation and its history represent a wide unexplored field (Hüning 2009a, Hüning/Schlücker 2010). My dissertation on the subfield of adverbial morphology represents a contribution by which I hope to have motivated colleagues to carry out further research.

This empirical investigation on Dutch suffixes has shown that the label ‘adverbial morphology’ needs a different definition than the one it has previously received in the literature. Adverbial and adjectival morphology are no discrete categories but they are best viewed as scalar notions. The distinction is motivated by the morphosyntactic properties of the output words of the patterns. In Dutch, these range from invariable lexemes restricted to non-attributive positions (prototypical ADV) to lexemes which are fully flexible (prototypical ADJ).

This dissertation has shown once more the value of a diachronic perspective for understanding synchronic structure (compare Givón 1979: 271). Conversely, it was confirmed that phenomena of language change can only be adequately described when synchronic and diachronic methods are combined (Habermann 2002: 42). Diachronic data are essential both to account for language-specific synchronic phenomena and to explain cross-linguistic patterns of divergence.

Finally, I would like to stress the merits of a contrastive approach as a heuristic method. Apart from Dutch, the languages involved in this dissertation include the related West-Germanic languages English and German (occasionally, I also referred to Afrikaans and Frisian). Contrastive observations help expand the knowledge of Dutch word formation strategies considerably, so that a more accurate description of Dutch can be obtained. By a comparison with related languages, specifically Dutch trends can be revealed. At the same time, the observations on Dutch may be helpful for disclosing specific aspects of English and German word formation (compare van der Auwera 2012).

The contrastive approach can only unfold its full merits when it is founded on universal semantic-functional concepts. In this way, it is not only valuable for structural description but it may also prove helpful for typological description: contrastive observations may contribute to our understanding of the overall make-up of human language. Thus, in a more general sense, this dissertation may have contributed to our understanding of how the universal function of modification is linguistically encoded.

Appendix

Appendix

Introduction

This appendix is structured parallel with the suffix descriptions in chapters 7-17. For each suffix, the synchronic inventory (1) and the diachronic inventory (2) are presented as separate tables. On the basic methodology behind data retrieval, see chapter 6.

1 Conventions for presentation: the synchronic inventory

From the search result all lexemes which can be considered complex adverbs (ADV) or adjectives (ADJ) formed with the investigated suffix were included in the synchronic inventory. The total number of lexeme types is mentioned in the upper row. The table is organised along the input categories which are ordered from top to bottom according to type frequency, which is mentioned in the leftmost column. Decisions involving particular input categories, modifying words and phrases were in general made on the basis of Van Dale (2005). The ADJ/ADV distinction is based on the morphosyntactic criterion in chapter 4: I classified as ADV lexemes which Van Dale (2005) classified as ADV or predicative ADJ, i.e., lexemes which may not be used attributively and do not allow inflection.

With each input category, lexeme types are presented in alphabetical order. Their spelling is adapted to the latest Dutch spelling regulations. The investigated suffix is separated from its base word by a hyphen (except for *technisch*-lexemes where this is impossible, see appendix to chapter 14). Capital letters are used with proper names for reasons of clarity (e.g. *Norbert-gewijs*). Morphologically opaque lexemes for which no base word is available in present-day Dutch are listed separately.

All lexemes which are listed in Van Dale (2005) (as entries or as illustrations in the entry on the investigated suffix) appear in bold face in the synchronic inventory. Those which *only* appear in Van Dale (2005) and are not recorded in any of the corpora are followed by '(VD)'. Likewise, the lexeme types which *only* appear in one particular corpus are followed by '(38MWC)', '(CGN)' or '(ANW)'. All other words without a following comment occur in more than one source. The hapaxes in the corpus material are marked by '°' and their total number is mentioned in the leftmost column.

As indicated in chapter 6, care should be taken since some material of 38MWC is integrated in ANW. This may cause doubles, which is of special importance when we are dealing with hapaxes. If I noticed that the only concordance for a hapax in 38MWC actually cropped up in ANW as well, I counted it only once, i.e., considered it a hapax in the material (e.g. *vriendenwaarts*: the identical concordance is found in 38MWC and ANW, therefore I consider it a hapax in my dataset). I indicated this by the notation '(ANW/38MWC)'.

2 Conventions for presentation: the diachronic inventory

The diachronic inventory is compiled on the basis of the items in the synchronic inventory and additional items taken from a search in the historical dictionaries (see chapter 6). From the search result all lexemes which can be considered complex ADV or ADJ formed with the investigated suffix were included in the diachronic inventory. This inventory is included as a table which contains on the one hand all the lexemes from the synchronic inventory and the year they were first recorded in the historical material (if so); on the other hand, the table contains additional lexemes which were found in the historical material (< 1970). The additional lexemes appear in italics.

The search methods were explained in chapter 6. Care was taken to include as many spelling variants as possible in the search queries, including several inflectional endings. As an aid for the present-day Dutch language user, the lexemes in the left column are provided in contemporary spelling. All the lexemes are set out in chronological order and grouped per century according to the year of the first attestation (on the problems connected with this, see chapter 6). The year of the first attestation as an orthographic unit (e.g. *botweg*) is inserted directly to the right of the lexeme. Additionally, the source of this earliest recording is indicated: **'INL'** refers to the historical dictionaries (ONW, VMNW, MNW or WNT), **'ALC'** refers to the *Archief Leeuwarder Courant*. **'VD'** refers to an edition of Van Dale (the year mentioned is either the year in which the edition was published, or the year mentioned in the etymological information of the lemma in Van Dale 2005). If I found the first attestation of a lexeme in one of the corpora used for CD, this is indicated by the corresponding abbreviation, **'38MWC'**, **'CGN'** or **'ANW'**. If first attestations in ANW are not dated, this is indicated by 'n.d.'; the non-dated material from ANW is usually internet material. When a dated attestation was available from ALC I took that date.

Depending on the requirements of the investigated suffix, the table may be organised in a special way to show a particular development, e.g. corresponding sequences and lexemes are juxtaposed to get an insight in univerbation processes. This is explained in the appendix for each individual suffix. Bold face is used in the diachronic inventory to mark the earliest attestation, unless otherwise indicated.

Appendix to chapter 7: *-(e)lijk*

1 Synchronic inventory of modifying words with *-(e)lijk*

A search was carried out in Van Dale (2005), 38MWC, and ANW on lemmas ending in the string <lijk>. The inventory is restricted to lexemes with an adjectival or adverbial basis including morphological participles which can function as independent modifiers and which are listed as ADJ in Van Dale (2005). The modifying words had to be selected manually since the search result contained many denominal derivatives (e.g. *vader-lijk* ‘fatherly’) and deverbal derivatives (e.g. *verwerp-elijk* ‘improper(ly)’). Some base words, e.g. *gek*, can formally be either adjectival (‘foolish’) or nominal (‘fool’). The decision was based on Van Dale (2005) and individual tokens although other decisions could have been made in some cases. Only *(e)lijk*-derivatives integrated in present-day linguistic structure are included, not those which occur only in quotations from older phases of Dt. Not regarded are *lijks*-derivatives.

144 modifying words with <i>-(e)lijk</i>	
[[x] _{ADJ} <i>(e)lijk</i>]: 142 (5 hapaxes)	abusiev-elijk, angstig-lijk (VD), arm-elijk, baar-lijk, bedekt-elijk (VD), bang-elijk, beleefd-elijk (VD), bepaald-elijk, bescheiden-lijk, bestendig-lijk (VD), bevoegd-elijk (VD), onbevoegd-elijk (VD), beweerd-elijk, bitter-lijk, blot-elijk (VD), bijzonder-lijk, deftig-lijk (VD), direct-elijk (VD), indirect-elijk (VD), dwas-elijk (VD), eenvoudig-lijk (VD), eerbiedig-lijk (VD), eeuwig-lijk, eigen-lijk, enig-lijk (VD), ernstig-lijk (VD), evenredig-lijk (VD), evident-elijk° (ANW), express-elijk (VD), expressiev-elijk° (ANW), flauw-elijk (VD), foutiev-elijk (ANW), gans-elijk, gediensig-lijk (VD), gedurig-lijk (VD), gekk-elijk (VD), gelijk-elijk, gelukkig-lijk (ANW), ongelukkig-lijk, gemeen-lijk, genadig-lijk, gered-elijk, gerust-elijk (VD), gestadig-lijk (VD), gestreng-elijk (VD), getrouw-elijk, gewiss-elijk (VD), gewoon-lijk, godzalig-lijk (VD), goedgunstig-lijk (VD), goe-lijk (VD), gracieu(s)-elijk, gretig-lijk (VD), grof-lijk/grov-elijk, grootmoedig-lijk (VD), haastig-lijk (VD), heilig-lijk (VD), heus-elijk, hevig-lijk (VD), herhaald-elijk, hog-elijk/hoog-lijk, hovaardig-lijk (VD), ijdel-lijk (VD), innig-lijk (VD), karig-lijk (VD), klaar-lijk (VD), kort-elijk (VD), kouw-elijk, kwa-lijk, laatst-elijk, laff-elijk, lafhartig-lijk (VD), lankmoedig-lijk (VD), licht-elijk, lichtvaardig-lijk (VD), lief-(e)lijk, listig-lijk (VD), mild-elijk (VD), miss-elijk, naarstig-lijk (VD), naïev-elijk, obsessiev-elijk° (ANW), o-lijk, onderscheiden-lijk, ootmoedig-lijk (VD), open-lijk, ouw-elijk, overvloedig-lijk (VD), parmant-elijk (VD), plechtig-lijk (VD), plots-elijk° (ANW), rechtvaardig-lijk (VD), onrechtvaardig-lijk (VD), recent-elijk, respectiev-elijk, rijk-elijk, rijp-elijk, ruw-elijk (VD), schrikbaarlijk (VD), simpel-lijk, slapp-elijk (VD), snel-lijk (VD), statig-lijk (VD), stipt-elijk, streng-elijk (VD), strikt-elijk (VD), successiev-elijk, summier-lijk (VD), teder-lijk (VD), trag-elijk (VD), triomfant-elijk, trouw-elijk (VD), vaag-lijk/vag-elijk, vals-elijk, vast-elijk, verkeerd-elijk, verscheiden-lijk (VD), voorafgaand-elijk, voornam-elijk, voorspoedig-lijk (VD), voorzichtig-lijk° (ANW), vrij-elijk, vro-lijk, vrom-elijk (VD), vurig-lijk (VD), waarachtig-lijk (VD), waardig-lijk, waar-lijk, wek-elijk (VD), wijs-elijk, onwijs-lijk (VD), willig-lijk (VD), wisselijk (VD), wonderbaar-lijk, wreedvaardig-lijk (VD), wred-elijk (VD), zachtvaardig-lijk (VD), zacht-elijk (VD), zeker-lijk, ziek-elijk, zoet-elijk, zwakk-elijk (VD)
[[x] _{ADV} <i>(e)lijk</i>]: 2	alleen-lijk, jammer-lijk

2 Diachronic inventory of modifying words with *-(e)lijk*

Included in the diachronic inventory are the 144 *(e)lijk*-lexemes from the synchronic inventory as well as 275 additional *(e)lijk*-lexemes from INL.

The 144 *(e)lings*-lexemes from the synchronic inventory are marked in bold face in the table. They were searched individually in INL quotation text for their earliest recording allowing for various variants (*-like*, *-licho*, *-lijken* etc.). Notice that for lexemes with stacked suffixes, e.g. *angst-ig-lijk* and *ernst-tig-lijk* I have taken the earliest recording for the actual base word in *-ig* even though *angst-elijk* and *ernst-elijk* may have been attested earlier. I have taken the first recording irrespective of adjectival or adverbial use and irrespective of inflectional endings. I added the syntactic function of the first recording in the table in as many cases as possible, as well as the first recording of another function.

Due to the enormous number of *(e)lijk*-derivatives in the INL material the search procedure could not be carried out as systematically as for other suffixes in the investigation. I collected a total of 275 additional deadjectival (and deadverbial) *(e)lijk*-lexemes which are marked in italics in the table. These were taken from a search in INL lemma text on the string *<*lijk>* with the restriction that their part of speech is labelled as 'adverb' (or both 'adverb' and 'adjective'). This restriction was added to limit the search result and to increase the chance that the lemmas are deadjectival instead of denominal or deverbal (most denominal and deverbal *(e)lijk*-derivatives are labelled ADJ). Nevertheless the relevant lemmas still had to be selected manually. The first attestation date was mostly taken from the article for each lemma but in some cases I carried out additional searches in INL quotation text. Finally, some further additional lexemes were added unsystematically as I ran into them during other investigations in INL. I added the syntactic function of the first recording in the table in as many cases as possible, as well as the first recording of another function.

Ct.	Lexeme	First recording INL	Source	Syntactic function of first recording INL	First recording other syntactic function INL
10 th	wijs(e)lijk	901-1000	INL	adv	att 1566, pred 1669
	<i>duurlijk</i>	901-1000	INL	pred	adv 1326-50
	<i>rechtlijk</i>	901-1000	INL	adv & adj	
12 th	waarlijk	1100	INL	adv	att 1297
	armelijk	1121-1200	INL	adv	adj 1687
	<i>minniglijk</i>	1151-1200	INL	adv	
	<i>openbaarlijk</i>	1151-1200	INL	adv	att 1350-1450
	<i>reinlijk</i>	1151-1200	INL	adv	att 1467-80
	inniglijk	1151-1200	INL	adv	att 1265-70
	vrolijk	1151-1200	INL	adv	adj 1240
	<i>stadelijk</i>	1100	INL	adv	att 1566
	<i>volliglijk</i>	1100	INL	adv	
	<i>zonderlijk</i>	1100	INL	adv	adj 1552
13 th	kortelijk	1200	INL	adv	
	<i>kuiselijk</i>	1200	INL	adv	
	goe(de)lijk	1200	INL	adv	adj 1588
	bescheidenlijk	1200	INL	adv	pred 1343-71, att 1468-97
	<i>getogenlijk</i>	1201-25	INL	adv	
	<i>gramlijk</i>	1201-25	INL	adv	
	rijkkelijk	1201-25	INL	adv	adj 1286
	<i>vermetelijk</i>	1220-40	INL	adv	
	vrijelijk	1220-40	INL	adv	att 1903
	zekerlijk	1220-40	INL	adv	pred 1522
	zoetelijk	1220-40	INL	adv	pred 1564, att 1599
	<i>grotelijk</i>	1236	INL	adv	pred 1460-80
	alleenlijk	1236	INL	adv	
<i>geheellijk</i>	1236	INL	adv		

gemeenlijk	1236	INL	adv	
getrouwelijk	1236	INL	adv	
jammerlijk	1236	INL	adj	adv 1265-70
<i>roekelooslijk</i>	1236	INL	adv	
verscheidenlijk	1236	INL	adv	adj 1553
<i>zuiverlijk</i>	1236	INL	adv	adj 151.
<i>bedachtiglijk</i>	1240	INL	adv	-
bitterlijk	1240	INL	adj & adv	
<i>blijdelijk</i>	1240	INL	adv	pred 1484, att 1635
<i>blodelijk</i>	1240	INL	adv	pred 1315-30
<i>diepelijk</i>	1240	INL	adv	
<i>dikkelijk</i>	1240	INL	adv	
<i>dommelijk</i>	1240	INL	adv	
<i>donkerlijk</i>	1240	INL	adv	
<i>doorlijk</i>	1240	INL	adv	
<i>dovenlijk</i>	1240	INL	adv	
<i>dullijk</i>	1240	INL	adv	
<i>dunlijk</i>	1240	INL	adv	
eigenlijk	1240	INL	adv	
<i>fellijk</i>	1240	INL	adv	
<i>fierlijk</i>	1240	INL	adv	
gans(e)lijk	1240	INL	adv	att 1621
<i>gehoorzaamlijk</i>	1240	INL	adv	
gelijkelijk	1240	INL	adv	
genadiglijk	1240	INL	adv	
geredelijk	1240	INL	adv	
gewislijk	1240	INL	adv	
gewoonlijk	1240	INL	adj & adv	
<i>hardelijk</i>	1240	INL	adv	
<i>heeslijk</i>	1240	INL	adv	
heiliglijk	1240	INL	adv	
hogelijk/hooglijk	1240	INL	adv	
<i>hoofslijk</i>	1240	INL	adv	
ijdellijk	1240	INL	adv	
klaarlijk	1240	INL	adv	
<i>koenlijk</i>	1240	INL	adv	
<i>krankelijk</i>	1240	INL	adv	pred 1380-84
<i>krommelijk</i>	1240	INL	adv	
<i>kundiglijk</i>	1240	INL	adv	
<i>lauwelijk</i>	1240	INL	adv	
lichtelijk	1240	INL	adv	
lief(e)lijk	1240	INL	adv	adj 1260-80
<i>looslijk</i>	1240	INL	adv	
<i>luttelijk</i>	1240	INL	adv	
mildelijk	1240	INL	adv	adj 1287
<i>murwelijk</i>	1240	INL	adv	
<i>naaktelijk</i>	1240	INL	adv	
<i>nauwelijk</i>	1240	INL	adv	
<i>nieuwelijk</i>	1240	INL	adv	
<i>onbekwamelijk</i>	1240	INL	adv	
<i>onedelijk</i>	1240	INL	adv	
<i>ongehoorzaamlijk</i>	1240	INL	adv	
<i>ongetrouwelijk</i>	1240	INL	adv	
<i>ongewoonlijk</i>	1240	INL	adv	
<i>onreinlijk</i>	1240	INL	adv	
<i>onstadelijk</i>	1240	INL	adv	
<i>onzaliglijk</i>	1240	INL	adv	
<i>oorbaarlijk</i>	1240	INL	adv	att 1586
ouwelijk	1240	INL	adj	adv 1624
<i>rieslijk</i>	1240	INL	adv	
rijpelijk	1240	INL	adj	
<i>rondelijk</i>	1240	INL	adv	att 1451-80

<i>scherpelijk</i>	1240	INL	adv	
<i>schoonlijk</i>	1240	INL	adv	
<i>slechtelijk</i>	1240	INL	adv	
snelijk	1240	INL	adv	att 1485
<i>sterkelijk</i>	1240	INL	adv	pred 1285
<i>stijfelijk</i>	1240	INL	adv	-
<i>stinkendelijk</i>	1240	INL	adv	
<i>stoutelijk</i>	1240	INL	adv	
valselijk	1240	INL	adv	
<i>verbolgenlijk</i>	1240	INL	adv	
<i>verholenlijk</i>	1240	INL	adv	
wredelijk	1240	INL	adv	pred 1503
<i>vetlijk</i>	1240	INL	adv	
<i>volkomenlijk</i>	1240	INL	adv	att 1566
<i>vollijk</i>	1240	INL	adv	
<i>vroedelijk</i>	1240	INL	adv	postatt 1561
vromelijk	1240	INL	adv	att 1265-70
<i>vromiglijk</i>	1240	INL	adv	
<i>vuillijk</i>	1240	INL	adv	
<i>waardelijk</i>	1240	INL	adv	
<i>weerbogiglijk</i>	1240	INL	adv	
wekelijk	1240	INL	adv	pred/att 1465-85
<i>weliglijk</i>	1240	INL	adv	
<i>woestelijk</i>	1240	INL	adv	
<i>wredelijk</i>	1240	INL	adv	
zachtelijk	1240	INL	adv	
ziekelijk	1240	INL	adv	pred 1534, att 1552
<i>zaliglijk</i>	1240	INL	adv	att 1503
<i>zwaarlijk</i>	1240	INL	adv	att 1615
<i>geteslijk</i>	1260-80	INL	adv	
<i>kuimelijk</i>	1260-80	INL	adv	
<i>gestadelijk</i>	1265-70	INL	adv	
<i>katijviglijk</i>	1265-70	INL	adv	
<i>kluchtiglijk</i>	1265-70	INL	adv	
<i>krachtiglijk</i>	1265-70	INL	adv/att	
<i>lediglijk</i>	1265-70	INL	adv	
<i>machtiglijk</i>	1265-70	INL	adv	
<i>onwilliglijk</i>	1265-70	INL	adv	
<i>rijvelijk</i>	1265-70	INL	adv	
simpelijk	1265-70	INL	adv	
<i>verkorenlijk</i>	1265-70	INL	adv	
<i>verduldiglijk</i>	1265-70	INL	adv	
<i>welgetrouwelijk</i>	1265-70	INL	adv	
williglijk	1265-70	INL	adv	att 1660
<i>zeriglijk</i>	1265-70	INL	adv	
<i>speciaallijk</i>	1266	INL	adv	-
groflijk/grovelijk	1270-90	INL	adv	
dwaaslijk	1270-90	INL	adj & adv	
<i>puurlijk</i>	1273	INL	adv	
ootmoediglijk	1275-95	INL	adv	att 1740
<i>ongeveinsdelijk</i>	1276	INL	adv	
<i>devotelijk</i>	1276-1300	INL	adv	
<i>gedaadselijk</i>	1276-1300	INL	adv	
<i>gewariglijk</i>	1276-1300	INL	adv	
<i>hetelijk</i>	1276-1300	INL	adv	
<i>onhoofslijk</i>	1276-1300	INL	adv	
<i>stuurlijk</i>	1276-1300	INL	adv	
overvloediglijk	1276-1300	INL	adv	
<i>zottelijk</i>	1276-1300	INL	adv	att 1840
<i>effenlijk</i>	1277	INL	adv	
<i>sufficientelijk</i>	1279	INL	adv	
<i>ledelijk</i>	1280-90	INL	adv	

	<i>algeheelijk</i>	1281	INL	adv	
	<i>loyaallijk</i>	1281	INL	adv	
	<i>heelijk</i>	1281	INL	adv	
	<i>goedertierenlijk</i>	1282	INL	adv	
	<i>meenlijk</i>	1282	INL	adv	
	<i>droefelijk</i>	1285	INL	adv	
	<i>fraailijk</i>	1285	INL	adv	
	<i>geweldiglijk</i>	1285	INL	adv	
	<i>kundelijk</i>	1285	INL	adv	
	<i>onwaarlijk</i>	1285	INL	adv	
	<i>stillijk</i>	1285	INL	adv	
	<i>subtiellijk</i>	1285	INL	adv	-
	trouwelijk	1285	INL	adv	
	<i>gewaarlijk</i>	1287	INL	adv	
	<i>gewilliglijk</i>	1287	INL	adv	
	onwijslijk	1287	INL	adv	
	tragelijk/traaglijk	1287	INL	adv	pred 1523; att 1679
	misselijk	1287	INL	adv & adj	
	<i>vreemdelijk</i>	1287	INL	adv	
	<i>waarachtiglijk</i>	1287	INL	adv	
	<i>bodelijk</i>	1290	INL	adv	
	<i>edelijk</i>	1290	INL	adv	att 1350-1400
	<i>volmaaktelijk</i>	1290	INL	adv	
	eniglijk	1290-1300	INL	adv & adj?	
	vastelijk	1290-1310	INL	adv	att 1601
	<i>paisievelijk</i>	1291	INL	adv	
	<i>wettiglijk</i>	1291	INL	adv	pred 1710
	<i>baarlijk</i>	1291-1300	INL	<i>postatt</i>	
	<i>degerlijk</i>	1291-1300	INL	adv	
	<i>noyaallijk</i>	1292	INL	adv	
14 th	bedektelijk	1315-30	INL	adv	
	<i>kleinlijk</i>	1315-30	INL	att & pred	adv 1351
	tederlijk	1330	INL	adv	att 1678
	eeuwiglijk	1334	INL	adv	
	olijk	1349	INL	adj	adv 1642
	strengelijk	1357	INL	adv	
	<i>onhoorzaamlijk</i>	1376-1400	INL	adv	
	flauwelijk	1390-1400	INL	adv	
	openlijk	1393-1402	INL	adv	att 1458
	onderscheidenlijk	1393-1402	INL	adv	att 1596
	<i>principaallijk</i>	1393-1402	INL	adv	-?
15 th	slappelijk	1401-84	INL	adv	
	<i>tezamentlijk</i>	1407	INL	?	
	<i>notoirlijk</i>	1438	INL	adv	pred 1548
	gracieuuslijk	1440-60	INL	adv	
	kouwelijk	1440-60	INL	adv	adj 1556
	ruwelijk	1440-60	INL	adv	-
	<i>verbaallijk</i>	1447	INL	adv?	
	<i>crimineellijk</i>	1452	INL	adv	-
	<i>verweendelijk</i>	1477	INL	adv	att 1628
	<i>vreedzamelijk</i>	1477	INL	att	adv 1503
	<i>voordachtelijk</i>	< 1482	INL	adv	pred 1635
	gekkelijk	1484	INL	adj & adv	
	vuriglijk	1484	INL	adv	adj 1621
	striktelijk	1488	INL	adv	
	grootmoediglijk	1488	INL	adv	
	<i>solemneellijk</i>	1488	INL	adv	att 1583
	<i>promptelijk</i>	1490	INL	adv	
	waardiglijk	1490-1510	INL	adv	
	<i>religieuzelijk</i>	14..	INL	?	
	zwakkelijk	14..	INL	? 1562 adv	pred 1662, att 1766
16 th	<i>arbitraallijk</i>	1503	INL	adv	?

<i>distinctelijk</i>	1503	INL	adv	
summierlijk	1503	INL	adv	
<i>generalijk</i>	1503	INL	adv	att 1601
verkeerdelijk	1506	INL	adj	adv 1560
<i>wankelijk</i>	1509	INL	adv	pred 1582
<i>civiellijk</i>	1510	INL	adv	-
trionfantelijk	1511	INL	adv	att 1564
gerustelijk	1515	INL	adv	
<i>volstandiglijk</i>	151.	INL	adv	
<i>continuelijk</i>	1521	INL	adv	
<i>finalijk</i>	1525	INL	adv	
<i>bottelijk</i>	1526	INL	adv	
<i>voorzienlijk</i>	1526	INL	adv	
<i>vrijwilliglijk</i>	1526	INL	adv	
<i>zuurlijk</i>	1528	INL	adv	
gestadiglijk	1530	INL	adv	
<i>lijzelijk</i>	1530	INL	adv	
<i>jolijselijk</i>	1535	INL	adv	postatt 1539
<i>vruchtbaarlijk</i>	1537	INL	adv	adj 1621
<i>egaallijk</i>	1539	INL	adv	-
directelijk	1539	INL	att	adv 1560
<i>vocaallijk</i>	1540	INL	adv	-
blotelijk	1540	INL	adv	-
bangelijk	1540-60	INL	adj	adv 19..
voorzichtiglijk	1541	INL	adv	
expresselijk	1541	INL	adv	
<i>personaallijk</i>	1542	INL	adv	
<i>wetendlijk</i>	1543	INL	adv	att 1644
<i>luielijk</i>	1544	INL	att	adv 1582
<i>zorgvuldiglijk</i>	1546	INL	adv	
<i>apparentelijk</i>	1547	INL	att	adv 1581
<i>abuiselijk</i>	1548	INL	att	adv?
respectievelijk	1548	INL	adv	att 1881
<i>condecenlijk</i>	1548	INL	adv	
<i>furieuselijk</i>	1548	INL	adv	
<i>properlijk</i>	1548	INL	adv	
<i>indifferentelijk</i>	1549	INL	adv	
heuselijk	1550	INL	adv	att 1858
wonderbaarlijk	1552	INL	adj	adv 1562
bijzonderlijk	1552	INL	adv	pred 1559, att 1624
<i>universaalijk</i>	1553	INL	adv	pred 1691
<i>reverentelijk</i>	1554	INL	adv	
rechtvaardiglijk	1555	INL	adv	
<i>verstandiglijk</i>	1555	INL	adv	
<i>zediglijk</i>	1555	INL	adv	att 1577
<i>onvoorzienlijk</i>	1556	INL	adv	
voornamelijk	1556	INL	adj	adv 1560
godzaliglijk	1557	INL	adv	
<i>naarstelijk</i>	1557	INL	adv	
<i>collegiaalijk</i>	1559	INL	adv	-
<i>wakkerlijk</i>	1559	INL	adv	
geduriglijk	1560	INL	adv	
haastiglijk	1560	INL	adv	
gelukkiglijk	1560	INL	adv	
<i>vrijmoediglijk</i>	1560	INL	adv	
<i>weidelijk</i>	1561	INL	adv	att 1599
<i>wulpselijk</i>	1561	INL	adv	
indirectelijk	1562	INL	adv	-
<i>kleiniglijk</i>	1562	INL	adv	
<i>matiglijk</i>	1562	INL	adv?	
<i>onbedachtiglijk</i>	1562	INL	adv	
<i>ongelijklijk</i>	1562	INL	adv	pred 1641

	<i>onmatiglijk</i>	1562	INL	adv	-
	<i>onnuchterlijk</i>	1562	INL	adv	
	<i>uitnemendlijk</i>	1562	INL	adv & adj	
	<i>verwoedelijk</i>	1562	INL	adv	
	<i>nieuwelijk</i>	1564	INL	att	adv 1642
	<i>onverscheidenlijk</i>	1564	INL	att	adv 1582
	<i>pleinelijk</i>	1566	INL	adv	
	hovaardiglijk	1566-98	INL	adv	
	<i>eenzamentlijk</i>	1568	INL	adv	
	<i>trotselijk</i>	1569	INL	?	
	<i>inwendiglijk</i>	1569-78	INL	adv	
	<i>rauwelijk</i>	1572	INL	adv	
	<i>halvelijk</i>	1573	INL	adv	
	kariglijk	1573	INL	adv	
	<i>pompeuslijk</i>	1573	INL	adv	att 1627
	<i>reëelijk</i>	1573	INL	adv	
	<i>rechtzinniglijk</i>	1573	INL	adv	
	statiglijk	1573	INL	adv	
	<i>vaardiglijk</i>	1573	INL	adv	
	<i>verduldiglijk</i>	1573	INL	adv	
	<i>vlijtiglijk</i>	1573	INL	adv	
	<i>voorbachtelijk</i>	1573	INL	adv	
	<i>zichtbaarlijk</i>	1573	INL	adv?	att 1637
	evidentelijk	1578	INL	adj & adv	
	<i>reciprokelijk</i>	1579	INL	adv	
	<i>plattelijk</i>	1580	INL	adv	
	<i>pertinentelijk</i>	1582	INL	adv	
	plotselijk	1582	INL	adv	att 1766
	<i>consequentelijk</i>	1582	INL	adv	
	<i>behendiglijk</i>	1583	INL	adv	-
	bestendiglijk	1581	INL	adv	
	successievelijk	1582	INL	adv	att 1933
	<i>resolutelijk</i>	1586	INL	adv	
	<i>onzichtbaarlijk</i>	1587	INL	adv	att 1623
	<i>gieriglijk</i>	1588	INL	adv	
	wisselijk	1588	INL	adv	
	<i>ononderscheidenlijk</i>	1595	INL	att	adv 1640
	<i>inordentelijk</i>	1596	INL	adv	
	<i>onbedektelijk</i>	1598	INL	adv	
	gretiglijk	1599	INL	adv	att 1808
	voorspoediglijk	1599	INL	adv?	
	parmantelijk	15..	INL	adv	
	<i>uitwendiglijk</i>	15..	INL	pred	adv 1573
17 th	beleefdelijk	1600	INL	adv	
	<i>ongoedelijk</i>	1600-96	INL	adv	
	<i>pendentelijk</i>	1602	INL	adv	
	<i>totaallijk</i>	1602	INL	adv	-
	<i>punctueellijk</i>	1605	INL	adv	-
	onwaardiglijk	1605	INL	adv	att 1883
	<i>preciezelijk</i>	1606	INL	adv	
	<i>serieuslijk</i>	1608	INL	adv	-
	<i>casueellijk</i>	1609	INL	adv	-
	ernstiglijk	1612	INL	adv	eerstelic adv 1566
	<i>gelijkmatiglijk</i>	1612	INL	adv	
	eerbiediglijk	1613	INL	adv	eerbiedelijke adj 1636
	<i>veiliglijk</i>	1614?	INL	adv	
	<i>onheuselijk</i>	1615	INL	adv	
	<i>iteratieveeljk</i>	1618	INL	adv	
	<i>verbaasdelijk</i>	1618	INL	adv	
	<i>trouwelooslijk</i>	1619	INL	adv	
	<i>behendiglijk</i>	1620	INL	adv	
	<i>onbedachtelijk</i>	1622	INL	adv	

	<i>onordentelijk</i>	1625	INL	adv	att 1644-75
	<i>onliefelijk</i>	1626	INL	adj?	
	<i>instantelijk</i>	1632	INL	att	adv 1636
	<i>juistelijk</i>	1633	INL	adv	
	abusievelijk	1635	INL	adv	att 1659
	<i>onnozellig</i>	1635	INL	adv	
	<i>onverhoedelijk</i>	1635	INL	adv	
	<i>welgevoeglijk</i>	1635	INL	adv	adj 1704
	angstiglijk	1637	INL	adv	
	<i>bedachtelijk</i>	1638	INL	?	
	laffelijk	1642	INL	adv	
	<i>bondiglijk</i>	1642	INL	adv	
	<i>onmisselijk</i>	1642	INL	att	adv 1658
	<i>onzachtelijk</i>	1642	INL	adv	
	heviglijk	1644	INL	adv	
	<i>ongeveinsdelijk</i>	1644-75	INL	adv	
	<i>instendiglijk</i>	1645	INL	adv	
	<i>volstrektelijk</i>	1649	INL	adv	
	<i>voorwetendlijk</i>	1649	INL	adv	
	<i>ellendiglijk</i>	1650	INL	adv	
	<i>bedektelijk</i>	1652	INL	adv	
	<i>bekwamelijk</i>	1652	INL	adv	-
	laatstelijk	1654	INL	adv	
	<i>exactelijk</i>	1654	INL	adv	
	<i>pointuelijk</i>	1655	INL	adv	
	<i>eenstemmiglijk</i>	1657	INL	adv	
	<i>onschuldiglijk</i>	1657	INL	adv	
	<i>onvoorzichtiglijk</i>	1659	INL	adv	
	naarstiglijk	1664	INL	adv	
	<i>onbepaaldelijk</i>	1664	INL	adv	att 1784
	onbevoegdelijk	1665?	INL	adv	
	gestrengelijk	1666	INL	adv	
	listiglijk	1667	INL	adv	-
	gedienstiglijk	1677	INL	adv	
	<i>passievelijk</i>	1678	INL	adv	
	<i>uitvoeriglijk</i>	1682	INL	adv	
	<i>wanordentelijk</i>	1682	INL	att	adv 1711
	<i>barmhartiglijk</i>	1687	INL	adv	?
	<i>geveinsdelijk</i>	1688	INL	adv	
	<i>heftiglijk</i>	1688	INL	adv	
	<i>ongeleerdelijk</i>	1688	INL	adv	
	<i>onzinniglijk</i>	1688	INL	adv	
18 th	<i>regelmatiglijk</i>	1701	INL	adv	-
	deftiglijk	1710-29	INL	adv	
	<i>openhartiglijk</i>	1710-29	INL	adv	
	stiptelijk	1711	INL	adv	
	plechtiglijk	1714	INL	adv	
	eenvoudiglijk	1731	INL	adv; modal?	
	<i>evenmatiglijk</i>	1745	INL	adv	
	<i>hardnekkiglijk</i>	1746	INL	adv	
	<i>buitengewoonlijk</i>	1749-59	INL	adj	adv 1797-1801
	onrechtvaardiglijk	1755	INL	adv	
	lichtvaardiglijk	1756	INL	adv	
	ongelukkiglijk	1761	INL	adv	
	<i>omzichtiglijk</i>	1769	INL	adv	
	<i>onwettiglijk</i>	1770-84	INL	adv	
	goedgunstiglijk	1771	INL	adv	
	bepaaldelijk	1773	INL	adv	
	<i>krostellieuzelijk</i>	1791	INL	adv	
	herhaaldelijk	1793	INL	adv	adj 1870-81
19 th	<i>doelmatiglijk</i>	1804	INL	adv	
	<i>plichtmatiglijk</i>	1805	INL	adv	

	wreedaardiglijk	1813	INL	?: adv 1905	
	schrikbaarlijk	1830-74	INL	adv	
	voorafgaandelijk	1845	INL	adv & adj	
	<i>arglistiglijk</i>	1855	INL	adv	?
	<i>geheimelijk</i>	1860	INL	adv	
	evenrediglijk	1864	VD	adv	
	zachtaardiglijk	1864	VD	adv	
	lafhartiglijk	1868	INL	adv	
	lankmoediglijk	1893-1900	INL	adv	
20 th	naïvelijk	1901	INL	adv	
	vaaglijk/vagelijk	1909	INL	adv	
	beweerdelijk	1914-15	INL	adv	
	bevoegdelijk	1928	INL	adv	
	recentelijk	1932	INL	adv	
	foutievelijk	1949	INL	adv	
	expressievelijk	1989	ANW	adv	
21 st	obsessievelijk	2000	ANW	adv	

Note:

- Although I carried out the search for additional lexemes in INL lemma text including all dictionaries, it is striking that there are only very few hits from MNW in the search result. This may be due to the make-up of the digital version of MNW, see chapter 6.

Appendix to chapter 8: *-(e)lings*

1 Synchronic inventory of modifying words with *-(e)lings*

A search was carried out in Van Dale (2005), 38MWC, CGN and ANW on lemmas ending in the string <lings>. The modifying words had to be selected manually since the search result contained hits for (plural) N ending in the same string (e.g. *mailings*) and proper names. Not included are s-derivatives of N with the ending *-ling*, e.g. *tuimeling-s* 'in a tumble' from *tuimeling* 'tumble' (VD). Not regarded here are modifying words in *-ling*. They will be dealt with in the diachronic inventory.

32 modifying words with <i>-(e)lings</i>	
[[x]_N (e)lings]: 14	beurt-elings, diev-elings (VD), dropp-elings/drupp-elings (VD), eind-elings (VD), kant-elings (VD), klakk-elings (VD), kruis-(e)lings, ring-elings (VD), rotelings (VD), rugg-elings, slagg-elings/slag-lings, wortel-ings (VD), tapp-elings, zijde-lings/zij-lings
[[x]_{ADJ} (e)lings]: 9	blind-elings, halv-elings, kort-elings, nieuw-elings (VD), oulings (VD), plots-elings (VD), rauw-elings (VD), star-lings (VD), stoem-elings/stomm-elings
[[x]_V (e)lings]: 9	ijl-lings, kruip-elings (VD), piss-elings (VD), rak-elings, roer-lings (VD), scheer-lings (VD), scherlings (VD), schrijlings, strijk-elings (VD)

Note:

- The attestation for *starlings* in ANW is not relevant since it is an En. proper name.

2 Diachronic inventory of modifying words with *-(e)lings*

Included in the diachronic inventory are the 32 *(e)lings*-lexemes from the synchronic inventory as well as 60 additional *(e)ling(s)*-lexemes from INL.

The 32 *(e)lings*-lexemes from the synchronic inventory were searched individually in INL quotation text and in ALC for their earliest recording allowing for various variants (*-lings*, *-lingsch*, *-linx* etc.). INL quotation text was then searched for the presence of earlier attestations without a final *-s* allowing for various variants (*-ling*, *-linc*, *-lingen* etc.). I have always taken the first recording irrespective of adjectival or adverbial use and irrespective of inflectional endings.

I collected 60 additional *(e)ling(s)*-lexemes; there is a share of 41 *(e)lings*-lexemes (either with or without a corresponding *ling*-derivative) and 19 *(e)ling*-lexemes (for which no corresponding *lings*-derivative was found). These were taken from the INL entry on *-lings* and by means of a search in INL lemma text on the string <ling> allowing for various variants. I searched INL quotation text for corresponding lexemes without or with a final *-s*, respectively. The relevant lemmas were selected manually from the search result which for instance contained *s*-derivatives of *N* (e.g. *hovelingsch* from the *N* *hoveling*).

Ct.	Lexeme	First recording	Source	Corresponding <i>ling(en)</i> -lexeme	First recording INL
12 th	<i>halings</i>	-	-	<i>halinge</i>	1151-1200
13 th	<i>zonderlings</i>	1460-80	INL	<i>sonderlinge</i>	1236
	<i>onderlings</i>	1642	INL	<i>onderlinge</i>	1236
	<i>allensselings</i>	-	-	<i>allintselingen</i>	1240
	<i>eenpaarlings</i>	-	-	<i>henperlinc</i>	1240
	<i>nieuwelings</i>	1485	INL	<i>nuweling</i>	1240
	<i>kortelings</i>	1634	INL	<i>corteling</i>	1265-70
	<i>galings</i>	-	-	<i>ghaelinge</i>	1265-70
	<i>stolings</i>	-	-	<i>stolinghe</i>	1270
	<i>eindelings</i>	1755	INL	<i>endenlanghe</i>	1276-1300
	<i>gemeenlings</i>	-	-	<i>ghemeenlinghe</i>	1285
	<i>ruggelings</i>	1620	INL	<i>riglanghe</i>	1285
	<i>mondelings</i>	1633	INL	<i>mundeling</i>	1290
	<i>zoenlings</i>	-	-	<i>zoenlinghen</i>	1290
	<i>ogelings</i>	-	-	<i>hoegeling</i>	1291
	<i>bijzonderlings</i>	1642	INL	<i>bezunderlinghe</i>	1295
<i>namelings</i>	-	-	<i>namelinghe</i>	1297	
14 th	<i>uitzonderlings</i>	-	-	<i>uutsonderlangen</i>	1301-50
	<i>eenlings</i>	1635	INL	<i>al eenlinge</i>	1315-30
	<i>pisselings</i>	1698	INL	<i>pisseling</i>	1320-30
	<i>nalings</i>	1351-1400	INL	<i>nellinc</i>	1342
	<i>armelings</i>	-	-	<i>armelinghe</i>	1350
	<i>hoofdelings</i>	1644	INL	<i>hoofdelinge</i>	1370-90
	<i>donkerlings</i>	1647	INL	<i>bi donckerlinghen</i>	c1370-1408
	<i>dagelings</i>	-	-	<i>daghelinghe</i>	1380-1425
15 th	<i>zijdelings</i>	1562	INL	<i>sidelinghe</i>	1405
	<i>uiterlings</i>	-	-	<i>uterlinghe</i>	1431-36
	<i>forselings</i>	-	-	<i>foortselinghe</i>	1432-68
	<i>blindelings</i>	1588	INL	<i>blyndeling</i>	1434-36
	<i>aarzelings</i>	1588	INL	<i>erseling</i>	1450-99
	<i>duisterlings</i>	1566-98	INL	<i>duusterlinghe</i>	1479
	<i>grondelings</i>	1644	INL	<i>grondeling</i>	1490-1510
16 th	<i>bottelings</i>	1676	INL	<i>botteling</i>	1515
	<i>reggelings</i>	1501-10	INL	<i>regghelinghe</i>	1562
	<i>dommelings</i>	-	-	<i>dommelinck</i>	1530
	<i>verstandelings</i>	-	-	<i>verstandelijnghe</i>	1548

	slag(ge)lings	1895	INL	slaghelinghe	1562-92
	vollings	1568	INL	-	-
	handelings	-	-	handelinghe	1571
	halvelings	1858	INL	haluelinghe	1583
	wortelings	1588	INL	-	-
	dievelings	1766	INL	dievelinghe	1592
17 th	ijlings	1626	INL	ijling	1611
	oulings	1635	INL	ouwling	1613
	schrijlings	1615	INL	-	-
	scheerlings	1617	INL	-	-
	stommelings	1635	INL	stommelingh	1620
	scherlings	1622	INL	-	-
	starlings	1633	INL	sterlingh	1623
	droppelings	1626	INL	-	-
	aalouwelings	1635	INL	-	-
	tastelings	1635	INL	-	-
	tappelings	1637	INL	tappeling	1629
	stukkelings	1664	INL	stuckelinghe	1639
	plotselings	1644	INL	plotseling	1642
	strooielings	1642	INL	-	-
	verradelings	1642	INL	-	-
	wederzijdelings	1642	INL	-	-
	kruiselings	1642	INL	kruysselingh	1651
	dwarselings	1647	INL	dwersseling	1644
	beurtelings	1644	INL	beurtling	1784
	stortelings	1644	INL	-	-
	inzonderlings	-	-	insonderlinghe	1646
	rijelings	1648-78	INL	-	-
	ring(e)lings	1657	INL	-	-
	drijvelings	1691	INL	drijveling	1677
	drangelings	1698	INL	-	-
18 th	zien(d)elings	1899	INL	ziendelingh	1713
	blotelings	1786	INL	-	-
	warrelings	-	-	warreling	1789
19 th	straallings	1819	INL	-	-
	rakelings	1832	INL	-	-
	strijkelings	1843	INL	-	-
	schielings	1847	INL	-	-
	klakkelings	1864	INL	-	-
	botselings	1865-70	INL	-	-
	keerlings	1865-70	INL	-	-
	rotelings	1865-70	INL	-	-
	voorgaandelings	1873	INL	-	-
	rekelings	1880	INL	-	-
	voorlings	1886	INL	-	-
	zeikelings	1886	INL	-	-
	zetelings	1886	INL	-	-
	rauwelings	1891	ALC	-	-
	langelings	1892	INL	-	-
	fleerlings	1899-1906	INL	-	-
20 th	kantelings	1900-04	INL	-	-
	vluggelings	1908	INL	-	-
	kruipelings	1919	INL	-	-
	vlieg(e)lings	1940	INL	-	-
	vlak(ke)lings	1941	INL	-	-
	roerlings	1955	ALC	-	-

Notes:

- *zijde-lings*: first recording is for inflected *zijde-lingsch-e* in ALC.
- *regg-e-lings* can, according to MNW, not be a variant of *rugg-e-lings*.
- *zonder-lings* is unusual.
- *bedd-e-lings* is quoted in an article but it is not dated and therefore not included.
- *onder-lings* is only found in quotations from Hooft.
- Not included are *tuimeling-s* and *tommeling-s* (WNT) since they appear to be derived from the n *tommeling*, cf. *voetelings* from *voeteling*.
- For *stolinghe*, VMNW notes that it is derived from the v *stelen* by the suffix *-inghe*.

Appendix to chapter 9: *-erwijs*

1 Synchronic inventory of modifying words with *-erwijs*

A search was carried out in Van Dale (2005), 38MWC, CGN and ANW on lemmas ending in the strings <erwijs> and <erwijze>. The modifying words had to be selected manually since the search result for <erwijs> contained many hits for the N *onderwijs* ‘education’ and compounds formed with it. If the lexemes affixed by the negative prefix *on-* are included in the count, this results in a total of 93 modifying words with *-erwijs/ze* among which there are 39 hapaxes.

93 modifying words with <i>-erwijs</i>	
[[X] _{PART} <i>erwijs</i>]: 49 (17 hapaxes)	aanvallend-erwijs (VD), aanvullend-erwijs (VD), beschamend-erwijs ° (ANW), boertend-erwijze ° (ANW), bonkend-erwijs ° (ANW), citerend-erwijs , deeluitmakend-erwijs ° (ANW), ervarend-erwijs (CGN), gebiedend-erwijs (VD), gedwongen-erwijs (ANW), gissend-erwijs (VD), grappend-erwijs , imiterend-erwijs ° (ANW), improviserend-erwijs ° (ANW), lachend-erwijs (VD), moraliserend-erwijs ° (ANW), ontwerpend-erwijs ° (ANW), opvallend-erwijs , regerend-erwijs , repetierend-erwijs (38MWC), scharend-erwijs ° (ANW), schattend-erwijs ° (ANW), scherend-erwijs (38MWC), schertsend-erwijs/ze , schrijvend-erwijs (ANW), slapend-erwijs ° (ANW), sluipend-erwijs/ze , spelend-erwijs/ze , spottend-erwijs (VD), springend-erwijs ° (ANW), stormend-erwijs ° (ANW), tastend-erwijs , tuitend-erwijze ° (ANW), uitsluitend-erwijs (VD), vechtend-erwijs , verbloemend-erwijs (VD), vergelijkend-erwijs/ze , verhalend-erwijs/ze , veronderstellend-erwijs , verrassend-erwijs/ze , vertellend-erwijs (VD), verzachtend-erwijs (VD), volgend-erwijs (VD), vragend-erwijs/ze , wensend-erwijs ° (ANW), werkend-erwijs/ze , zappend-erwijs ° (CGN), zingend-erwijs , zwijgend-erwijs ° (ANW)
[[X] _{ADJ} <i>erwijs</i>]: 44 (22 hapaxes)	begrijpelijk-erwijs/ze , billijk-erwijs/ze , democratisch-erwijze ° (ANW), enig-erwijs/ze , fallologisch-erwijs ° (ANW), fatsoenlijk-erwijs ° (ANW), geheimzinnig-erwijze ° (ANW), geleidelijk-erwijs ° (ANW), gelijk-erwijs/ze , gelukkig-erwijs/ze , ideal-erwijs (ANW), interessant-erwijs ° (ANW), ironisch-erwijs/ze (ANW), klassiek-erwijze ° (ANW), komisch-erwijze ° (ANW), logisch-erwijs/ze , ludiek-erwijze ° (CGN), menselijk-erwijs/ze , merkwaardig-erwijs/ze , middelrijk-erwijs ° (ANW), mogelijk-erwijs/ze , natuurlijk-erwijs/ze , noodlottig-erwijs ° (ANW), noodzakelijk-erwijs/ze , normal-erwijs/ze , onbegrijpelijk-erwijs/ze (ANW), ongelukkig-erwijs/ze , onlogisch-erwijs ° (ANW), onredelijk-erwijze ° (ANW), onregelmatig-erwijze ° (ANW), onvermijdelijk-erwijs ° (ANW), paradoxal-erwijs/ze , potsierlijk-erwijze ° (ANW), realistisch-erwijze ° (ANW), redelijk-erwijs/ze , schandalig-erwijze ° (ANW), schandelijk-erwijze ° (ANW), toepasselijk-erwijs ° (ANW), toevallig-erwijs/ze , tragisch-erwijs/ze (ANW), uitzonderlijk-erwijs , verstandig-erwijs ° (ANW), wonderbaarlijk-erwijs ° (ANW), wonderlijk-erwijs/ze

Notes:

- Among the participial formations I excluded *spellend-erwijs* which is derived from *spellen* ‘to spell’ since it is only attested in ANW as the title of a booklet on the Dt. spelling, written by Ludo Permentier. In this title, *wijs* can be interpreted as the lexical ADJ ‘wise’.
- There appears to be one denominal formation in the material: *ongelukk-erwijs*, which is attested only once in the ANW material. Since it seems to have the same lexical content as deadjectival *ongelukkig-erwijs* ‘unfortunately’ it is probably a contraction of the latter. Notice that *ongelukk-erwijs* also attested in a quotation from 1891 in ALC.

2 Diachronic inventory of modifying words with *-erwijs*

Included in the diachronic inventory are the 93 *erwijs*-lexemes from the synchronic inventory as well as 63 additional types from INL.

The 93 *erwijs*-lexemes from the synchronic inventory were searched individually in INL quotation text and in ALC for their earliest recording allowing for various variants, including *-erwijze*. Queries were formulated for the 93 base words from the synchronic inventory with the ending <er> (e.g. *menselijker*, *spelender* and so on), allowing as much spelling variation as possible. This enabled me to find the earliest attestations of sequences of the inflected ADJ or PART and *wijs/wijze* which are written apart.

I collected 63 additional types; there is a share of 44 *erwijs*-lexemes and 19 sequences [*x-er + wijs/wijze*] which are written apart. The additional types were taken from the INL entry on *-wijze* and by means of a search in INL lemma text on the string <erwijs> and <erwijze>. Additionally, I added combinations which I ran into during investigations of INL for other suffixes. Additional participial instances were found by a search on the string <enderwijs> (and spelling variants) in INL quotation text. Their first attestation was searched allowing for sequences [*PART-er + wijs/wijze*].

The first attestations of sequences in INL are only based on syntagms without a preceding preposition to increase the chance that we are dealing with a lexical unit instead of a phrase. The chronology in the table is based on the earliest attestation which is also marked in bold face.

Ct.	Lexeme	First recording	Source	Sequence [<i>x-er + wijs/wijze</i>]	First recording INL
13 th	enigerwijs	1661	INL	enger+wis	1240
	negenerwijs	1240	INL	negener+wis	1240
	aldusterwijs	1265-70	INL	Al dosterwijs	1265-70
	zusterwijs	1265-70	INL	-	-
	<i>alzo-gelijkerwijs</i>	1390-1410	INL	<i>also+geliker+wise</i>	1265-70
	gelijkerwijs	1276-1300	INL	gheliker wiis	1266-68
	welkerwijs	-	-	welker+wijs	1287
<i>hoegedanerwijs</i>	-	-	<i>hoegedaenre wijs</i>	1291-1300	
14 th	<i>zonderlingerwijs</i>	1896	INL	<i>sonderlingher wisen</i>	1300-80
15 th	zoeterwijs	1400	INL	-	-
	stederwijs	1426-75	INL	-	-
	tweeërwijs	1470-90	INL	-	-
16 th	menselijkerwijs	1825	INL	menscheliker wijs	1526
	zulkerwijs	1544	INL	<i>[in sulker wise]</i>	<i>[1285]</i>
	verborgenderwijs	1556	INL	-	-
	billijkerwijs	1644	INL	billyker wijze	1557
	toevalligerwijs	1727	INL	toeualliger wijze	1562
	<i>heimelijkerwijs</i>	-	-	<i>heymelicker wyse</i>	1595
	<i>lopenderwijs</i>	2002	ALC	<i>loopender wyse</i>	1596
17 th	ironischerwijs	1973	ALC	ironischer ende spotswyse	1600
	<i>tragikomischerwijs</i>	-	-	<i>tragedomedischer wijze</i>	1612
	volganderwijs	1728	INL	naevolgender wyse	1615
	<i>hoofserwijs</i>	-	-	<i>hoofscher wijze</i>	1619
	redelijkerwijs	1839	ALC	redelijcker wijs	1622
	<i>vijandelijkerwijs</i>	-	-	<i>vijantlijcker wijze</i>	1626
	natuurlijkerwijs	1765-68	INL	natuurlicker wijze	1634
	<i>redenerenderwijs</i>	1948	INL	<i>redeneerder wyze</i>	1635
	<i>begrijpenderwijs</i>	-	-	<i>begrypender wyze</i>	1635
	<i>spottischerwijs</i>	-	-	<i>spottischer wijze</i>	1637
<i>zodanigerwijs</i>	1843	INL	<i>zoodaniger wyse</i>	1639	

	wonderlijkerwijs	1895	ALC	wonderlijcker wijze	1640
	gevoeglijkerwijs	1644	INL	gevoeghlyker wyze	1642
	mistrouwenderwijs	1642	INL	-	-
	fatsoenlijkerwijs	1979	ALC	fatsoenliker wijze	1644
	lachenderwijs	1644	INL	-	-
	spottenderwijs	1644	INL	-	-
	gekkenderwijs	1644	INL	gekkender wijze	< 1899
	opsnijdenderwijs	1644	INL	-	-
	hoffelijkerwijs	1644	INL	-	-
	verdienstelijkerwijs	-	-	verdiensteliker wijze	1644
	bedenklijkerwijs	-	-	bedenkelijker wijze	1648-71
	verkortenderwijs	1654	INL	-	-
	wreveligerwijs	1657	INL	-	-
	zonnelijkerwijs	-	-	zonneliker wijze	1658
	verstandelijkerwijs	-	-	verstandelijcker wijze	1660
	waarschuwenderwijs	1662	INL	-	-
	verzamelenderwijs	-	-	versameler wijze	1664
	samenvoegenderwijs	-	-	samen-voegender wijze	1664
	eerlijkerwijs	1674	INL	-	-
	verwerenderwijs	-	-	verweerder wyze	1687
18 th	boertenderwijs	1979	ANW	boertender wijze	1701
	woedenderwijs	1704	INL	-	-
	verglimpelijkerwijs	-	-	verglimpelyker wys	1712
	verhalenderwijs	1741	INL	-	-
	verzoekenderwijs	1934	ALC	versoekender wyse	1754
	bekwaammakenderwijs	-	-	bekwaammakender wyze	1760
	trillenderwijs	1762	INL	-	-
	zedelijkerwijs	1910	ALC	zedelyker wyze	1768
	beschouwenderwijs	1768	INL	-	-
	gewelddadigerwijs	-	-	gewelddadiger wyze	1773
	gewoonlijkerwijs	-	-	gewoonlyker wyze	1773
	schertsenderwijs	1873	ALC	schertsender wyze	1773
	omkorstenderwijs	1771	INL	-	-
	aanvallenderwijs	1809	ALC	aanvallender wyze	1785
	onderkruipenderwijs	1785	INL	-	-
	gissenderwijs	1793	INL	-	-
19 th	noodwendigerwijs	1908	ALC	noodwendiger wijze	1798-1843
	lispenderwijs	1805	INL	-	-
	gebiedenderwijs	1812	INL	-	-
	veronderstellenderwijs	1817	INL	veronderstellender wijs	1892
	uitsluitenderwijs	1820	INL	-	-
	verbloemenderwijs	1824	INL	-	-
	vergelijkenderwijs	1825	INL	-	-
	mogelijkkerwijs	1829	ALC	-	-
	gelukkigerwijs	1829	ALC	-	-
	ongelukkigerwijs	1829	ALC	ongelukkiger wijze	1915
	onnodigerwijs	1830	INL	-	-
	verdedigenderwijs	1830	INL	-	-
	vragenderwijs	1832	ALC	-	-
	noodzakelijkerwijs	1833	ALC	noodzakelijker-wijze	1928
	vriendschappelijkerwijs	1842	INL	-	-
	zagenderwijs	1843	INL	-	-
	onbegrijpelijkerwijs	1844	INL	onbegrijpelijker wijze	1858
	verzachtenderwijs	1848	INL	-	-
	schimpenderwijs	1856	INL	-	-
	onderstellenderwijs	1856	INL	-	-
	spelenderwijs	1867	INL	-	-
	vlaamserwijs	1870	INL	-	-
	begrijpelijkerwijs	1879	ALC	begrijpelijker wijs	1909
	stotenderwijs	1879	INL	-	-
	merkwaardigerwijs	1880	ALC	Merkwaardiger wijze	1891
	aanvullenderwijs	1885	ALC	-	-

	noodlottigerwijs	1893	ALC	-	-
	vergoelijkerwijs	1895	INL	-	-
	opvallenderwijs	1897	ALC	-	-
	stormenderwijs	1899	ALC	-	-

20th-21st ct. (no sequences)

20 th	sluipenderwijs	1900	ALC
	<i>vergrotenderwijs</i>	1901	INL
	<i>verachtenderwijs</i>	1904	INL
	<i>verschonderwijs</i>	1904	INL
	onvermijdelijkerwijs	1907	ALC
	verstandigerwijs	1906	ALC
	democratischerwijs	1910	ALC
	logischerwijs	1910	ALC
	schattenderwijs	1927	ALC
	tastenderwijs	1928	ALC
	geleidelijkerwijs	1930	ALC
	middellijkerwijs	1933	ALC
	schandelijkerwijs	1937	ALC
	verrassenderwijs	1942	ALC
	normalerwijs	1949	ALC
	tragischerwijs	1950	ALC
	wonderbaarlijkerwijs	1952	ALC
	regerenderwijs	1953	ALC
	<i>honderwijs</i>	1957	INL
	zingenderwijs	1965	ALC
	slapenderwijs	1966	ALC
	toepasselijkerwijs	1967	ALC
	vertellenderwijs	1967	ALC
	improviserenderwijs	1970	ALC
	werkenderwijs	1970	ALC
	schrijvenderwijs	1971	ALC
	interessanterwijs	1975	ALC
	komischerwijs	1976	ALC
	onredelijkerwijs	1976	ALC
	tuitenderwijs	1978	ANW
	paradoxalerwijs	1981	ALC
	zwijgenderwijs	1981	ANW
	gedwongenerwijs	1983	ANW
	springenderwijs	1983	ANW
	scharenderwijs	1983	ANW
	geheimzinnigerwijs	1987	ALC
	grappenderwijs	1987	ALC
	ontwerpenderwijs	1988	ANW
	vechtenderwijs	1992	ALC
	zappenderwijs	1994	ALC
scherenderwijs	1994	38MWC	
schandaligerwijs	1995	ANW	
citerenderwijs	1995	38MWC	
repetenderwijs	1995	38MWC	
uitzonderlijkerwijs	1995	38MWC	
moraliserenderwijs	1996	ANW	
idealerwijs	1997	ANW	

	onlogischerwijs	1998	ALC
	ervarenderwijs	1999	CGN
	ludiekerwijs	1999	CGN
	fallologischerwijs	1999	ANW
21 st	potsierlijkerwijs	2000	ANW
	deeluitmakenderwijs	2000	ANW
	realistischerwijs	2001	ANW
	wensenderwijs	2001	ANW
	imiterenderwijs	2001	ANW
	bonkenderwijs	2001	ANW
	beschamenderwijs	2001	ANW
	onregelmatigerwijs	2002	ANW
	klassiekerwijs	2003	ANW

Appendix to chapter 10: *-gewijs*

1 Synchronic inventory of modifying words with *-gewijs*

The synchronic inventory focuses on *gewijs/ze*-derivatives. They are differentiated from the 17 *wijs/ze*-derivatives below which are only attested in Van Dale (2005), except for the opaque and highly idiomatic lexeme *derwijze* ‘so (much), to such an extent’. The *wijs/ze*-derivatives are no part of the synchronic study but they will be part of the diachronic investigation since they represent the historically older forms. Observe that *wijs*-derivatives should be distinguished from compounds with the ADJ *wijs* ‘wise’, e.g. *wereldwijs* ‘worldly-wise’, *waanwijs* ‘pedantic’, which are not part of my investigation.

haak-s-wijs, keer-wijs, kruis-wijs, naam-s-wijs, paal-s-wijs, reek-wijs, schraag-s-wijs, slang-s-wijs, sluike-s-wijs, sluip-s-wijs, smeeet-s-wijs, speel-s-wijs, spot-s-wijs, steels-wijs, trap-s-wijs, wijk-s-wijs

der-wijze

For compiling the synchronic inventory of *gewijs/ze*-derivatives, only Van Dale (2005) and ANW were used. The corpus was searched for lemmas ending in the string <*gewijs> and <*gewijze>. The search result was checked manually. There are different spelling variants (with and without linking -s- or hyphen, etc.) which have been uniformised in the table.

223 modifying words with *-gewijs/ze*

<p>[[x]_N <i>gewijs</i>]: 213 (103 hapaxes)</p>	<p>aanslag-s-gewijs°, aantekening-s-gewijs°, aanval-s-gewijs/ze, ader-s-gewijs (VD), afzaat-s-gewijs (VD), aline-a-gewijs, amfitheater-gewijs/ze, anker-s-gewijs (VD), appartement-s-gewijze°, artikel-s-gewijs/ze, bak-s-gewijs, ballon-s-gewijs°, batch-gewijs, Baywatch-gewijs°, bedrijf-s-gewijs°, bedrijfstack-(s)-gewijs, blad-s-gewijs (VD), bladzij-gewijs°, blok-(s)-gewijs, boog-s-gewijs (VD), branche-gewijs/ze, brok-s-gewijs/ze, cascade-gewijze°, cd-gewijs°, charge-gewijs°, cirkel-s-gewijs (VD), cluster-gewijs/ze, cohort-s-gewijs, complex-gewijs°, computer-gewijs, concert-s-gewijze°, cortège-gewijs (VD), crescendo-gewijs°, dagboek-s-gewijs (VD), dakpan-s-gewijs/ze, decor-s-gewijs°, deel-s-gewijs, defilé-gewijs (VD), departement-s-gewijs/ze, diagonaal-s-gewijs, discipline-gewijs/ze, doelgroep-s-gewijs°, doos-gewijs°, dorp-s-gewijs°, drolletjes-gewijs°, druppel-s-gewijs (VD), druk-gewijs°, druppel-(s)-gewijs/ze/drup-s-gewijs, echelon-s-gewijs (VD), e-mail-(s)-gewijs, emotie-gewijs°, eponiem-gewijs°, ervaring-s-gewijs°, essay-gewijs°, Europa-gewijs°, fase-gewijs/ze, fax-gewijs°, Flippo-gewijs°, fragment-s-gewijs°, gebed-s-gewijs°, gebied-s-gewijs/ze, gemeenschap-s-gewijze°, geval-s-gewijze°, gezin-s-gewijs°, gitaar-gewijs, golf-(s)-gewijs, graatsgewijs°, groep-(s)-gewijs/ze, halvemaan-s-gewijs, hectaar-s-gewijs (VD), hoek-s-gewijs (VD), hond-s-gewijs°, hoofdstuk-s-gewijze, hoop-s-gewijs (VD), hype-gewijs°, inkomen-s-gewijs°, jingle bells-gewijs°, kamer-gewijze, kapittel-gewijs, karavaan-s-gewijs°, keper-s-gewijs (VD), keten-(s)-gewijs/ze, klank-gewijs°, klok-(s)-gewijs/ze, koepel-s-gewijze°, kolom-s-gewijs°, koor-s-gewijs°, koppel-s-gewijs°, krans-gewijs (VD), kring-s-gewijs, kroniek-s-gewijs (VD), kroon-s-gewijs (VD), kruimel-gewijs°, kruis-gewijs/ze, kunde-gewijs°, kurkentrekker-s-gewijs (VD), kwartaal-s-gewijs, kwint-s-gewijs°, laag-s-gewijs/ze, leeftijd-s-gewijs°, leeuw-s-gewijs°, lepeltjes-gewijs°, liaan-gewijs°, lichting-s-gewijs (VD), lijn-s-gewijs, locatie-gewijs°, marketing-gewijs°, mazelen-gewijs°, McDonald’s-gewijs°, media-gewijs, montage-gewijs°, net-s-gewijs°, Norbert-gewijs°, ojief-s-gewijs (VD), onderbord-s-gewijs°, onderhandeling-s-gewijs°, onderneming-s-gewijs, onderwerp-s-gewijs°, oppervlakte-gewijs°, paal-s-gewijs (VD), paar-s-gewijs/ze, pagina-gewijs, pand-s-gewijs°, parade-gewijs, peek-s-gewijs°, peloton-s-gewijs/ze, perceel-s-gewijs/ze, percentage-gewijs, percent-s-gewijs/ze, plek-s-gewijs, ploeg-s-gewijs (VD),</p>
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	<p>pluk-s-gewijs°, pond-s-gewijs (VD), pressing-s-gewijs°, procent-s-gewijs/ze, processie-gewijs, project-gewijs/ze, projectgroep-gewijs°, projectiel-s-gewijs°, punt-s-gewijs/ze, reeks-gewijs (VD), reep-s-gewijs°, regio-gewijs, rij-gewijs°, roos-gewijs (VD), rot-s-gewijs (VD), rubriek-s-gewijs°, ruit-s-gewijs (VD), salami-gewijs°, sample-gewijs°, saucijzer-gewijs°, sawa-gewijs°, schaaf-s-gewijs (VD), schaakbord-gewijs°, schaats-gewijze°, sloopstoeter-gewijs°, schoen-s-gewijs°, schok-s-gewijs/ze, SD-gewijs°, schot-s-gewijs°, schroef-s-gewijs (VD), schub-s-gewijs, sectie-gewijs°, sector-(s)-gewijs/ze, slok-s-gewijs°, soort-gewijs°, spiraal-(s)-gewijs/ze, sponsor-gewijs°, sprong-s-gewijs/ze, staak-s-gewijs (VD), stapel-gewijs°, stap-s-gewijs/ze, steekproef-(s)-gewijs/ze, stippel-s-gewijze°, stoet-s-gewijs/ze, stoot-(s)-gewijs/ze, stop-s-gewijze°, straal-s-gewijs, streek-s-gewijs/ze, streep-s-gewijs (VD), strik-s-gewijs (VD), strook-s-gewijs, stroom-s-gewijs (VD), struik-s-gewijs (VD), studio-gewijs°, stuk-s-gewijs/ze, systeem-gewijs°, tand-s-gewijs (VD), tarief-s-gewijs°, telefoon-s-gewijs°, terras-gewijs (VD), theelepels-gewijs°, thema-gewijs°, tralies-gewijs (VD), trance-gewijs°, tranche-gewijs°, trap-s-gewijs/ze, uitgever-s-gewijs°, vak-s-gewijs (VD), verhouding-s-gewijs/ze, vlak-s-gewijs°, volume-gewijs°, voorbeeld-s-gewijs°, vork-s-gewijs (VD), wig-s-gewijs (VD), wijk-s-gewijs°, winegum-s-gewijs°, worm-s-gewijs (VD), worp-s-gewijs (VD), zaag-s-gewijs (VD), zaak-s-gewijs°, zang-s-gewijs°, zigzag-s-gewijs°</p>
<p>[[x]_V gewijs]: 5 (3 hapaxes)</p>	<p>kruijps-gewijs°, sluijps-gewijs°, speel-s-gewijs, vraag-s-gewijs (VD), zap-gewijs°</p>
<p>[[x]_{ADJ} gewijs]: 2 (1 hapax)</p>	<p>steels-gewijs/ze, theoretisch-gewijs°</p>
<p>Neo-classical component: 1 (1 hapax)</p>	<p>bio-gewijs°</p>
<p>Opaque: 2 (1 hapax)</p>	<p>desgewijs°, pondspontsgewijs/ze</p>

2 Diachronic inventory of modifying words with *-gewijs*

The diachronic inventory only comprises the 223 *gewijs*-lexemes from the synchronic inventory and no additional lexemes from INL. If one carries out a search in INL lemma text on the strings <gewijs> and <gewijze>, this leads to a large amount of additional lexemes. If one carries out the same search in INL quotation text, the result is even larger. Within the scope of this dissertation, in which 11 suffixes are investigated, it would have been disproportional to inspect the first attestations for so many *gewijs*-lexemes. Thus, for practical reasons, diachronic investigations were limited to the 223 *gewijs*-lexemes from the synchronic inventory.

The 223 *gewijs*-lexemes from the synchronic inventory were searched individually in INL quotation text and in ALC for their earliest recording allowing for various variants, including *-gewijze* and *-wijs/-wijze*. Queries were formulated for the 223 base words allowing for as much spelling variation as possible. Thus I traced the earliest attestations of sequences of a base word and *(ge)wijs/(ge)wijze* which are written apart, with a hyphen, or as an orthographic unit. The search result was checked manually to exclude homonymous nominal compounds, e.g. *aanval-s-wijze* 'manner of attacking'. In the table I shall indicate when there are earlier recordings of sequences preceded by a PREP (e.g. *in crucewijs*, 1265-70), but this does not play a role in the chronology. Chronology is only based on sequences without a preceding PREP (e.g. *aders gewyse*, 1674) since here we may be dealing with a lexical unit instead of a phrase.

Ct.	<i>gewijs/ze</i> -lexeme	First recording	Source	Sequence [x + <i>(ge)wijs/ze</i>] or <i>wijs/ze</i> -lexeme	First recording INL
13 th	zaagsgewijs	1808	INL	zaghewise	1287
14 th	pandsgewijs	1559	INL	pantschewise	1330?
15 th	kruisgewijs	1401-1500	INL	in crucewijs	1265-70
				in cruusghewise	1401-1500
	speelsgewijs	1628	INL	speelwijs	1450
	stapsgewijs	1859	ALC	stapwijs	1485
	deelsgewijs	1829	ALC	deelwijs	1485
	trapsgewijs	1773	INL	trapwijs	1485
				traps gewijs	1679
vraagsgewijs	1618	INL	vraghewijs	1485	
16 th	processiegewijs	1510-12	INL	-	-
	stapelsgewijs	1518	INL	-	-
	ruitsgewijs	1558	INL	ruytw?se	1608
	boogsgewijs	1701	INL	booghewijs	1562-73
				steelwijs	1564
				steelsche wijze	1574
	steelsgewijs	1596	INL	steels gewijsen	1638
				puntsgewijs	1601
	wigsgewijs	1568	INL	Wigwyze	1690
	schubsgewijs	1768	INL	schubwijse	1573
	kapittelsgewijs	1888-1914	INL	capittelwijse	1573
	stuksgewijs	1566-98	INL	stuckwijse	1573
				stuksche wijze	1807
	rotsgewijs	1782	INL	Rotwijse	1574-1650
				al rots gewijs	1678
	stroomsgewijs	1580	INL	-	-
netsgewijs	1807	INL	netwijse	1588	
			nets gewijs	1667	
wormsgewijs	1702	INL	in wurme wise	1100	
			Wormwijs	1598	
17 th	kroonsgewijs	1608	INL	Kroonswys	1751
	streepgewijs	1928	ALC	strepe-wijs	1620

	roosgewijs	1623	INL	roos gewijse	1674
				Rooswys	1743
	drupsgewijs	1642	INL	drupwijz'	1634
	zangsgewijs	1662	INL	sanghwijs	1640
	pondsgewijs	1818	ALC	ponds wijze	1654
	sluipsgewijs	1969	ALC	Sluipswyze	1657
	schroefsgewijs	1676	INL	schroef-wijze	1663
	halvemaansgewijs	1664	INL	halfmaanswyze	1769
	cirkelsgewijs	1667	INL	-	-
	adersgewijs	1924	VD	aders gewijse	1674
				aderswijze	1810
				-	-
	hoeksgewijs	1685	INL	-	-
	hoopsgewijs	1720	INL	hoopswyze	1696
				hoops wys	1724
	rijgewijs	n.d.	ANW	reyens gewyze	1697
18 th	vorksgewijs	1704	INL	Vorkswyze	1763
	traliesgewijs	1977	ALC	Traalieswyze	1710
	kolomsgewijs	1719	INL	in columnen wise	1265-70
	koepelsgewijs	1724	INL	-	-
	klok(s)gewijs	1963	ALC	kloks-wyze	1724
	kringsgewijs	1763	INL	kringswijze	1736
	ojiefsgewijs	1739	INL	-	-
	golfsgewijs	1744	INL	golfswyze	1771
	kransgewijs	1875	ALC	Kranswys	1770
	spiraal(s)gewijs	1843	INL	Spiraalswyze	1773
	straalsgewijs	1835	INL	straalswyze	1777
	laagsgewijs	1847	ALC	laagswyze	1780
bladsgewijs	1831	ALC	bladswyze	1795	
19 th	percentsgewijs	1802	INL	-	-
	tandsgewijs	1805	INL	-	-
	graatsgewijs	1808	INL	-	-
	procentsgewijs	1811	INL	-	-
	worpsgewijs	1813	INL	-	-
	pondspondsgewijs	1820	INL	-	-
	perceelsgewijs	1824	ALC	-	-
	hoofdstuksgewijs	1829	ALC	-	-
	paarsgewijs	1829	INL	-	-
	droppelsgewijs	1834	INL	-	-
	stoetsgewijs	1835	ALC	-	-
	kwartaalsgewijs	1837	ALC	-	-
	groep(s)gewijs	1838	INL	-	-
	artikelsgewijs	1840	ALC	-	-
	amfitheatersgewijs	1842	ALC	-	-
	dorpsgewijs	1842	ALC	-	-
	ankersgewijs	1845	ALC	-	-
	zigzagsgewijs	1847	INL	-	-
	vaksgewijs	1848	INL	-	-
	diagonaalsgewijs	1852	INL	-	-
	wijksgewijs	1854	ALC	-	-
	broksgewijs	1861-64	INL	brokswijs	1854
	dakpansgewijs	1869	INL	dakpanswijze	1854
	paalsgewijs	1857	INL	paalswijze	1857
	pleksgewijs	1861	INL	-	-
	staaksgewijs	1861	INL	-	-
	sprongsgewijs	1870	ALC	-	-
	ploegsgewijs	1872	INL	-	-
	striksgewijs	1978	VD	strikswijs	1872 VD
	verhoudingsgewijs	1873	INL	-	-
	departementsgewijs	1875	ALC	-	-
	sectie(s)gewijs	1875	INL	-	-
	strooksgewijs	1876-82	INL	-	-
reepsgewijs	n.d.	ANW	reepwijs	1879	

	bloksgewijs	1881	ALC	-	-
	hecta(a)r(e)sgewijs	1881	INL	-	-
	rubrieksgewijs	1883	ALC	-	-
	kepersgewijs	1888-1914	INL	keperswijs	1924
	sectorsgewijs	1888	INL	-	-
	terrasgewijs	1889	ALC	-	-
	echelonsgewijs	1889	ALC	-	-
	theelepelsgewijs	1896	ALC	-	-
	schoksgewijs	1897	INL	-	-
	baksgewijs	1898	INL	-	-
20 th	bedrijfsgewijs	1907	ALC	-	-
	kronieksgewijs	1909	ALC	-	-
	gezinsgewijs	1909	ALC	-	-
	soortgewijs	1911	ALC	-	-
	stoot(s)gewijs	1913	ALC	-	-
	aanvalsgewijs	1913	INL	-	-
	koorsgewijs	1915	INL	-	-
	gebiedsgewijs	1919	ALC	-	-
	ondernemingsgewijs	1922	ALC	-	-
	afzaatsgewijs	1924	VD	-	-
	lichtingsgewijs	1924	VD	-	-
	schaafsgewijs	1924	VD	-	-
	streeksgewijs	1926	ALC	-	-
	percentagegewijs	1928	ALC	-	-
	branchegewijs	1937	ALC	-	-
	reeksgewijs	1937	INL	-	-
	lijns gewijs	1942	ALC	-	-
	steekproef(s)gewijs	1942	ALC	-	-
	bedrijfstaksgewijs	1945	ALC	-	-
	kwintsgewijs	1952	INL	-	-
	complexgewijs	1954	ALC	-	-
	zaaksgewijs	1958	ALC	-	-
	koppelsgewijs	1960	ALC	-	-
	kurkentrekkersgewijs	1961	VD	-	-
	pluksgewijs	1961	ALC	-	-
	struiksgewijs	1961	VD	-	-
	fasegewijs	1968	ALC	-	-
	projectgewijs	1969	ALC	-	-
	fragmentsgewijs	1971	ALC	-	-
	paginagewijs	1972	ALC	-	-
	pelotonsgewijs	1973	ALC	-	-
	drolletjesgewijs	1973-2003	ANW	-	-
	disciplinegewijs	1974	ALC	-	-
	aantekeningsgewijs	1976	ANW	-	-
	themagewijs	1978	ALC	-	-
	schaatsgewijs	1979	ANW	-	-
stippelsgewijs	1979	ANW	-	-	
kamergewijs	1980	ALC	-	-	
hondsgewijs	1980	ANW	-	-	
sawagewijs	1980	ANW	-	-	
onderwerpsgewijs	1982	ALC	-	-	
regiogewijs	1982	ALC	-	-	
concertsgewijs	1982?	ANW	-	-	
kruielgewijs	1983	ANW	-	-	
aanslagsgewijs	1984	ANW	-	-	
ballonsgewijs	1984	ANW	-	-	
tariefsgewijs	1984	ANW	-	-	
computergewijs	1985	ALC	-	-	
ervaringsgewijs	1985	ALC	-	-	
projectielsgewijs	1985	ANW	-	-	
stopsgewijs	1985?	ANW	-	-	
lepeltjesgewijs	1987	ALC	-	-	

	leeftijdsgewijs	1999	ALC	-	-
	batchgewijs	1990	ALC	-	-
	paradegewijs	1993	ANW	-	-
	montagegewijs	1993	ANW	-	-
	salamigewijs	1993	ANW	-	-
	alineagewijs	1994	ANW	-	-
	peeksgewijs	1994	ANW	-	-
	systeemgewijs	1994	ANW	-	-
	doelgroepsgewijs	1994	ALC	-	-
	inkomensgewijs	1994	ALC	-	-
	cohortsgewijs	1995	ANW	-	-
	doosgewijs	1995	ANW	-	-
	schoensgewijs	1995	ANW	-	-
	SD-gewijs	1995	ANW	-	-
	schotsgewijs	1995	ANW	-	-
	gebedsgewijs	1995	ANW	-	-
	hypegewijs	1995	ANW	-	-
	klankgewijs	1995	ANW	-	-
	projectgroepgewijs	1995	ANW	-	-
	tranchegewijs	1995	ANW	-	-
	Norbert-gewijs	1995-98	ANW	-	-
	trancegewijs	1996	ANW	-	-
	sponsorgewijs	1996	ANW	-	-
	Europagewijs	1996	ANW	-	-
	faxgewijs	1996	ANW	-	-
	gitaargewijs	1996	ANW	-	-
	liaangewijs	1996	ANW	-	-
	marketinggewijs	1996	ANW	-	-
	mediagewijs	1996	ANW	-	-
	McDonald's-gewijs	1996	ANW	-	-
	saucijzergewijs	1996	ANW	-	-
	cd-gewijs	1997	ANW	-	-
	studiogewijs	1997	ANW	-	-
	essaygewijs	1997	ANW	-	-
	gemeenschapsgewijs	1997	ANW	-	-
	pressingsgewijs	1997	ANW	-	-
	clustergewijs	1997	ALC	-	-
	keten(s)gewijs	1998	ALC	-	-
	dagboeksgewijs	1999	ALC	-	-
	desgewijs	1999	ANW	-	-
	drukgewijs	1999	ANW	-	-
	samplegewijs	1999	ANW	-	-
	uitgeversgewijs	1999	ANW	-	-
	cortègengewijs	1999	VD	-	-
	defilégewijs	1999	VD	-	-
	decorsgewijs	1999-2000	ANW	-	-
21 st	telefoonsgewijs	2000	ANW	-	-
	scheepstoetergewijs	2000	ANW	-	-
	winegumsgewijs	2000	ANW	-	-
	onderbordsgewijs	2000	ANW	-	-
	oppervlaktegewijs	2000	ANW	-	-
	bladzijgewijs	2000	ANW	-	-
	crescendogewijs	2001	ANW	-	-
	e-mail(s)gewijs	2001	ANW	-	-
	jingle bells-gewijs	2001	ANW	-	-
	mazelengewijs	2001	ANW	-	-
	gevalsgewijs	2002	ANW	-	-
	karavaansgewijs	2002	ANW	-	-
	theoretischgewijs	2003	ANW	-	-
	zapgewijs	2003	ANW	-	-
	eponiengewijs	2003	ANW	-	-
	Flippo-gewijs	2003	ANW	-	-

	locatiegewijs	2003	ANW	-	-
	appartementsgewijs	2003	ANW	-	-
n.d.	kruipsgewijs	n.d.	ANW	-	-
	sloksgewijs	n.d.	ANW	-	-
	biogewijs	n.d.	ANW	-	-
	emotiegewijs	n.d.	ANW	-	-
	kundegewijs	n.d.	ANW	-	-
	leeuwsgewijs	n.d.	ANW	-	-
	onderhandelingsgewijs	n.d.	ANW	-	-
	schaakbordgewijs	n.d.	ANW	-	-
	Baywatch-gewijs	n.d.	ANW	-	-
	cascadegewijs	n.d.	ANW	-	-
	chargegewijs	n.d.	ANW	-	-
	vlaksgewijs	n.d.	ANW	-	-
	volumegewijs	n.d.	ANW	-	-
	voorbeeldsgewijs	n.d.	ANW	-	-

Appendix to chapter 11: *-halve*

1 Synchronic inventory of modifying words with *-halve*

A search was carried out in Van Dale (2005), 38MWC, CGN and ANW on lemmas ending in the string <halve>. The modifying words had to be selected manually since the search result contains hits for numerals with *-en-halve* ‘and a half’; also excluded from the inventory are the CONJ or PREP *behalve* ‘except’ and the compound *allesbehalve* ‘anything but’ as well as the CONJ *weshalve* ‘for which reason’ (Van Dale 2005). There is a total of 47 *halve*-types in the inventory.

47 modifying words with <i>-halve</i>	
[[x] _N <i>halve</i>]: 35 (4 hapaxes)	ambt-s-halve, beleefdheid-s-halve, beroep-s-halve, betamelijkheid-s-halve (VD), billijkheid-s-halve, curiositeit-s-halve, duidelijkheid-s-halve , eenvoudigheid-s-halve (ANW), eenvoud-s-halve (ANW), eerbied-s-halve (VD), eerlijkheid-s-halve, eer-s-halve, fatsoen-s-halve, geloof-s-halve (VD), gemakkelijkheid-s-halve (ANW), gemak-s-halve, geweten-s-halve (VD), gezondheid-s-halve, korthed-s-halve, leeftijd-s-halve (VD), liefde-s-halve (VD), makkelijkheid-s-halve (ANW), ouderdom-s-halve ° (ANW), overbodigheid-s-halve ° (ANW), plicht-s-halve , realiteit-s-halve ° (ANW), recht-s-halve ° (ANW), rijk-s-halve (VD), spoed-s-halve, veiligheid-s-halve, vermaak-s-halve (VD), volledigheid-s-halve, voorzichtigheid-s-halve, zekerheid-s-halve, zuinigheid-s-halve (ANW)
[[x] _{PRON} <i>halve</i>]: 7	all-ent-halve (VD), har-ent-halve (VD), hunn-ent-halve (VD), mijn-ent-halve (VD), onz-ent-halve (VD), uw-ent-halve (VD), zijn-ent-halve (VD)
[[x] _{ADJ} <i>halve</i>]: 3 (3 hapaxes)	eerlijk-s-halve° (ANW), gemakkelijk-s-halve° (CGN), makkelijk-s-halve° (ANW)
[[x] _{DET} <i>halve</i>]: 2	der-halve, dier-halve (VD)

Note:

- In ANW there is one hit for *daarhalve*; from the interpretation follows that the language user meant *derhalve*. Therefore it is not included as a separate lexeme type.

2 Diachronic inventory of modifying words with *-halve*

Included in the diachronic inventory are the 47 *halve*-lexemes from the synchronic inventory and 38 additional lexemes from INL.

The 47 *halve*-lexemes from the synchronic inventory were searched individually in INL quotation text and in ALC for their earliest recording. The attestation was checked manually to see if the *halve*-lexeme is not preceded by a PREP in order to make sure that it is a modifying word. INL quotation text was then searched for the presence of earlier attestations where *halve* and the base word are juxtaposed, but do not form an orthographic unit, i.e., are not written together or connected by a hyphen (e.g. *zynent halven*). The search queries were therefore formulated for the combination of a single base word followed by a space and the string <halve>. If such sequences occurred, they were checked manually for relevance and the earliest recording in INL is included in the table. I made an extra distinction between sequences preceded by a PREP (e.g. *uan sinen halven*, 1237) and those which are not (e.g. *zynent halven*, 1620).

I collected 38 additional *halve*-lexemes. These were collected from the INL entry on *-halve* and by means of a search in INL lemma text on lemmas ending in the string <halve>. The relevant lemmas were selected and their articles and especially quotations were screened for additional *halve*-lexemes. I selected both orthographic units (e.g. *noodshalve*) and sequences which are not joint in writing (e.g. *koophandels halven*). I searched for the earliest attestation of these combinations. In the table I shall indicate when there are earlier recordings of sequences preceded by a preposition (e.g. *om noots halven*, 1573), but this does not play a role in the chronology. Chronology is based on sequences without a preceding preposition (e.g. *noots halven*, 1596). In the table I also show 8 early univerbations with *half*, but these are not counted as *halve*-lexemes.

Ct.	Lexeme	First recording	Source	Sequence [[PREP] + x + <i>halve(n)</i>]	First recording INL	
10 th	<i>noordhalf</i>	901-1000	INL	-	-	
12 th	<i>zuidhalf</i>	1181-1210	INL	-	-	
13 th	<i>oosthalf</i>	1246	INL	<i>te osterhaluon</i>	901-1000	
	<i>westhalf</i>	1246	INL	-	-	
	<i>bewesthalf</i>	1267	INL	-	-	
	<i>bezuidhalf</i>	1267	INL	-	-	
	<i>benoordhalf</i>	1273	INL	-	-	
	<i>beoosthalf</i>	1280	INL	-	-	
15 th	allenthalve	1410-30	INL	an allen haluon	1100	
16 th	derhalve	1524	INL	der haluen	1605	
	zakenhalve	1534	INL	<i>om saekenhalven</i>	1528	
	mijnenthalve	1571	INL	van minenthaluen	1265-70	
	watershalve	1574?	INL	<i>ombt iissch ende watershalven</i>	1526	
	verzekerheidshalve	1576?	INL	-	-	
	plichtshalve	1582	INL	plights en amptshalven	1653-72	
	ambtshalve	1587	INL	ambts halven	1638	
	zijenthalve		1589	INL	uan sinen haluen	1237
				INL	zynent halven	1620
	eedshalve	1591	INL	<i>van eedts ende eerenshalven</i>	1577	
<i>noodshalve</i>		1598	INL	<i>om aenstaenden noots halven</i>	1573	
			INL	noots halven	1596	
17 th	stiltehalve	1600-1699	INL	-	-	
	jouwenthalve	1607-1687	INL	-	-	
	dierhalve	1612	INL	-	-	
	uwenthalve	1621	INL	Uan uwenthaluen	1265-70	

				uwent halven	1637
	voldoeningshalve	1626	INL	-	-
	<i>koophandelshalve</i>	-	-	koophandels halven	1642
	deunheidshalve	1644	INL	-	-
	complimentshalve	1644	INL	-	-
	onzenthalve	1648	INL	van onsen aluen	1288
				onsen 't halven	1644
	<i>kloekheidshalve</i>	-	-	kloeckheyts halve	1646
	ouderdomshalve	2001	ANW	ouderdoms halve	1646
	geloofshalve	1646	INL	-	-
	<i>vreemdigheidshalve</i>	-	-	vreemdigheys halven	1646
	zekerheidshalve	1794	ALC	zeekerheids halven	1654
	verwantschapshalve	1658	INL	-	-
	dorshalve	1659	INL	-	-
	liefdeshalve	1864	VD	liefdens-halven	1666
	belofteshalve	1668	INL	-	-
	lichtshalve	1671	INL	-	-
	<i>prachtshalve</i>	-	-	prachts halve	1671
	<i>tuchtshalve</i>	-	-	trouw, en tuchts halve	1671
	<i>vastigheidshalve</i>	-	-	vastigheits halven	1671
	welstaanshalve	1673	INL	<i>om welstaans halven</i>	1656
				<i>welstaans halven</i>	1782
	autoriteitshalve	1674	INL	-	-
	vermaakshalve	1681	INL	-	-
	<i>voordeelshalve</i>	1838	ALC	voor deels halven	1684
	kortheidshalve	1702	INL	kortheits halven	1687
	harenthalve	1924	VD	van haren haluen	1260
				harent halven	1688
	fatsoenshalve	1784	INL	Fatsoens halven	1697
	<i>hongershalve</i>	-	-	hongers halven	1688
	<i>wenenshalve</i>	-	-	weenens halven	1688
18 th	zwaarteshalve	1719	INL	-	-
	<i>trotsheidshalve</i>	-	-	trotsheits halven	1724
	klaarheidshalve	1731	INL	<i>klaarheids halve</i>	1820-21
	schaamt(e)shalve	1731	INL	-	-
	<i>vriendschapshalve</i>	1814	INL	vrindschaps halven	1732
	beleefdheidshalve	1735	INL	beleefdheids halve	1784
	zedigheidshalve	1746	INL	-	-
	veiligheidshalve	1785	INL	veiligheits halven	1747
	voorzichtigheidshalve	1750	INL	-	-
	beroepshalve	1765	ALC	-	-
	ordeshalve	1779	INL	<i>gemaks- en ordres-halve</i>	1795
	gemakshalve	1782	ALC	<i>gemaks- en ordres-halve</i>	1795
	gemakkelijkheidshalve	1787	INL	-	-
	welgevoeglijkheidshalve	1790	INL	-	-
	welvoeglijkshalve	1790	INL	-	-
	eerbiedshalve	1795	INL	-	-
19 th	rechtshalve	1802	INL	Van reches haluen	1265-70
	kieschheidshalve	1817	ALC	-	-
	duidelijkheidshalve	1822	INL	-	-
	billijkheidshalve	1832	ALC	-	-
	zuinigheidshalve	1846	INL	-	-
	welluidendheidshalve	1846	INL	-	-
	eershalve	1847	INL	van eedts ende eerenshalven	1577
	gewetenshalve	1865	INL	-	-
	volledigheidshalve	1876	ALC	-	-
	eerlijkheidshalve	1880	ALC	-	-
	gezondheidshalve	1881	ALC	-	-
	spoedshalve	1883	ALC	-	-
	eenvoudigheidshalve	1896	INL	-	-
	rechtvaardigheidshalve	1899	ALC	-	-
20 th	curiositeitshalve	1910	ALC	-	-

	hunnenthalve	1924	VD	-	-
	verantwoordelijkheidshalve	1948	INL	-	-
	eerlijkshalve	1961	ALC	-	-
	betamelijkheidshalve	1961	VD	-	-
	leeftijdshalve	1961	VD	-	-
	rijkshalve	1968	ALC	-	-
	realiteitshalve	1971	ALC	-	-
	eenvoudshalve	1984	ALC	-	-
	overbodigheidshalve	1993	ALC	-	-
	makkelijkheidshalve	1996	ANW	-	-
21 st	gemakkelijkshalve	2001	CGN	-	-
	makkelijkshalve	2003	ANW	-	-

Notes:

- Not included in the diachronic inventory are the compounds *aannoordhalf* (1273), *aanoosthalf*, *aanwesthalf* (1273), *aanzuidhalf* (1273); *ofnoordhalf* (1271), *ofoosthalf* (1271), *ofwesthalf* (1264), *ofzuidhalf* (1264) which are listed in VMNW as ADV and PREP.
- *zuidhalf* is only attested in the formation *zuidhalf-weegs* (ONW *zuidhalf*)
- I am not able to interpret the attestation for *water-s-halve* (1574): it is not clear whether this is part of a prepositional construction or occurs independently.
- *verzekering-s-halve* is only attested in the combination *meerder verzekeringsthalven*; its status as a derived word is unclear. See discussion in chapter 11.

Appendix to chapter 12: *-iter*

1 Synchronic inventory of modifying words with *-iter*

A search was carried out in Van Dale (2005), 38MWC, CGN and ANW on lemmas ending in the string <iter>. The modifying words had to be selected manually. I left out the types which only figure in quotes from Lt., e.g., *infallibiliter*. Only lexemes which are found integrated in Dt. linguistic structure are considered Dt. lexemes. Of these types, 26 get the label 'Latin' in Van Dale (2005); these are classified as 'loan words' in the table.

29 modifying words with <i>-iter</i>	
[[x]_{ADJ} iter]: 3 (1 hapax)	global-iter, ideal-iter, optimal-iter^o (ANW)
Loan words: 26	actualiter (VD), breviter (VD), casualiter (VD), eventualiter (VD), finaliter, formaliter (VD), generaliter (VD), intellectualiter (VD), leviter (VD), manualiter (VD), materialiter, moraliter, normaliter, obiter (VD), pariter (VD), realiter, simpliciter (VD), specialiter (VD), spiritualiter (VD), totaliter (VD), trivialiter (VD), verbaliter (VD), virtualiter (VD), vocaliter (VD), vulgariter (VD), taliter qualiter/qualiter taliter (VD)

2 Diachronic inventory of modifying words with *-iter*

Included in the diachronic inventory are the 29 *iter*-lexemes from the synchronic inventory and 20 additional lexemes from INL.

The 29 *iter*-lexemes from the synchronic inventory were searched individually in INL quotation text and in ALC for their earliest recording. Through a search in INL lemma text and in INL quotation text on the string <*iter>, I was able to manually collect 20 additional types of modifying words from the search result. For these, too, the earliest recording was searched in INL and ALC.

For each lexeme, I added information as to whether it existed in (classical) Lt. This is indicated by the abbreviation **Lt.** As a criterion was used whether or not it has an entry in the classical Lt. dictionary by Georges (1913-1918). Between brackets, **(Lt.)** indicates that not the *iter*-lexeme itself, but a corresponding ADJ is mentioned in Georges' Lt. dictionary, so that we may assume that the ADV could be regularly formed in Lt. The abbreviation **Lt. (VD)** indicates that Van Dale (2005) refers to medieval or modern Lt. When there is a question mark, Lt. existence seems formally possible but I found no direct reference from Georges and the lexeme was not in Van Dale. In case of a hyphen, the lexeme could not have existed in Lt. for language-structural reasons.

In addition, each *iter*-lexeme is juxtaposed with the corresponding Dt. ADJ ending in *-aal/-eel* (if there is none, there is a hyphen, and a question mark signals doubtful correspondence). The dates for the earliest recordings of these ADJ in Dt. were taken from EWN. When they referred to variants in *-eel* and *-aal*, both were included in the table. For the ADJ which have no entry in EWN, I added data from the chronological dictionary by Van der Sijs (2002) or Van Dale (2005) (this has not been marked in the table). A question mark indicates that there are no data in any of these sources.

The order of the lexemes follows the year of first recording of the *iter*-lexeme. Marked in bold face in the table is the lexeme which was recorded earlier in Dt.: either the *aal/eel*-ADJ or the *iter*-lexeme.

Ct.	Lexeme	First recording	Source	Exists in Lt.	Corresponding <i>-aal/-eel</i> ADJ	First recording EWN
15 th	<i>regulariter</i>	1401-10	INL	Lt.	<i>regulaar</i>	MD
16 th	<i>verisimiliter</i>	1510	INL	Lt.	-	-
	<i>collegialiter</i>	1522	INL	(Lt.)	<i>collegiaal</i>	1883
	<i>personaliter</i>	1525	INL	Lt.	<i>personeel</i>	1570
	<i>capitulariter</i>	1528	INL	(Lt.)	<i>kapitulaar (N)?</i>	1501-50
	<i>obiter</i>	1551	INL	Lt.	-	-
	<i>simpliciter</i>	1558	INL	Lt.	<i>simpel?</i>	1265-70
	<i>generaliter</i>	1566	INL	Lt.	<i>generaal</i>	1265-70
	<i>taliter qualiter</i>	1576	INL	Lt.	-	-
	<i>solemniter</i>	1579	INL	Lt.	<i>solemneel?</i>	1500
	<i>universaliter</i>	1580	INL	Lt.	<i>universaal</i>	1300-25
				<i>universeel</i>	1521	
	<i>principaliter</i>	1597	INL	Lt.	<i>principaal</i>	1277
17 th	<i>criminaliter</i>	1601	INL	Lt.	<i>crimineel</i>	1460-80
	<i>civiliter</i>	1612	INL	Lt.	<i>civiel</i>	1431
	<i>perpendiculariter</i>	1614	INL	(Lt.)	<i>perpendicular</i>	1553
	<i>formaliter</i>	1624	INL	Lt.	<i>formeel</i>	1608
	<i>probabiliter</i>	1624	INL	Lt.	<i>probabel?</i>	1548
	<i>essentialiter</i>	1634	INL	Lt.	<i>essentieel</i>	1658
	<i>accidentaliter</i>	1634	INL	-	<i>accidenteel</i>	1669
	<i>nulliter</i>	1658	INL	Lt.	-	-
	<i>totaliter</i>	1659	INL	Lt.	<i>totaal</i>	1482
	<i>egaliter qualiter</i>	1692	INL	?	<i>egaal?</i> / -	1503

18 th	finaliter	1728	INL	Lt.	finaal	1553
	realiter	1732	VD	Lt. (VD)	reëel	1535
	modaliter	1761	INL	?	<i>modaal</i>	1796
	<i>diametraliter</i>	1791	INL	(Lt.)	<i>diametraal</i>	?
19 th	materialiter	1824	VD	Lt.	materieel	1480
	virtualiter	1824	VD	Lt. (VD)	virtueel	1660
	eventualiter	1824	VD	Lt. (VD)	eventueel	1750
	<i>potentialiter</i>	1884	INL	Lt.	<i>potentieel</i>	?
	actualiter	1884	INL	Lt.	actueel	?
					actueel	1535
	moraliter	1886	ALC	Lt.	moraal	1525
moreel					1763	
vulgariter	1891	INL	Lt.	vulgair	1618	
20 th	casualiter	1901-25	VD	Lt.	casueel	1692
	breviter	1901-25	VD	Lt.	-	-
	idealiter	1910	ALC	(Lt.)	ideaal	1777
	normaliter	1910	INL	Lt.	normaal	1847
	trivialiter	1911	INL	Lt.	triviaal	1553
	specialiter	1911	ALC	Lt.	speciaal	1265-70
	intellectualiter	1926-50	VD	Lt.	intellectueel	1784
	<i>banaliter</i>	1958	Schultink	-	banaal	1830
	vocaliter	1961	VD	Lt.	vocaal	1240
	manualiter	1970	ALC	Lt. (VD)	manuaal (N)	1883
	globaliter	1961	Schultink	-	globaal	1828
	pariter	1992	VD	Lt.	-	-
	leviter	1992	VD	Lt.	-	-
	spiritualiter	1992	VD	Lt.	spiritueel	1378
	verbaliter	1992	VD	Lt.	verbaal	1507
	optimaliter	1996	ANW	-	optimaal	1913

Note:

- The additional lexeme *banaliter* was taken from Schultink (1962); it is not recorded in INL and ALC. Schultink (1962) is also responsible for the earliest concordance for *globaliter*. Further lexeme types from Schultink (1962) have not been included in the inventory.

Appendix to chapter 13: *-matig*

1 Synchronic inventory of modifying words with *-matig*

A search was carried out in Van Dale (2005), 38MWC, CGN and ANW on lemmas ending in the string <matig>. The derived words had to be selected manually since the search result contained hits for the ADJ *matig* ‘moderate’ and complex words formed with it. *matig*-lexemes which are premodified by the negative particle *niet* ‘non’ (e.g. *niet-beroepsmatig* ‘non-professional’) or augmentative *boven* ‘over’ (e.g. *boventrendmatig* ‘exceeding the trend’) are subsumed under the denominal type at issue (*beroepsmatig*, *trendmatig*). The same holds true for copular compounds, e.g. *persoonlijk-beroepsmatig* ‘personally-professionally’ is subsumed under *beroepsmatig*. Types prefixed by negative *on-* are included and counted.

99 modifying words with <i>-matig</i>	
[[x] _N <i>matig</i>]: 94 (35 hapaxes)	actie-matig (CGN), arbeid-s-matig, bedrijf-(s)-matig , begrip-(s)-matig , beheer-s-matig , beleid-(s)-matig , bericht-matig° (ANW), beroep-s-matig , bestuur-s-matig (ANW), beurs-matig° (CGN), campagne-matig° (ANW), casus-matig° (ANW), CID-matig (CGN), cliché-matig , cijfer-matig , complex-matig° (ANW), concept-matig° (ANW), concert-matig° (ANW), CPB-modelmatig° (38MWC), crisis-matig° (ANW), design-matig° (ANW), dicht-matig (VD), doel-matig , dressuur-matig (ANW), drift-matig , dwang-matig , ervaring-s-matig° (ANW), fabriek-(s)-matig , facet-matig, gedrag-(s)-matig, gehoor-(s)-matig (ANW), getal-s-matig , gevoel-s-matig , gewoonte-matig° (ANW), gezag-s-matig (ANW), groep-s-matig (ANW), groove-matig° (ANW), hand-matig , hardware-matig, hobby-matig, instinct-matig , internet-matig° (ANW), karakter-matig° (ANW), klank-matig (ANW), kostprijs-matig° (ANW), kroniek-matig , kunst-matig , landkaart-matig° (ANW), model-matig , norm-matig° (ANW), onderwijs-matig° (ANW), onderzoek-s-matig , on-doel-matig , on-dwang-matig (ANW), on-recht-matig , on-wet-matig , parcours-matig° (ANW), personeel-s-matig° (38MWC), plan-matig , plicht-matig , prijs-matig° (ANW), proces-matig, product-matig° (ANW), project-matig, recherche-matig° (ANW), recht-matig , recht-s-matig (ANW), rede-matig (VD), reflex-matig, ridder-matig , riff-matig° (ANW), robot-matig (ANW), routine-matig , schets-matig , schrift-matig (VD), seizoen-(s)-matig , serie-matig, sjabloon-matig° (CGN), software-matig , stand-matig (VD), standaard-matig° (ANW), stelsel-matig , strip-matig° (CGN), tact-matig° (38MWC), tekst-matig° (ANW), toets-matig° (ANW), toneel-matig , trend-matig , type-matig° (ANW), vak-matig , verdrag-s-matig , verkeer-s-matig° (ANW), verslag-matig° (ANW), vlek-matig° (CGN), wet-matig
[[x] _{ADJ} <i>matig</i>]: 3 (3 hapaxes)	grof-matig° (ANW), instinctief-matig° (CGN), privé-matig° (ANW)
[[[x] _{ADJ} [x] _N] _{NP} <i>matig</i>]: 1 (1 hapax)	sociaal-gedrag-s-matig° (ANW)

Note:

- *recht-s-matig* ‘legally’ must be distinguished from *recht-matig* ‘legitimate(ly), rightful’.

2 Diachronic inventory of modifying words with *-matig*

The diachronic inventory includes the 99 *matig*-lexemes from the synchronic inventory and 16 additional lexemes retrieved by a search on the string <matig> in INL lemma text and additional searches in INL quotation text. The table presents a chronological overview of the first recordings of the *matig*-lexemes in INL or ALC. Until the year 1975 the corresponding Gm. *mäßig*-lexeme is juxtaposed to each *matig*-lexeme, if any is recorded, with its first recording reported in Inghult (1975). The earliest recording (of either Dt. or Gm.) is marked in bold face except when this is impossible to determine. The chronological order of lexemes in the table is only based on the first recording of the Dt. lexemes.

Ct.	Lexeme	First recording	Source	Corresponding <i>mäßig</i> -lexeme	First recording (Inghult 1975)
16 th	riddermatig	1523	INL	rittermäßig	ca. 1300
	schriftmatig	1569	INL	geschriftmäßig	16 th ct
				schriftmäßig	1616
	<i>stemmatig</i>	1593	INL	-	-
	rechtmatig	1594	INL	rechtmäßig	1533
17 th	<i>billijkmatig</i>	1600	INL	-	-
	redematig	1630	INL	vernunftmäßig verstandesmäßig	1659 1829
	onrechtmatig	1631	INL	unrechtmäßig	1531
	<i>ambtmatisch</i>	1635	INL	amt(s)mäßig	16th ct
	waarheidsmatig	1642	INL	wahrheitsmäßig	1704
	wetmatig	1642	INL	gesetzmäßig	1581
	18 th	plichtmatig	1768	INL	pflichtmäßig
dichtmatig		1772	INL	-	-
toneelmatisch		1779	INL	theatermäßig	1827
karaktermatig		1785	INL	charaktermäßig	1783
kunstmatisch		1785	ALC	kunstmäßig	1691
<i>odenmatig</i>		1785-1801	INL	-	-
fabriek(s)matig		1793	INL	fabrikenmäßig	1751-1830
<i>plechtmatisch</i>		1794	ALC	?feiermäßig	1839
doelmatisch		1799	INL	zielmäßig	1604
				zweckmäßig	1779
19 th	ondoelmatisch	1801	INL	unzweckmäßig	1861
	<i>bouwkunstmatisch</i>	1802	INL	-	-
	<i>spreukmatig</i>	1809	INL	spruchmäßig	1751-1830
	<i>vriendmatig</i>	1810	INL	-	-
	<i>geschiedtmatisch</i>	1813-21	INL	geschiedtmäßig	1651-1750
	planmatig	1814-21	INL	planmäßig	1784
	stelselmatisch	1816	INL	?systemmäßig	1759
	<i>bijbelmatig</i>	1819-27	INL	bibelmäßig	1724
	standmatig	1822	INL	standmäßig	1594
	schetsmatig	1839	INL	-	-
	verdragmatig	1833	ALC	verdrag(s)mäßig	1811
	instinctmatig	1844	INL	instinctmäßig	1788
	kroniekmatig	1846	INL	-	-
	begripsmatig	1847	INL	begriffsmäßig	1751-1830
	<i>tuinmatig</i>	1854	INL	gartenmäßig	1778
	klankmatig	1855	ALC	klangmäßig	1813
	<i>jachtmatisch</i>	1857	INL	jagdmäßig	1785
	reflexmatig	1884	ALC	-	-
	<i>tuchtmatisch</i>	1892	INL	ordnungsmäßig	1604
	beroepsmatig	1894	INL	berufsmäßig	1771-1807
	20 th	<i>feestmatig</i>	< 1904	INL	festmäßig
<i>volkmatisch</i>		< 1904	INL	volkmäßig	< 1803

clichématig	1912	INL	-	-
dwangmatig	1913	INL	zwangsmäßig	1751-1830
cijfermatig	1924	ALC	ziffernmäßig	1872
gevoelsmatig	1931	ALC	gefühlsmäßig	1847
vakmatig	1931	ALC	fachmäßig	1873
crisismatig	1932	ALC	-	-
onwetmatig	1932	ALC	ungesetzmäßig	1651-1750
handmatig	1935	ALC	handmäßig	< 1200
procesmatig	1936	ALC	-	-
bedrijfsmatig	1938	ALC	-	-
seizoenmatig	1938	ALC	-	-
driftmatig	1947	ALC	triebmäßig	1783
concertmatig	1955	ALC	-	-
groepsmatig	1958	ALC	-	-
trendmatig	1959	ALC	-	-
getalsmatig	1952	ALC	zahlenmäßig	1885
seriematig	1964	ALC	serienmäßig	1959
beleidsmatig	1968	ALC	-	-
routinematig	1969	ALC	routinemäßig	1959
projectmatig	1973	ALC	-	-
facetmatig	1974	ALC	-	-
riffmatig	1974	ALC	-	-
beheersmatig	1974	ALC	-	-

Ct.	Lexeme	First recording	Source
20 th	modelmatig	1975	ALC
	tekstmatig	1976	ALC
	gedragmatig	1977	ALC
	arbeidsmatig	1979	ALC
	onderzoekmatig	1979	ALC
	sjabloonmatig	1980	ALC
	gehoorsmatig	1981	ALC
	prijsmatig	1981	ALC
	conceptmatig	1982	ALC
	softwarematig	1983	ALC
	personeelsmatig	1983	ALC
	bestuursmatig	1984	ALC
	dressuurmatig	1985	ALC
	stripmatig	1985	ALC
	hardwarematig	1990	ALC
	complexmatig	1990	ALC
	robotmatig	1990	ALC
	hobbymatig	1991	ALC
	tactmatig	1992	ALC
	typematig	1994	ALC
	ondwangmatig	1994	ANW
	actiematig	1995	ALC
	toetsmatig	1995	ALC
	CPB-modelmatig	1995	38MWC
	productmatig	1996	ANW
	privématig	1996	ANW
	berichtmatig	1996	ANW
	verkeersmatig	1997	ANW
vlekmartig	1999	CGN	
instinctiefmatig	1999	CGN	
CID-martig	1999	CGN	
internetmatig	1999	ANW	
normmatig	1999	ANW	
21 st	onderwijsmatig	2000	ANW
	grofmatig	2000	ANW

	gezagsmatig	2000	ANW
	beursmatig	2000	CGN
	standaardmatig	2001	ANW
	rechtsmatig	2001	ANW
	designmatig	2002	ANW
	groovematig	2002	ANW
	campagnematig	2002	ANW
	casusmatig	2002	ANW
	landkaartmatig	2002	ANW
	parcoursmatig	2002	ANW
	verslagmatig	2002	ANW
	gewoontematig	2003	ANW
	recherchematig	2003	ANW
	kostprijsmatig	2004	ANW
	ervaringsmatig	2004	ANW
n.d.	sociaal-gedragmatig	n.d.	ANW

Appendix to chapter 14: *-technisch*

1 Synchronic inventory of modifying words with *-technisch*

A search was carried out in Van Dale (2005), 38MWC and CGN and ANW on lemmas ending in the string <technisch>. The search result contained only modifying words. Filtered out manually were the independent ADJ *technisch* 'technical' as well as formatives in which we can be certain that *technisch* represents this ADJ with its own lexical content: the formatives *a-technisch*, *buitentechnisch*, *quasi-technisch* and the following 29 copulative compounds.

administratief-technisch, ambtelijk-technisch, bestuurlijk-technisch, chemisch-technisch, civieltechnisch, farmaceutisch-technisch, financieel-technisch, fiscaal-technisch, forensisch-technisch, fysisch-technisch, historisch-technisch, industrieel-technisch, instrumenteel-technisch, juridisch-technisch, liturgisch-technisch, machinaal-technisch, materieel-technisch, medisch-technisch, militair-technisch, monetair-technisch, muzikaal-technisch, operationeel-technisch, politiek-technisch, praktisch-technisch, rechterlijk-technisch, sexueel-technisch, theoretisch-technisch, veterinaire-technisch, wetenschappelijk-technisch

I further removed 19 modifying words which can be analysed as *isch*-derivatives from a formative with the lexical N *techniek* 'technique' and a neo-classical component. These words can only be paraphrased by means of the *techniek*-formative.

bibliotechn-isch, biotechn-isch, elektrotechn-isch, werktuigkundig-elektrotechn-isch, fototechn-isch, fysiotecn-isch, geotechn-isch, milieu-geotechn-isch, histotechn-isch, hydrotechn-isch, mnemotechn-isch, polytechn-isch, psychotechn-isch, pyrotechn-isch, radiotechn-isch, sociotechn-isch, tele-techn-isch, thermotechn-isch, zoötechn-isch

For the remaining 193 words, it could not be straightforwardly determined whether we are dealing with *technisch*-derivatives or with *isch*-derivatives from compounds with the N *techniek*. The synchronic inventory therefore includes all 192 modifying words ending in the string <technisch>, which are potentially derived by *-technisch*. For the ease of presentation I shall present them below as formed along the pattern [[x] *technisch*]. See chapter 14 on *-technisch* for discussion.

An additional problem is the input category for e.g. *melk* 'milk', *schaak* 'chess', *race* 'race', which purely formally can be either nominal or verbal, e.g. *schaak* 'chess' is attested in Van Dale (2005) as a N but it may just as well be the verbal stem of *schaken* 'to play chess'. I based the decision on Van Dale (2005) and the semantics of individual concordances but I realise that other decisions could have been made in some cases.

193 modifying words with <i>-technisch</i>	
[[x] _N <i>technisch</i>]: 167 (94 hapaxes)	<p>accommodatietechnisch° (38MWC/ANW), agendatechnisch° (CGN), animatietechnisch° (ANW), Arbotechnisch (ANW), autotechnisch° (ANW), basketbaltechnisch° (38MWC/ANW), bedrijfstechnisch, begrotingstechnisch, beheer(s)technisch, belastingstechnisch, beleidstechnisch, bemiddelingstechnisch° (ANW), bereidingstechnisch° (ANW), beroepstechnisch, bestemmingsplantechnisch (ANW), bestuurstechnisch, beveiligingstechnisch° (ANW), bewijstechnisch (ANW), bibliotheektechnisch (ANW), bouwstechnisch, brandtechnisch, CAO-technisch, cassatietechnisch° (ANW), chartstechnisch° (ANW), computertechnisch, constructiebouwstechnisch° (ANW), constructietechnisch (ANW), cultuurstechnisch, danstechnisch, designtechnisch° (ANW), douanetechnisch° (ANW), drukstechnisch, energietechnisch, evolutietechnisch° (ANW), exploitatietechnisch° (38MWC), faillissementstechnisch° (38MWC), filmstechnisch, frequentietechnisch° (ANW), gaststechnisch, gebouwstechnisch° (38MWC/ANW), gebruikstechnisch° (ANW), geluidstechnisch, gentechnisch° (ANW), gesprekstechnisch° (ANW), gezondheidstechnisch° (38MWC/ANW), gitaartechnisch° (ANW), groentechnisch° (38MWC), groepstechnisch° (ANW), handbaltechnisch° (38MWC), handelstechnisch° (38MWC/ANW), houtproductietechnisch° (ANW), ICT-technisch° (ANW), infotechnisch° (ANW), ingenieurstechnisch° (ANW), installatietechnisch (ANW), instructietechnisch° (ANW), instrumentstechnisch° (ANW), investeringstechnisch° (38MWC/ANW), jaartellingstechnisch° (38MWC), judotechnisch° (ANW), ketelstechnisch° (ANW), klankstechnisch° (ANW), klaviertechnisch° (ANW), klimstechnisch, korfbalstechnisch° (ANW), kostentechnisch (ANW), kostprijsstechnisch, kweekstechnisch° (ANW), landbouwstechnisch° (ANW), layoutstechnisch° (ANW), lenstechnisch° (ANW), lesroostertechnisch° (ANW), liftstechnisch° (ANW), literatuurstechnisch° (CGN), loontechnisch, luchtstechnisch° (ANW), luchtvaartstechnisch, managementstechnisch° (ANW), marketingstechnisch (ANW), marktstechnisch, materiaalstechnisch, mediatechnisch° (ANW), milieutechnisch, mijnstechnisch (VD), modelstechnisch° (ANW), montagetechnisch° (ANW), muziekstechnisch (ANW), natuurstechnisch, netwerkstechnisch° (ANW), normstechnisch° (38MWC), omzettechnisch° (ANW), onderhandelingsstechnisch (38MWC), onderhoudstechnisch° (ANW), onderwijstechnisch, ontwerpstechnisch, oogstechnisch° (38MWC/ANW), opnametechnisch° (ANW), organisatietechnisch° (ANW), planningstechnisch° (ANW), pr-technisch° (ANW), prijsstechnisch, productstechnisch° (ANW), productietechnisch, racetechnisch° (38MWC/ANW), ramingstechnisch° (38MWC), reclametechnisch, regelstechnisch (ANW), reinigingstechnisch° (ANW), restauratietechnisch° (ANW), rijmstechnisch° (38MWC), robotstechnisch° (ANW), romantechnisch, roostertechnisch, ruimtestechnisch (VD) schaaektechnisch, sloopstechnisch° (ANW), scheepvaartstechnisch° (38MWC), schoenstechnisch° (38MWC/ANW), sekstechnisch° (38MWC), selectietechnisch° (ANW), seriestechnisch° (38MWC), smaakstechnisch° (ANW), spelstechnisch, sportstechnisch, spraakstechnisch° (ANW), Star Trek-technisch° (38MWC), stemstechnisch (ANW), stromingstechnisch° (ANW), taalstechnisch° (ANW), tandstechnisch, teeltstechnisch (ANW), televisietechnisch° (ANW), tennistechnisch° (ANW), tentamentechnisch° (CGN), terreintechnisch° (38MWC), theaterstechnisch, toneelstechnisch, trainingstechnisch (ANW), tuinstechnisch, uitgeverstechnisch° (ANW), uitvoeringstechnisch, vakstechnisch, veiligheidstechnisch° (38MWC), verftechnisch° (ANW), vergunning(s)stechnisch° (38MWC/ANW), verhaalstechnisch (ANW), verkeerstechnisch, verkoopstechnisch° (ANW), verlichtingstechnisch (ANW), verstechnisch, verzekeringstechnisch, vioolstechnisch, voedertechnisch (ANW), voedingstechnisch (ANW), voetbalstechnisch, volksgezondheidstechnisch° (ANW), vormstechnisch (CGN, ANW), vraagstechnisch° (ANW), vuurwapentechnisch° (ANW), wapentechnisch (ANW), waterkeringstechnisch° (ANW), waterstechnisch, waterschapstechnisch° (ANW), wedstrijdstechnisch (38MWC), wetstechnisch, zeetechnisch° (ANW), zuiveringstechnisch</p>
[[x] _V <i>technisch</i>]: 25 (10 hapaxes)	<p>acteertechnisch° (38MWC/ANW), bokstechnisch° (ANW), brouwstechnisch (ANW), koelstechnisch, kookstechnisch° (ANW), leestechnisch (ANW), meetstechnisch, melkstechnisch° (38MWC), proefstechnisch° (ANW), rekentechnisch° (38MWC), rijstechnisch, schilderstechnisch, schrijftechnisch° (ANW), speelstechnisch (ANW), tekentechnisch, turnstechnisch (ANW), typetechnisch° (ANW), vaartechnisch, vergadertechnisch (ANW), vertelstechnisch (ANW), vliegstechnisch (38MWC), waarneemstechnisch° (CGN), woontechnisch, zeilstechnisch, zendstechnisch° (ANW)</p>
[[[x] _{Adj} [x] _{NP} <i>technisch</i>]: 1 (1 hapax)	<p>openbare-orde-technisch° (ANW)</p>

2 Diachronic inventory of modifying words with *-technisch*

The diachronic inventory contains the 193 *technisch*-lexemes from the synchronic inventory and 11 additional lexemes retrieved by a search on the string <(-)technisch> (with the exclusion of *technisch* written separately, but including hyphens) in INL quotation text. The table presents a chronological overview of the first recordings of the *technisch*-lexemes. Iuxtaposed to each *technisch*-lexeme is the corresponding nominal compound [*x + techniek*], if any is attested in INL, ALC or ANW. Bold face marks the earlier recording. There is a share of 39 *technisch*-lexemes for which no corresponding nominal compound [*x + techniek*] is recorded.

Lexeme	First recording	Source	Corresponding compound [<i>x + techniek</i>]	First recording	Source
bouwtechnisch	1896	ALC	bouwtechniek	1911	ALC
cultuurtechnisch	1900	ALC	cultuurtechniek	1903	ALC
tandtechnisch	1913	ALC	tandtechniek	1920	ALC
belastingtechnisch	1917	ALC	belastingtechniek	1909	ALC
landbouwtechnisch	1917	ALC	landbouwtechniek	1909	ALC
bedrijfstechnisch	1917	ALC	bedrijfstechniek	1919	ALC
vaktechnisch	1917	INL	vaktechniek	1929	ALC
bestuurstechnisch	1918	ALC	bestuurstechniek	1941	ALC
vliegttechnisch	1919	INL	vliegttechniek	1903	ALC
handelstechnisch	1919	ALC	handelstechniek	1914	ALC
wetstechnisch	1921	ALC	wetstechniek	1906	ALC
markttechnisch	1922	ALC	markttechniek	1960	ALC
onderwijstechnisch	1926	ALC	onderwijstechniek	1928	ALC
<i>zangtechnisch</i>	1926	ALC	zangtechniek	1903	ALC
koeltechnisch	1928	ALC	koeltechniek	1910	ALC
zeiltechnisch	1928	ALC	zeiltechniek	1938	ALC
sporttechnisch	1928	ALC	sporttechniek	1976	ALC
verzekeringstechnisch	1929	ALC	verzekeringstechniek	1950	ALC
speltechnisch	1930	ALC	speltechniek	1920	ALC
verkeerstechnisch	1930	ALC	verkeerstechniek	1917	ALC
scheepvaarttechnisch	1933	ALC	scheepvaarttechniek	1930	INL
wapentechnisch	1933	ALC	wapentechniek	1915	ALC
autotechnisch	1935	ALC	autotechniek	1914	INL
filmtechnisch	1936	ALC	filmtechniek	1921	ALC
wedstrijdtechnisch	1936	ALC	wedstrijdtechniek	1926	ALC
<i>warmtetechnisch</i>	1937	INL	warmtetechniek	1930	ALC
<i>lichttechnisch</i>	1937	INL	lichttechniek	1925	ALC
stemtechnisch	1937	ALC	stemtechniek	1949	ALC
vaarttechnisch	1938	ALC	vaarttechniek	1977	ALC
toneeltechnisch	1938	INL	toneeltechniek	1891	ALC
verkooptechnisch	1938	ALC	verkooptechniek	1937	ALC
beheer(s)technisch	1939	ALC	beheerstechniek	1969	ALC
kostprijsstechnisch	1939	ALC	kostprijsstechniek	1964	ALC
muziektechnisch	1939	ALC	muziektechniek	1978	ALC
luchttechnisch	1940	ALC	luchttechniek	1925	ALC
verftechnisch	1940	INL	verftechniek	1929	ALC
voetbaltechnisch	1940	ALC	voetbaltechniek	1924	ALC
luchtvaarttechnisch	1943	ALC	luchtvaarttechniek	1915	ALC
gastechnisch	1943	ALC	gastechniek	1910	ALC
<i>arbeidstechnisch</i>	1944	INL	arbeidstechniek	1941	ALC
rijstechnisch	1945	ALC	rijstechniek	1939	ALC
prijstechnisch	1946	ALC	-	-	-
geluidstechnisch	1946	ALC	geluidstechniek	1936	ALC
schaaktechnisch	1946	ALC	schaaktechniek	1940	ALC
druktechnisch	1946	INL	druktechniek	1912	INL

<i>textieltechnisch</i>	1948	INL	textieltechniek	1925	INL
spintechnisch	1948	INL	spintechniek	1972	ALC
verbindingstechnisch	1950	INL	<i>verbindingstechniek</i>	1954	INL
bokstechnisch	1951	ALC	bokstechniek	1936	ALC
<i>tuinbouwtechnisch</i>	1953	INL	tuinbouwtechniek	1947	ALC
woontechnisch	1953	ALC	woontechniek	1959	ALC
spraaktechnisch	1953	ALC	spraaktechniek	1958	ALC
reclamatechnisch	1953	ALC	reclamatechniek	1913	ALC
productietechnisch	1953	ALC	productietechniek	1930	ALC
viooltechnisch	1953	ALC	viooltechniek	1932	ALC
voedertechnisch	1954	ALC	voedertechniek	1932	ALC
begrotingstechnisch	1956	ALC	begrotingstechniek	1936	ALC
tekentechnisch	1956	ALC	tekentechniek	1957	ALC
<i>visserijtechnisch</i>	1957	ALC	visserijtechniek	1953	ALC
regeltechnisch	1957	ALC	regeltechniek	1948	ALC
voedingstechnisch	1958	ALC	voedingstechniek	1965	ALC
romantechnisch	1958	ALC	romantechniek	1950	ALC
teelttechnisch	1958	ALC	teelttechniek	1958	ALC
vergadertechnisch	1958	ALC	vergadertechniek	1953	ALC
verhaaltechnisch	1959	ALC	verhaaltechniek	1938	INL
kweektechnisch	1959	ALC	kweektechniek	1978	ALC
<i>waterbouwtechnisch</i>	1959	INL	waterbouwtechniek	1930	INL
taaltechnisch	1959	ALC	taaltechniek	1995	ANW
vergunning(s)technisch	1959	ALC	-	-	-
opnametechnisch	1959	ALC	opnametechniek	1942	ALC
speeltechnisch	1960	ALC	speeltechniek	1928	ALC
televisietechnisch	1960	ALC	televisietechniek	1936	ALC
uitvoeringstechnisch	1960	ALC	uitvoeringstechniek	1954	ALC
watertechnisch	1960	ALC	watertechniek	1938	ALC
loontechnisch	1961	ALC	loontechniek	1956	ALC
brouwtechnisch	1961	ALC	brouwtechniek	1994	ALC
douanetechnisch	1961	ALC	-	-	-
beroepstechnisch	1961	ALC	beroepstechniek	1982	ALC
roostertechnisch	1961	ALC	roostertechniek	1989	ALC
vormtechnisch	1962	ALC	vormtechniek	1971	ALC
filmkunsttechnisch	1962	INL	-	-	-
tuintechnisch	1962	INL	tuintechniek	1936	INL
proeftechnisch	1964	INL	proeftechniek	2011	ALC
schrijftechnisch	1964	ALC	schrijftechniek	1949	ALC
klanktechnisch	1964	ALC	klanktechniek	1956	ALC
meettechnisch	1964	ALC	meettechniek	1925	INL
schildertechnisch	1964	ALC	schildertechniek	1911	ALC
zuiveringstechnisch	1965	ALC	zuiveringstechniek	1967	ALC
gebouwtechnisch	1965	ALC	-	-	-
bewijstechnisch	1965	ALC	bewijstechniek	1996	ALC
korfbaltechnisch	1965	ALC	korfbaltechniek	1974	ALC
waterschapstechnisch	1966	ALC	-	-	-
turntechnisch	1966	ALC	turntechniek	1965	ALC
melktechnisch	1966	ALC	melktechniek	1960	ALC
leestechnisch	1966	ALC	leestechniek	1949	INL
theatertechnisch	1968	ALC	theatertechniek	1969	ALC
onderhoudstechnisch	1968	ALC	onderhoudstechniek	1972	ALC
tennistechnisch	1969	ALC	tennistechniek	1978	ALC
modeltechnisch	1970	ALC	modeltechniek	1997	ALC
bibliotheektechnisch	1970	ALC	bibliotheektechniek	1988	ALC
judotechnisch	1971	ALC	judotechniek	1971	ALC
zendtechnisch	1971	ALC	zendtechniek	1930	ALC
kostentechnisch	1971	ALC	kostentechniek	1987	ALC
installatietechnisch	1971	ALC	installatietechniek	1946	ALC
gezondheidstechnisch	1971	ALC	gezondheidstechniek	1886	ALC
milieutechnisch	1971	ALC	milieutechniek	1972	ALC
beleidstechnisch	1971	ALC	beleidstechniek	1970	ALC

kooktechnisch	1972	ALC	kooktechniek	1942	ALC
brandtechnisch	1972	ALC	brandtechniek	1928	ALC
verteltechnisch	1972	ALC	verteltechniek	1952	INL
computertechnisch	1973	ALC	computertechniek	1965	ALC
schoentechnisch	1973	ALC	schoentechniek	1980	ALC
trainingstechnisch	1973	ALC	trainingstechniek	1970	ALC
materiaaltechnisch	1974	ALC	materiaaltechniek	1949	INL
groepstechnisch	1974	ALC	groepstechniek	1968	ALC
beveiligingstechnisch	1974	ALC	beveiligingstechniek	1912	ALC
smaaktechnisch	1975	ALC	-	-	-
veiligheidstechnisch	1975	ALC	veiligheidstechniek	1968	ALC
rekentechnisch	1975	ALC	rekentechniek	1954	ALC
gitaartechnisch	1975	ALC	gitaartechniek	1969	ALC
energietechnisch	1976	ALC	energietechniek	1970	ALC
bereidingstechnisch	1976	ALC	bereidingstechniek	1924	ALC
producttechnisch	1976	ALC	producttechniek	1996	ALC
verstechnisch	1976	ALC	verstechniek	1912	ALC
basketbaltechnisch	1976	ALC	basketbaltechniek	1978	ALC
planningstechnisch	1976	ALC	planningstechniek	1969	ALC
scheepstechnisch	1976	ALC	scheepstechniek	1908	ALC
restauratietechnisch	1977	ALC	restauratietechniek	1974	ALC
natuurtechnisch	1977	ALC	natuurtechniek	1974	ALC
constructietechnisch	1977	ALC	constructietechniek	1958	ALC
managementtechnisch	1978	ALC	managementtechniek	1970	ALC
handbaltechnisch	1978	ALC	handbaltechniek	1980	ALC
layouttechnisch	1978	ALC	-	-	-
ontwerptechnisch	1979	ALC	ontwerptechniek	1980	ALC
instrumenttechnisch	1979	ALC	instrumenttechniek	1979	ALC
mijntechnisch	1979	ALC	mijntechniek	1950	ALC
investeringstechnisch	1981	ALC	-	-	-
gebruikstechnisch	1982	ALC	gebruikstechniek	1994	ANW
klaviertechnisch	1982	ALC	klaviertechniek	1922	ALC
bestemmingsplantechnisch	1984	ALC	-	-	-
reinigingstechnisch	1984	ALC	reinigingstechniek	1970	ALC
CAO-technisch	1985	ALC	-	-	-
verlichtingstechnisch	1986	ALC	verlichtingstechniek	1894	INL
omzettechnisch	1987	ALC	-	-	-
acteertechnisch	1987	ALC	acteertechniek	1970	ALC
marketingtechnisch	1988	ALC	marketingtechniek	1965	ALC
groentechnisch	1989	ALC	groentechniek	1989	ALC
lifttechnisch	1990	ALC	lifttechniek	1962	ALC
charttechnisch	1990	ALC	-	-	-
gesprekstechnisch	1992	ALC	gesprekstechniek	1958	ALC
rijmtechnisch	1992	ALC	rijmtechniek	1965	ALC
exploitatietechnisch	1992	ALC	-	-	-
serietechnisch	1992	38MWC	-	-	-
jaartellingstechnisch	1992	38MWC	-	-	-
literatuurtechnisch	1993	ALC	-	-	-
onderhandelingstechnisch	1993	ALC	onderhandelingstechniek	1962	ALC
accommodatietechnisch	1993	ANW	-	-	-
agendatechnisch	1993	ALC	-	-	-
houtproductietechnisch	1994	ANW	-	-	-
ruimtetechnisch	1994	ALC	ruimtetechniek	1959	ALC
danstechnisch	1994	38MWC	danstechniek	1931	ALC
racetechnisch	1994	ANW	racetechniek	1983	ALC
oogtechnisch	1994	ANW	-	-	-
mediatechnisch	1994	ANW	mediatechniek	1981	ALC
zeetechnisch	1994	ANW	zeetechniek	1977	ALC
ramingstechnisch	1995	38MWC	ramingstechniek	1976	ALC
terreintechnisch	1995	38MWC	terreintechniek	2004	ALC
bemiddelingstechnisch	1995	ANW	bemiddelingstechniek	1997	ALC
selectietechnisch	1995	ANW	selectietechniek	1973	ALC

sekstechnisch	1995	38MWC	sekstechniek	1970	ALC
animatietechnisch	1995	ANW	animatietechniek	1983	ALC
normtechnisch	1995	38MWC	-	-	-
faillissementstechnisch	1995	38MWC	-	-	-
Star Trek-technisch	1995	38MWC	-	-	-
klimtechnisch	1996	ANW	klimtechniek	1963	ALC
uitgeverstechnisch	1996	ANW	-	-	-
pr-technisch	1997	ALC	pr-techniek	1986	ALC
montagetechnisch	1997	ANW	montagetechniek	1955	ALC
organisatietechnisch	1997	ANW	organisatietechniek	1942	ALC
vraagtechnisch	1997	ANW	vraagtechniek	1953	ALC
waarneemtechnisch	1999	CGN	waarneemtechniek	2009	ALC
designtechnisch	1999	ALC	designtechniek	2009	ALC
gentechisch	2002	ANW	gentechiek	1986	ALC
Arbotechnisch	2000	ANW	-	-	-
netwerktechnisch	2001	ANW	netwerktechniek	1993	ANW
robottechnisch	2001	ANW	robottechniek	1981	ALC
constructiebouwtechnisch	2001	ANW	-	-	-
infotechnisch	2001	ANW	-	-	-
ICT-technisch	2001	ANW	ICT-techniek	1999	ANW
typetechnisch	2002	ANW	-	-	-
openbare-orde-technisch	2002	ANW	-	-	-
tentamentechnisch	2003	CGN	-	-	-
frequentietechnisch	2004	ANW	frequentietechniek	1962	ALC
vuurwapentechnisch	2004	ANW	-	-	-
stromingstechnisch	n.d.	ANW	stromingstechniek	1966	ALC
ingenieurstechnisch	n.d.	ANW	ingenieurstechniek	1907	ALC
instructietechnisch	n.d.	ANW	instructietechniek	1955	ALC
volksgezondheidstechnisch	n.d.	ANW	-	-	-
lesroostertechnisch	n.d.	ANW	-	-	-
evolutietechnisch	n.d.	ANW	-	-	-
lenstechnisch	n.d.	ANW	-	-	-
cassatietechnisch	n.d.	ANW	-	-	-
ketelstechnisch	n.d.	ANW	-	-	-
waterkeringstechnisch	n.d.	ANW	-	-	-

Notes:

- *proeftechnisch* (1964) in INL refers to scientific experiment whereas *proeftechniek* in ALC and *proeftechnisch* in ANW refer to tasting (wine).
- *Terreintechniek* is a company name.

Appendix to chapter 15: *-tjes*

1 Synchronic inventory of modifying words with *-tjes*

A search was carried out in Van Dale (2005), 38MWC, CGN and ANW on lemmas ending in the string <jes>. The modifying words were selected manually since the search result contained hits for nominal diminutives (e.g., *lief-je-s_N* ‘lovers’, *minn-etje-s_N* ‘minus signs’). I left out the numerals (e.g., *twee-tjes* ‘two’, *beid-jes* ‘both’). I left out *mortjes* and *stoffeltjes*, two highly unusual forms from Van Dale (2005): WNT notes that *mortjes* is a variant for *mortis* and *stoffeltjes* is based on the proper name *Christoffel*. I did not search for the regional variant *-ke(n)s*.

112 modifying words with <i>-tjes</i>	
[[x] _{ADJ} <i>tjes</i>]: 104 (18 hapaxes)	aardig-jes (VD), banaal-tjes° (ANW), bang-e-tjes, blauw-tjes, bleek-jes, braaf-jes, brak-jes° (CGN), bruin-tjes° (CGN), dapper-tjes° (ANW), doll-e-tjes, domm-e-tjes (VD), droog-jes, dunn-e-tjes, enig-jes° (ANW), fijn-tjes, flauw-tjes, flus-jes (VD), fraai-tjes (VD), fris-jes, geil-tjes° (38MWC), gemeen-tjes (VD), gewoon-tjes, gezellig-jes (ANW), glad-jes, half-jes, handig-jes (VD), helder-tjes (VD), iel-(e)-tjes (VD), kaal-tjes, kalm-pjes, kant-jes (VD), karig-jes (VD), keurig-jes° (ANW), klein-tjes, knap-jes (VD), knus-jes, koel-tjes, koud-jes (VD), krap-jes, laf-jes, lauw-tjes (ANW), leep-jes° (ANW), lekker-tjes, leuk-jes (VD), licht-jes, lief-jes, los-jes, luchtig-jes, mager-tjes, mak-jes (VD), matig-jes, minn-e-tjes, mooitjes (VD), murw-tjes (VD), nauw-tjes (VD), net-jes, nuchter-tjes° (ANW), pips-jes° (ANW), poppig-jes (VD), pover-tjes, proper-tjes, puntig-jes (VD), rozig-jes° (ANW), rustig-jes, schamel-tjes° (ANW), scheef-jes° (ANW), schoon-tjes, schraal-tjes, schriel-tjes (VD), simpel-tjes, sip-jes° (ANW), sjofel-tjes, slap-jes, slimm-e-tjes (ANW), slordig-jes° (ANW), small-e-tjes, smerig-jes° (38MWC/ANW), sober-tjes (VD), soepel-tjes, somber-tjes, staag-jes (VD), stijf-jes, still-e-tjes, strak-jes(1), stramm-e-tjes° (ANW), stroef-jes, tamm-e-tjes° (ANW), teer-tjes (VD), traag-jes, vaag-jes, vet-jes, vlot-jes, vluchtig-jes (VD), voorzichtig-jes, warm-pjes, wit-jes, zacht-jes, zat-jes, ziek-jes, zoet-jes, zuinig-jes, zuur-tjes, zwak-jes, zwierig-jes (VD)
[[x] _{ADV} <i>tjes</i>]: 8	effen-tjes, even-tjes, iets-jes, pas-jes (VD), saam-pjes, stiekem-pjes, strak-jes(2), well-e-tjes

Notes:

- *even-tjes*: the informal variant *effen-tjes* is registered in Van Dale (2005), but in the material I only found the variants *eff-e-tjes*, *effie-tjes*, *ef-jes*.
- incorporated with *net-jes* is the compound *kraaknet-jes* ‘spick and span’ (attested for instance in CGN) (see Van Dale 2005/kraak-)
- *slap-jes*: a variant *slapp-e-tjes* is attested once in ANW.
- *stiekem-pjes*: there is a variant *stiekem-tjes* in CGN.
- *strak-jes(1)* is derived from the qualifier *strak* ‘tight’ whereas *strak-jes(2)* is derived from the temporal localiser *straks* ‘soon, later’ (but see Royen 1948a: 50 and Schultink 1962: 132).
- *voorzichtig-jes*: a variant *voorzicht-jes* is attested twice in ANW.

2 Diachronic inventory of modifying words with *-tjes*

Included in the diachronic inventory are the 112 *tjes*-lexemes from the synchronic inventory and 62 additional lexemes from INL.

The 112 *tjes*-lexemes from the synchronic inventory were searched individually in INL quotation text and in ALC for their earliest recording. Apart from *-je(n)s*, I searched INL quotation text for variants with *-ke(n)s*, *-ge(n)s* and without *-s* allowing for as many spelling variants as possible (*-ken*, *-kine*, *-kijn* etc.). If such variants occurred, the earliest recording is included in the table juxtaposed to the *tjes*-derivative. Hits had to be checked manually since they may represent *n* instead of modifying lexemes.

I collected 62 additional *tjes*-lexemes; there is a share of 58 lexemes with a final *-s* and 4 lexemes without a final *-s*. They were collected by a search in INL lemma text on lemmas ending in the string <jes> and from the WNT entry on *-tjes*, allowing for variants. The modifying words were selected manually from the search result. Variants and earlier recordings were searched according to the procedure above allowing for as many variants as possible.

Ct.	Lexeme	First recording	Source	Original form first recording	First recording INL
13 th	<i>lutteltje</i>	-	-	<i>luttelken</i>	1240
	<i>ietje</i>	-	-	<i>iwentken</i>	1240
	<i>stilletjes</i>	1617	INL	<i>stillekine</i>	1265-70
				<i>stilkijns</i>	1479
	<i>allengsjes</i>	1610-30	INL	<i>Alleenskine</i>	1285
			<i>alleenskings</i>	1467-80	
14 th	<i>lijsjes</i>	-	-	<i>lisekine</i>	1315-30
	<i>ansaantjes</i>	-	-	<i>ansaenkens</i>	1346
	<i>schoontjes</i>	1615	INL	<i>scoonkine</i>	1350
				<i>schoonkins</i>	1467-80
	<i>volletjes</i>	-	-	<i>vullekine</i>	1380-1425
15 th	<i>kleintjes</i>	1560	INL	<i>cleynkijn</i>	1410-40
				<i>kleinkens</i>	1573
	<i>zachtjes</i>	1600	INL	<i>sachtkine</i>	1440-60
				<i>sachtkens</i>	1567
				<i>sachtgens</i>	1570
	<i>te(d)ertjes</i>	1622	INL	<i>tederken</i>	1485
				<i>teerkens</i>	1530
16 th	<i>zoetjes</i>	1610-20	INL	<i>soetkens</i>	1528
				<i>zoetgins</i>	1550
	<i>ziekjes</i>	1600-10	INL	<i>ziecxkens</i>	1550-75
	<i>fraaitjes</i>	1612	INL	<i>fraykens</i>	1551
				<i>fraeyken</i>	1644
	<i>vetjes</i>	1624	INL	<i>vetkens</i>	1556
	<i>warmpjes</i>	1615	INL	<i>warmkens</i>	1560
	<i>fijntjes</i>	1615	INL	<i>fynkens</i>	1561
	<i>fiertjes</i>	161.	INL	<i>fierkens</i>	1570
	<i>dunnetjes</i>	1758	INL	<i>dunnekes</i>	1579
	<i>wijltjes</i>	-	-	<i>wijlkens</i>	1588
	<i>strafjes</i>	1624	INL	<i>strafkens</i>	1595
	<i>lichtjes</i>	1770	INL	<i>lichtgens</i>	1595
	<i>redelijkjes</i>	1697	INL	<i>relickgens</i>	1596
<i>mooitjes</i>	1612	INL	<i>moitges</i>	1599	
17 th	flusjes	1600	INL	<i>vluskens</i>	1621
	<i>propertjes</i>	1612	INL	properkens	1600
	<i>zoetelijkjes</i>	1679	INL	<i>soetelijckskens</i>	1607
	scheefjes	1610	INL	-	-

	koeltjes	1635	INL	koeltges	1611
	sobertjes	1633	INL	sobertgiens	1612
	stijfjes	1612	INL	-	-
	<i>waarachtigjes</i>	-	-	waeraftichgens	1612
	<i>koentjes</i>	161.	INL	-	-
	<i>slechtjes</i>	161.	INL	-	-
	welletjes	161.	INL	-	-
	bleekjes	1613	INL	-	-
	<i>eensjes</i>	1615	INL	<i>eenskens</i>	<i>1617</i>
	netjes	1617	INL	nettekens	1616
	magertjes	1616	INL	-	-
	kaaltjes	1617	INL	-	-
	<i>wildjes</i>	1617	INL	-	-
	<i>diepjes</i>	1617	INL	-	-
	<i>zepertjes</i>	1618	INL	-	-
	zuinigjes	1618	INL	-	-
	effentjes	162.	INL	-	-
	zwakjes	1620	INL	-	-
	schraaltjes	1621	INL	-	-
	strakjes(2)	1622	INL	strakskens	1900-04
	<i>dichtjes</i>	1626	INL	-	-
	<i>dreutsjes</i>	1627	INL	-	-
	slapjes	1627	INL	slappekens	1865-70
	<i>suffjes</i>	1627	INL	-	-
	<i>wuff(t)jes</i>	1627	INL	-	-
	strakjes(1)	1628	INL	-	-
	<i>geepsjes</i>	1628	INL	-	-
	<i>steiltjes</i>	1628	INL	-	-
	<i>vroegjes</i>	1630-34	INL	-	-
	<i>kortjes</i>	1632	INL	<i>kortkens</i>	<i>1656</i>
	<i>rasjes</i>	1635	INL	-	-
	knapjes	1637	INL	-	-
	<i>perfectjes</i>	1639	INL	-	-
	<i>groentjes</i>	1644	INL	-	-
	<i>schaarsjes</i>	1645	INL	-	-
	bruintjes	1645	INL	-	-
	nauwtjes	1793	INL	naukens	1645
	<i>darteltjes</i>	1647	INL	-	-
	<i>platjes</i>	1653	INL	-	-
	slordigjes	1653	INL	-	-
	braafjes	1657	INL	-	-
	luchtigjes	1657	INL	-	-
	<i>sluikjes</i>	1657	INL	-	-
	pasjes	1661	INL	-	-
	povertjes	1661	INL	poverkes	1899-1924
	losjes	1663	INL	-	-
	gladjes	1663-70	INL	-	-
	<i>snipjes</i>	1663-70	INL	-	-
	aardigjes	1664	INL	-	-
	enigjes	1684	INL	-	-
	<i>ronpjes</i>	1684	INL	-	-
	staagjes	1698	INL	-	-
18 th	<i>dikjes</i>	1701	INL	-	-
	zuurtjes	1701	INL	-	-
	lekkertjes	1707-14	INL	-	-
	<i>smeegjes</i>	1709	INL	-	-
	puntigjes	1710-29	INL	-	-
	<i>sierlijkjes</i>	1710-29	INL	-	-
	witjes	1726	INL	-	-
	eventjes	1732	INL	-	-
	<i>schappelijkjes</i>	1733	INL	-	-
	flauwtjes	1735	INL	-	-

	<i>droogjes</i>	1747	INL	-	-
	<i>reisjes</i>	1754	INL	<i>reizekens</i>	1873
	<i>weekjes</i>	1766	INL	-	-
	<i>handigjes</i>	1774	INL	-	-
	<i>gemeentjes</i>	1779	INL	-	-
	<i>heldertjes</i>	1781	INL	-	-
	<i>vlugjes</i>	1781	INL	-	-
	<i>eenvoudigjes</i>	1782	INL	-	-
	<i>rechtzinnigjes</i>	1782	INL	-	-
	<i>nederigjes</i>	1782	INL	-	-
	<i>stemmigjes</i>	1782	INL	-	-
	<i>vinnigjes</i>	1782	INL	-	-
	<i>vleselijkjes</i>	1782	INL	-	-
	<i>blauwtjes</i>	1784	INL	-	-
	<i>matigjes</i>	1784	INL	-	-
	<i>koketjes</i>	1784	INL	-	-
	<i>liefjes</i>	1785	INL	-	-
	<i>draltjes</i>	1785-86	INL	-	-
	<i>rauwttjes</i>	1789	INL	-	-
	<i>kantjes</i>	1798	INL	-	-
19 th	<i>krappjes</i>	1820	INL	-	-
	<i>dolletjes</i>	1830-74	INL	-	-
	<i>poppigjes</i>	1839	INL	-	-
	<i>rustigjes</i>	1841	ALC	-	-
	<i>halfjes</i>	1855	INL	-	-
	<i>knusjes</i>	1864	INL	-	-
	<i>warempeltjes</i>	1865	INL	-	-
	<i>zatjes</i>	1872	INL	-	-
	<i>murwtjes</i>	1872	VD	-	-
	<i>zwerigjes</i>	1872	VD	-	-
	<i>ontjes</i>	1873	INL	-	-
	<i>leukjes</i>	1879	ALC	-	-
	<i>dufjes</i>	1882-1912	INL	-	-
	<i>keurigjes</i>	1882-1912	INL	-	-
	<i>traagjes</i>	1910	INL	<i>traagskes</i>	1885-91
	<i>kalmpjes</i>	1890	INL	-	-
	<i>gezelligjes</i>	1890	INL	-	-
	<i>sjofeltjes</i>	1892	ALC	-	-
	<i>koudjes</i>	1893-1918	INL	-	-
	<i>zedigjes</i>	1896	INL	-	-
	<i>voorzichtigjes</i>	1896	INL	-	-
	<i>lafjes</i>	1896	ALC	-	-
	<i>stiekempjes</i>	1897	ALC	-	-
	<i>smalletjes</i>	1898	ALC	-	-
	<i>vluchtigjes</i>	1899	ALC	-	-
20 th	<i>innigjes</i>	1901	INL	-	-
	<i>deftigjes</i>	1901	INL	-	-
	<i>simpeltjes</i>	1904	ALC	-	-
	<i>echtjes</i>	1905	INL	-	-
	<i>minnetjes</i>	1906	INL	-	-
	<i>frisjes</i>	1907	ALC	-	-
	<i>nuchtertjes</i>	1908	ALC	-	-
	<i>vaagjes</i>	1908	INL	-	-
	<i>gewoontjes</i>	1909	INL	-	-
	<i>schrieltjes</i>	1910	INL	-	-
	<i>vaaltjes</i>	1910	INL	-	-
	<i>slokjes</i>	1910	INL	-	-
	<i>saampjes</i>	1912	ALC	-	-
	<i>slimmetjes</i>	1912	ALC	-	-
	<i>sipjes</i>	1920	ALC	-	-
	<i>schameltjes</i>	1922	ALC	-	-
	<i>lauwtjes</i>	1929	ALC	-	-

	<i>prontjes</i>	1935	INL	-	-
	<i>amicaaltjes</i>	1949	INL	-	-
	<i>pipsjes</i>	1950	ALC	-	-
	<i>vlotjes</i>	1957	INL	-	-
	<i>karigjes</i>	1957	ALC	-	-
	<i>stroefjes</i>	1961	ALC	-	-
	<i>geiltjes</i>	1965	ALC	-	-
	<i>ietsjes</i>	1968	ALC	-	-
	<i>iel(e)tjes</i>	1970	ALC	-	-
	<i>soepeltjes</i>	1970	ALC	-	-
	<i>sombertjes</i>	1970	ALC	-	-
	<i>rozigjes</i>	1975	ANW	-	-
	<i>tammetjes</i>	1978	ALC	-	-
	<i>dappertjes</i>	1979	ANW	-	-
	<i>banaaltjes</i>	1982	ANW	-	-
	<i>bangetjes</i>	1988	ALC	-	-
	<i>dommetjes</i>	1992	VD	-	-
	<i>makjes</i>	1992	VD	-	-
	<i>smerigjes</i>	1995	38MWC/ANW	-	-
	<i>leepjes</i>	1996	ANW	-	-
	<i>strammetjes</i>	1996	ANW	-	-
21 st	<i>brakjes</i>	2002	CGN	-	-

Notes:

- *echt-jes* is only recorded as *ech-ies*, *flauw-tjes* in WNT as *flau-ties*.
- *strak-jes(1)* is derived from the qualifier *strak* 'tight' whereas *strak-jes(2)* is derived from the temporal localiser *straks* 'soon, later' (but see Royen 1948a: 50 and Schultink 1962: 132).
- *voorzichtig-jes*: a variant *voorzicht-jes* is attested, see WNT/voorzichtigjes.
- In various cases, corresponding N are attested, e.g. *een reys-ken*, *een iets-je*.

Appendix to chapter 16: *-waarts*

1 Synchronic inventory of modifying words with *-waarts*

A search was carried out in Van Dale (2005), 38MWC, CGN and ANW on lemmas ending in the string <waarts>. The modifying lexemes were collected manually.

105 modifying words with <i>-waarts</i>	
[[x] _N <i>waarts</i>]: 58 (33 hapaxes)	aard-waarts° (ANW), Amsterdam-waarts° (ANW), berm-waarts° (ANW), boekhandel-waarts° (ANW), bos-waarts° (ANW), Brussel-waarts (ANW), buik-waarts° (ANW), crescendo-waarts° (ANW), democratie-waarts° (ANW), dood-waarts° (ANW), dorp-waarts° (ANW), douche-waarts, duinen-waarts° (ANW), Europa-waarts° (ANW), feest-waarts° (ANW), file-waarts° (ANW), graf-waarts , grond-waarts° (ANW), Hansbeke-waarts° (ANW), helle-waarts° (ANW), hemel-waarts , hoek-waarts (VD), hoofd-waarts° (ANW), huis-waarts , kelder-waarts° (ANW), kerk-waarts , keuken-waarts° (ANW), klas-waarts (ANW), land-waarts , Leuven-waarts° (ANW/38MWC), lij-waarts , lingerie-waarts° (ANW), loef-waarts (VD), neus-waarts (ANW), Oostende-waarts° (ANW), pool-waarts (ANW), ravijn-waarts° (ANW), rug(ge)-waarts , school-waarts , stad-waarts , ste(d)e-waarts (VD), straat-waarts° (ANW), strand-waarts , theater-waarts° (ANW), top-waarts (VD), trein-waarts (VD), tuin-waarts° (ANW), veld-waarts , villa-waarts° (ANW), Vlaardingen-waarts° (ANW), voet-waarts° (ANW), vrienden-waarts° (ANW/38MWC), werk-waarts (ANW), wind-waarts (VD), winkel-waarts° (ANW), zee-waarts , zij-waarts , zon-waarts° (ANW)
[[x] _{ADV} <i>waarts</i>]: 29 (7 hapaxes)	achter-waarts , af-waarts , beneden-waarts , binnen-waarts , boven-waarts , buiten-waarts , der-waarts , heen-waarts° (ANW), her-waarts , hier-waarts° (ANW), in(ne)-waarts , ne(d)er-waarts , noord-waarts , noordoost-waarts° (ANW), noordwest-waarts° (ANW), oost-waarts , op-waarts , terug-waarts (ANW), thuis-waarts° (ANW), uit-waarts (VD), voor-waarts , voorop-waarts° (ANW), weer-waarts (ANW), wer-waarts (VD), west-waarts , WNW-waarts° (ANW), zuid-waarts , zuidoost-waarts (ANW), zuidwest-waarts
[[[x] _N [x] _{ADV}] _{AdvP} <i>waarts</i>]: 17 (5 hapaxes)	berg-af-waarts , berg-op-waarts , bos-in-waarts° (ANW), helling-af-waarts° (ANW), helling-op-waarts, heuvel-af-waarts, heuvel-op-waarts, land-in-waarts , mond-in-waarts° (ANW), Nijl-af-waarts° (ANW), stad-in-waarts (ANW), stad-(s)-uit-waarts (ANW), stroom-af-waarts , stroom-op-waarts , wind-af-waarts, wind-op-waarts, zee-in-waarts° (ANW)
[[x] _{ADJ} <i>waarts</i>]: 1	ander-waarts (VD)

Notes:

- The form *weerwaarts* (ANW) is only attested in the combination *heen- en weerwaarts* 'back and forth'.
- *Foorwaarts* (ANW) was not included since it is a book title and *schouderbinnenwaarts* since it is a n.

2 Diachronic inventory of modifying words with *-waarts*

Included in the diachronic inventory are the 105 *waarts*-lexemes from the synchronic inventory as well as 55 additional *waarts*-lexemes from INL.

The 105 *waarts*-lexemes from the synchronic inventory were searched individually in INL quotation text and in ALC for their earliest recording allowing for various variants (*-waarts*, *-waerts*, *-werts* etc.). INL quotation text was then searched for the presence of earlier attestations without a final *-s* allowing for various variants (*-waart*, *-waert*, *-wert* etc.) and for earlier attestations of a sequence preceded by a PREP. I have always taken the first recording irrespective of adjectival or adverbial use and irrespective of inflectional endings.

I collected 55 additional *waarts*-lexemes. These were taken from the INL entry on *-waarts* and by means of a search in INL lemma text on the string <waarts> allowing for various variants. I searched INL quotation text for corresponding lexemes without a final *-s* and for earlier recordings of sequences preceded by a PREP. The relevant lemmas were selected manually from the search result.

Ct.	Lexeme	First recording	Source	Sequence [[PREP] + X + <i>waart(s)</i>]	First recording INL
12 th	<i>toewaarts</i>	1630	INL	<i>zo wordes</i>	1151-1200
13 th	<i>derwaarts</i>	1410	INL	<i>darwart</i>	1240
	<i>herwaarts</i>	1437	INL	<i>herwert</i>	1240
	<i>werwaarts</i>	1290	INL	<i>warwaert</i>	1240
	uitwaarts	1252	INL	<i>uitwaert</i>	1275-1300
	opwaarts	1252	INL	<i>opwaert</i>	1290-1300
	<i>achterwaarts</i>	1455	INL	achterwart	1265-70
	<i>voorwaarts</i>	1298	INL	vorewert	1265-70
	<i>oostwaarts</i>	1279	INL	ostward	1266
	<i>noordwaarts</i>	1297	INL	nortwart	1267
	<i>ne(d)erwaarts</i>	1290	INL	nederwert	1268
	<i>westwaarts</i>	1287	INL	westward	1272
	<i>zuidwaarts</i>	1281	INL	zuetwart	1271-72
	<i>voortwaarts</i>	1305	INL	vortwart	1277
	<i>hemelwaarts</i>	1610	INL	hemelwart	1290
				Ten hemelwaerts	1562
14 th	<i>thuiswaarts</i>	1537	INL	thuiswert	1317-25
	<i>el(der)waarts</i>	1440-60	INL	elderwaert	1326-50
	<i>gindswaarts</i>	1588	INL	ghinswaert	1348
	onderwaarts	1351	INL	<i>onderwart</i>	1420
15 th	<i>zijwaarts</i>	1642	INL	zijdwaert	1435-55
				<i>ter zijdewaarts</i>	1598
	<i>dalwaarts</i>	1887	ALC	<i>te dale ward</i>	1315-30
				daelwaert	1450-70
				<i>Ten dalewaarts</i>	1618
	afwaarts	1451-1500	INL	<i>afwaert</i>	1802
	<i>anderwaarts</i>	1599	INL	anderwaert	1485
<i>schoolwaarts</i>	1855	ALC	(ter) scolen wert	1490-1510	
			<i>schoolwaert</i>	1666	
16 th	landwaarts	1500-36	INL	<i>te landeward</i>	1284
				<i>te landewaerts</i>	1451-1500
	binnenwaarts	1552	INL	<i>binnenwaert</i>	1555
	watwaarts	1559	INL	-	-
	bovenwaarts	1573	INL	<i>bovenwaert</i>	1623
	zijn(ent)waarts	1573	INL	<i>tsinent waert</i>	1526
	opperwaarts	1577	INL	<i>opperwaert</i>	1662
	noordwestwaarts	1578	INL	<i>int Noord-Westwaert</i>	1621-25
zeewaarts	1586	INL	<i>ter zeewarts</i>	1400-99	

	zuidwestwaarts	1660	INL	zuydwestwaert aen	1595
				Suyt-West-waert	1622
	straatwaarts	1648	INL	ter stratewaerts	1525
				straatwaert	1598
	<i>baatwaarts</i>	<i>1598-1603</i>	INL	<i>tonser batewaert</i>	<i>1350</i>
				baetwaert aen	1598
17 th	slotwaarts	1600-96	INL	slotewaert	1657
	avondwaarts	1610	INL	ten auont warts	1562
	ginderwaarts	1612	INL	-	-
	duin(en)waarts	1615	INL	te Duynewaerts	1595
	benedenwaarts	1617	INL	-	-
	boswaarts	1618	INL	ten boscheward	1315-30
				boschwaert in	1627
	rug(ge)waarts	1619	INL	Te ruggewaert	1619
				rughwaert	1633
	windwaarts	1671	INL	te windewaert	1557
				windtwaert op	1619
	bed(de)waarts	1620	INL	<i>ten beddewert</i>	<i>1320-25</i>
				<i>ten beddewaarts</i>	<i>1644</i>
	kotwaarts	1621	INL	-	-
	hierwaarts	1621	INL	hierwaard	1671
	strandwaarts	1622	INL	ter strantwaerts	1676
	voorderwaarts	1622	INL	-	-
	lijwaarts	1687	INL	lywaert aen	1623
				te lijwaerts	1681
	<i>afgrondwaarts</i>	<i>1868</i>	INL	afgrondwaert	1626
	koningwaarts	1626	INL	-	-
	hellewaarts	1697	INL	hellewaert	1628
	buitenwaarts	1628	INL	buytenwaert	1656
	veldwaarts	1630-34	INL	te veldewert vvt	1486
				te veldewaerts inne	1561
	loefwaarts	1639-46	INL	te loefwaert	1598
				te loef-waerts	1646
				Loefwaard	1667
	heimwaarts	1642	INL	-	-
	prinswaarts	1642	INL	-	-
	vestwaarts	1642	INL	-	-
	slinkwaarts	1642	INL	-	-
	ste(d)ewaarts	1642	INL	ter stedewaert	1337-82
				stedewaard	1709
	bochtwaarts	1644	INL	bochtwaert in	1644
	nergenswaarts	1645	INL	-	-
	heenwaarts	1646	INL	-	-
	kajuitwaarts	1657	INL	-	-
	stadwaarts	1657	INL	ter stadward	1285
				nae de Stadt-waerts	1614
	huiswaarts	1657	INL	te hueswert	1275-95
				t'huiswaarts	1642
	kruiswaarts	1658	INL	-	-
	topwaarts	1659	INL	Ten Topwaarts	1689
	noordoostwaarts	1660	INL	-	-
	zuidzuidwestwaarts	1670	INL	-	-
	vloedwaarts	1671	INL	-	-
	waterwaarts	1671	INL	<i>te waterwert</i>	<i>1404</i>
				<i>te waterwerts</i>	<i>1400-99</i>
	<i>scheepwaarts</i>	<i>1971</i>	ALC	<i>t'scheepwaert</i>	<i>1598</i>
				scheepwaert in	1671
	<i>ijswaarts</i>	<i>1980</i>	ALC	ijswaert in	1684
	piekwaarts	1697	INL	-	-
	badwaarts	1698	INL	-	-
18 th	zon(ne)waarts	1726	INL	ter sonnewaert	1368
	wielwaarts	1760	INL	-	-

	terugwaarts	1761	ALC	-	-
	mijwaarts	1761	INL	<i>te mi wert</i>	1265-70
				<i>tot miwarts</i>	1299
	kelderwaarts	1766	INL	-	
	uwaarts	1771	INL	<i>tuwart</i>	1276-1300
				<i>t'uwerts</i>	1508
	tempelwaarts	1781	INL	<i>tempelwaart</i>	1782
19 th	stulpwaarts	1800-13	INL	-	-
	grafwaarts	1801	INL	<i>ten gravewaert</i>	1566
				<i>grafwaart</i>	1828
	troonwaarts	1802	INL	-	-
	bergwaarts	1827	INL	<i>Ten berghwaerts af</i>	1661
	stroomafwaarts	1829	ALC	-	-
	stroomopwaarts	1829	ALC	-	-
	zuidoostwaarts	1831	ALC	-	-
	eindwaarts	1832	INL	-	-
	woestijnwaarts	1885	ALC	<i>woestijnwaart</i>	1832
	kimwaarts	1840	INL	-	-
	kerkwaarts	1840	INL	<i>ter kerken ward</i>	1272
	gangwaarts	1842	INL	-	-
	rijnafwaarts	1843	INL	-	-
	dorpwaarts	1844	ALC	<i>van ten dorpewaard</i>	1903
	kustwaarts	1845	INL	-	-
	galerijwaarts	1855	INL	-	-
	alwaarts	1855-61	INL	-	-
	neuswaarts	< 1858	INL	-	-
	vlootwaarts	1860	INL	-	-
	bergopwaarts	1866	INL	-	-
	hoofdwaarts	1879-86	INL	-	-
	voetwaarts	1879-86	INL	<i>te voetwaart</i>	1854
	woudwaarts	1882	INL	-	-
	landinwaarts	1884	ALC	-	-
	paleiswaarts	1884	ALC	<i>ten pallaizewaart</i>	1626
	Nijlafaarts	1885	ALC	-	-
	put(te)waarts	1885	INL	-	-
	buikwaarts	1889	ALC	-	-
	bergafwaarts	1889	ALC	-	-
20 th	linkszijwaarts	1901	INL	-	-
	heuvelafwaarts	1902	ALC	-	-
	heuvelopwaarts	1903	ALC	-	-
	treinwaarts	1909	ALC	-	-
	grenswaarts	1910	ALC	<i>aen grensewaert</i>	1626
	poolwaarts	1914	ALC	-	-
	grondwaarts	1923	INL	<i>ten grond-waert</i>	1613
	feestwaarts	1924	ALC	-	-
	ventraalwaarts	1924	INL	-	-
	stadinwaarts	1925	ALC	-	-
	zee-inwaarts	1931	ALC	-	-
	tuinwaarts	1936	INL	<i>naer de tuyenwaarts</i>	1645
	Brusselwaarts	1937	ALC	-	-
	Europawaarts	1938	ALC	-	-
	kooiwaarts	1947	ALC	<i>Te koy-waert heen</i>	1627
	keukenwaarts	1956	ALC	-	-
	Amsterdamwaarts	1962	ALC	-	-
	werkwaarts	1962	ALC	-	-
	aardwaarts	1962	ALC	<i>ter aerde-waert</i>	1603
				<i>ter aerde-waerts</i>	1640
	theaterwaarts	1966	ALC	-	-
	hellingafwaarts	1968	ALC	-	-
	stad(s)uitwaarts	1971	ALC	-	-
	bosinwaarts	1972	ALC	-	-
	hellingopwaarts	1972	ALC	-	-

	winkelwaarts	1977	ALC	-	-
	doodwaarts	1977	ANW	tsiere doet werd	1317-25
	Oostendewaarts	1978	ANW	-	-
	klaswaarts	1980	ANW	-	-
	windafwaarts	1981	ALC	-	-
	mondinwaarts	1981	ANW	-	-
	weerwaarts	1983	ANW	-	-
	villawaarts	1983	ANW	-	-
	Vlaardingenwaarts	1984	ANW	-	-
	bermwaarts	1984	ANW	-	-
	Leuvenwaarts	1995	ANW/ 38MWC	-	-
	douchewaarts	1995	ANW/ 38MWC	-	-
	windopwaarts	1995	ANW	-	-
	vriendenwaarts	1995	ANW	-	-
	lingeriewaarts	1996	ANW	-	-
	Hansbekewaarts	1996	ANW	-	-
	filewaarts	1996	ANW	-	-
	crescendowaarts	1996	ANW	-	-
	boekhandelwaarts	1996	ANW	-	-
	ravijnwaarts	1996	ANW	-	-
	democratiewaarts	2003	ANW	-	-
	hoekwaarts	2005	VD	-	-
n.d.	vooropwaarts	n.d.	ANW	-	-
	WNW-waarts	n.d.	ANW	-	-

Notes:

- Cases like *duinwaarts in*, *straatwaarts in*, *slinkwaarts op*, where the *waarts*-derivative is followed by a postposition, are subsumed under the *waarts*-derivative without further indications.
- It is difficult to separate early attestations of *huiswaarts* and *thuiswaarts* ‘homewards’ since these are probably historically interconnected.

Appendix to chapter 17: *-weg*

1 Synchronic inventory of modifying words with *-weg*

A search was carried out in Van Dale (2005), 38MWC, CGN and ANW on lemmas ending in the string <weg>. The modifying words had to be selected manually since the search result contains hits for compounds with the N *weg* ‘road’, e.g. *rond-weg* ‘ring road’ as well as many street names. Included in the inventory are all remaining modifying words with *-weg* except for *pakweg* ‘approximately’, which goes back to the imperative of the V *wegpakken* (WNT *pakweg*). The lexeme *werkendeweg* ‘during activity’ recorded in ANW is not included since Van Dale (2005) does not treat it as a complex lexeme but as a phrase, *werkende weg*. Not included are modifying lexemes ending in *-wege* (e.g. *halver-wege* ‘midway’ or *mijn-ent-wege* ‘in my name; as far as I am concerned’).

57 modifying words with <i>-weg</i>	
[[X] _{ADJ} <i>weg</i>]: 50 (9 hapaxes)	belachelijk-weg° (ANW), blind-weg (VD), bloot-weg° (ANW), bot-weg , boud-weg , brutaal-weg , bruut-weg ° (ANW), dof-weg (VD), dom-weg , droog-weg , dwaas-weg (ANW), dwars-weg° (ANW), eenvoudig-weg , flink-weg (VD), gewoon-weg , glad-weg , grif-weg (VD), grof-weg , gul-weg , half-weg , kalm-weg , koel-weg , kort-weg , koud-weg , laf-weg , leuk-weg , lomp-weg (VD), los-weg , lullig-weg° (ANW), naïef-weg (ANW), natuurlijk-weg (VD), nuchter-weg (VD), onnozel-weg , plat-weg , plomp-weg , rond-weg , ruw-weg , simpel-weg , slecht-weg (VD), sloom-weg° (ANW), stiekem-weg° (ANW), stil-weg (VD), stom-weg , stout-weg (VD), stroef-weg° (ANW), vaag-weg , vlak-weg , vlot-weg , vrank-weg (ANW), vrolijk-weg° (ANW)
[[X] _{ADV} <i>weg</i>]: 3 (1 hapax)	droogjes-weg° (CGN), losjes-weg , verreweg
[[X] _{PREP} <i>weg</i>]: 2	onder-weg , over-weg
Unclear: 2	gaandeweg , valsgaweg (VD)

Notes:

- Observe that I classified the complex base words *droog-jes* and *los-jes* as ADV following Van Dale (2005). On the status of these words, see chapter 15 on modifying lexemes with *-jes*.
- Observe that *droogjes weg* is only attested in CGN written separately. The attestation is taken from the transcription of tv news (2001).

2 Diachronic inventory of modifying words with *-weg*

Included in the diachronic inventory are the 57 *weg*-lexemes from the synchronic inventory and 34 additional lexemes from INL.

The 57 *weg*-lexemes from the synchronic inventory were searched individually in INL quotation text and in ALC for their earliest recording. INL quotation text was then searched for the presence of earlier attestations where *weg* and the base word are juxtaposed, but do not form an orthographic unit, i.e., are not written together or connected by a hyphen (e.g. *bot weg*). The search queries were therefore formulated for the combination of a single base word followed by a space and the string <weg>. If such sequences occurred, they were checked manually for relevance and the earliest recording is included in the table.

I collected 34 additional *weg*-lexemes. These were collected from the WNT entry on *-weg* and by means of a search in INL lemma text on lemmas ending in the string <weg>. The relevant lemmas were selected manually from the search result since it contained several *n*. The articles and especially quotations were screened for additional *weg*-lexemes. I first of all selected the orthographic units (e.g. *heenweg*). To find their earliest attestation and to check for corresponding sequences attested earlier (e.g. *heenen wech*), I followed the procedure described above. Secondly, I included sequences which are not joint in writing (e.g. *assurant weg*).

Ct.	Lexeme	First recording	Source	Corresponding sequence [x + weg]	First recording INL
13 th	<i>oostweg</i>	-	-	<i>oest+weegh</i>	1280
	<i>onderweg</i>	1315-30	INL	<i>onder+weghe</i>	1286
	<i>oostwaartweg</i>	-	-	<i>hoestwart woch</i>	1291
15 th	<i>verreweg</i>	1824	INL	<i>verre wech</i>	1451-80
	<i>overweg</i>	1600-10	INL	<i>over wech</i>	1470-90
	<i>eeuwelijkweg</i>	-	-	<i>eewelic wech</i>	1485
16 th	<i>eensweg</i>	1519	INL	-	-
	<i>alweg</i>	1562	INL	-	-
	<i>eenpaarlijkweg</i>	-	-	<i>Eenparelick wech</i>	1562-92
17 th	<i>heenweg</i>	1661	INL	<i>heenen wech</i>	1634
	<i>slechtjesweg</i>	-	-	<i>slechtjens wegh</i>	1659
	<i>slechtweg</i>	1809	INL	<i>slegt weg</i>	1683
	<i>halfweg</i>	1733	INL	<i>half wegen</i>	1688
18 th	<i>botweg</i>	1871	INL	<i>bot weg</i>	1703-93
	<i>platweg</i>	1846-71	INL	<i>plat weg</i>	1703-93
	<i>ruwweg</i>	1896	ALC	<i>ruw weg</i>	1703-93
	<i>losweg</i>	1844-47	INL	<i>los weg</i>	1724
	<i>gaandeweg</i>	1820	INL	<i>al gaande weg</i>	1726
	<i>vlotweg</i>	1898	ALC	<i>vlot weg</i>	1730
	<i>assurantweg</i>	-	-	<i>assurant weg</i>	1784
	<i>kordaatweg</i>	-	-	<i>cordaat weg</i>	1787
	<i>eenvoudigweg</i>	1881	INL	<i>eenvoudig weg</i>	1787
19 th	<i>droogweg</i>	1800-58	INL	<i>droog weg</i>	1865
	<i>kortweg</i>	1824	ALC	<i>kort weg</i>	1801
	<i>stoutweg</i>	1840	ALC	<i>stout weg</i>	1806
	<i>vlakweg</i>	1883	INL	<i>vlak weg</i>	1806
	<i>gerustweg</i>	-	-	<i>gerust weg</i>	1807
	<i>blindweg</i>	1910	INL	<i>blind weg</i>	1827
	<i>rondweg</i>	1832	ALC	-	-
	<i>flinkweg</i>	1865	INL	<i>flink weg</i>	1834-61
	<i>gladweg</i>	1847	ALC	<i>glad weg</i>	1836
	<i>leukweg</i>	1838	INL	<i>leuk weg</i>	1886

	lompweg	1842	INL	-	-
	<i>woestweg</i>	<i>1900-04</i>	INL	<i>woest weg</i>	1847
	gulweg	1849	INL	gul weg	1865
	droogjesweg	1932	ALC	droogjens weg	1850
	<i>wildweg</i>	<i>1921</i>	INL	<i>wild weg</i>	1851
	koelweg	1866	ALC	koel weg	1861
	plompweg	1868-75	INL	plomp weg	1865
	blootweg	1866	INL	-	-
	koudweg	1901	INL	koud weg	1869
	driestweg	1872	ALC	<i>driest weg</i>	1952
	effenweg	1873	INL	-	-
	<i>barsweg</i>	-	-	<i>barsch weg</i>	1874
	gewoonweg	1876	ALC	gewoon weg	1887
	grifweg	1879	INL	-	-
	naaktweg	1879-1904	INL	-	-
	dorweg	1879-1904	INL	-	-
	losjesweg	1879-1904	ALC	-	-
	vrankweg	1981	ALC	frank weg	1880
	boudweg	1881	ALC	boud weg	1903
	brutaalweg	1881	ALC	brutaal weg	1909
	wijdweg	1885	INL	<i>wied weg</i>	1887
	kalmweg	1886	ALC	-	-
	bondigweg	1889	INL	-	-
	simpelweg	1896	INL	-	-
	grofweg	1897	INL	-	-
20 th	valsgaweg	1900-04	INL	-	-
	lafgaweg	1900-04	INL	-	-
	vaadsiggaweg	1900-04	INL	-	-
	viesgaweg	1900-04	INL	-	-
	vuilgaweg	1900-04	INL	-	-
	wildgaweg	1900-04	INL	-	-
	woestgaweg	1900-04	INL	-	-
	zwakweg	1900-04	INL	-	-
	obscuurweg	1901	INL	-	-
	<i>rustigjesweg</i>	-	INL	<i>rustigjes weg</i>	1901
	luchtigjesweg	1901	INL	<i>luchtigjes weg</i>	1932
	natuurlijkweg	1901	INL	-	-
	<i>aardigweg</i>	-	-	<i>aardig weg</i>	1901
	dofweg	1903	INL	-	-
	nuchterweg	1906	ALC	-	-
	schuinsweg	1906	INL	<i>schuin weg</i>	1920
	domweg	1909	ALC	-	-
	bedaardweg	1909	INL	-	-
	zoetjesweg	1910	INL	-	-
	bruutweg	1912	ALC	-	-
	stomweg	1915	ALC	-	-
	vaagweg	1925	ALC	vaag weg	1941
	stilweg	1927	INL	-	-
	stiekemweg	1938	ALC	-	-
	onnozelweg	1947	ALC	-	-
	vrolijkweg	1969	ALC	-	-
	dwaasweg	1978	ANW	-	-
	lulligweg	1980	ANW	-	-
	lafweg	1986	ALC	-	-
	stroefweg	1993	ANW	-	-
	naïefweg	1996	ANW	-	-
21 st	belachelijkweg	2000	ANW	-	-
	sloomweg	2001	ANW	-	-
	dwarsweg	2001	ANW	-	-

Notes:

- Mind that it is difficult to distinguish early attestations for *half-weg* from *halver-wege*.
- The first attestations for *lafgaweg*, *vadsiggaweg*, *valsgaweg*, *viesgaweg*, *vuilgaweg*, *wildgaweg* and *woestgaweg* are all taken from the same source, the *Waasch Idioticon* by Joos, which is a lexicon of a Flemish regional language. For the latter four, a few attestations from other Belgian sources are provided in INL.

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Deutschsprachige Zusammenfassung

Forschungsgegenstand dieser Dissertation ist ein Teilgebiet der Wortbildung des Niederländischen, das in der bisherigen Wortbildungsforschung vernachlässigt wurde: die Bildung komplexer Adverbien durch Derivation. In der Literatur zur niederländischen Wortbildung wird eine Reihe von Suffixen für die Adverbbildung genannt: *-(e)lijk*, *-(e)lings*, *-gewijs*, *-erwijs*, *-halve*, *-iter*, *-tjes*, *-waarts*, *-weg*. Diese niederländischen Adverbialsuffixe sind, im Gegensatz zu ihren nah verwandten deutschen Äquivalenten, jedoch bisher kaum beschrieben worden. In der Regel beschränkt sich ihre Behandlung in der Forschungsliteratur auf die Nennung einiger synchroner Eigenschaften, empirische Untersuchungen existieren allerdings nicht. Der Diachronie dieser Suffixe ist in der bisherigen Forschung ebenfalls kaum Beachtung geschenkt worden, während etwa für das Deutsche ausführliche historische Beschreibungen vorliegen. Aus diesem Forschungsdefizit heraus lässt sich das Hauptziel meiner Dissertation formulieren: eine erstmalig **detaillierte und sowohl synchron als auch diachron ausgerichtete Beschreibung der Adverbialsuffixe des Niederländischen** zu leisten. Die Beschreibungen basieren auf der qualitativen Auswertung von Belegdaten aus Korpora und Wörterbüchern. Es werden außerdem zwei weitere, bisher in der Forschungsliteratur vernachlässigte Wortbildungselemente, *-matig* und *-technisch*, mit einbezogen, deren deutsche Äquivalente, *-mäßig* und *-technisch*, in der neueren Literatur zum Deutschen besondere Aufmerksamkeit erhalten haben. Die Studie kombiniert eine synchrone mit einer diachronen Perspektive und beschreibt die Entwicklung der einzelnen Wortbildungselemente vom Altniederländischen bis ins heutige Gegenwartsniederländisch. Beobachtungen zu deutschen und englischen Suffixen werden zum Vergleich herangezogen und dienen insbesondere der Bereicherung der Beschreibung ihrer niederländischen Äquivalente.

In dieser Dissertation schlage ich einige grundsätzliche Anpassungen in Bezug auf den bisher beschriebenen **Suffixbestand** des Niederländischen vor. Aus der synchronen und diachronen Analyse geht beispielsweise hervor, dass *-iter* – im Gegensatz zur gängigen Annahme in der Literatur zur niederländischen Wortbildung – nicht zum Suffixbestand gehört. Die auf *-iter* endenden Wörter sind als Entlehnungen aus dem Lateinischen einzuordnen und es gibt keine Indizien dafür, dass sich je ein produktives Wortbildungsmuster mit *-iter* im Niederländischen herausgebildet hat. Es gibt hingegen deutliche Hinweise darauf, dass das Niederländische über ein Suffix *-technisch* verfügt, das dem deutschen *-technisch* zwar sehr ähnlich ist, sich aber möglicherweise parallel zu diesem entwickelt hat. Auch für *-matig* liegt eine ursprüngliche Entlehnung und Einfluss aus dem Deutschen (*-mäßig*) sehr nahe, autonome Entwicklungsprozesse im Niederländischen sind jedoch nicht auszuschließen. Anhand historischer Sprachdaten wird in dieser Arbeit auch rekonstruiert, wann und wie die anderen

Suffixe durch Grammatikalisierung (*-erwijs, -gewijs, -halve, -weg*) bzw. durch Reanalyse (*-(e)lings, -tjes, -waarts*) möglicherweise entstanden sind.

Die Beschreibung des Suffixbestands in dieser Dissertation umfasst auch **formale Aspekte**. Es wird untersucht, welche semantischen und morphosyntaktischen Eigenschaften die jeweiligen Basislexeme haben, die als Input für Wortbildungsmuster mit den beschriebenen Suffixen auftreten können. Die Flexibilität, die die einzelnen Muster bezüglich des Inputs aufweisen, bestimmt maßgeblich ihre Produktivität, mit anderen Worten, ob und wenn ja, in welchem Maße sie für Neubildungen verfügbar sind. Auf das in dieser Dissertation untersuchte moderne und historische Sprachmaterial habe ich Produktivitätsmaße angewendet, die auf Typenfrequenzen und Hapaxen basieren. Die gängige Annahme, dass Adverbialsuffixe im Allgemeinen nur wenig produktiv seien, lässt sich widerlegen, wenn man die Suffixe miteinander vergleicht: Beispielsweise sind *-gewijs* und *-waarts*, die im heutigen Niederländisch in einer großen Anzahl von Neubildungen und Hapaxen auftreten, durchaus als produktiv einzustufen, während z.B. *-(e)lijk* und *-(e)lings* nicht mehr für Neubildungen zur Verfügung stehen.

Neben den formalen werden auch **semantische Aspekte** der niederländischen Adverbialsuffixe behandelt. Während in der bisherigen Forschungsliteratur zum Niederländischen die grammatische Funktion der Adverbbildung im Vordergrund steht, sind in der deutschen Adverb- und insbesondere Adjektivbildungsforschung die semantischen Aspekte bereits ausführlich empirisch untersucht und beschrieben worden. Im Mittelpunkt dieser Beschreibungen steht das Potenzial der Suffixe, bestehende Wörter zu modifizieren, d.h. unterschiedliche Beiträge zur Wortbedeutung leisten zu können. In meiner Dissertation versuche ich anhand einer qualitativen Studie belegter niederländischer Wortbildungen für die einzelnen Wortbildungsmuster mögliche semantische Beiträge zur Wortbedeutung zu beschreiben. Aus der Analyse geht hervor, dass manche Suffixe ein relativ breites semantisches Spektrum haben (z.B. *-gewijs*), d.h. als polysem eingeordnet werden können, während andere semantisch stark beschränkt sind (z.B. *-technisch*). Außerdem gibt es vielfach Überschneidungen zwischen Suffixen, die ähnliche semantische Beiträge leisten.

Ein grundlegendes Problem in bisherigen Darstellungen der niederländischen Adverbialsuffixe ist die Klassifizierung der Suffixbildungen als **Adverbien oder Adjektive**. Gegenwärtig zeigt sich, dass im Niederländischen wie im Deutschen eine strikte Trennung dieser beiden Wortarten kaum aufrecht zu halten ist. Für die ältesten Sprachstufen lässt sich diese Unterscheidung noch problemlos treffen, weil Adverbiale eine morphologische Markierung erhielten (nämlich das Suffix *-o*). Sprachhistorische Entwicklungen führten aber im Verlaufe der Zeit zu einer formalen Annäherung von Adverbien und

Adjektiven im Niederländischen und Deutschen. In den modernen Sprachstufen wird insbesondere in adverbialer und prädikativer Stellung die gleiche, unmarkierte Form verwendet, d.h. die Wörter werden nicht mehr gemäß ihrer Funktion im Satz formal unterschieden. Interessanterweise hat sich das Englische, wie schon vielfach in der Literatur erwähnt, in eine andere Richtung entwickelt. Im Englischen hat sich durch die systematische Markierung von Adjektiven in adverbialer Verwendung mit *-ly* eine formal eigenständige Kategorie von Adverbien entwickelt. Die Grammatikbeschreibung des Niederländischen ist der genannten formalen Annäherung von Adverbien und Adjektiven nie gerecht geworden und der klassischen Auffassung, wonach beide Wortarten getrennt werden, bis heute treu geblieben. Im Gegensatz dazu ist in der deutschen Grammatikbeschreibung die Darstellung der Wortarten als Kontinuum mit fließenden Übergängen zwischen einzelnen Kategorien schon seit längerem üblich. Allerdings wird in der Wortbildungsbeschreibung aller drei Sprachen weiterhin von einem Unterschied zwischen ‚Adverbialsuffixen‘ und ‚Adjektivsuffixen‘ ausgegangen.

In dieser Dissertation verfolge ich eine integrierte Betrachtung der beiden Wortarten Adverb und Adjektiv sowie auch der mit ihnen verbundenen Wortbildungssuffixe. Diese Betrachtung basiert auf Grundannahmen der Prototypentheorie, nämlich dass Kategorien zentrale und periphere Vertreter haben und zwischen mehreren Kategorien ein Kontinuum mit Übergangsbereichen besteht. Was Adverbien und Adjektive verbindet, ist ihre gemeinsame sprachliche Funktion, die **Modifikation**, die in der funktionalen Linguistik definiert wird als die universelle Basisfunktion menschlicher Sprache, zu einem Referenten oder einer Situation zusätzliche Eigenschaften anzugeben. Wenn Sprachen über Adverbien oder Adjektive verfügen, gilt die Modifikation als ihre prototypische Funktion. Aufgrund dieser gemeinsamen Funktion sind in meiner Dissertation beide Wortarten Teil einer übergreifenden Kategorie, die ich als **modifying words** („modifizierende Wörter“) bezeichnen möchte. In einzelnen Sprachen können Adverbien und Adjektive unterschieden werden, insoweit diese sich aufgrund einzelsprachlicher grammatischer Eigenschaften definieren lassen. Für das Englische sind der adverbiale Gebrauch sowie das morphologische Merkmal *-ly* entscheidend für die Definition einer prototypischen Kategorie von Adverbien, während der attributive und prädikative Gebrauch sich auf prototypische Adjektive beschränken. Im Niederländischen und im Deutschen hingegen gestaltet sich die Untergliederung anders. Adjektive sind syntaktisch nicht nur attributiv und prädikativ, sondern auch adverbial verwendbar, während prototypische Adverbien sich dadurch auszeichnen, dass sie weder als pränominales Attribut noch mit der entsprechenden Flexionsendung auftreten können.

Die in meiner Dissertation verwendete Definition von ‚**Adverbialsuffixen**‘ und ‚**Adjektivsuffixen**‘ lässt sich mit den oben ausgeführten Definitionen ‚prototypischer Adverbien‘ und ‚prototypischer Adjektiven‘ verbinden. Das englische Suffix *-ly* gilt demnach als prototypisches Adverbialsuffix, weil

es systematisch in adverbial verwendeten Wörtern auftritt. Von einigen Linguisten wird *-ly* deshalb sogar als Flexionsendung analysiert. Was das Niederländische betrifft, geht aus meiner Arbeit jedoch hervor, dass diese Sprache über weitaus weniger Adverbialsuffixe verfügt als bisher angenommen wurde. Die meisten untersuchten Suffixe sind als Adjektivsuffixe einzuordnen, da ihre Bildungen durchaus die Verwendung als pränominale Attribute und auch die obligatorische Flexionsendung *-e* zulassen. Aus diachroner Sicht zeigt sich, dass Bildungen mancher Suffixe schon in älteren Sprachstufen in attributiver Verwendung belegt sind (z.B. *-gewijs*), während dies für andere Suffixe erst in neuerer Zeit der Fall ist (z.B. *-halve*). Diese Entwicklung schließt sich allgemeineren Entwicklungen in den germanischen Sprachen an, insbesondere in Bezug auf Nominalisierungstendenzen, die eine Ersetzung adverbial modifizierter Verbalphrasen durch attributiv modifizierter Nominalphrasen beinhalten. In sprachvergleichender Hinsicht zeigt sich, dass genetisch verwandte Suffixe nicht automatisch in die gleiche Kategorie eingeordnet werden können. So ist z.B. das deutsche *-wärts* tatsächlich als Adverbialsuffix einzuordnen, da die Suffixbildungen nicht attributiv auftreten können und invariabel sind, während das niederländische *-waarts* prototypische Adjektive bildet. Und auch wenn das englische *-ly* ein prototypisches Adverbialsuffix ist, zeigt das niederländische *-(e)lijk* doch adjektivische Merkmale.

Aus einem Überblick über verschiedene semantische **Modifikationstypen** und ihre sprachliche Kodierung geht hervor, dass die englischen *ly*-Adverbien in allen Unterfunktionen der Modifikation vertreten bzw. hochgradig polyfunktional sind. Man findet sie auf beiden in der funktionalen Linguistik definierten Ebenen der Modifikation: sie treten als deskriptive Modifikatoren (klassifizierend, qualifizierend, quantifizierend, temporal, lokal) sowie als interpersonale Modifikatoren (limitierend, modal, evaluativ, sprechaktmodifizierend) auf. In der Forschungsliteratur wurde bereits mehrfach darauf hingewiesen, dass sich diese Polyfunktionalität aus historischen Wandelprozessen heraus erklären lässt. Meine empirische Untersuchung der niederländischen Suffixe zeigt, dass es im Niederländischen ähnliche **funktional-semantische Wandelprozesse** gegeben hat, die teilweise noch im vollen Gange sind. Auch im Niederländischen sind die deskriptiven Funktionen modifizierender Wörter historisch primär, während erst in späteren Sprachstufen Wortbildungen auch interpersonale Funktionen übernehmen können. Synchron lässt sich zeigen, dass die Mehrheit der untersuchten niederländischen Suffixe ein gewisses Maß an Polyfunktionalität aufweist. Diese ist aber im Vergleich zum englischen *-ly* deutlich geringer ausgeprägt. Wichtig ist, dass mehr niederländische Suffixe als bisher in der Literatur angenommen mit interpersonaler Funktion verwendet werden können. Einige dieser im niederländischen Sprachsystem möglichen Verwendungen entsprechen jedoch nicht dem in der Sprachgemeinschaft üblichen Gebrauch. Sprachvergleichend lässt sich feststellen, dass der Gebrauch von Wortbildungen

für die sprachliche Kodierung interpersonalen Funktionen im Deutschen stärker eingebürgert ist, z.B. wird *-erwise* viel systematischer in evaluierenden Funktionen verwendet als das niederländische *-erwijs* und der limitierende Gebrauch der Wortbildungen mit *-mäßig* ist im Deutschen geläufiger als es das für niederländische *matig*-Bildungen der Fall ist.

Aus methodischer Sicht zeigt sich mit dieser Dissertation, dass **kontrastive Beobachtungen** hochinstruktiv sein können. Sie bereichern nicht nur die Beschreibung der niederländischen Wortbildung, indem sie unsere Aufmerksamkeit auf Aspekte lenken, die sonst unbeobachtet bleiben würden, sondern sie können auch neue Perspektiven auf Details der deutschen und englischen Wortbildung eröffnen. Aus sprachvergleichender Sicht können die Beobachtungen zum Niederländischen, Englischen und Deutschen in dieser Dissertation außerdem dazu beitragen, die Rolle der Derivation bei der Kodierung der universellen Modifikationsfunktion besser zu verstehen.

Aufbau der Dissertation

Die Dissertation ist in drei Hauptteile gegliedert. Im ersten Teil (Kapitel 1 bis 6) erläutere ich die theoretischen sowie praktischen Grundlagen meiner Studie. Es wird die in der Dissertation angewandte Methodik präsentiert. Der zweite Teil meiner Dissertation (Kapitel 7 bis 17) ist vollständig den Suffixbeschreibungen gewidmet und stellt das Kernstück der Arbeit dar. Die Kapitel enthalten jeweils die Beschreibungen der einzelnen niederländischen Suffixe in alphabetischer Reihenfolge. Jedes Kapitel besteht aus einer Einführung, einer synchronen Darstellung, einer diachronen Beschreibung und einem Fazit. Im dritten und letzten Teil meiner Dissertation (Kapitel 18) werden die Ergebnisse der einzelnen Suffixbeschreibungen zusammengeführt und diskutiert.

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