Separable verbs in Aruban multilingual code-switching:

Ta style di mi kier a daag mi mes uit.

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1 July 2023

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"(…) tur mi cosecha ta pa bo, aunk'e ta dimi

y mi'n por lubida di unda ami mes ta bini."

- Jeon & Rincon Boyz

Abstract

Germanic languages have a peculiar form of verbs that exhibit the ability to have the verb non-linearly adjacent to its particle, resulting in a Verb-Object-Particle (VOP) word order (Bennis, 1992; Wurmbrand, 2000; Barbiers et al., 2018). These co-called separable verbs are not present in Papiamento/u, yet often times speakers from Aruba, Bonaire and Curaçao can be observed code-switching in Papiamento/u with them. The aim of this study is to provide an account of the structure of Papiamento-Dutch and Papiamento-English code-switching with a focus on these separable verbs as employed by Arubans. Taking into account the presence of separable verbs in Dutch and English but the lack thereof in Spanish and Papiamento, we expected to observe a clash between the verb phrases (VP) involved. Following González-Vilbazo & López's (2011; 2012) argumentation for the structural representation of the bilingual – in this case multilingual – I-language, we expected to see an underlying dependency between T and little v (v), the influence of T on the morphological complexity of V, and that v and V could belong to different languages. Our corpus study consisted of three distinct corpora: the Geerman Corpus, the AFY Corpus, and the MPI CS Corpus. Across the board similar code-switched structures could be observed, namely Papiamento tense markers and a morphologically simplex separable verbs that showed VOP and VPO word orders. It was possible to make the following generalisations based on our results. Firstly, separable verb code-switched structures contain a compulsory Papiamento tense marker and a morphologically simplex separable verb; this tense marker is the overt spell-out of T. Secondly, head-T and head-v are required to belong to the same language in the code-switched derivation: Papiamento ø-marker is available for the root in V (regardless of the language). Lastly, the V and v can belong to two different languages; V may be a donor verb, but it is c-commanded within the structure by the language of v.

Keywords: the ABC islands, code-switching, corpus study, Dutch, English, Generativist principles, I-language, little v, Matrix Language Framework, multilingualism, Papiamento, Papiamentu, periphrastic verb phrase, separable verbs.

Acknowledgements

Separable verbs, to me, are iconic of the Dutch language. They are also quite fun verbs to learn in high school; if you could pin point all the verbal components and their particles on a test, you would be awarded all the points for that exercise. When deconstructing sentences, it was amazing to see the amount of words that may be placed between the verb and its particle.

Since then I have not paid as much attention to separable verbs.

Fast forward a few years: one of the participants in my bachelor's thesis uttered a beautiful sentence containing a Dutch separable verb. And here we are now. While code-switching with separable verbs is not uncommon for Arubans (Bonairians and Curaçaoans as well) and my initial dissection of the utterance lead me to understand its particular composition, I could not shake the feeling that there is more to it. This thesis is the result of that.

From the bottom of my heart, I would like to take a moment to thank Dr. Eric Mijts from the University of Aruba and Prof. dr. Frank Wijnen from Utrecht University for sharing the Academic Foundation Year recordings with me; without these recordings the data I could examine would have been much more limited. *Masha danki.*

I would also like to express a great deal of gratitude to my supervisors, Prof. dr. Roberta D'Alessandro and Dr. Maria del Carmen Parafita Couto, for the great guidance they provided me throughout the process of my thesis; many a times they understood my haphazard blabbering before I could make sense of it myself, and helped me find my way through the chaos. *Masha danki.*

Last but not least, I would like to thank my friends and family without whose support I could not have made it as far as I have; you know who you are. *Masha danki pa tey pa mi den bon y den malo. E amor ta grandi.*

Now and forever, I'll bring it home to you.

List of Abbreviations

ADJ	Adjective
ADV	Adverb
AUX	Auxiliary verb
CONJ	Conjunction
DET	Determiner
EXP	Expression
FEM	Feminine
FIL	Filler
FUT	Future tense
GER	Gerund
INF	Infinitive
MAS	Masculine
MOD	Modal verb
N	Noun
NEU	Neuter
PAST	Past tense
PL	Plural
PRN	Pronoun
PRT	Particle
PREP	Preposition
PRES	Present tense
PTCP	Participle
RT	Root
SG	Singular
TNS	Tense
V	Verb (main)
1	First person
2	Second person
3	Third person

Please note:
The glosses in this thesis are both colour-coded and formatted in order to allow those who are visually impaired and/or may experience difficulties in perceiving colours to easily distinguish between the different languages in a derivation.

Papiamento, Spanish, English and Dutch have fixed colours and formatting:
- Papiamento words are italicised and blue
- Spanish words are underlined and pink
- English words are bolded and purple
- Dutch words are not formatted and green.

Languages that occur once or twice in the text do not have fixed colours nor formatting.

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1. Aruban speech and code-switching

This study concerns the code-switching patterns of separable verbs between the languages spoken on Aruba, namely Papiamento, English, Dutch and Spanish. To do so, this thesis will examine the patterns emerging from the Aruban speech community. This chapter introduces the linguistic (and historical) context of Aruban Papiamento, the research inquiry, and the structure of this thesis.

1.1. The languages of Aruba

1.1.1. Papiamento/u and the ABC islands

Papiamento/u is the native language of the majority of the population on Aruba, Bonaire and Curaçao[1] (ABC henceforth) (see Image 1). Papiamento/u is a creole language whose genesis lays in the contact between different languages; the languages whose contribution is most notable are various West-African and Indo-European languages. We will discuss this matter in Section 1.1.2. in more detail. In addition to Papiamento/u, the other largest languages present on the islands are English, Spanish and Dutch (CBS Aruba, 2010; 2019; CBS Curaçao, 2011; CBS Nederland, 2018). The majority of the island inhabitants speak at least two of these languages to varying degrees of proficiency. Table 1 presents the languages most frequently spoken in the households on the ABC islands.
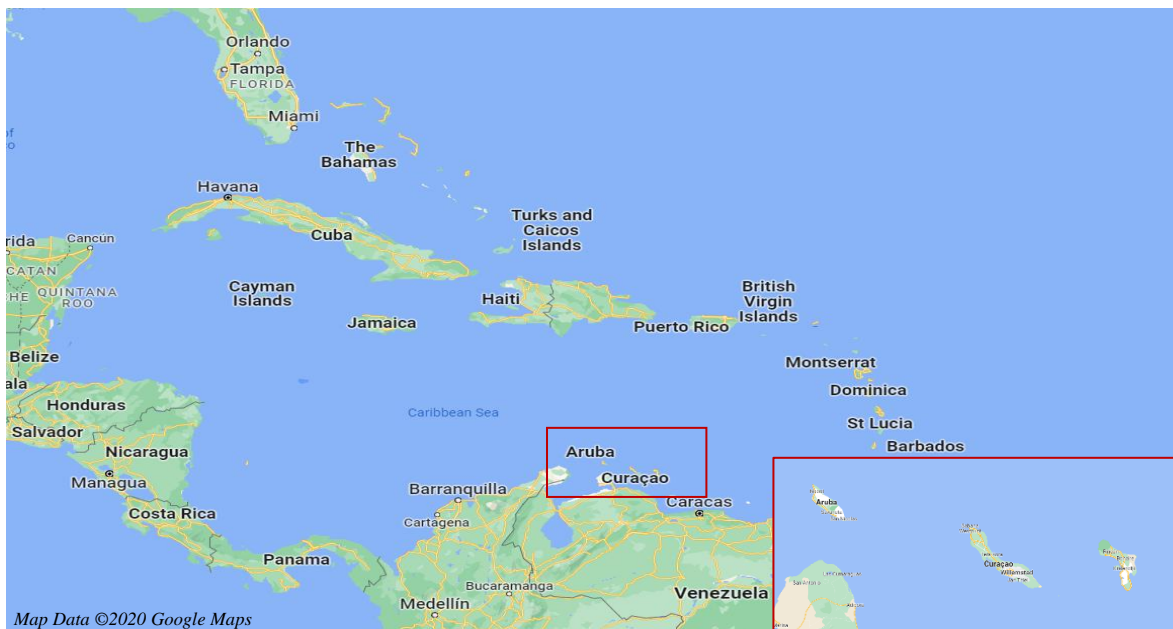

Image 1. Geographical location of the ABC islands; countries that speak Papiamento/u (picture taken from Google Maps (2020), zoom-in added by author).

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[1] Also known as the Leeward (Dutch) Antilles or the Lesser Antilles.

Table 1. Languages most spoken in households on Aruba, Bonaire and Curaçao calculated in percentages of the whole population (CBS Aruba, 2010; 2019; CBS Curaçao, 2011; CBS Nederland, 2018)

Country / Language	Papiamento/u	Spanish	English	Dutch	Other[2]
Aruba *Population size 2010*[3] 101,484	*68.3%*	*13.5%*	*7.0%*	*6.0%*	*5.2%*
Bonaire *Population size 2018* 19,549	*60.2%*	*14.6%*	*6.6%*	*16.1%*	*2.5%*
Curaçao *Population size 2011* 147,862	79.9%	*5.6%*	*3.1%*	*8.8%*	*2.6%*

The variety spoken on Aruba is called Papiamento, while that spoken on Curaçao and Bonaire is referred to as Papiamentu. Papiamento and Papiamentu are variants of the same language, and are often treated interchangeably, e.g. by either blending the orthography[4] of the two or by referring to Papiamentu (viz. Curaçaoan and/or Bonairian) data as Papiamento. This is unsurprising, given the similarities between the two languages, and their historical interconnectedness (to be discussed in the following section). Although the two varieties are similar in many ways, this thesis will keep them apart, with the aim to represent the (socio-cultural) identity of each island and of each language as accurately as possible. Despite the common ancestor of the languages and their development over the centuries, studies or accounts of the patterns found in Papiamento will not be immediately applicable to Papiamentu or vice versa. In cases where, e.g. due to shared historical ties, it is difficult and/or not necessary to distinguish the languages this thesis will use *Papiamento/u* to represent both languages (as can be seen at the start of this section). When referring to only one of the varieties then *Papiamento* or *Papiamentu* will be used[5]. Also important to note, the examples and transcriptions provided in this thesis follow Papiamento orthography.

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[2] This category consists of languages such as Chinese, Arabic, and French Creole. C.f. CBS Aruba, CBS Curaçao and CBS the Netherlands for specifics.

[3] The population sizes are those from the most recent census of each island. Censuses are taken every 10 years by the department of statistics of each island respectively. The results of which are published in a report. In 2010 Curaçao and St. Maarten became independent entities within the kingdom (like Aruba) and Bonaire, St. Eustatius and Saba became municipalities in the kingdom. For this reason, the data for Curaçao's current population size and languages are from the first census since they became independent, and that of Bonaire is more recent as its data is semi-regularly updated automatically in Statline of CBS Nederland. The most recent census on Aruba took place in 2020 but due to the Covid-19 there is some delay in the results, therefore the 2010 numbers are used here.

[4] Linguistically speaking, orthography and phonology may show the differences between the languages more evidently. However, structural acceptability judgements between the two languages might be more subtle and minimal, if there are any. This matter is worthy of further exploration.

[5] This approach is in line with the methods that islanders themselves employ to represent themselves and all three islands, e.g. Studiamigo|u (https://www.papiaments.levendetalen.nl/studiamigu/), 'Sinti bo na [k/c]as' (https://www.abccompas.com/), and Papiamentu/o TV (https://www.instagram.com/papiamentu.o.tv/).

1.1.2. The genesis of Papiamento/u

The ABC islands had been populated for hundreds of years before the arrival of the first Europeans in 1499. The first inhabitants of the ABC islands, such as the Caribs (viz. Kalinago), were Amerindians who lived in the area around 2500BC. The Caquetio Amerindians arrived and established themselves on the ABC islands three thousand years (500AD) later, where they remained for the next 999 years before the Europeans arrived (Martis, 2018; Pereira, 2018; http://www.historiadiaruba.aw/; https://www.gobierno.aw/). The first Europeans to arrive on the ABC islands were Spaniards at the end of the 15th century; although it took some years before the ABC islands were 'actually' colonised. Similar to Amerindian-European interactions on the American continent at the time, "the encounter with the Spanish was dramatic for Aruba, Curaçao, and Bonaire, which were referred to as both 'Islas de los Gigantes' (trans.: Islands of the Giants) as well as 'Islas Inútiles' (trans.: Useless Islands) because no gold was found there" (Pereira, 2018: 22; translations added by the present author). The Spaniards looted the ABC islands in 1514, enslaved the Caquetios and transported them for labour to other Caribbean islands, e.g. Hispaniola[6], whose climate was less harsh (Jacobs, 2012; Kouwenberg, 2013; Maurer, 2013; Pereira, 2018; Aruba Tourism Authority, 2018; https://apics-online.info/; https://www.papiamento.aw/). In the 1520s, the Spaniards started sending groups of Amerindians back to the ABC islands where they would constitute a large proportion of the population on Aruba and Bonaire for a longer period of time as opposed to Amerindians on Curaçao.

The commencement of Dutch colonisation of the ABC islands took place in 1634 when West India Company[7] commander Johan van Walbeeck seized Curaçao from the Spaniards. The Dutch seized Aruba and Bonaire in 1636; in the same year the first (Calvinist) clergyman arrived in Curaçao and established the Dutch Reformed Church for the Dutch inhabitants. The island of Curaçao became a slave depot by 1647 for the African slaves the Dutch were selling to different colonies in the region. An important year in the history of the ABC islands is 1650; this is when the Dutch began operationalising plantations in Curaçao which led to a growth in the group of Africans on the island and an important group of new inhabitants started to arrive on the island, namely the Sephardic Jews. The Sephardim were Jews that were fleeing the Catholic inquisition taking place in Spain and Portugal at the time. Many of the Sephardic Jews arrived in Curaçao via the Netherlands or (Dutch) Brazil; the Sephardim carried their languages (Portuguese, Spanish and Ladino) with them from the Cape Verde Islands, São Tomé and Principe, and the West African coast (Martinus, 1996, as cited in Pereira, 2018). In an effort to profit from the farming expertise of the Sephardim (who had been farmers in Dutch Brazil), after losing Dutch Brazil in 1654 the Dutch offered Sephardic Jews the opportunity to own slaves of their own in Curaçao. In this manner, the Sephardim started to form an integral part of the European community on the island. Papiamento/u emerged from this diverse cultural and linguistic environment in Curaçao during the latter half of the 17th century in a population where the following languages

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[6] Española; present-day Haiti and Dominican Republic.
[7] The Dutch company that had jurisdiction over Dutch participation in the Atlantic slave trade in Brazil, the Caribbean, and North America.

were present: Dutch, European Spanish, European Portuguese, Gbe, some Bantu languages, Afro-Portuguese, and possibly Pidgin Portuguese (Jacobs, 2009; 2012; Pereira, 2018; Martis, 2018; https://apics-online.info/).

Whilst all of the above was taking place on Curaçao, the situation on Aruba and Bonaire was slightly different; neither the Spaniards nor the Dutch had a positive assessment of the two smaller islands which lead to Aruba and Bonaire being closed off to immigration and/or permanent settlement for a long time. The only function of the smaller islands was to provide Curaçao with food and cattle (Hartog, 1961, as cited in Pereira, 2018: 26). Given that "Aruba had little to contribute in terms of economic profit for the Dutch colonial enterprise, very little is written about the island, its people and its culture" (Pereira, 2018: 26). The earliest text in Papiamento/u is a letter from a Curaçaoan Sephardic Jew to his mistress d.d. 1775. Papiamentu/o was exported to Aruba and Bonaire from Curaçao in the 18th century (http://www.historiadiaruba.aw/); up until then Aruba was mainly populated by Amerindians from Venezuela. The first Dutch inhabitants migrated to Aruba with their slaves at the end of the 18th century; the first Aruban census in 1840 shows that 55.1% of the population was Amerindian, 23.2% were Europeans, 18.7% had mixed ancestry, and 2% were Africans (Kouwenberg, 2013; Maurer, 2013; https://apics-online.info/; http://www.historiadiaruba.aw/)[8]. Similarly, Papiamento/u was brought to Bonaire at the end of the 17th century by African slaves from Curaçao who were meant to work on the Bonairian salt-pans; the first census in 1808 shows that 30.1% of the population was Amerindian, 38.5% were African slaves, 23.8% had mixed ancestry, and 7.6% were Europeans (Kouwenberg, 2013; Maurer, 2013; https://apics-online.info/; http://www.historiadiaruba.aw/). The population demographic on Aruba and Bonaire was vastly different from that on Curaçao; at the time the majority (80%) of the Curaçaoan population consisted of African slaves, 7.5% of the population were Sephardim, and 12.5% were Dutch.

To date, it remains unclear which languages provided exactly which elements and how these evolved in Papiamento and Papiamentu. As aforementioned, the languages whose contribution are most notable in Papiamento/u are Dutch, Spanish, Portuguese and various West-African languages. In this section, we will not provide a general introduction to Papiamento grammar, but we will concentrate on showing some clear elements of contact (see (1) an (2)) in the verbal, lexical and phonological domains[9].

We start with the verbal domain. As an illustration of borrowing of grammatical elements consider example (1), featuring three examples of grammatical aspects of Papiamento/u that are derived from different languages.

(1) **Some verb forms stemming from different languages**
    (a) Dutch past participle *ge-*+root+*-t/-d*.

Mi	*a*	*bin-ø*	*haña-ø*	*glitter*	*ge-strooi-ø.*
I	AUX.PAST	come-1SG.INF	find-1SG.INF	glitter	PAST-toss.RT.

        'I came (back) and found glitter all over the place.'

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[8] This census only counted the heads of the households (n = 256) in Aruba at the time.
[9] For a complete overview of Papiamento/u grammar see Rivera-Castillo (2022).

The Dutch present perfect form consists of an auxiliary verb and the past participle [*ge*+ROOT+*t/d*] (see (1b)).

(b)	Ik	heb	10 minuten	ge-wach-t.
	I	have.AUX	10 minutes	PAST-wait.RT-PTCP.

The sentence in (1a) features a present perfect form from Dutch, i.e. *gestrooi* ('tossed'). However, the past participle appears without its final morpheme *-t/-d*, suggesting that this form of the past participle has been integrated in the Papiamento lexicon. Specifically, the *ge-* morpheme is added to different roots in Papiamento and is used to indicate a past perfective action e.g., *gedal* from Papiamento *dal* ('to hit') referring to having been hit. Moreover, *ge-* can be merged with roots from languages other than Dutch, e.g. *geblind* from the English verb 'to blind' referring to having been blinded. Many instances of these past perfective constructions can be observed in the Papiamento lexicon (https://www.papiamento.aw).

Another example of Papiamento grammar can be seen in (1c); the Papiamento present tense auxiliary *ta* ('to be') comes from the 3rd person singular form of Spanish *estar* ('to be'). Similarly, the pluperfect marker *tava/taba* from Sãotomense (see 1d) can be seen in the imperfective past participle *tawa-/taba-* ('was') of *ta* ('to be') and *tin* ('to have') in Papiamento.

(c) Spanish (and/or Portuguese) *está* ('is') from light verb *estar* ('to be').

Mi	*ta*	*come-ø.*
I	AUX.PRES	eat-1SG.INF.

'I am eating.'

(d) Sãotomense (and/or Portuguese creole) pluperfect marker *tava/taba*.

Mi	*tabata*	*tin-ø*	*un*	*flor.*
I	AUX.PAST	have-1SG	a	flower.

'I used to have a flower.'

The examples in (1a), (1c) and (1d) serve as an illustration of different grammatical aspects that come from Dutch, Spanish/Portuguese and Sãotomense that can be observed in Papiamento/u. The subsequent examples (see (2)) contain different vocabulary items stemming from distinct languages that can be observed in Papiamento/u.

(2)   Some vocabulary items stemming from different languages
(a) *Ñapa* ('free') from Spanish, maintained its lexical meaning, spelling and pronunciation.

Mi	*a*	*haña-ø*	*un*	*kipashi*	*di*	*ñapa.*
I	AUX.PAST	find-1SG.INF	DET	loaf	for	free.

'I received a load of bread for free.'

(b) *Stoel* ('chair') from Dutch, maintained its lexical meaning and pronunciation but has adapted spelling.

Mi	*a*	*cumpra-ø*	*un*	*stul.*
I	AUX.PAST	buy-1SG.INF	a	chair.

'I bought a chair.'

(c) *Break* ('car breaks') from English, maintained its lexical meaning and spelling but its pronunciation is nativized.

Mi	*auto*	*no*	*por*	*brake-ø.*
My	car	NEG	AUX	brake-1SG.INF.

'My car cannot brake.'

Example (2) contains instances of vocabulary from different languages; all three of these examples, i.e. *ñapa* ('free'), *stoel* ('chair'), and *brake* ('car breaks'), have maintained their lexical meaning from the language of origin. However, while *ñapa* ('free') is orthographically written in the same manner, *stoel* ('chair') is written as *stul* ('chair') by Arubans despite it being listed on the official Papiamento vocabulary list in its Dutch spelling (https://www.papiamento.aw). On the other hand, *break* ('car breaks' or 'to stop a moving vehicle') has also maintained its original meaning and spelling but it is phonologically realised with a monophthong instead of a diphthong, i.e. in a 'Papiamento' manner as [brɪk] instead of [breɪk].

As shown above, the genesis of Papiamento/u occurred in a context where, due to various reasons, different communities, their languages and cultures, were in contact. This contact situation led to Papiamento/u having different elements from different languages in various domains. For example, Spanish lexical item *ñapa* ('free') and the Sãotomense pluperfect marker *tava-/taba-*. While Papiamento/u originated from the contact between different Germanic, Romance and West-African languages, it is now of course a language in its own right. Crucially, for the purpose of this study it is important to consider the structures of Papiamento that descend from different languages, in particular Dutch, Spanish, and English, in order to analyse the mechanisms of code-switching in the verbal domain for these three languages that are still in close contact with Papiamento/u to date.

1.1.3. The present-day linguistic situation in Aruba

The most recent Aruban census took place in 2020; these results are unfortunately still being processed due to delays related to the COVID-19 global pandemic. Fortunately, CBS Aruba published the results of the pilot census they conducted in 2019 concerning the languages spoken within the community. The results of the pilot census are summarised in Table 2.

Table 2. Languages most spoken in Aruban households (CBS Aruba, 2019).

	Papiamento	Spanish	English	Dutch
1) The four languages most spoken in households across Aruba.	80%	28%	16%	13%
2) Languages most spoken in monolingual households.	72%	17%	7%	6%
3) Four most spoken languages used by speakers born on Aruba on a daily basis.	92%	14%	15%	10%
4) Four most spoken languages used by speakers born outside of Aruba on a daily basis.	58%	54%	15%	10%

The pilot census ran for ten days in 2019 during which surveyors collected data in all eight districts of Aruba; a total of 2,395 households were visited, providing the pilot census with 6,365 informants. Important to note is that the percentages given in Table 2 do not add up to 100% because informants could only pick two languages of the four (i.e. Papiamento, Spanish, English and Dutch).

One of the questions posed to participants was which two languages they use the most at home. The results of the pilot census show that the majority of people with a Dutch nationality speak Papiamento at home, followed by Spanish, English and Dutch. Those that do not have a Dutch nationality speak mostly Spanish at home, followed by Papiamento, English and Dutch. Moreover, in most homes Papiamento is the only language spoken; in homes where more than two languages are spoken, Papiamento is used most frequently with respect to the other language(s). After Papiamento, Spanish is the second most spoken language in the household, followed by English and Dutch. These results are similar to the data from previous Aruban censuses (see Table 3).

Table 3. Languages most spoken on Aruba based on the census conducted every decade (CBS Aruba, 2010; 2019).

Language \ Census	1981	1991	2000	2010	2019*
Papiamento	80.1%	76.6%	69.4%	68.3%	80%
Spanish	3.1%	7.4%	13.2%	13.5%	28%
English	10.6%	8.9%	8.1%	7.0%	16%
Dutch	5.0%	5.4%	6.1%	6.0%	13%

* Results from the pilot census.

While the majority of Arubans acquire Papiamento as their native language, Spanish, English and Dutch are also widely present within the society since Spanish, English, and Dutch are also secondary school subjects. Moreover, Dutch is an official language on Aruba, English is an important language within the community due to tourism, and the increase in migrants from Latin America attributes to the increase in Spanish use on the island (CBS Aruba, 2010; 2019; Aruba Tourism Authority, 2018; http://www.historiadiaruba.aw/; https://www.gobierno.aw/). Other languages spoken on Aruba include heritage languages spoken by migrants from e.g., Asia or the Middle-East; although, these languages are restricted to the speech communities that speak them (CBS Aruba, 2010; 2019; CBS Curaçao, 2011; CBS Nederland, 2018). On a daily basis, islanders may switch between more than two different languages within and between words and clauses.

1.2. This work

This thesis is concerned with the main languages spoken in Aruba namely, Papiamento, Spanish, English and Dutch. Due to the history of the island, the languages studied here i) have had their influences on Papiamento, ii) had been in contact with Papiamento for many years, and iii) have managed to remain as a separate linguistic codes in addition to the creole within the Aruban linguistic context. Specifically, this study aims to explore the underlying mechanisms of Aruban verbal code-switching by focusing on Papiamento clauses containing complex verbal predicates with Germanic separable verbs, and proposes the occurrence of an extended syntactic structure encompassing the languages. We will return to this in the ensuing chapters. In order to answer our research inquiry, this thesis delves into production data from speech corpora by conducting a corpus study.

This work is organised as follows. Firstly, the following section contains a short introduction to language contact, and Section 1.4. gives a concise overview of the languages under investigation. Chapter 2 contains our research question and the empirical foundation of our position. Chapter 3 presents distinct approaches to multilingual code-switching, examines previous studies on code-switching in Papiamento/u, and delves into a preliminary investigation of code-switches with Germanic separable verbs in Papiamento based on data from Geerman (2020). We will present our dataset, hypotheses, methodology and analysis in Chapter 4. The subsequent chapter, Chapter 5, presents our proposal: the internal (extended) verb phrase (VP) structure of separable verbs in code-switched derivations. Finally, we conclude this thesis with Chapter 6 and discuss our research significance and its implications in Chapter 7.

1.3. Language contact phenomena

A fascinating characteristic of bi- and multilingual speech is the occurrence of code-switching; speakers alternate between languages during the span of their conversation. This can be done by inserting single or

multiple words inter- or intraclausally[10] in sentences. The former accounts for code-switches between clauses while the latter describes instances of code-switches before the end of a clause. The sentences in (3) − (6) serve as illustrations.

(3) Single word intraclausal code-switching in **English (purple)** and <u>Spanish (pink)</u> (Parafita Couto et al., 2023: 411)

<u>Eso</u>	<u>fue</u>	<u>en</u>	<u>el</u>	**front desk**	<u>en</u>	<u>el</u> **reception.**
That	is.PAST	at	the	front desk	at	the reception.

'That was at the front desk, at the reception.'

(4) Intraclausal code-switching, i.e. a change of language before the end of a clause, in ***Welsh (orange)*** and **English (purple)** (Parafita Couto et al., 2023: 404)

Oedd	***o'n***	**awful**.
Was	it.PRT	awful.

'It was awful.'

(5) Interclausal code-switching in **English (purple)** and <u>Spanish (pink)</u> (Poplack, 1980: 587)

Tell	**Larry**	<u>que</u>	<u>se</u>	<u>call-e</u>	<u>la</u>	<u>boca</u>**.**
Tell	Larry(i)	that	he(i)	shut-1SG.PRES	DET.SG.FEM	mouth.FEM.

'Tell Larry to shut his mouth.'

(6) Interclausal code-switching in *Papiamento (blue)* and **English (purple)** (Geerman, 2020: 9)

Nos	*ta*	*respeta-ϕ*	*bo opinion.*	**This is a judgement-free zone.**
We	AUX.PRES	respect-1PL.INF	your opinion.	This is a judgement-free zone.

'We respect your opinion. This is a judgement-free zone.'

Studies on code-switching and bi-/multilingual speech have attempted to account for the phenomenon by studying its structure and the context in which it occurs. According to Parafita Couto et al. (2023: 3), code-switching is rule-governed and an index of language competence; it can help "deepen our understanding of language as it permits combinations of formal properties that are hidden in the examination of a single language".

Language contact studies have often placed a large amount of emphasis on the differences, or the lack thereof, between lexical borrowing and code-switching in different language pairs (Muysken, 2016). Although to date there have been many accounts of code-switching and other language contact phenomena, often times it is not very straightforward to distinguish the occurrence of lexical borrowings from instances of code-switching. As a result, there are various definitions of what is considered code-switching but existing theories are incongruous due to "the decisions their proponents take with regard to the identification and treatment of

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[10] Following Parafita Couto et al. (2023) & Deuchar (2012; 2020), this paper will use the terms 'intercausal' and 'intraclausal' instead of inter- and intrasentential due to the overlap in the notions of 'sentence' and 'clause'; intrasentential may also refer to switches that occur between clauses in the same sentence.

borrowings, especially when these occur spontaneously" (Poplack, 2017: 1). From a variationist perspective, spontaneous speech from specific bilingual communities is the best way to examine language contact phenomena because it allows the focus to lay on the manner in which different language contact phenomena may surface during bilingual language use. As mentioned previously, code-switching can be seen as the manifestation of the bilingual I-language. For this reason some accounts of code-switching place their efforts in distinguishing it from other language contact phenomena like (established and/or nonce) lexical borrowings; code-switching requires the knowledge of the donor language involved. We will return to this and discuss the different approaches to study code-switching in Section 3.1..

1.4. The grammars of Papiamento, Dutch, English, and Spanish

Considering the multilingual nature of the language use on Aruba, this section presents an overview of the relevant features of Papiamento, Spanish, Dutch and English that are necessary to gain sufficient understanding of the verbal domain of each language (see Appendix A). We shall start with Papiamento.

Papiamento has a Subject-Verb-Object (SVO) word order, and has limited overt morphology. The latter is evident as Papiamento has no grammatical gender and only marks NUMBER on adjectives, nouns and pronouns. In terms of tense, aspect, and mood, Papiamento predicates consist of at least two constituents: a compulsory tense marker in form of an auxiliary verb and a lexical verb in the infinitive, i.e. [AUX+V$_{INF}$]. In general, *a* is used to indicate past tense, *ta* indicates present tense, and *lo* is the future tense marker (Department of Education Aruba, 2008; Kouwenberg, 2013). Notice that in practice *ta* and *a* are primary markers that may be combined with past imperfective *taba/tawa* or future perfective marker *lo* to denote specific tense, aspect, and mood information (c.f. Rivera-Castillo (2022) for a complete overview).

Spanish is one of the languages whose influence has been widely noted on Papiamento. As a major lexifier of the creole, the contribution of Spanish can be seen in the Papiamento vocabulary, grammar and phonology. Similar to Papiamento, present-day Spanish has Subject-Verb-Object (SVO) word order. On the other hand, Spanish allows null-subjects and has overt morphological markings for its φ-features in verbal and nominal domains (Real Academia Española & Asociación de Academias de la Lengua Española, 2019). This includes gender markings for MASCULINE and FEMININE. With regards to the verbal domain, this can be seen by the overt morphological markers for tense, aspect, and mood information. For instance, *yo comí una manzana ayer* ('I ate an apple yesterday') can be realised as *comí una manzana ayer* ('I ate an apple yesterday') since *-í* provides the information of the time and the duration of the action that took place. Moreover, the verbal inflection provides the information about the subject, namely PERSON and NUMBER.

The Dutch language also played a significant role during the intense language contact situation in the 17th century on the ABC islands. Dutch has disharmonic word order, as it features both Subject-Verb-Object (SVO) and Subject-Object-Verb (SOV) order; the latter is used in embedded clauses, while the former is for main clauses. Dutch has two genders: a common gender, roughly conflating FEMININE and MASCULINE, and

a neutral gender, called NEUTER. Importantly, Dutch verbal predicates may consist of an auxiliary verb and a lexical verb; inflection appears on the auxiliary or on the finite verb. The verb affix depends on the φ-features of the subject and tense information (Kerstens & Sturm, 2008).

Lastly, English has Subject-Verb-Object (SVO) word order and limited overt GENDER markings on pronouns. Additionally, verbs in English have relatively limited amount of overt morphological markings; auxiliary verbs play a large role in indexing various tense and aspectual information within the language (Aarts, 2011). Moreover, English has different options to create a verbal predicate for the same tense, e.g. 'will' can be combined with the infinitive, gerund, or past participle to create future tenses. As will be discussed in Section 2.1., the Germanic languages we described here have separable verbs within their verbal domain while the Romance languages do not.

From the short overview above, it can be observed that Papiamento, Dutch, English and Spanish differ in various grammatical characteristics. This chapter presented the background information needed to better grasp the language context, historically and presently, in Aruba. Focusing on the verbal domain, there is a discrepancy in word order of the languages examined here. As will be noted in the following chapters, Papiamento has a periphrastic VP which will lead to an extended structure when there is a Germanic separable verb present. We will present our research inquiry and expectations in the following chapter.

2. Research aims and objectives

2.1. Research question

Separable verbs consist of a verbal constituent and a particle; one example is the verb *to turn up* ('to appear suddenly'). Similarly to compound words, separable verbs may acquire their meaning through the combination of a lexical verb with an adjectival, prepositional or adverbial particle (Barbiers et al., 2018; Bennis, 1992; Thim, 2012). The aim of this study is to provide an account of the structure of Papiamento-Dutch and Papiamento-English code-switching with a focus on separable verbs. The main research question here is: *what are the underlying mechanisms of Papiamento-Dutch and Papiamento-English code-switching with respect to the VP, and in particular separable verbs?* Specifically, what are the (syntactic) constraints of code-switched derivations in multilingual Papiamento-Dutch and Papiamento-English speech from speakers from Aruba. The choice of this particular set of data is due to the different nature of separable verbs in the different languages. This will be discussed in Section 2.2. in more details. Concisely, we know that there will be a clash between the VPs in languages with separable verbs, like Dutch, and those without, e.g. Papiamento. This clash will result in a merger of the languages involved; this merger may for instance look like Dutch verbal inflections on Papiamento roots or Papiamento auxiliary verbs followed by a Dutch verbal stem instead of an infinitive. Our proposition is that code-switching with these separable verbs will have their own specific patterns vis-à-vis the combination of Germanic separable verbs and languages without separable verbs. We will return to this in the subsequent sections.

2.2. Empirical base: Looking at separable verbs

2.2.1. Germanic separable verbs

One of the characteristics of Germanic separable verbs is the possibility to have the verb non-linearly adjacent to the particle or the preposition[11]. The result is a word order of the kind Verb-Object-Particle (VOP) (Bennis, 1992; Wurmbrand, 2000; Barbiers et al., 2018). The sentences in (7) and (8) illustrate this pattern in Dutch and German respectively.

(**7**)   Dutch (green): *inhalen* ('to catch up')

   (**a**)   Hij   moest   wat   werk   in-halen.
          He   have.AUX.PAST   some   work   in.PRT-catch.INF
          'He had to catch up on some work.'

   (**b**)   Hij   haal-de   wat   werk   in.
          He   catch.RT-2SG.PAST   some   work   in.PRT.
          'He caught up on some work'

---

[11] Separable verbs in Dutch are also referred to as separable compound verbs or particle verbs (c.f. Bennis (1992) and/or Wurmbrand (2000)).

The Dutch separable verb *inhalen* ('to catch up') consists of the verbal constituent *halen* ('to get') and the prepositional particle *in* ('in'). In (7a) the particle and verbal constituent occur together in situ as an infinitive. Observe that the verbal constituent is aligned to the left of the particle in (7b), with the object of the sentence appearing between the verb and the particle. This pattern is also present in German (see (8)).

(8)   ***German* (*gold*):** *nachholen* ('to catch up')
(a)   *Er   musste   etwas   Arbeit   nachholen.*
          He   have.AUX.PAST   some   work   after.PRT-catch.INF.
          'He had to catch up on some work.'

(b)   *Er   holte   etwas   Arbeit   nach.*
          He   catch-2SG.PAST some   work   after.PRT.
          'He caught up on some work.'

Similar to Dutch *inhalen* ('to catch up'), German *nachholen* ('to catch up') may occur in a sentence where the verbal particle *holen* ('to get') appears to the left of its prepositional particle *nach* ('to' or 'after'), as in (8b), and in situ as an infinitive (see (8a)). Additionally, as mentioned previously, the meaning of separable verbs is mostly, but not always, compositional and therefore transparent. In other words, *inhalen* ('to catch up') and *nachholen* ('to catch up') only mean 'to catch up' when combined. As will be seen next, this is also the case for English separable verbs.

As a Germanic language, English has separable verbs that behave similarly to those in Dutch and German; however, these verbs are less common in English (Thim, 2012; Booij, 2002). English separable verbs are more idiomatic compared to other Germanic languages and are therefore also referred to as phrasal verbs (Thim, 2012). This lexicalisation is evident in English as not all English separable verbs show the same left-alignment pattern of the verbal constituent to the particle as observed in (7) and (8) for Dutch and German respectively. This is exemplified in (9) and (10).

(9)   **English (purple):** 'to catch up' in past perfect
(a)   **He   had   to catch   up   on   some   work**
          He   have.AUX.2SG.PAST   to catch.INF   up.PRT   on   some   work.

(b)   **He   had   some   work   to catch   up   on.**
          He   have.AUX.2SG.PAST   some   work   to catch.INF   up.PRT   on.

(c)   ***He   had   some   work   on   to catch   up.**
          *He   have.AUX.2SG.PAST   some   work   on   to catch.INF   up.PRT.

(d)   ***He   had   on   some   work   to catch   up.**
          *He   have.AUX.2SG.PAST   on   some   work   to catch.INF   up.PRT.

(e) ***He had to catch some work on up.**
    *He have.AUX.2SG.PAST to catch.INF some work on up.PRT.

(10) **English (purple)**: 'to catch up' in simple past
  (a) **He caught up on some work.**
    He catch.2SG.PAST up.PRT on some work.

  (b) ***He caught on some work up.**
    *He catch.2SG.PAST on some work up.PRT.

  (c) ***He caught some work up on.**
    *He catch.2SG.PAST some work up.PRT on.

In (9) there are two formulations that are acceptable, namely (9a) and (9b). The sentence in (9c) is similar to the Dutch and German past perfective phrases in (7a) and (8a), yet it is ungrammatical in English. Sentences (9d), (9e), (10b), and (10c) are ungrammatical as well. Together with the ungrammaticality of (9c), (9d), (9e), (10b), and (10c), it seems that, as opposed to Dutch and German separable verbs, the verbal constituent and the particle of English separable verbs must occur next to each other. On the other hand, similar to Dutch and German, *catch* and *up* have distinct meanings by themselves in English and only denote 'to reach a certain (person's) level or quota' when combined.

2.2.2. Romance separable verbs

Germanic and Romance languages exhibit two different lexicalisation patterns with regards to particle verb constructions, i.e. separable verbs (Talmy, 1985; Iacobini & Masini, 2005). Germanic languages are satellite-framed languages, and Romance languages are verb-framed languages (Talmy, 1985). That is to say, Germanic verbs are able to lexicalise the motion/cause of an event and use external particles to specify the direction of the event. On the other hand, Romance verbs are only able to lexicalise the path of the event and use adjuncts to specify the manner/cause of the event. The following table taken (and adapted to insert examples from Papiamento and Dutch) from Iacobini & Masini (2005) illustrates this.

Table 4. Typology of verbs of motion and satellites in Indo-European languages (adapted from Talmy (1985) by Iacobini & Masini (2005: 160); additional examples added by the present author).

Language family	*The components of a motion event typically represented in the verb[12]*	
	Verb root	**Satellite**

Romance languages	MOTION + PATH
	
	For example:
	Spanish
	  Poner ('to put')
	  Meter ('to insert')
	  Subir ('to mount')
	
	Papiamento
	  Pone ('to put')
	  Hinca ('to insert')
	  Subi ('to mount')
		Ø

Germanic languages	MOTION + MANNER/CAUSE
	
	For example:
	English
	  To put
	  To blow
	  To throw
	
	Dutch
	  Zetten ('to put')
	  Brengen ('to bring')
	  Zetten ('to put')
		PATH
		
		For example:
		English
		  Up
		  Out
		  Out
		
		Dutch
		  Neer ('down')
		  In ('in')
		  Op ('up')

As can be observed in Table 4, Romance languages do not have separable verbs like Germanic languages do. Interestingly, some Romance languages do have instances of so-called separable verbs but these are usually not separable, e.g. *tirare su* ('to raise') in Italian[13]. Notably, as opposed to Italian, Spanish does not have instances of separable verbs since it is a fully verb-framed language (Talmy, 1985).

Despite having influences from both Germanic and Romance languages, Papiamento does not have instances of separable verbs consisting of a verb and a prepositional, adjectival, or adverbial particle. Nevertheless, it is not uncommon for Papiamento speakers to code-switch within the verbal domain to, e.g. Dutch or English separable verbs (Geerman, 2020). As an example, take the sentence in (11a).

(11) *Papiamento (blue)* – **English (purple)** – Dutch (green)
  (a) *Pero* **you** **can-'t** **like** haal-ø in *cierto cosnan.*
    But you AUX-NEG like catch-2SG in.PRT some stuff.
    'But you cannot (like) make up for certain things.'

---

[12] 'Motion' refers to the type of movement the verb describes, e.g. walking or running, while 'path' refers to the direction of the movement of the verb, e.g. across or out. The motion and path can be encoded as part of the verb's root meaning or in a separate particle, i.e. the satellite. C.f. Talmy (1985) and Iacobini & Masini (2005).

[13] c.f. Iacobini & Masini (2005) for a semantic analysis of separable verb constructions in Italian.

(b) The Dutch equivalent of the VP in (11a)

Bepaalde	dingen	in-hal-en
Some	stuff	in.PRT-catch-INF

'Catch up to/on certain things.'

(c) The Papiamento equivalent of the VP in (11a)

Recupera-ø	cierto	cosnan
Recover-2SG.PRES	some	stuff

'Catch up to/on certain things.'

In (11a) the Dutch separable verb *inhalen* ('to catch up') is code-switched with the verbal stem and its particle appearing next to each other. The equivalent of this sentence in Dutch would be in past perfect tense, thereby exhibiting the separable verb in situ as an infinitive (see (11b)). Interestingly, in Papiamento *inhalen* ('to catch up') would be *recupera* ('to recover' and/or 'to catch up') (see (11c)) and precede the object of the sentence similar to the code-switched sequence in (11a). We will discuss this in more detail in the following chapters.

2.3. Expectations

As discussed at the start of this chapter, the choice of this particular research inquiry is due to the distinct nature of separable verbs in the different languages involved. We observed that Germanic separable verbs encode the motion of an event in the verb's root meaning and use particles to specify the path of this motion. For Romance languages it was observed that their lexicalisation patterns with regards to separable verbs differ from those in Germanic languages. Therefore, Romance languages, i.e. Spanish and Papiamento, do not have instances of separable verbs like Dutch or English do. Consequently, as mentioned at the beginning of this chapter, we expect to see a clash that leads to a merger of the VPs of the languages involved. This conflict between the VPs in languages with separable verbs and those without them constitutes an interesting test-bed for code-switching theories. We will review and discuss them in the next chapter.

3. Multilingual code-switching

The structure of code-switching has often been examined by means of bilingual speech data. In contrast, multilingual code-switched speech has been most often approached from a sociolinguistic perspective (Parafita-Couto et al., 2023). Logically, if theoretical accounts of bilingual code-switching are sound, they should also be able to account for multilingual code-switches. In Section 3.1. we will discuss the two main manners in which the phenomenon of code-switching can be examined, namely by focusing on inspecting the structure of the phenomenon or by focusing on the relation between the structure of code-switching and extralinguistic factors. Section 3.2. delves into predictions of code-switching patterns for multilingual data based on generativist principles, the Matrix Language Framework (henceforth MLF) (Myers-Scotton & Jake, 2000; 2009), and Poplack's variationist classification of language mixing strategies (Poplack, 2017). Lastly, Section 3.3. presents previous studies on code-switching with Papiamento/u, and in Section 3.4. we will discuss Papiamento-Dutch and Papiamento-English code-switching in more detail by looking at examples found in Geerman (2020).

3.1. Linguistic and extralinguistic components: Perspectives to examine code-switching

Code-switching theories can be split into two main approaches: those that focus on the structure of code-switches and those that focus on the relation between the code-switched structures and extralinguistic factors. We will dive into a few different approaches below.

Early theoretical accounts of code-switching posited that the phenomenon was not a random occurrence in bilingual speech but rather structurally constrained. For instance, Poplack's (1980) Equivalence Constraint proposed that code-switches between Language A and Language B may only occur at points where the syntax of Language A and Language B overlap. The formulation of constraints specific to code-switching implies the existence of a grammar beyond that of the two languages in contact; a third grammar. In other words, a grammar that comprises of a merger of elements from all the languages in a speaker's repertoire that are not evident in the original grammars. As an illustration, take Poplack's (1980) Equivalence Constraint in (12); (12a) contains a monolingual English sentence and (12b) a monolingual Spanish one. The Equivalence Constraint states that speakers may only switch languages at points where the linguistic structures of the languages involved map onto each other (i.e. the dash lines) and inhibits switches from occurring "within a constituent generated by a rule from one language which is not shared by the other" (Poplack, 1980: 586). (12c) contains the code-switched derivation found in Poplack's (1980) study.

(12) Poplack's (1980: 586) Equivalence Constraint: **English (purple) -** <u>Spanish (pink)</u>

(a)	**I**	**told him**	**that**	**so that**	**he**	**would bring it**	**fast.**

(b)	<u>(Yo)</u>	<u>le dije</u>	<u>Eso</u>	<u>pa' que</u>	<u>(él)</u>	<u>la trajera</u>	<u>ligero.</u>

(c)	**I**	**told him**	**That**	<u>pa' que</u>		<u>la trajera</u>	<u>ligero.</u>

While studies such as Poplack's (1980) were quite influential, scholars note that even the combination of the same two languages in different speech communities does not always lead to the same code-switched structures (Balam et al., 2020). Moreover, 'syntactic' constraints like those Poplack (1980) proposed account sooner for the linear sequence of code-switching than for the underlying structure of the phenomenon. Conversely, there are theoretical accounts of code-switching that posit no specific constraints operating on the phenomenon, i.e. null theories (López, 2020). These co-called null theories state that code-switching can either occur within the perimeters of the respective language structures, or do so within the parameters of Universal Grammar (UG) (MacSwan, 2009; López, 2020; Parafita Couto et al.,2023). With regards to multilingual code-switching, no different from bilingual predictions, null theories will posit that code-switches may occur as long as the structure of the languages involved (or UG) are not violated (Parafita Couto et al., 2023).

A structure-focused account of code-switching that has gained traction in the field is the MLF (Myers-Scotton & Jake, 2000; 2009). The MLF assumes that the languages involved in code-switching are in an asymmetric relationship, namely one language serves as the matrix language (ML) and the other language(s) as the embedded language(s) (EL). The MLF utilises two principles for assigning the ML of a clause: the System Morpheme Principle (SMP) and the Morpheme Order Principle (MOP) (Myers-Scotton & Jake, 2000; 2009); the ML provides the morphosyntactic frame (viz. word order) of the sentence and functional categories while the EL provides content words. Take as an example the sentence in (13) below.

(13) Example from Backus (1992: 107, as cited in Myers-Scotton & Jake (2009: 338)) depicting code-switching in **<u>Turkish (red)</u>** and Dutch (green)

O	**diyor**	ben	uitmak-en	**yap-ti-m**	**diyordu**	**kiz-inam**.
He	say.PROG.3SG	1SG	finish-INF	do-PRET-1SG	say.IMP.3SG	girl-with.

'He says 'I broke up with a girl'.'

ML identification is done clause by clause; following the MOP and SMP, Dutch is the EL because Turkish provides the clausal word order and the functional morphemes (these agree in Turkish as well). The addition to the MLF, the 4-M model, bridges the gap between null theories (e.g. the Minimalist Programme (MP) and Distributed Morphology) and asymmetric models (e.g. MLF) to code-switching (Halle & Marantz, 1993;

Myers-Scotton & Jake, 2000; Parafita Couto et al., 2023). The 4-M model further classifies the MLF system morphemes into early, bridge and outsider morphemes (Myers-Scotton & Jake, 2000); the underlying categorisation of early and late morphemes is based on the notion that the types of morphemes are accessed at different levels of the production process (i.e. Differential Access Hypothesis) (Myers-Scotton & Jake, 2000; 2009; Parafita Couto et al., 2023).

In contrast to approaches that focus on accounting for code-switching structures from empirical data, there are accounts of code-switching that rely on (large amounts of) naturalistic data in order to take structural and extralinguistic factors into account. These extralinguistic factors consist of distinct social and individual factors, such as the language proficiency of the interlocutors, language attitudes, age of acquisition, the frequency with which speakers use their languages, and other community-specific factors (Parafita Couto et al., 2023). Code-switching accounts that focus on structural and extralinguistic factors postulate socio-cognitive constraints that will influence code-switching patterns in bilingual and multilingual interactions. Nevertheless, not all of these accounts make structure-specific predictions for the phenomenon a priori. For instance, Muysken (2000; 2007; 2013) systematically observed the interaction between code-switching patterns and extralinguistic variables. He then proposed four processes that take place during the language contact phenomenon, namely insertion, alternation, congruent lexicalisation, and backflagging. The occurrence of these processes are thought to be community specific. In other words, speech communities have their own hierarchy of code-switching patterns and from these hierarchies different community and linguistic norms can be established. In particular, Chan (2009) posits that speakers have diverse structurally viable options they can choose from based on processing strategies and sociolinguistic factors. This leads to different outcomes "even across communities within the same language pair" (Parafita Couto et al., 2023: 15). From Muysken (2000; 2007; 2013) and Chan's (2009) perspectives, and those similar to them, it is expected that multilingual communities will also show different strategies and patterns during code-switching as these are influenced (in bilingual and multilingual communities alike) by processing strategies and sociolinguistic factors, and these hierarchies will also be idiosyncratic in nature.

The differences between distinct speech communities when it comes to code-switching structures is examined by usage-based and variationist approaches by taking extralinguistic factors into account. Both of these approaches, while not incompatible with structure-driven accounts, are unified by the importance they place on (large amounts of) naturalistic data and the fact that they expect variation across and within speech communities. Usage-based approaches (e.g. Backus, 2015) follow cognitive linguistics tradition and find that code-switching patterns emerge through increased usage and subsequent entrenchment. However, they do not make any a priori predictions. On the other hand, variationist approaches (e.g. Poplack, 2017; Deuchar, 2020) follow Labovian sociolinguistics and consider spontaneous speech data in examining structural changes due to contact, and differences between code-switching and lexical (nonce) borrowing. A key aspect of variationist approaches to code-switching is that they take large amounts of extralinguistic factors into account. An extensive variationist perspective to code-switching is that of Poplack's (2017) linguistic and extralinguistic

diagnostics for distinguishing code-switches from nonce borrowings[14]. In a nutshell, nonce borrowings are instances of apparent code-switches with a single item from a donor language in a recipient structure that is not considered a loanword due to the lack of entrenchment in the recipient language (Poplack et al., 1988; Poplack, 2012; 2017; Deuchar & Stammers, 2012; Deuchar, 2020). By means of spontaneous bilingual data from the Ottawa-Hull French Corpus (Poplack 1989), Poplack (2017) shows the underlying criteria that differentiate nonce borrowing, established loanwords, and code-switching from each other respectively (see Table 5).

Table 5. Poplack's (2017: 157) characteristics of three language-mixing types (adapted from Table 9 from Poplack & Dion (2012)).

Diagnostics	Multiword CS	Nonce borrowings	More frequent borrowings
Linguistic			
Lexical constitution	*Content words ≈ function words*	*Preponderance of nouns Lack of function words*	
Syntactic integration	L_α	L_R	
Morphological integration	L_α	L_R	
Phonological integration	*Variable*	*Variable*	*Variable*
Extralinguistic			
Knowledge of L_α	*Required*		*Unnecessary*
Level of diffusion	*Restricted*		*Diffused*
Frequency	*Rare*		*Frequent*

Concisely, Poplack (2017) finds that both types of borrowings are distinguished predominantly from code-switching in terms of the type of donor-item, and its syntactic and morphological integration within the recipient language. Hence, a single or multiple word sequence from Language A occurring in Language B may be constituted as code-switching if it is syntactically and morphologically behaving as it would in Language A. Moreover, a speaker is considered a code-switcher if the lexical items they use from the donor language are both content and function words. Crucially, phonological integration of the lexical item is subject to idiosyncratic variation for nonce and frequent borrowings, and code-switching. Extralinguistic factors further constrain instances of borrowings from code-switches, such as the prerequisite of knowledge of the donor language, the lexical item's level of diffusion within the speech community, and the frequency with which it is used by an average speaker in the speech community.

Structure-focused accounts and accounts that focus on structural and extralinguistic factors are not incompatible by default. Some approaches provide (universal) constraints on code-switching structures (e.g. Poplack (1980) or MacSwan (2009)), others provide tools to deconstruct code-switched utterances (e.g. Myers-Scotton & Jake (2009) or Halle & Marantz (1993)), and others use code-switching to provide a taxonomy to differentiate various language contact phenomena (e.g. Poplack (2017) or Muysken (2000; 2007; 2013)). For the purpose of this study, we find code-switching to be the manifestation of the linguistic

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[14] Important to note, the notion of nonce borrowings is a debated topic in the field. C.f. Poplack (2012) and/or Deuchar & Stammers (2012) for a short overview.

competence of bi- and multilinguals. Theories that account for the linear sequence of code-switching and/or posit specific constraints on code-switching structures are not in line with our view of code-switching. Returning to our brief discussion of language contact phenomena in Section 1.3., we mentioned that language contact studies have frequently placed a large portion of their energy on examining the differences and similarities between lexical borrowing and code-switching in different language pairs (Muysken, 2016). While differentiating between different language contact phenomena is important, this is not the main focus of this study. Examining language contact, specifically with regards to code-switching, is best when using naturalistic data. We also find code-switching to require the (subconscious) knowledge of the languages involved. In this section, we discussed different manners to examine the language contact phenomenon of code-switching but mostly confined to a bilingual context. In the following section, we will explore predictions from different code-switching accounts vis-à-vis multilingual data, namely the predictions from generativist perspectives, the hypotheses from the MLF used in ML and EL identification, and Poplack's (2017) linguistic and extralinguistic diagnostics for the differentiation of various language contact phenomena.

3.2. Relating existing code-switching accounts to multilingual data

It is important for theories of code-switching to also be able to account for the phenomenon as it occurs in multilingual communities. This section will delve into the predictions of code-switching patterns based on generativist principles (MacSwan, 2009), the predictions of the MLF for a multilingual repertoire (Myers-Scotton & Jake, 2000; 2009), and consider Poplack's (2017) classification of bilingual language-mixing strategies against the backdrop of Papiamento-Dutch and Papiamento-English code-switching.

Briefly put, there are no reasons to assume from the outset that any account of code-switching should not be applicable to multilingual data. Therefore, we shall not posit any 'new' predictions or understandings of the accounts as they exist to date. In other words, we posit that generativist (affiliated) accounts of code-switching would still expect the phenomenon to occur within the perimeters of the languages involved, especially UG parameters, e.g. verb movement, Extended Projection Principle (EPP) or *pro*-drop, and/or head-directionality, when it comes to multilingual data. Similarly, MLF predictions for bilingual speech are also expected to be applicable to multilingual data; MLs and ELs are expected to still be identifiable by means of the MOP and SMP. With regards to Poplack's (2017) diagnostics, this classification is also expected to still be viable in differentiating various language contact phenomena as they occur not only in bilingual speech but also during multilingual speech interactions.

Parafita Couto & Gullberg (2019) tested generativist predictions and predictions from the MLF to code-switching in the nominal domain of the following three language pairs: English-Welsh, Dutch-Papiamento and English-Spanish. In a nutshell, Parafita Couto & Gullberg (2019) posited that generativism would expect that the language with the most φ-features will provide functional categories (i.e. determiner), and the language of the word order of the clause to also be the language of the adjective. With regards to the

MLF, Parafita Couto & Gullberg (2019) expected the ML to provide the determiner (i.e. functional categories) and the EL to set the word order of the clause. Their findings show that MLF predictions can account for more code-switches within the nominal domain as opposed to generativist predictions. For instance, functional categories were mostly in the ML and not necessarily the language with the most φ-features. With regards to Papiamento-Dutch code-switches instances such as (14) were found (Parafita Couto & Gullberg, 2019: 703).

(14) *Papiamento/u (blue)* – Dutch (green)
Un	moeilijke	keuze.
DET	difficult	choice.

'A difficult choice.'

Similarly, Parafita Couto et al. (2023) point out that certain patterns of code-switching that have been attested, e.g. word-internal switches, are not allowed by generative approaches, such as the MP, while non-lexicalist approaches, e.g. Distributed Morphology, do predict these instances. To clarify, the MP expects cross-linguistic variation to stem from differences in the lexicon of the languages involved and does not explicitly make any predictions with code-switching within words (MacSwan, 2009; Parafita Couto et al., 2023). Take as an illustration, the following sentences in (15) where the verbal root and its inflection are in two different languages. Although these word-internal code-switches occur naturally, their grammaticality judgements within the respective speech community is also attested, i.e. Spanish roots with German inflection are acceptable yet German roots with Spanish inflections are not (c.f. González-Vilbazo & López (2011; 2012) for details on the asymmetry depicted in below).

(15) *German (gold)* – <u>Spanish (pink)</u> word-internal code-switching in the verb
(González-Vilbazo & López, 2011: 839).

(a) *Wir* <u>utilis</u>-***ieren*** <u>palabras</u> <u>alemanas</u>.
We	use_{SP}-INF_{GER}	words	German

'We use German words.'

(b) *<u>Juan</u> <u>se</u> <u>ha</u> **anmeld**-<u>eado</u>.
Juan	REFL	has	register_{GER}-PAST_{SP}

'Juan has registered.'

Exo-skeletal approaches, like Distributed Morphology (Halle & Marantz, 1993), were created to address this gap by placing the focus on word formation. Such perspectives view languages as less compartmentalised from each other as lexical items are thought to be generated separately from the lexicon (Parafita Couto et al., 2023).

When considering multilingual data, some studies could identify a ML (Clyne, 2003; Finlayson et al., 1998; Wong Gonzales, 2016; Parafita Couto et al., 2023); this is the benefit of the MOP and SMP as they are applicable on a clause-by-clause basis thus allowing researchers to examine, e.g. a noun phrase or verb phrase,

by themselves. That is to say, a whole multilingual sentence may consist of (bilingual) clauses with differing MLs and ELs, and remain a multilingual utterance as a whole. While it could be the case that multilingual speakers may have a preferred language and/or language pair to code-switch with, it could also be the case that multilingual speakers may code-switch with all the languages in their repertoire. Such an instance can be seen in the sentence in (16) below. Observe, (16) also contains an instance of word-internal code-switching.

(16) **English (purple)** – ITALIAN (RED) – ***French (teal)*** – Spanish (pink) multilingual
code-switching (Clyne, 2003: 163, as cited in Parafita Couto et al., 2023: 23).

I	**have**	CANN-***é***	todo.
I	have-1SG.AUX	fail$_{IT}$-1SG.PAST$_{FR}$	everything.

'I have failed everything.'

Based on the above, the question remains whether there is a preference for bilingual utterances in other multilingual speech communities and/or how these utterances are structured. This thesis finds separable verbs to offer peculiar insights into the matter. The utterance from (11) is repeated in (17). The whole derivation contains switches between three languages, namely Papiamento, English and Dutch. However, within the verbal domain itself only switches between two languages can be observed.

(17) *Papiamento (blue)* – **English (purple)** – Dutch (green)

Pero	**you**	**can-'t**	**like**	haal-ø	in	*cierto*	*cosnan.*
But	you	can.NEG	like	catch-2SG	up.PRT	some	stuff.

'But you cannot (like) make up for certain things.'

Based on Poplack's (2017) diagnostics for distinguishing code-switching from nonce and frequent borrowings, it is expected that the instances that are code-switches for Papiamento-Dutch and Papiamento-English by Aruban speakers should contain more or less the same amount of content and function words, and be morpho-syntactically integrated according to the donor language(s). Extralinguistically speaking, these instances should not be widely diffused across the speech community and not often used by speakers. Be that as it may, from the sentence in (17) it is clear that not all of these categories hold for multilingual data. To be precise, the lexical constitution of Papiamento and English is more or less evenly distributed over content and function words; however, for Dutch there are only content words present. Nevertheless, the morpho-syntactic integration of the Dutch structure is not solely based on the donor language. The Dutch separable verb is split into two, as it would be in Dutch, but it occurs in its most simple version since it is marked for tense by a preceding Papiamento tense marker and lacks overt verbal morphology. The latter are unexpected according to Poplack's (2017) linguistic diagnostics for code-switching. Moreover, knowledge about the donor language may vary across speakers but due to the socio-cultural context in which these languages interact it is the case that some speakers may be more dominant in Papiamento but still employ Dutch separable verbs in their speech as in (17). This ties into the level of diffusion proposed for instances of code-switching, i.e. restricted

diffusion; the amount of speakers within the speech community that use the structure is large, therefore it is diffused. On the other hand, the frequency of code-switches amongst Aruban speakers is high, but when focusing on a particular structure like separable verbs it may be the case that these occur often but not as frequently in all domains.

In short, we discussed the application of various predictions from different approaches to code-switching from a multilingual perspective. As there are no reasons to assume current code-switching accounts should not be applicable to multilingual data as is, no modified predictions were formulated for any of the accounts discussed above. Nevertheless, it seems the different approaches are able to account for various patterns in multilingual data even if not precisely applicable to all instances. Naturally, this is also the case when examining bilingual speech data. Looking specifically at the three main approaches discussed, considering UG parameters as border for code-switching is not theoretically unsound. Although the division between the computational system and the lexicon might not be as stringent, and of much influence, on structures that arise during code-switching as assumed. On the other hand, the MLF is able to account for more fine-grained examination of code-switches and the occurrence of e.g. word-internal code-switches. Be that as it may, identifying MLs and ELs is not always as straightforward either. Lastly, we also elaborated on Poplack's (2017) diagnostics despite the fact that this account to examine code-switching differs from the research inquiry at hand in order to show how (extra)linguistic diagnostics may be applied to multilingual data. From the discussion above, it can be observed that, similar to generativist and MLF predictions, the variationist perspective seems is not an airtight tool to account for instances of code-switching in multilingual data. In order to know this for sure Poplack's (2017) diagnostics should be examined by means of a large naturalistic (possibly diachronic) dataset; this falls outside of the scope of this study. With all this in mind, it can be discerned that the application of code-switching theories onto multilingual data, especially if those accounts were borne out of and/or that mainly take bilingual contexts as their focus, is not as straightforward as expected.

3.3. Code-switching in Papiamento/u: Previous studies

Studies on code-switching involving Papiamento/u are limited, and pertain mostly to language choice and functional differentiation between the languages, sociolinguistic motivation, and code-switching in the nominal domain (including psycholinguistic studies).These are discussed below.

One of the earliest studies on code-switching with Papiamento/u is that of Muysken et al. (1996). The researchers looked at the language choice, structure, and implications of lexical borrowings in parent-child speech. Muysken et al. (1996) found that Dutch elements were most often inserted into Papiamento/u structures and concluded that these structures were easily interpreted by the children, and therefore these insertions would become the future lexical borrowings. The Dutch insertion patterns in this study seem to follow the predictions by Myers-Scotton & Jake's (2000; 2009) MLF. As mentioned in the previous section,

Parafita Couto & Gullberg (2019) tested the predictions from the MLF and generativist perspective on code-switching in the nominal domain for three different language pairs. Their results provided evidence both against and in support of the two theoretical accounts but none of these were conclusive. However, the MLF had greater descriptive power over all three datasets compared to generativist predictions. With regards to Papiamento/u-Dutch code-switching, it was observed that the functional category (viz. the determiner) was most often in Papiamento/u, while the succeeding elements were in Dutch. As an illustration, take the utterance from (14) in the previous section; this is repeated below in (18) for convenience.

> **(18)** *Papiamento/u (blue)* – Dutch (green) code-switching in the nominal domain
> (Parafita Couto & Gullberg, 2019: 703).
>
> *Un*   moeilijke   keuze.
> DET   difficult   choice.
> 'A difficult choice.'

From a generativist perspective, these findings are unexpected as Papiamento/u is the language with the less amount of φ-features in the pair. In contrast, this pattern is aligned with MLF expectations as the functional category identifies Papiamento/u as the ML. Secondly, code-switches took place between the determiner and the [ADJECTIVE+NOUN] structure, not between adjectives and nouns. This supports generativist predictions in their expectation that pronominal adjectives are the default in the language of the AN-cluster but also considered the default in UG. Interestingly, contrary to the MLF expectation that the adjectives and nouns will come from the ML, these results are in line with MLF predictions in the sense that both the content words come from the same language, i.e. the EL. While the results of this study were not conclusive with regards to code-switching theories, the patterns found do leave room for further exploration on their underlying structure since these are not fully in line with MLF and MP expectations.

A more recent study on Papiamento/u-Dutch code-switching experimentally tested the predictions of the MLF (Myers-Scotton & Jake, 2000; 2009), the MP (MacSwan, 2009), and the Asymmetry Hypothesis (AH) (Di Sciullo, 2014) by means of event-related potentials (ERP) in order to understand the mechanisms determining the placement of adjectives in code-switching (Pablos et al., 2019). The results of this study did not lend support to the predictions by the MLF and MP. As for the AH, Pablos et al. (2019) posit there may be or may not be some merit to Di Sciullo's (2014) proposal. In short, the AH (Di Sciullo, 2014) states that code-switching is possible at 'modification' sites, i.e. where adjectives and nouns are merged, since adjectival (and adverbial) modifiers occupy the specifier position of a functional category that c-commands the lexical projections they modify (Pablos et al., 2019). Therefore, the AH finds all (nominal) code-switching sequences to be possible. However, based on the results from Parafita Couto & Gullberg (2019), this may not be the case for Papiamento/u-Dutch code-switching. Importantly, Pablos et al. (2019) note that while it is important to investigate code-switching structures and test theoretical accounts of code-switching, code-switching patterns and acceptability of certain structures are community specific. Balam et al.'s (2020) investigation of Spanish-English bilinguals' code-switching with compound verbs, i.e. the combination of Spanish light verbs with

English lexical verbs, in three different Spanish-English bilingual communities show that acceptability and use of certain structures are tied to the exposure and use of said structures in naturalistic settings. Therefore, the community-specific structures, acceptability judgements and intuitions surrounding a specific code-switching structure are not only influenced by language competence or the structure of the languages involved. With regards to the ABC islands and Papiamento/u, the point made by Pablos et al. (2019) alludes to the fact that we may find different code-switching patterns, motivations, and acceptability judgements depending on whether we investigate, e.g. Arubans or Curaçaoans, and whether these speakers are living in (and/or have migrated to), e.g. Aruba, Bonaire, St. Maarten, or the Netherlands. That is to say, for the on-line examination of code-switching with ERPs it is expected that the different responses, i.e. how MLF and MP predictions manifest themselves, is also community-specific similar to the findings of other psycholinguistic and non-psycholinguistic code-switching studies (Valdés Kroff, 2016; Vaughan-Evans et al., 2020; Pablos et al., 2019; Parafita Couto & Gullberg, 2019; Parafita Couto et al., 2023). Vaughan-Evans et al. (2020) conducted a follow-up ERP study to test the processing of adjective-noun placements in Welsh-English code-switching according to MLF and MP predictions. Notably, their findings show that MLF and MP predictions manifest differently depending on the language that provides the morpho-syntactic frame of the sentence. When Welsh provided the morpho-syntactic frame, the sentences that violated MLF or MP predictions required greater processing efforts than those that adhered to MLF or MP predictions. However, when English provided the morpho-syntactic frame "the ERP responses were not significantly modulated by neither MLF nor MP predictions" (Vaughan-Evans et al., 2020: 16). These results are thought to be in line with psycholinguistic models that propose that "processing patterns are impacted by statistical regularities observed in production" (Vaughan-Evans et al., 2020: 16; Valdés Kroff, 2016)[15]. According to Valdés Kroff (2016), code-switching is a learned behaviour that varies from community to community; differences in exposure to and engagement in code-switching should be evident in both code-switching production and comprehension between different participant groups and/or across code-switching studies. With regards to Vaughan-Evans et al.'s (2020) study on Welsh-English code-switching, it could be the case that code-switching may be more common when Welsh provides the morpho-syntactic environment of the clause thereby generating stronger expectations about adjective-noun placements in participants. Conversely, these expectations are less strong, or not applicable at all, when English provides the morpho-syntactic frame. As Vaughan-Evans et al. (2020) note, this finding may also explain the conflicting patterns found in previous ERP studies, like Pablos et al. (2018), where the language providing the morpho-syntactic environment, i.e. the ML, was not considered a confounding factor. What is worth keeping in mind, is that the patterns found in the nominal domain are not direct indications for the code-switches that occur in the verbal domain (Suurmeijer et al., 2020). The results from Suurmeijer et al.'s (2020) auditory sentence matching task study with Curaçaoans to examine pre- and post-verbal code-switches in Papiamentu and Dutch, i.e. switches between the object and verb of the clause, showed that, contrary to their expectations and previous results from the nominal domain, processing difficulties increased

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[15] C.f. MacDonald (2013), Pickering & Garrod (2013), Valdés Kroff, (2016), and Vaughan-Evans et al. (2020).

when the switches were from Papiamentu to Dutch. While the focus of this thesis is not on the on-line processing of code-switches, these findings are helpful as they may further elucidate and direct future studies and our understanding of structures such as those found in Parafita Couto & Gullberg (2019). These findings may also explain differences in predicted structures by the MLF or the MP across different language pairs, speech communities and language domains.

From a discourse-driven perspective, Geerman (2020) investigated how Aruban students living in the Netherlands engage in multilingual discourse with Papiamento, English, Dutch and Spanish by examining their code-switching patterns. The main foci of that study were the pragmatic and syntactic environments in which languages were switched. The results showed that speakers had a preference for intrasentential code-switching[16]. Moreover, the majority of the switches (59,7% - 61.9%) fell into the categories of discourse marker, affect, and lexical borrowing[17]. Furthermore, Geerman (2020) tested Poplack's (1980) syntactic constraints on the multilingual data and found that these constraints only accounted for a small proportion of the code-switches at hand. This is not surprising since, as mentioned previously, Poplack's (1980) constraints can sooner be interpreted as a linear representation of code-switching rather than a structural analysis thereof. Interestingly, instances considered as exceptions in Geerman (2020: 37) could quite possibly be the rule within the context of Papiamento-Dutch and Papiamento-English code-switching by Arubans. To illustrate this point, see (19) below.

(19) Dutch (green) – *Papiamento (blue)*

(…) *dus*	*mi kier-ø*	*a*	daag-ø	*mi mes*	uit.
(…) so	I$_i$ want.INF	AUX.PAST	challenge-1SG.RT	myself$_i$	PRT.

'(…) so I wanted to challenge myself.'

As a whole, the sentence in (19) is stating a past action; in Dutch and Papiamento the utterance would be uttered as (20) and (21) respectively.

(20) Monolingual Dutch equivalent of the sentence in (19)

(…) dus	ik	wil-de	mezelf	uit-dag-en.
(…) so	I	want.AUX-1SG.PAST	myself	PRT-challenge-INF.

'(…) so I wanted to challenge myself.'

(21) Monolingual Papiamento equivalent of the sentence in (19)

(…) *dus*	*mi*	*kier-ø*	*a*	*desafia-ø*	*mi mes*
(…) so	I	want.MOD	AUX.PAST	challenge-1SG.INF	myself

'(…) so I wanted to challenge myself.'

---

[16] Additionally, interintrasentential switch constructions were also present. In terms used in the present study, these instances were intraclausal within the same sentence.

[17] *Discourse marker:* words that organize the discourse into segments (e.g. 'I mean' or 'like'). *Affective aspect:* using another language to make a point, (e.g. to dramatize, share a personal feeling, refer to popular culture, or a joke/pun). *Lexical borrowing:* word(s) borrowed from another language that became established in the receiving lexicon (e.g. yoghurt).

Upon closer inspection, the Dutch infinitival form *uitdagen* ('to challenge') is conjugated in what seems to be the 1st person singular of the present tense. As the verb 'to challenge' is transitive, it requires an object which in this derivation is the reflexive pronoun "myself"; this is generated as the internal argument. The use of a Dutch verb in a Papiamento environment results in a sentence that would not occur in either language as is (e.g. **dus ik wilde daag mezelf uit* or **dus mi kier a mi mes desafia*). The operative word above is 'seem'; the Dutch separable verb is not being conjugated in the present tense, rather it is appearing in its *prefix + root*-form (Thim, 2012) where the root is the basic form of the verb (i.e. 1st person singular). We will discuss this structure in detail in the following section.

As can be seen from our discussion, there are not many studies on Papiamento/u code-switching, much less so those that focus on the verbal domain. Although previous studies provide a good indication for further research, this thesis will examine instances of verbal code-switching as can be seen in (17) and (19) to understand the underlying mechanisms of these structures. Papiamento, Dutch and English differ from each other with respect to separable verbs. In particular, Dutch and English, although these patterns differ slightly, have separable verbs while Papiamento does not. Due to this, we expect there to be a clash between the VPs of Papiamento and Dutch and English respectively. Consequently, the VPs of the languages in contact will result in the verbal structure that is evident in (19). We will expand on our expectations in the next chapter.

3.4. Papiamento-Dutch and Papiamento-English code-switching: The data

Existing studies (Parafita Couto & Gullberg, 2019; Pablos et al., 2019) have examined Papiamento/u-Dutch code-switching within the nominal domain. The results of these studies showed that most of these utterances fall within the expectations of the MLF but not generativist predictions (or the MP). The predictions of the MLF and MP have not been examined in Papiamento/u-Dutch verbal code-switching nor with more than one other language in addition to Papiamento/u. In order to examine whether the MLF and generativist expectations hold for the verbal domain of Papiamento-Dutch and Papiamento-English code-switching, we will continue to look at the sentences in (17) and (19) from the previous section. These sentences are repeated in (22) and (23) for convenience.

(22) *Papiamento (blue)* – **English (purple)** – Dutch (green)

Pero	**you**	**can-'t**	**like**	haal-ø	in	*cierto*	*cosnan.*
But	you	AUX-NEG	like	catch-2SG	up.PRT	some	stuff.

'But you cannot (like) make up for certain things.'

(23) Dutch (green) – *Papiamento (blue)*

(…) *dus*	*mi kier-ø*	*a*	daag-ø	*mi mes*	uit.
(…) so	I$_i$ want.MOD	AUX.PAST	challenge-1SG.RT	myself$_i$	PRT.

'(…) so I wanted to challenge myself.'

Both of these examples contain instances of code-switches within the verbal domain with Dutch separable verbs. As mentioned in Section 2.2. and Section 3.3., sentences containing code-switches with Dutch separable verbs are code-switched with the verbal stem and its particle appearing next to each other (see (22)). The verb and its particle may be separated by the object of the sentence (see (23)), even in cases where the monolingual Dutch utterance would be in past perfect tense exhibiting the separable verb in situ as an infinitive. In these cases, as mentioned in the previous section, the separable verb appears as a *prefix + root*-form (Thim, 2012) where the root is the basic form of the verb (i.e. 1st person singular). In this section we will examine whether the predictions of the MLF and MP, or rather generativist predctions, are applicable to the data above. We shall not delve into variationist diagnostics (Poplack, 2017)[18] as these will require a large dataset and an analysis of frequency and distribution of the words and therefore fall outside of the purview of this study. Table 6 provides an overview of the predictions from the MLF and generativist perspective for the verbal domain.

Table 6. Summary of the predictions by the MLF and MP for Papiamento-Dutch verbal code-switches

Account	Prediction
Generativism	The language with the most φ-features will provide the functional categories and the language of V will determine the word order of the derivation. → The tense marker will be provided by the language with most φ-features. → The word order of the clause will be provided by the language of V.
MLF	The ML will be the language providing the functional categories and the word order of the derivation. → The language of the tense marker is the ML. → The word order of the derivation will be by the ML.

Looking back at the sentences in (22) and (23), it seems the predictions from both accounts partially hold for the instances of Papiamento-Dutch code-switches. However, the MLF accounts for a larger part of the two sentences. Specifically, the tense in (23) is provided by Papiamento although Dutch has more φ-features. This provides evidence against the generativist (or i.e. MP) predictions. However, while the verbs in (22) and (23) are in Dutch; (23) is the only one that has a clear Dutch word order. With regards to the MLF, the tense marker is given by Papiamento in (23) making it the ML; however, the word order in (23) is distinctly Dutch (SOV). Similarly, the MLF cannot account for the ML by means of the sentence word order since Papiamento and Dutch have SVO word orders. These points are similar to the findings in Parafita Couto & Gullberg (2019) and Pablos et al. (2019).

Other instances of verbal code-switching found in Geerman (2020) show similar separable verb structures as those above. These sentences are presented in (24) and (25).

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[18] See our brief discussion of Poplack's (2017) diagnostics in relation to Papiamento code-switching in Section 3.2. for more details.

(24) Dutch (green) – *Papiamento (blue)*

(…) *bo*	*no*	*ta*	*bin-ø*	spreek-ø	*ami*	aan.
(…) you	NEG	AUX.PRES	come-1SG.INF	talk-1SG.RT	me	PRT

'(…) you don't come and talk to me.'

(25) Dutch (green) **–** *Papiamento (blue)*

(...) pa	*mi*	geef-ø	aan	*mi nomber*
(…) AUX.FUT	me$_i$	give-1SG.RT	PRT	my$_i$ name

'(…) for me to sign up.'

Interestingly, similar to (23), in (24) the verbal particle is separated from the main verb and the object appears to the right of the lexical verb, while in (25) the particle is adjacent to the verb. However, both of these verbs – similarly to (23) – can only be realised in their infinitival form in the Dutch sentence ('*je komt mij niet aanspreken*' and '*zodat ik mijn naam kan opgeven*' respectively). Upon inspection of the Papiamento monolingual sentence, the following pattern emerges:

(26a) Sequence of constituents in monolingual Papiamento utterances
[SUBJ] [T] **[INF]** [OBJ]

(b) Sequence of constituents in Papiamento-Dutch utterances
[SUBJ] [T] **[1SG]** **[PRT][OBJ]/[OBJ][PRT]**

In Papiamento, predicates consist of an tense marker and an infinitive verb: [T+V$_{INF}$]. In this case, *desafia* ('to challenge'), *bin* ('to come'), *papia* ('to talk'), and *duna* ('to give') are the infinitive verbs in the monolingual derivations, similar to how *daag* ('to challenge'), *spreek* ('to speak') and *geef* ('to give') are the 'verbal' components of the Dutch compounds. This shows that the Papiamento verbs seem to be 'exchanged' with Dutch ones in the position of V, also allowing their particles to behave as they normally would in Dutch: (i) near the verb, or (ii) next to the direct object of the derivation (Booij, 2002).

Geerman (2020) also found clauses containing Papiamento-English code-switches (see (27)).

(27) *Papiamento (blue)* – **English (purple)**

Anto	**once in a while**	*mi*	*ta*	**come-ø**	**across**
And	once in a while	I	AUX.PRES	come.1SG	across.PRT

un	*cas*	*cu* (…).
DET	house	with (…).

'And once in a while I come across a house with (…).'

So-called phrasal verbs are most notable in English as strings of two or more constituents that function as the lexical verb (i.e. indicating an action) in a derivation, e.g. 'give away' or 'come across' (see (28) and (29)). Thim (2012) provides an overview of existing literature concerning the topic and how phrasal verbs in English

are related to other instances of separable verbs in distinct Germanic languages; although, the term 'phrasal verb' itself is often used for these separable verbs in English specifically. This because separable verbs in English, compared to those in other Germanic languages, are more 'idiomatic' (Thim, 2012).

(28)	**Mom**	**gave-ø**		**away**		**my**	**favourite**		**sweater.**
	Mom	give-3SG.PAST		PRT		my	favourite		sweater.

(29)	**I**	**came-ø**		**across**		**this**	**book**	**in**	**the store.**
	I	come-1SG.PAST		PRT		this	book	in	the store.

As opposed to Papiamento-Dutch code-switches, in (27) the English separable verb 'come across' is not split into the main verb and its particle. Based on the features of these English verbs, their behaviour is also in accordance with how they are used in monolingual English utterances; from the perspective of a monolingual Papiamento utterance (see (30)), the idiomatic English separable verb is also placed where a Papiamento infinitive (*topa*, 'to meet') would occur. This is similar to the manner in which Dutch verbs are code-switched. Moreover, the verbal constituent of the English separable verb is also code-switched in its most simplex form, namely 1st person singular in the present tense.

(30)	*Anto*	*de be(s) en cuando*	*mi*	*ta*	*topa-ø*	*un*
	And	of time and when.EXPR	I	AUX.PRES	meet-1SG.INF	DET
	cas	*cu (…).*				
	house	with (…).				

'And once in a while I come across a house with (…).'

Notably, in English, the verbal constituent and its particle may also occur together or apart for some of these separable verbs. Nevertheless, this was not the case for the Geerman (2020) data. Example (31) presents the pattern found for Papiamento-English code-switches.

(31a) The sequence of constituents in monolingual Papiamento utterances
[SUBJ] [T]   **[INF]**   [OBJ]

(b) The sequence of constituents in Papiamento-English utterances
[SUBJ] [T]   **[1SG]**   **[PRT]**   [OBJ]

In Geerman (2020) instances of Spanish code-switches were reserved to the nominal domain (see (32)[19]).

---

[19] Observe: the code-switch in this sentence is not the concrete noun of the country 'Guatemala', but rather the concepts (i.e. abstract nouns) of 'Guatemala' and 'Guatepeor'. These two nouns are a play on words that form a popular saying in (Latin American/Caribbean) Spanish, namely *ir de Guatemala a Guatepeor* ('to go from Guate-bad to Guate-worse'). The monolingual Papiamento equivalent of this sentence is *bay di malo pa pio* ('to go from bad to worse').

(32) *Papiamento (blue)* – <u>Spanish (pink)</u>

Mi	*a*	*sali-ø*	*for*	*di*	<u>Guatemala</u>	*bay-ø*
I	AUX.PAST	leave-1SG.INF	from	of	Guatemala	go-1SG.INF

den	<u>Guatepeor</u>.
in	Guatepeor.

'I went from bad to worse.'

From the above examination of utterances considered exceptions to the rule in the Geerman (2020) study, the patterns observed in Papiamento-Dutch and Papiamento-English code-switching are not (fully) accounted for by existing accounts of code-switching. Turning back to points made in Section 3.2. and Section 3.3. concerning the application of generativist predictions, the MLF principles, and Poplack's (2017) variationist diagnostics to multilingual code-switching, MLF principles account for a larger proportion of nominal code-switched utterances (Parafita Couto & Gullberg, 2019; Pablos, et al., 2019). Similarly, when applied above to sentences (22) and (23), the MLF principles could be used to identify the ML and EL of the sentences but not fully; functional categories were given by one language while the word order of the clause was in another making it difficult to decide which language should be considered the ML. As for generativist principles, the findings from previous studies have shown that MP/generativist predictions cannot account for a majority of code-switching structures found (Vaughan-Evans, et al., 2020; Pablos, et al., 2019; Parafita Couto & Gullberg, 2019). Similarly, when we applied generativist expectations on the sentences above it can be observed that the language with most φ-features is not always the one providing the morpho-syntactic frame of the sentences. One study examined the AH (Pablos et al., 2019); this hypothesis finds any and all combinations to be possible to surface. Taking i) Pablos et al.'s (2019) findings, ii) the lack of non-ERP studies with Papiamento/u-Dutch code-switching and the AH, iii) the recurrent patterns observed in the sentences above, and iv) the lack of occurrence of certain structures into consideration leads us to believe AH expectations are broad and might need to be tested specifically for the speech community at hand. Lastly, this study briefly expanded on Poplack's (2017) linguistic and extralinguistic diagnostics to differentiate code-switching from other language contact phenomena. While this perspective is not in line with the present research inquiry, we shall reiterate that, similar to the sentences in Section 3.2. and above, not all code-switched utterances contain the same amount of content and function words in one language. With regards to the code-switched structures themselves, there is no apparent similarity or difference in level of diffusion across the speech community. This matter should be investigated separately further.

It is the position of this thesis that Papiamento-Dutch and Papiamento-English code-switching within the verbal domain with separable verbs is a form of language competence. Considering the fact that the different code-switching accounts discussed in this chapter had varying degrees of explanatory power over the example sentences from Geerman (2020), this study will explore separable verb code-switched structures from a different perspective. To be precise, this thesis will explore the notion of a multilingual I-language that can be structurally represented as comprising of elements of the languages in contact. González-Vilbazo &

López (2011; 2012) conducted a study on light verb constructions, similar to those examined in Balam et al. (2020), for German-Spanish code-switching. They point out that the bilingual I-language may consist of the duplication of functional and lexical categories; these categories operate together within the structure of the computational system. Based on this, we expect different elements of the languages in contact to surface in a code-switched derivation (López, 2020). We will delve into more details of González-Vilbazo & López's (2011; 2012) study in the following chapter, and present the structural representation of the bilingual I-language they propose in relation to our expectations for this thesis.

4. Data and methodology

4.1. Verbal code-switching: Summary of patterns found

To reiterate, the patterns emerging from the examples provided in the text concerning verbal code-switches so far are as follows[20]:

Papiamento-Dutch

- Dutch separable verbs are code-switched by exchanging the Papiamento infinitive with the Dutch 1st person singular form; the base form of the verb.
- The verb and its particle are aligned next to each other or separated by the object of the clause.
- Monolingual utterance:

    → [[SUBJ] [*T*] [**INF**] [*OBJ*]]

Mi	*a*	**come-ø**	*mi pan.*
I	AUX.PAST	eat-INF	my sandwich.

    'I ate my sandwich.'

- Code-switched utterance:

    → [[SUBJ] [*T*] [**1SG**] [**PRT**] [*OBJ*]]

Mi	*a*	**eet-ø**	**op**	*mi pan.*
I	AUX.PAST	eat-1SG	PRT	my sandwich.

    'I ate my sandwich.'

    → [[SUBJ] [*T*] [**1SG**] [*OBJ*] [**PRT**]]

Mi	*a*	**eet-ø**	*mi pan*	**op**.
I	AUX.PAST	eat-1SG	my sandwich	PRT.

    'I ate my sandwich.'

Papiamento-English

- For English, Papiamento infinitives are code-switched with English separable verbs in their base form: 1st person singular.
- The verb and its particle are not separated from each other in the clause.
- Monolingual utterance:

    → [[SUBJ] [*T*] [**INF**] [*OBJ*]]

Mi	*a*	**regala-ø**	*mi*	*toca disco.*
I	AUX.PAST	give-INF	my	record player.

    'I gave away my record player.'

---

[20] Similar to the glosses in the rest of the text, the colour blue is used for Papiamento, purple is used for English and green is used for Dutch. However, here, the bolded and italicised items correspond to the T, V and the object in the structure.

- Code-switched utterance:

  → [[SUBJ] [*T*] [**1SG**] [**PRT**] [*OBJ*]]

Mi	*a*	**give-ø**	**away**	*mi*	*toca disco*.
I	AUX.PAST	give-1SG	PRT	my	record player.

  'I gave away my record player.'

Papiamento-Spanish
- There were no instances found were speakers code-switched with Spanish in the verbal domain.

For the remainder of this thesis, Papiamento-Dutch and Papiamento-English verbal code-switches will be discussed as Spanish does not have separable verbs. Moreover, no instances of Papiamento-Spanish verbal code-switches were found in Geerman's (2020) study, hence also not expected to occur here.

4.2. Hypotheses

The choice of this particular language pairing is due to the different nature of separable verbs in the different languages involved. As discussed in Section 2.2., Germanic separable verb structures have the ability to have the verb non-linearly adjacent to its particle, resulting in a VOP word order (Bennis, 1992; Wurmbrand, 2000; Barbiers et al., 2018). Observe this pattern in the sentences below (see (33)); these examples are repeated from Section 2.2..

(33) Dutch (green): *inhalen* ('to catch up')

(a)

Hij	moest	wat	werk	in-halen.
He	have.AUX.PAST	some	work	in.PRT-catch.INF

'He had to catch up on some work.'

(b)

Hij	haal-de	wat	werk	in.
He	catch.RT-2SG.PAST	some	work	in.PRT.

'He caught up on some work'

We also discussed the occurrence of separable verbs in English in Section 2.2.. Similar to Dutch, English has separable verb structures that behave in a comparable manner albeit the case that separable verbs in English are less common and more idiomatic than those in Dutch (Thim, 2012 Booij, 2002). Moreover, not all English separable verbs show the same left-alignment pattern between the verb and particle as observed in (33). This is illustrated in (34); these sentence are repeated from Section 2.2. for convenience.

(34) **English (purple)**: 'to catch up'

(a) He   caught   up   on   some   work.
He   catch.2SG.PAST   up.PRT   on   some   work.

(b) *He   caught   on   some   work   up.
*He   catch.2SG.PAST   on   some   work   up.PRT.

(c) *He   caught   some   work   up   on.
*He   catch.2SG.PAST   some   work   up.PRT   on.

Unlike Germanic languages, Romance languages exhibit a different lexicalisation pattern when it comes to separable verb constructions (Talmy, 1985; Iacobini & Masini, 2005). As mentioned in Chapter 2, the difference in lexicalisation paths influences the types of verb-particle constructions, i.e. separable verbs, that occur in each language family. Although Papiamento has been influenced by both Germanic and Romance languages, it does not have separable verbs. Nonetheless, we have shown in the previous sections and chapters that speakers of Papiamento may code-switch within the verbal domain with Dutch or English separable verbs. This leads to structures such as those in (35) and (36) below; these sentences are repetitions of those discussed in the previous chapter.

(35) Dutch (green) – *Papiamento (blue)*

(…) *bo*   *no*   *ta*   *bin-ø*   spreek-ø   *ami*   aan.
(…) you   NEG   AUX.PRES   come-1SG.INF   talk-1SG.RT   me   PRT
'(…) you don't come and talk to me.'

(36) *Papiamento (blue)* – **English (purple)**

Anto   **once in a while**   *mi*   *ta*   **come-ø**   **across** VP
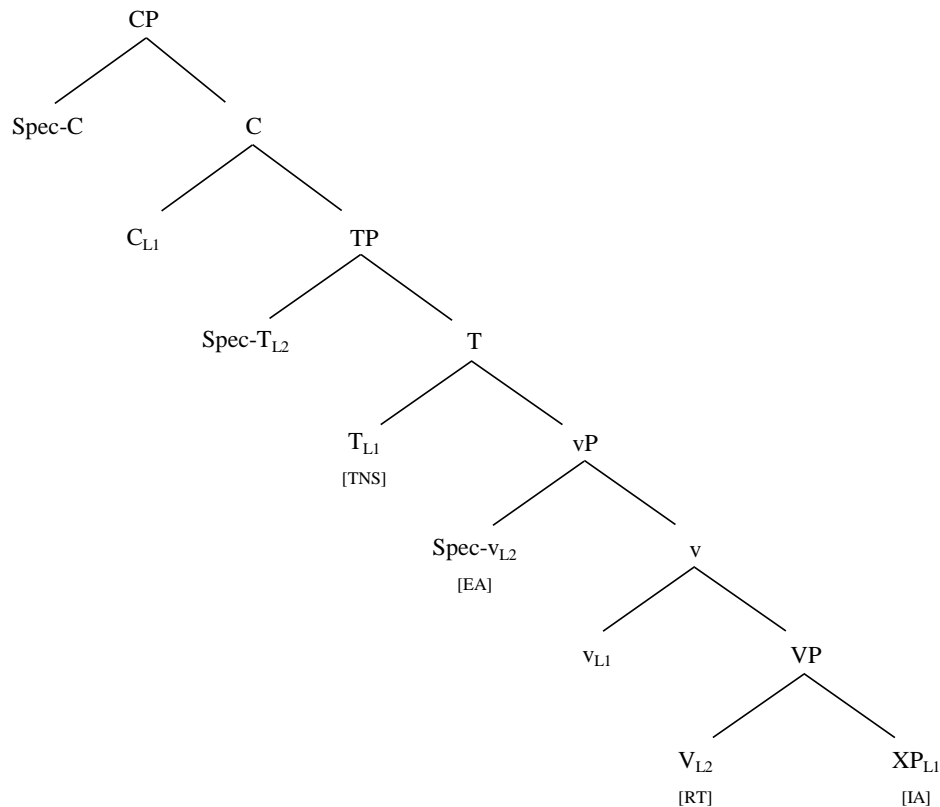And   once in a while   I   AUX.PRES   come.1SG   across.PRT
un   *cas*   *cu* (…).
DET   house   with (…).
'And once in a while I come across a house with (…).'

The existence of the code-switching structures such as those in (35) and (36) points to a merger of the VP structures of the languages in contact.

As we have mentioned in the previous chapters, code-switching can be seen as a manifestation of the bilingual I-language, i.e. linguistic competence. González-Vilbazo & López (2011; 2012) examined the occurance of light verb constructions in German-Spanish code-switching by focussing on the role of little v (*v* henceforth) in constraining these consructions. An important point made by González-Vilbazo & López (2011; 2012) is that the bilingual linguistic competence of speakers as it manifests itself in code-switching consists of the duplication of functional and lexical categories operating within the structure of the computational system. Following this assumption, we expect to see elements of the two languages in contact

by means of a merger of their VPs into an extended periphrastic structure. The structural representation of the bilingual I-language is illustrated in (37) below.

(37) Structural representation of bilingual I-language (González-Vilbazo & López, 2011: 834).

```
                        CP
                      /    \
                 Spec-C      C
                           /    \
                        C_L1      TP
                                /    \
                          Spec-T_L2    T
                                     /    \
                                  T_L1     vP
                                  [TNS]   /   \
                                   Spec-v_L2   v
                                     [EA]    /   \
                                          v_L1    VP
                                                /    \
                                            V_L2     XP_L1
                                            [RT]     [IA]
```

From the patterns summarised in the previous section, and those presented in (35) and (36), we see that the tense in the code-switched utterances recurrently appear in Papiamento while the VP contains the Germanic separable verb. Separable verbs can be structurally represented as separable verb phrases (SvP). In SvPs the verbal particle heads the phrase and constrains the verbal roots that are able to merge with it (Barbiers et al., 2018). In simpler terms, the SvP can be considered as and extension of V. We will discuss this further in the following chapter.

Concisely put, our expectations are as follows:

i. The language of T influences the morphological complexity of V.

ii. Head-T and head-*v* have to belong to the same language.

iii. It is possible for V and *v* to belong to two different languages.

First off, the Papiamento verbal domain consists of a periphrastic phrase where a tense marker in the form of an auxiliary is followed by an infinitive. Observing the code-switched patterns summarised in the previous section (also exemplified in (35) and (36) in this section), we see that the tense in the code-switched utterances recurrently appears in Papiamento while the VP contains the Germanic separable verb in a morphologically

simple form instead of an infinitive. Thus bringing us to our first hypothesis: if T is in Papiamento, V will contain a morphologically simplified form of the donor verb. That is to say, that it is also expected that if T is in the donor language the verb will be morphologically rich. Possibly even so if V is in Papiamento i.e., a Papiamento root may receive donor language inflections. Moreover, we are working under the assumption that verbs are not merged to nodes as whole words in syntax. To be precise, verbs are formed by head-to-head movement of the verbal root through V, *v* and T (Oltra-Massuet & Arregi, 2005). The lexical verb *v* c-commands acquires the appropriate grammatical information by moving through the aforementioned functional heads; these heads have an underlying connection to each other. This leads us to our second hypothesis: head-T and head-*v* are required to belong to the same language in the code-switched derivation even if the verbal root is in the other language. This also ties into our third and final hypothesis where we expect *v* and V to belong to different languages following the proposed structure of the bilingual I-language (González-Vilbazo & López, 2011; 2012). González-Vilbazo & López's (2011; 2012) examination of light verbs in Spanish-German code-switching showed that verbal roots are able to acquire the inflections from the other language in the derivation. We have no reason to believe this will be any different for other language pairs, including for Papiamento-Dutch and Papiamento-English code-switching. We will return to this in the following chapter.

4.3. Corpus study

4.3.1. Corpora

In order to answer our research question, this study examined instances of code-switches containing separable verbs in three corpora. The descriptive information of the corpora in this thesis are presented in Table 7 below. Firstly, the data from the Geerman Corpus comes from data collection that took place in 2020 for a Bachelor's thesis (Geerman, 2020). The Geerman (2020) data consists of one two-hour long conversation between four speakers. Secondly, recordings and transcriptions of a University of Aruba course assignment given to Academic Foundation Year (AFY) students compile the AFY Corpus. This corpus consisted of thirty-three conversations that lasted for at least a minute and maximum five minutes. Lastly, the MPI CS Corpus consists of six four-person conversations between Papiamento/u speakers living in the Netherlands (Gullberg & Indefrey, 2003). Each of these conversations lasted about half an hour each; in total this corpus had twenty-three speakers[21].

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[21] One of the conversations consisted of three participants and one research assistant; the research assistant is excluded from the speaker count.

Table 7. Descriptive information of the corpora

Geerman Corpus	AFY Corpus	MPI CS Corpus
Amount of speakers	*Amount of speakers*	*Amount of speakers*
Four speakers	Thirty-three speakers	Twenty-three speakers
Age range	*Age range*	*Age range*
21 – 22	18 – 23	18 – 30
Conversation length	*Conversation length*	*Conversation length*
Two hours	Five minutes (per interview)	Thirty minutes (per conversation)
Conversation type	*Conversation type*	*Conversation type*
Free conversation	Peer-interviews	Semi-free conversation
Target VPs found	*Target VPs found*	*Target VPs found*
Ten separable verbs	Seventeen separable verbs	Thirty-seven separable verbs

4.3.2. Participants

The participants in the Geerman Corpus (Geerman, 2020) were four adult Arubans (two male and two female) from a middle class background that obtained their pre-university degree in Aruba, and were attending university at the time of recording. All four speakers have been exposed and (naturally) acquired knowledge of, and competence in, the four languages under investigation. Additionally, participants have had formal schooling in the four languages as they followed and passed English, Dutch, Spanish and Papiamento as school subjects in secondary school (at least a B1 level according to the CEFR (http://coe.int)).

The speakers in the AFY Corpus were thirty-three students enrolled in the AFY at the University of Aruba at the time of recording. As part of their course, students were tasked to conduct 5-minute interviews with a classmate. To be eligible to follow AFY, students need to have a secondary school diploma from 1) MAVO/EPI ((pre-)vocational secondary education), 2) HAVO (senior general secondary education), 3) VWO (pre-university education), or 4) CSEC (Caribbean Secondary Education Certification (https://www.rijksdienstcn.com). Appendix B contains an overview of the Aruban education system for clarity; CSEC is not a part of this as Aruba is an independent island state in the kingdom of the Netherlands since 1986. Moreover, prospective students need to have graduated from their secondary education no more than one year prior to their application to AFY (https://www.ua.aw/afy/). In light of this, it is also expected that the speakers from AFY have around a B1 level in the four languages since these are school subjects in the Aruban education system (Department of Education Aruba, 2023).

With regards to the MPI CS Corpus (Gullberg & Indefrey, 2003), the thirty-two speakers were Arubans and Curaçaoans living in the Netherlands at the time of recording. It is expected that the speakers also have a similar level of language competence as the other two groups despite the unavailability of some biographical data on these participants. Each corpus consists of (semi-)naturalistic conversations between different

speakers. The biographical information of the speakers in all three corpora are shown in Table 8[22]. The speakers in Table 8 marked in grey are those that produced code-switched utterances containing separable verbs; these speakers are listed again in Appendix C alongside the utterances they produced. We will presents and discuss these utterances in the following section.

Table 8. Biographical information of speakers in all three corpora.

Corpus	Speaker	Age	Sex	Previous Education	Current Job/Education
Geerman Corpus	*S. 1*	*19*	*F*	BA	*European Law*
	S. 2	*22*	*M*	VWO	*Earth Sciences*
	S. 3	*21*	*M*	VWO	*Veterinary Medicine*
	S. 4	*21*	*F*	VWO	*Psychology*
AFY Corpus	*S. 5*	*19*	*F*	-	*Academic Foundation Year*
	S. 6	*19*	*F*	HAVO	*Academic Foundation Year*
	S. 7	*19*	*M*	-	*Academic Foundation Year*
	S. 8	*18*	*F*	-	*Academic Foundation Year*
	S. 9	*19*	*F*	HAVO	*Academic Foundation Year*
	S. 10	*19*	*F*	HAVO	*Academic Foundation Year*
	S. 11	*-*	*M*	-	*Academic Foundation Year*
	S. 12	*-*	*M*	HAVO	*Academic Foundation Year*
	S. 13	*-*	*F*	-	*Academic Foundation Year*
	S. 14	*-*	*-*	HAVO	*Academic Foundation Year*
	S. 15	*24*	*F*	-	*Academic Foundation Year*
	S. 16	*20*	*F*	HAVO	*Academic Foundation Year*
	S. 17	*17*	*-*	-	*Academic Foundation Year*
	S. 18	*18*	*-*	-	*Academic Foundation Year*
	S. 19	*19*	*-*	-	*Academic Foundation Year*
	S. 20	*21*	*F*	EPI	*Academic Foundation Year*
	S. 21	*18*	*F*	-	*Academic Foundation Year*
	S. 22	*18*	*-*	-	*Academic Foundation Year*
	S. 23	*18*	*F*	-	*Academic Foundation Year*
	S. 24	*17*	*-*	HAVO	*Academic Foundation Year*
	S. 25	*-*	*F*	-	*Academic Foundation Year*
	S. 26	*25*	*F*	EPI	*Academic Foundation Year*
	S. 27	*19*	*-*	-	*Academic Foundation Year*
	S. 28	*19*	*F*	-	*Academic Foundation Year*
	S. 29	*19*	*F*	MAVO	*Academic Foundation Year*
	S. 30	*19*	*F*	-	*Academic Foundation Year*
	S. 31	*18*	*F*	HAVO	*Academic Foundation Year*
	S. 32	*-*	*M*	-	*Academic Foundation Year*
	S. 33	*23*	*M*	EPI	*Academic Foundation Year*
	S. 34	*20*	*-*	-	*Academic Foundation Year*
	S. 35	*-*	*-*	-	*Academic Foundation Year*
	S. 36	*18*	*-*	HAVO	*Academic Foundation Year*
	S. 37	*19*	*F*	-	*Academic Foundation Year*

**Speakers with an asterisk are from Curaçao.*

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[22] In Geerman (2020), participants were asked for languages in their repertoire, date of immigration to the Netherlands, their current job/education, and their daily language use. This information is not available for the AFY Corpus and the MPI CS Corpus, therefore some of the entries for these two corpora are missing from Table 8. C.f. Geerman (2020) for the complete biographical data on the participants in that study.

Corpus	Speaker	Age	Sex	Previous Education	Current Job/Education
	*S. 38**	-	*F*	-	*Working student*
	*S. 39**	-	*F*	-	*Working full-time*
	*S. 40**	*24*	*F*	-	*Working student*
	S. 41	-	*F*	-	*Full-time student*
	S. 42	-	*F*	-	*Full-time student*
	S. 43	-	*F*	-	*Full-time student*
	S. 44	-	*F*	-	*Full-time student*
	*S. 45**	-	*M*	-	*-*
	S. 46	-	*M*	-	*-*
	*S. 47**	-	*F*	-	*-*
MPI CS Corpus	*S. 48**	-	*F*	-	*Full-time student*
	*S. 49**	*25*	*M*	-	*Working student*
	*S. 50**	-	*F*	-	*Working student*
	S. 51	*30*	*F*	-	*Nurse*
	*S 52**	-	*F*	-	*Working student*
	*S. 53**	-	*F*	-	*-*
	S. 54	-	*M*	-	*Teacher*
	S. 55	-	*F*	-	*-*
	*S. 56**	-	*F*	-	*-*
	S. 57	-	*F*	-	*Working student*
	S. 58	-	*M*	-	*Full-time student*
	S.59	-	*F*	-	*Full-time student*
	*S. 60**	-	*F*	-	*Full-time student*

Table 8 (continued). Biographical information of speakers in all three corpora.

Speakers with an asterisk are from Curaçao.

4.3.3. Coding of switches

The utterances from the abovementioned corpora were analysed for the environment of the VP that contained a separable verb. The clause containing the separable verb was annotated for 1) the language of the separable verb, 2) the verbal and particle constituent of the separable verb, and 3) whether the separable verb was separated within the clause. Furthermore, the sequence of the separable verb, and the preceding and succeeding constituents in the clause were annotated for grammatical category and language. The coded utterances can be found in Appendix C.

4.4. Analysis of the corpus study

4.4.1. Results

A search in each corpus lead to a total 61 separable verb constructions. Only counting repeating verbs once leads to a total of 48 separable verb constructions which consists out of 36 instances of Dutch separable verbs and 12 instances of English separable verbs. The results for each corpus looks as follows. Of the four speakers in the Geerman Corpus data, three produced separable verbs; in total 9 separable verbs were found. Of the thirty-three speakers in the AFY Corpus, seven produced separable verbs; in total 15 separable verbs were found. Lastly, of the twenty-three speakers from the MPI CS Corpus, six produced separable verbs; in total

37 separable verbs were found. All the separable verbs found in the corpus study are presented in Appendix C (p. 71).

Despite the subtle biographical differences between the speakers in the corpora, the separable verb patterns found in all three corpora are the same. Moreover, no instances of code-switches were found with regular (viz. inseparable) verbs. Taking into consideration that this study consisted out of 60 speakers and 7 hours and 45 minutes of audio, the results are low; however, the focus of this thesis was only on the verbal domain so it is worth mentioning that throughout the data code-switches also occurred in other domains of the sentences. This is in line with instances such as those in (22). Turning back to the separable verb patterns found in the corpora, these are uniform and structured as follows (see Appendix C):

- The verbal particle can be separated from the main verb.
- The object of the sentence may align to the right or the left of the verb.
- The verbs are morphologically simplex, i.e. lacking overt verbal inflection/morphology they normally would carry in the donor language.
- The tense of the sentence is given by Papiamento auxiliary verbs.

The first pattern observed in the corpora, namely that the verbal particle can be separated from the main verb, is typical behaviour for Germanic separable verbs (Bennis, 1992; Wurmbrand, 2000; Barbiers et al., 2018). From the nine utterances found in the Geerman Corpus, four contained instances where the verbal particle was separated from the main verb. As for the AFY Corpus, the instances of separated separable verbs were merely two out of the fifteen. Conversely, the MPI CS Corpus had a higher frequency of separated separable verbs: fifteen instances out of thirty-seven utterances. This information can be observed in the eighth column of Appendix C. Overall, the proportion of separated separable verbs in the corpora is similar for the Geerman Corpus (44%) and the MPI CS Corpus (40%) as opposed to the AFY Corpus (13%). Interestingly, the instances of separated separable verbs seem to be limited to Dutch separable verbs. To clarify, the Geerman Corpus had two instances of English separable verbs, both of these were not separated. Similarly, the AFY Corpus contained eight instances of English separable verbs, all of which did not have the particle separated from the main verb. As opposed to the two aforementioned corpora, the MPI CS Corpus only had one instance of English separable verbs; that is only 3% of the corpus compared to the 22% in the Geerman Corpus and 53% in the MPI CS Corpus (see the nineth column in Appendix C). Interestingly, there were two instances of Dutch verbs that were not exactly separated but also not together in terms of appearing in their infinitival form: Sentence 54 and Sentence 55 (Appendix C: MPI CS Corpus, Speaker 58). Observe the verb *achterhalen* ('to find out') is code-switched as *achterhaal* ('find out'); the lack of the infinitival marker *-en* technically makes this form similar to the others, i.e. *prefix + root*, differing slightly by 'orthography'. For this reason these two sentences were counted as containing a nonseparated separable verb.

As discussed in Section 2.2., one of the main characteristics of Germanic separable verbs is their ability to have the verb non-linearly adjacent to its particle resulting in a VOP word order (Bennis, 1992; Wurmbrand,

2000; Barbiers et al., 2018). This ties into the second pattern in the list above. For the majority of the separated verbs in our corpus study, the object is indeed placed in between the verbal particle and the main verb; the main verb always occurs before the particle. The four instances of separated separable verb in the Geerman Corpus all had the object of the clause occurring in between the main verb and the verbal particle. Similarly, both of the two instances of separated separable verbs in the AFY Corpus had the object of the clause interjecting. Likewise for the MPI CS Corpus, the fifteen instances of separated separable verbs found had VOP word order. The objects of the clauses are underlined in the last column in Appendix C. Interestingly, we observe instances where the items in between the separated verbs are more than simply a pronoun or noun. For instance, in Sentence 33 (Appendix C: MPI CS Corpus, Speaker 43) the verb is separated from the particle not only by the object *mi mes* ('myself') but also by modifiers. While English separable verbs are also technically Germanic, these are more restricted in showing the same left-alignment pattern as Dutch separable verbs do. The VOP verbal word order for English separable verbs has not been attested in this corpus study given that none of the English separable verbs found were separated.

With regards to the third observation in the list above, we have stated that the separable verbs appear in a simple form; this can be observed for the majority of instances found in all three corpora (see Appendix C). In the Geerman Corpus, all nine instances of separable verbs were, as discussed in Section 3.4., in a morphologically simplex form, i.e. *prefix + root*. For twelve out of the fifteen instances from the AFY Corpus and for thirty-four out of the thirty-seven instances from the MPI CS Corpus, this is also true. However, the donor verbs in the remaining instances in both corpora (three utterances in the AFY Corpus and four utterances in the MPI CS Corpus) did exhibit some inflection. The exhibited donor language morphology are as follows. In the AFY Corpus, Sentence 13 (Appendix C: AFY Corpus, Speaker 10) and Sentence 22 (Appendix C: AFY Corpus, Speaker 30) have instances of English separable verbs in the present progressive, e.g. *hanging out* and *breaking down*. The other utterance in the corpus whose verb was inflected is Sentence 21 (Appendix C: AFY Corpus, Speaker 30): the verb in this sentence carries the past tense inflection *-ed*. Notably, the tense on the English separable verbs and the Papiamento tense markers preceding the separable verbs concur with each other. Similarly, the separable verb in Sentence 52 (Appendix C: MPI CS Corpus, Speaker 58) and the one in Sentence 53 (Appendix C: MPI CS Corpus, Speaker 58) both are Dutch past participles; the tense in both sentences coincide. The other two sentences showing inflection on the donor verb contain Dutch second person morphology in present tense, i.e. *-t*. While Sentence 25 (Appendix C: MPI CS Corpus, Speaker 38) has a second person subject thereby showing subject-verb agreement, Sentence 58 (Appendix C: MPI CS Corpus, Speaker 59) does not as the subject of the clause is first person. It is not possible to establish whether this was intentional or not.

Tying into our fourth and final observation listed above, namely that the tense of the clauses are provided by Papiamento auxiliary verbs, the utterances found in the corpus study show that for the majority of them the preceding element is a tense marker. Observe the last column in Appendix C; paying close attention to the first sub-column, i.e. the item directly preceding the main verb. The verbs in the Geerman

Corpus were preceded by Papiamento tense markers four times, and once by a Papiamento pronoun, verb and adjective respectively. Additionally, there were two instances of English elements preceding the verb; however, these two instances were simply fillers. With regard to the AFY Corpus, the verbs were preceded six times by Papiamento tense markers. Only one instance of an English element preceding the verb was observed in this corpus, and that item was a noun. As for the rest of the utterances, all of them were in Papiamento and consisted of: six tense markers, two adverbs, two auxiliary verbs, and one instance of a verb, a conjunction, a preposition and a negation adverb each. As for the MPI CS Corpus, there was also only one instance of an English item preceding the verb in the clause; this item was also a noun. The majority (i.e. twenty-three) of the instances in this corpus had a Papiamento tense marker preceding the verb. The other utterances consisted of the following preceding items: four pronouns, five prepositions, and one occurrence of a noun, a verb, an auxiliary verb and a modal verb each. Taking into consideration our expectation that the language of T would influence the morphological complexity of V, both the recurrent combination of Papiamento auxiliary verbs and morphologically simple Germanic separable verbs, and the continual observation of the VOP word order support our first hypothesis. Similarly, our third hypothesis concerning the languages of V and *v* may also be assumed to be supported by these findings. As for the second hypothesis, we will delve into the underlying structure of these utterances in more detail in the following chapter to bring the relation between the two functional heads in question, and our findings, to the fore.

4.4.2. Discussion

As has been touched upon in the previous chapters, languages are thought to be in an asymmetrical relationship when it comes to code-switching. This asymmetric relationship can be seen by the 'roles' played by the languages involved, namely one language provides the morphosyntactic framework of the derivation (e.g. word order or function words) and the other language provides content to the derivation (e.g. nouns or other content words). The asymmetry and acceptability of certain code-switched structures are community specific (Balam et al., 2020). With regards to the ABC islands and Papiamento/u, this indicates that we may find different code-switching patterns, motivations, and acceptability judgements depending on whether we investigate, e.g. Arubans or Curaçaoans, and whether these speakers are living in and/or have migrated to other countries.

In our corpus study, Papiamento made up the majority of the phrase in sentences found; it provided the morpho-syntactic frame of the sentences. Take the following sentences in (38) as an example.

(38)   **Some instances of sentences found in our corpora**

(a) *Papiamento (blue)* – **English (purple)** (Appendix C: AFY Corpus, Sentence 16, Speaker 20)

Cuanto	*studiante*	*ta*	**sign-ø**	**up**	*pa bay*	*haci-ø e*.
How many	student.PL	AUX.PRES	sign.1SG	PRT	to go	do.INF it

'How many students sign up to do it.'

(b) *Papiamento (blue)* – **English (purple)** (Appendix C: AFY Corpus, Sentence 11, Speaker 10)

Mi	*ta*	*gusta-ø*	**hang-ø**	**out**	*cu*	*mi* **family and friends**.
I	AUX.PRES	like.MOD	hang.1SG	PRT	with	my family and friends.

'I enjoy hanging out with my family and friends.'

(c) *Papiamento (blue)* – Dutch (green) (Appendix C: MPI CS Corpus, Sentence 30, Speaker 39)

Nos	*tabata*	zoek-ø	elkaar	op.
We	AUX.PAST	search.1SG	each other	PRT.

'We sought each other out.'

(d) *Papiamento (blue)* – Dutch (green) – **English (purple)** (Appendix C: AFY Corpus, Sentence 19, Speaker 29)

Sin	*cu*	*bo mes*	*a*	maak	mee	*e*	**experience**.
NEG	with	yourself	AUX.PAST	make.1SG	PRT	DET	experience.

'Without you having to go through the experience yourself.'

Turning back to the MLF and generativist predictions in assessing code-switched structures, similar conclusions can be drawn on the descriptive power of these theories as has been seen in studies like Parafita Couto & Gullberg (2019) and Pablos et al. (2019). As we postulated for the MLF and generativist perspective in Table 6 in Section 3.4., from the generativist perspective the language with the most φ-features is thought to provide the tense of the clause, and the language that provides V will provide the word order of the clause. From the perspective of the MLF, the ML will provide the tense marker and the word order of the clause, while the EL will provide content categories. Both of these approaches to code-switching can account for some portion of the structure of our data. Specifically, in (38a) – (38d) T recurrently appears in Papiamento contrary to the expectations from the generativist perspective. Establishing whether the language of V determines the word order of the clause is an intricate task as Papiamento and English word orders overlap; similarly, Dutch main clauses may overlap with Papiamento word order. Although, when the separable verb particle is separated from the main verb by the object of the clause this SOV word order is clearly Dutch. As for the ML and EL of the sentences in (38), based on the SMP and MOP the ML of the four sentences are all Papiamento as it is the language of the functional categories, such as the tense of the sentence; the ELs are both Dutch and English as they provide content words like nouns and the verbs. However, Papiamento also provides content categories. Therefore, we conclude the descriptive power of the MLF is greater than that of the generativist perspective with regards to Papiamento-Dutch and Papiamento-English code-switching.

Turning our attention to our expectations, as presented in Section 4.2., we expected the tense in the code-switched utterances to appear in Papiamento while the VP will contain the separable verb. This expectation is corroborated in our findings. Our structural predictions were threefold. Firstly, we expected the language of T to influence the morphological complexity of V. In essence, we expected the tense morphology to surface on V if T was in Dutch or English but if T was in Papiamento it would be spelled-out and precede

V in the derivation. Our findings corroborate this expectation, although there are some instances where double morphology is present (i.e. T is overtly spelled-out and V carries the donor language inflection). Two of these instances are presented in (39) as illustrations; these two sentences are the distinctive occurrences discussed in the preceding sub-section.

(39) **Two instances of sentences containing double tense morphology found in our corpora**
   (a) *Papiamento (blue)* – Dutch (green) (Appendix C: MPI CS Corpus, Sentence 52, Speaker 58)

E	*ta*	iets	van	twintig / dertig	procent
PRN	AUX.PRES	something	of	twenty / thirty	percent

af-gekeur-d	*pa trabou.*
PAST-disqualify.RT-PTCP	for work.

'She is like twenty or thirty percent disqualified to work.'

   (b) *Papiamento (blue)* – Dutch (green) (Appendix C: MPI CS Corpus, Sentence 53, Speaker 58)

Bo	*no*	*por*	*wordo*	aan-ge-sprok-en	*e ora*.
You	NEG	be.AUX	become	PRT-PAST-speak.RT-INF	then.

'You can't be held responsible then.'

Our second and third predictions seem to also be corroborated. The second hypothesis stated that T and *v* would be required to belong to the same language. Presupposing the underlying dependency between the two functional heads of T and *v*, it can be assumed that the language evident in T is also the language of *v*. We will discuss the specifics in the following chapter as it relates to a more in-depth look at the underlying syntactic dependencies of the computational system. As for our third structural expectation, namely that *v* and V can belong to two different languages, is also supported by our findings; structures such as those above, and those in Appendix C, contain a V in a different language than *v*.

   In addition to the sentences in (39), we found two instances where a speaker adapted a donor constituent to Papiamento (see (40) and (41)).

(40) **Two instances of adapted donor verbs found in our corpora**
   (a) **English (purple)** – *Papiamento (blue)* (Appendix C: MPI CS Corpus, Sentence 37, Speaker 42)

Reach-ø	*na*	*nan*
Reach-1SG	to	them

'Reach out to them.'

   (b) *Papiamento (blue)* – Dutch (green) (Appendix C: MPI CS Corpus, Sentence 38, Speaker 44)

Pasa-ø	*e*	over
Bring-1SG	the (information)	to

'To convey the information (to somebody).'

In the Papiamento-English structure, the verbal particle occurs in Papiamento: *na* ('to') instead of 'out' (to) (see (41)). This can also be a simple case of omission, namely *na* ('to') would still be present in a monolingual Papiamento derivation and in a Papiamento-English code-switched derivation that contains 'out':

(41) **English (purple)** – *Papiamento (blue)*
    (a) Code-switched derivation:
        Reach-ø   **out**   *na*   *nan*
        Reach-1SG   out   to   them
        'Reach out to them.'

    (b) Monolingual derivation*:*
        Yega-ø   *na*   *nan*
        Reach-1SG   to   them
        'Reach (out to) them.'

Similarly, in the Papiamento-Dutch structure, the verbal root occurs in Papiamento instead of Dutch: *pasa* ('to pass') instead of *brengen* ('to bring'). In this case the verbal root is not in the donor language but does retain the word order similar to structures that contained the root in Dutch (e.g. 'breng e over'). On the whole, these structures seem to be one time occurrences in our corpora.

Lastly we shall discuss common (extra)linguistic factors in the field of bi- and multilingualism that could be of influence on the general patterns found in this corpus study. The structures found show intraclausal code-switches with a Papiamento morpho-syntactic frame that contains insertions from donor languages, i.e. Dutch and English; not vice versa. Possible reasons for the perceived 'direction' of the code-switches in this study are:

- The speaker's L1 and/or language competence.
- The prestige of the languages involved.
- Word frequency and speech context.

The first reason is idiosyncratic in nature, namely a speaker's native language(s) and their language competence in their linguistic repertoire. The L1(s) and language competence of a speaker differs across individuals, even those that share the same native language(s) or second language(s). Considering that there are different types of bilinguals (Li, 2017), the language providing the morpho-syntactic frame of a sentence may be the language the speaker is most competent in, and/or their L1; if this is of influence on bilingual speech, it could also be the case for multilingual speakers. This may differ within the same speech community. For example, amongst the Papiamento speaking community in the Netherlands there may be speakers that have Spanish as a first language despite being well-versed in Papiamento. Although the speakers in this corpus study are thought to have acquired their languages more or less simultaneously from a young age, language dominance may still play a role here. To know if this is the case, and how this occurs, future research should include live participants and background questionnaires. The second reason for the observed recurrent

occurrence of Papiamento providing the morpho-syntactic frame of the clause and the Germanic languages providing V could be the prestige of the languages involved. It is common knowledge in the field of (socio)linguistics that the status of a language within its speech community (or country) influences its use (Wardhaugh & Fuller, 2015). Minority languages are often marginalised and spoken in smaller groups lacking therefore overt prestige in the wider community. On the other hand, majority languages are frequently at the forefront and spoken across the wider community. Often times, majority languages have more overt prestige because they are also official languages in a country and are thus used in e.g., official documents or education. Speakers adopt and/or are influenced (consciously or subconsciously) by language prestige as it is paired with prevalent language attitudes and social implications. This may influence speaker's code-switching behaviours; speakers may code-switch from the minority language to the majority language or vice versa. Moreover, this could also be dependant on the situational context in which the speakers finds themselves. For instance, Papiamento speakers in the Aruba may code-switch from Papiamento, the dominant language, to other, viz. minority, languages to indicate competence in other languages. Whereas, Papiamento speakers in the Netherlands may choose to code-switch to the dominant language in order to index belonging to in- and out-groups. Lastly, speech context and word frequency could also influence the 'direction' of code-switching patterns. In other words, speakers may code-switch to structures that they are frequently exposed to compared to those they seldom come by (Valdés Kroff, 2016; Vaughan-Evans et al., 2020; Suurmeijer et al., 2020). Likewise, if a specific word, a word combination, or linguistic structure occurs in a specific speech context, e.g. at work or school, it may prompt speakers to use it when they find themselves in said context or simply talking about a related theme.

In short, there was no information available for the present corpora on the sequence of acquisition for each speaker. Therefore, no assumptions can be made concerning the role of linguistic competence on the Papiamento-Dutch and Papiamento-English code-switched utterances found. Similar to previous studies on Papiamento/u-Dutch code-switching, this study also included speakers that moved to, and have been living in, the Netherlands. Unfortunately, nothing can be said of the differences in code-switching patterns due to language prestige and/or dominance despite the fact that the linguistic context of the Dutch-Caribbean and the Netherlands differ. This was not the focus of this study and the biographical, linguistic and demographic information needed to examine this question is not available to this study. Moving on to word frequency and speech context, the difference in linguistic context of the Dutch-Caribbean and the Netherlands would also influence this but again, we cannot make any clear assumptions presently. Future research may examine the relation between word frequency and code-switching structures. Furthermore, future research concerning the language combination at hand could also examine the role of linguistic competence and that of language prestige with code-switching behaviour of Papiamento speakers.

5. Separable verb phrase structures in Papiamento-Dutch and Papiamento-English code-switching

When looking at German-Spanish code-switching, González-Vilbazo & López (2012) proposed that code-switching (with light verbs) has two key properties: i) *v* can stand alone (i.e. without incorporating a lexical verb), and ii) *v* and V can belong to two different languages. This is illustrated in (42).
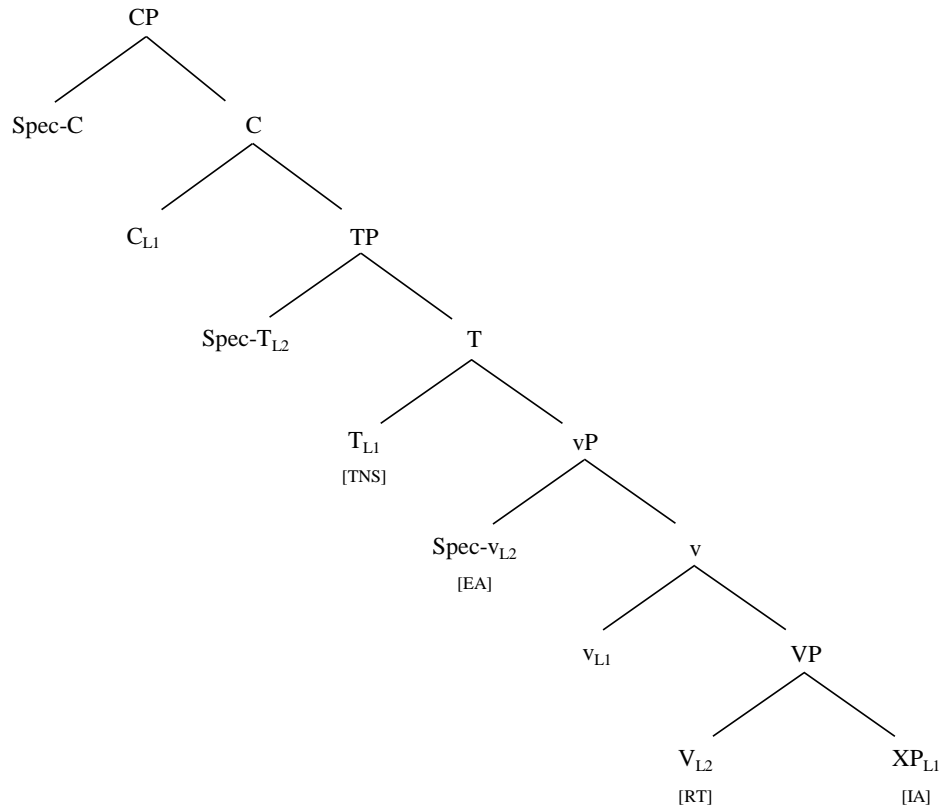
(42) Based on Example (4) in González-Vilbazo & López (2012: 35).

$$
\begin{array}{c}
vP \\
v_{L1} \quad VP \\
V_{L2} \quad XP_{L1/L2}
\end{array}
$$
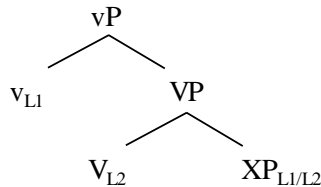
González-Vilbazo & López (2011) argue that any account of bilingual linguistic competence as seen by code-switching consists of the duplication of functional and lexical categories operated within the structure of the computational system. For German-Spanish bilinguals, González-Vilbazo & López (2011; 2012) exemplify this as the availability of the perfect distinction in Spanish T and the lack of this feature in German T. To clarify, German-Spanish speakers have access to two features/structures, one where T distinguishes between perfectivity and another where T does not. In mixing these linguistic structures, there is no principal structure that contains the perfective feature inherently, making it so that the code-switched derivation will have said feature even in the language that lacks the feature on T. Importantly, this will not impede the feature from c-commanding a phrase from the other language(s) involved in the code-switched derivation. In this view, the bilingual I-language can be depicted as a structure where both languages contribute the structure. The structural representation of the bilingual I-language from Chapter 4 is repeated in (43). The structural representation of bilingual I-language in (43) is discernible by the L1 and L2[23] subscripts in the derivation based on the languages of *v* and V. Thus, the manner in which the languages jointly compose the derivation is dependent on the language of *v* due to the underlying dependencies between V and *v*, and that between *v* and T. Despite the fact that the structural representation of code-switching in (43) is for bilingual speech, this study employs a similar structure to account for the multilingual data as the separable verb code-switches only occur between two languages.

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[23] Here the terms 'L1' and 'L2' serve only a descriptive function; they do not indicated the sequence in which the speaker has acquired their languages, but rather just differentiate the one language from the other. For instance, in one derivation Spanish may be the L1, the language *v* belongs to, while in another derivation Spanish may be L2, the language V belongs to.

(43)   Structural representation of the bilingual I-language (González-Vilbazo & López, 2011: 834).

```
                    CP
                  /    \
              Spec-C    C
                      /    \
                   C_L1     TP
                          /    \
                    Spec-T_L2    T
                               /    \
                            T_L1     vP
                            [TNS]  /    \
                              Spec-v_L2   v
                              [EA]      /    \
                                     v_L1     VP
                                            /    \
                                         V_L2    XP_L1
                                         [RT]    [IA]
```

As discussed in Chapter 3, the MLF principles, the generativist approach to code-switching, and Poplack's (2017) variationist diagnostics for code-switching cannot be mapped directly to multilingual data. While previous studies on Papiamento/u code-switching are limited to the language choice and functional differentiation between the languages, sociolinguistic motivation, and code-switching in the nominal domain, we expected the following for the verbal domain. From the perspective of the MLF, the language that carries the tense of the clause is expected to be the ML. Based on the generativist perspective, the language of *v* will be the language with the most φ-features. Lastly, from Poplack's (2017) perspective, we expected that the instances that are code-switches for Papiamento-Dutch and Papiamento-English to contain more or less the same amount of content and function words and be morpho-syntactically integrated according to the donor language(s). Additionally, we expect these instances not to be widely diffused across the speech community and not often used by speakers. Based on the findings of the corpus study, it is clear that in some cases the ML cannot solely be determined by the Morpheme Order Principle, i.e. word order of a clause. For instance, English and Papiamento have the same word order. This overlap does not allow us to determine which language provides the word order of the clause. However, Dutch and Papiamento do not share this overlap all the time therefore permitting us to use word order of a clause as a tool to determine the ML. Similarly, the System Morpheme Principle shows that the majority of functional categories in the utterances are in Papiamento but there are functional categories in the other languages as well. As for generativist predictions, the language with the most φ-features was not always the language of *v*; specifically, the language with the

least φ-features, namely Papiamento, was actually the one recurrently providing *v*. Lastly, Poplack's (2017) variationist (extra)linguistic diagnostics were also not an airtight tool for the identification of code-switches in this multilingual speech community either; with the data at hand it is not possible to examine and test all the diagnostics fully (see our discussion on the matter in Chapter 3). This was also the focus of this study.

To account for the abovementioned discrepancy, this thesis proposes the following derivation as the structural representation of code-switching with Papiamento (see (44)).

(44) Structural representation of the Aruban I-language
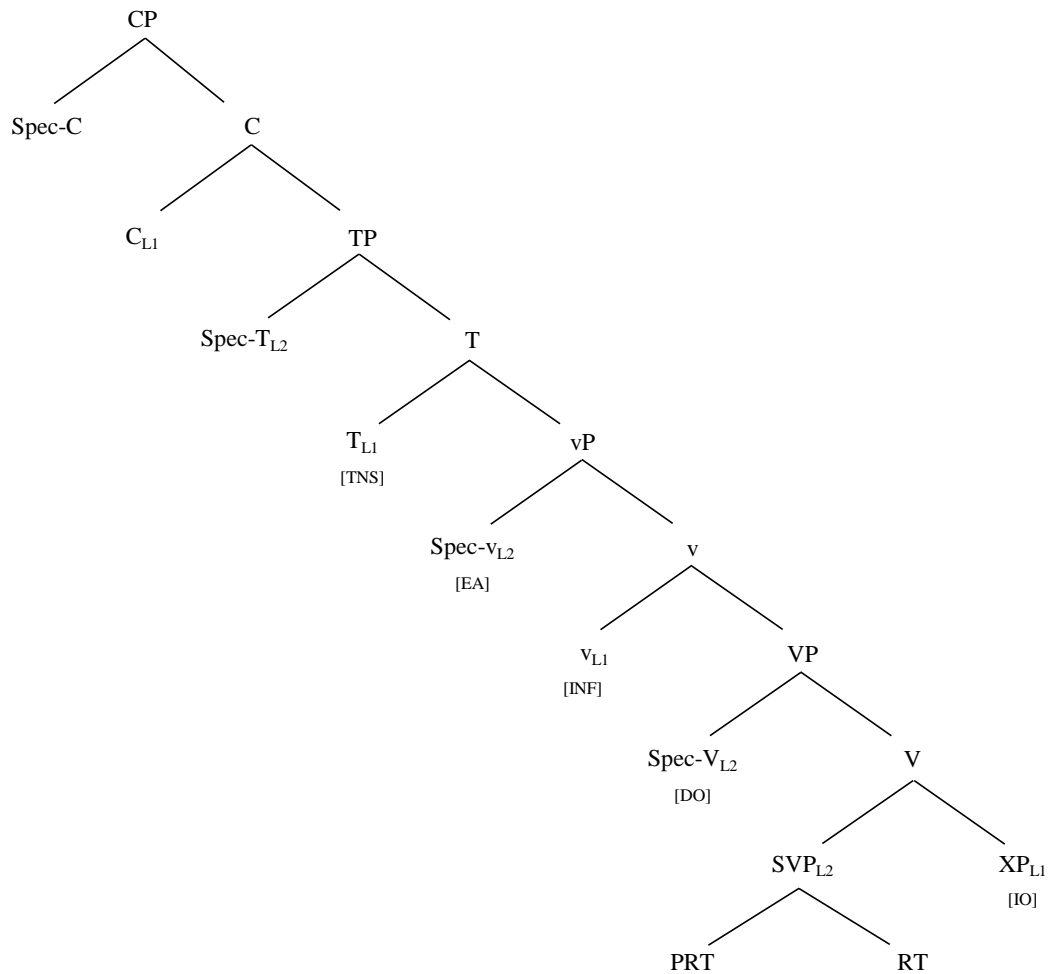
The main tenets of the structure presented in (44) are as follows. Adopting a compositional perspective of grammar – broadly following notions from Distributed Morphology (Halle & Marantz, 1993) – we find the lexical verb in a clause to consist of different morphemes encoded on different functional heads. Notably, the root of the verb is thought to be located in V, any affixes that should be merged with it are located in *v*, and the tense of the verb is located in T (Oltra-Massuet & Arregi, 2005). For instance, the Dutch past tense for 'they cycled' is *zij fietsten*. The verbal root *fiets* will start out in V and move through *v* and T to acquire affixes containing grammatical information, such as PERSON, NUMBER and tense (Oltra-Massuet & Arregi, 2005).

Finally, as is specifically the case for Dutch, the verb *fietsten* will end up in C[24]. Thus verb movement connects the heads in question. In González-Vilbazo & López (2011; 2012) Spanish is thought to have the special [+CONJUGATION] feature in *v* therefore limiting the type of verbal roots and suffixes available in the derivation. With regards to separable verbs, there is a similar constraint. Syntactically speaking, as mentioned in Section 4.2., these verbs can be structurally represented as a separable verb phrases (SvP) where the verbal particle heads the phrase. The head of the SvP – depending on the type of particle – constrains the verbal roots available to combine with it[25]. The root can move up to V2 position via successive cyclic movement through the functional heads. Moving through T has as a consequence that the V acquires inflection, such as discussed previously for Dutch. That is not the case for English which, however, mirrors the Papiamento-Dutch structure; we assume that the head of Papiamento T is occupied by a uninflecting tense marker, e.g. *ta* for the present tense and *a* for the present perfect. This head is therefore not available for raising. Dutch separable verbs in a code-switching environment, with a Papiamento frame, will not be able to raise to T, as T is occupied by a ø-marker. The lack of inflection in the Dutch borrowed form is due precisely to the fact that the Dutch verbs cannot raise to T. Therefore, what looks like an adaptation of the Dutch verb to a Papiamento pattern is in fact the result of a constraint on verb movement. That is to say, the occurrence of separable verbs in basic forms is not the result of the roots acquiring the Papiamento ø-marker during successive cyclic movement through the functional heads but rather the lack of movement of the verbal roots due to the occupied Papiamento T in the code-switched derivation. If this analysis is correct, it must be possible to combine a Dutch borrowed verb, i.e. root, with a Papiamento tense marker, as they occupy different positions of the merged structure. This exactly what can be observed from code-switched structures like those in (35), (36) and (38) (see (45)).

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[24] For the purpose of this study we will not go into the details of how the morphemes proceed to match onto the prosodic phrases of the syntactic derivation. See Oltra-Massuet & Arregi (2005) for a detailed discussion on the matter.

[25] See Barbiers et al. (2018) for details on how each particle has a fixed amount of lexical verbs or nouns it can select to create a complex VP.

(45) Structure of 'mi kier a daag mi mes uit' (Appendix C: Geerman Corpus, Sentence 1, Speaker1).
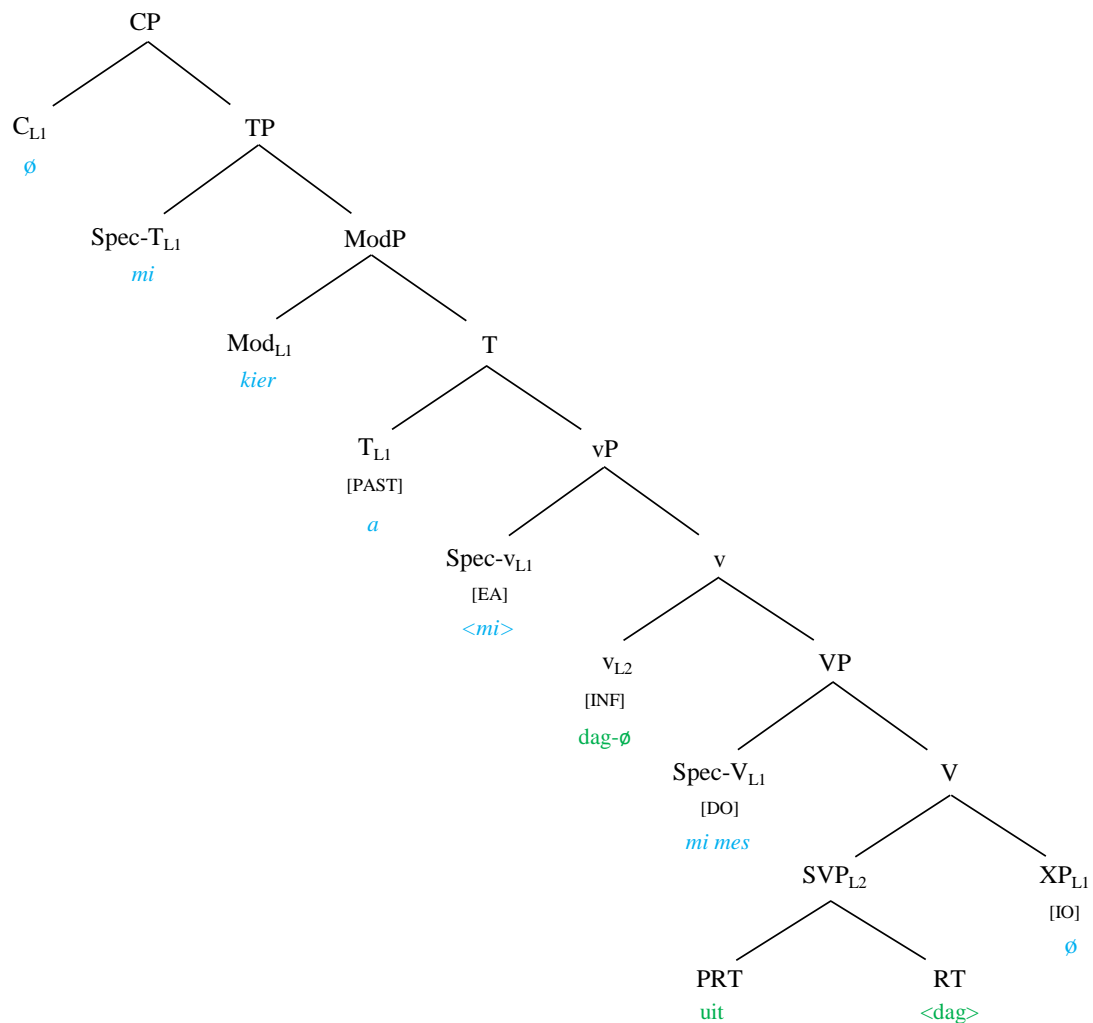
As expected, the separable verb in (45) is merged in V and T is occupied by Papiamento tense marker. Observing the structure in (45) also answers our hypotheses. Firstly, we expected T to influence the morphological complexity of V. Secondly, we expected that the heads of T and *v* would belong to the same language. Thirdly, we expected *v* and V to belong to different languages. Although the corpus study did not render any instances of T in Dutch or English and Papiamento V, the first hypothesis is confirmed as all instances of code-switches found contained a Papiamento T and a simplified separable verb in V. Although we found no instances of T in Dutch or English, we expect the lack of a constraint on verb movement in those cases to allow the donor languages to inflect their verbs, or Papiamento Vs, more richly than when T is occupied by Papiamento. The second and third hypothesis are also confirmed. As mentioned above, this thesis operates under the assumption that there is no principle structure that constrains the code-switching structures inherently. Therefore, the code-switched derivation has all the features of both – and/or all – languages involved regardless of the fact that one of the languages may not have said feature by itself. Due to this, *v* can c-command the verbal root despite it belonging to the other language thereby confirming our third hypothesis. Moreover, considering that T and *v* are connected as well, we can assume that although T and V belong to

different languages *v* will in principle contain features from the language of T before the verbal root moves to *v*. Since T is the only one that may surface, the language of T can be assumed to be the one of *v* as well. In less theoretical terms, observe head-*v* and head-T in (44) and (45); in (44) T and *v* have L1 subscripts while in (45) T is in L1 and *v* is in L2. Since *v* contains the features of T, when T is in Papiamento its ø-marker will be occupying that position. As the Dutch verbal root *daag* ('to challenge') moves up the derivation it will become 'stuck'; *v* will then appear as the L2 but will inherently remain to the L1, i.e. the language of T. Similarly, if we were to find instances of a Dutch T with a Papiamento V we would expect the Papiamento root to receive Dutch markers in *v* and move up the derivation freely; in this case it would be more straightforward to 'see' that head-T and head-*v* belong to the same language. This confirms our second hypothesis.

All in all, our structural view of the composition of Papiamento-Dutch and Papiamento-English code-switching is in line with our proposal of the internal structure of the Aruban I-language. This is also similar to the structural representation of the bilingual linguistic competence González-Vilbazo & López (2011; 2012) proposed.

6. Conclusion

The objective of this thesis was to provide and account of the structures of Papiamento-Dutch and Papiamento-English code-switching with separable verbs. The main research question answered here is: *what are the underlying mechanisms of Papiamento-Dutch and Papiamento-English code-switching with respect to the VP, and in particular separable verbs?* To do so, we examined the (syntactic) constraints of code-switched derivations in multilingual Papiamento-Dutch and Papiamento-English speech from speakers from Aruba by means of three distinct corpora. The choice of this particular dataset is due to the different nature of separable verbs in the different languages. We expected this to lead to a clash between the VPs of the languages with separable verbs (i.e. Dutch and English) and those without (i.e. Papiamento). We therefore expected code-switching with these verbs to have their own specific patterns as opposed to code-switching with 'regular' verbs. Specifically, we postulated that there will be a merger of the VPs of the languages in contact.

The corpus study did not find any instances of code-switched 'regular' verbs when looking at the verbal domain (see Appendix C). This may indicate a preference for separable verbs amongst this population. A reason for this preference may lay in the fact that the separable verbs can fill semantic gaps in conversations. In some cases, this can be due to a lack of a specific verb in Papiamento whereas the verb does exist in Dutch. In other cases, this may be due to the discrepancy in the description of the same action by the two linguistic systems, i.e. using a Dutch verb provides more semantic information surrounding the action at hand than the Papiamento verb. How often a Papiamento verb is used as opposed to its Dutch or English counterpart by a speaker may also influence this. Moreover, some speech contexts inherently use certain structures more often than others. For instance, *uitleggen* ('to explain') is often used in the context of school. Therefore, students may code-switch to *leg uit* ('to explain') when discussing their school day despite using *splica* ('to explain') as frequently when discussing other topics.

From the recurrent structures found in the corpus study, the following generalisations can be made. Firstly, the code-switched structures contain a compulsory Papiamento tense marker and a morphologically simplex Germanic separable verb; this tense marker is the overt spell-out of T. Secondly, head-T and head-*v* are required to belong to the same language in the code-switched derivation: the Papiamento ø-marker is available for the root in V (regardless of the language) and constrains movement. Lastly, the V and *v* can belong to two different languages; V may be a donor verb, but it is c-commanded within the structure by the language of *v*.

7. Research significance and implications

The scientific contribution of this study pertains to the exploration of more multilingual code-switching data with different language pairings. The social significance of this study lays in its exploratory nature of speech patterns within the Aruban community. Its broader societal implications could be beneficial for language teaching and/or learning since the languages at hand are in constant contact in formal and informal contexts. For instance, if a random speaker is exposed to at least four different languages daily in the wider community from a young age they may pick up code-switching patterns as these are also part of this language exposure. When receiving formal schooling in the languages, it could be the case that the more prescriptive aspects of grammar teaching will clash with the structures that speakers actually use. By examining the natural language use of this speech community and understanding the composition of the arising structures, this mismatch between actual language use and the more formal (primarily monolingual) methods of language teaching can be amended. In particular, the education system of Aruba is largely based on that of the Netherlands and for the longest time it has been employing materials that are made for European Dutch native speakers (Department of Education Aruba, 2023). This means that speakers are already at a disadvantage since they are not (European) Dutch native speakers, therefore learning Dutch or Spanish from that perspective might overly simplify or complicate matters that are relevant in the (Dutch-)Caribbean context. Knowing how the mental grammar of Papiamento-English-Spanish-Dutch speakers work is key not only with regards to adapting teaching materials, but more proactively by adapting the manner of teaching. For instance, by exploring the instinctive structures used by Arubans, teachers may consult studies on the languages in contact and use examples from the natural speech of students and connect these to the more formal aspects of the original grammar(s).

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Appendices

Appendix A: Verbal properties of Papiamento, Spanish, Dutch and English

Language \ Feature	Papiamento	Spanish			Dutch	English
Word order	SVO	SVO			SOV and SVO	SVO
Past tense	'a'/'tabata' + INFINITIVE	*Verb root+:*			**123SG:** ROOT + '(t/d)e' **123PL:** ROOT + '(t/d)en'	*Regular verbs:* ROOT+ 'ed' 'to be' + GERUND 'to have' + PAST PARTICIPLE 'to have' + been + GERUND
			-ar	**-er**	**-ir**		
		1SG	-é		-í		
		2SG	-aste		-iste		
		3SG	-ó		-ió		
		1PL	-amos		-imos		
		2PL	-asteis		-isteis		
		3PL	-aron		-ieron		
Present tense	'ta' + INFINITIVE	*Verb root+:*			**1SG:** ROOT **23SG:** ROOT +'t' **123PL:** INFINITIVE	**12SG:** root **3SG:** ROOT + 's' **123PL:** root 'to be' + GERUND 'to have'+ PAST PARTICIPLE 'to have'+ been + GERUND
			-ar	**-er**	**-ir**		
		1SG	-o	-o	-o		
		2SG	-as	-es	-es		
		3SG	-a	-e	-e		
		1PL	-amos	-emos	-imos		
		2PL	-áis	-éis	-ís		
		3PL	-an	-en	-en		
Future tense	'lo'/'lo a' + INFINITIVE	*Verb root+:*			modal verb + INFINITIVE	'will' +: - INFINITIVE - 'to be'+ GERUND - 'to have' + PAST PARTICIPLE - 'to have' + been + GERUND
			-ar	**-er**	**-ir**		
		1SG		-é			
		2SG		-ás			
		3SG		-á			
		1PL		-emos			
		2PL		-éis			
		3PL		-án			
Separable verbs	–	–			Verbs that are separable consist of a prepositional, adjectival, or adverbial particle and a verbal root. *For example:* Kim **haalde** wat werk **in**.	The predicate contains a lexical verb and a preposition as a particle. *For example:* Kim **caught up** on some work.

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Appendix B: Overview of the Dutch education system (Edwards, 2014: 26)
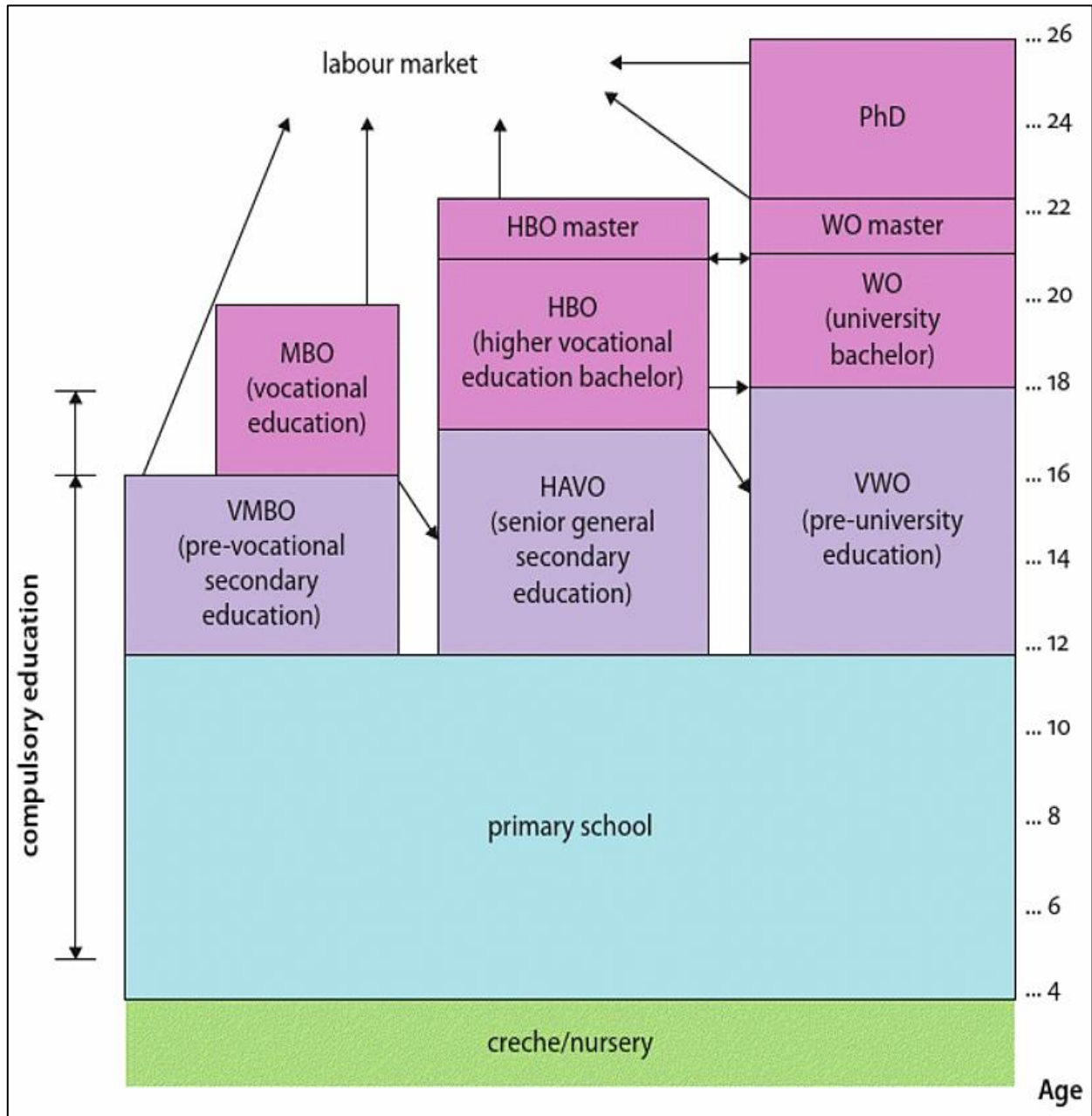
Aruban MAVO falls under VMBO in this chart, and EPI falls under MBO.

Appendix C: Code-switched VPs found in corpus study of the three corpora

In the last column, the languages for the different grammatical categories are indicated by the same colours used in the text. Namely, Papiamento is indexed by blue, Dutch is indexed by green, and English is indexed by purple. Moreover, the object of the clause is indicated by underlining the grammatical constituents in the last column; the verb and its particle are bolded.

Corpus	Nr.	Speaker	VP	Verb	Particle	SV infinitive form	SV separated?	Language SV	Grammatical categories of the preceding and succeeding items of the SV				
Geerman Corpus	1.	S. 1	[…] mi kier a **daag** mi mes **uit** pa […]	Daag	Uit	Uitdagen	Yes	Dutch	TNS	V	PRN	PRT	
	2.	S. 1	[…] e ta **sluit aan** hopi […]	Sluit	Aan	Aansluiten	No	Dutch	TNS	V	PRT	ADV	
	3.	S. 1	[…] mi **geef aan** mi number […]	Geef	Aan	Aangeven	No	Dutch	PRN	V	PRT	PRN	N
	4.	S. 1	M'a **spreek** e **aan.**	Spreek	Aan	Aanspreken	Yes	Dutch	TNS	V	PRN	PRT	
	5.	S. 1	[…] ta bin **spreek** ami **aan** […]	Spreek	Aan	Aanspreken	Yes	Dutch	V	V	PRN	PRT	
	6.	S. 2	[…] mi rmn a mne ful **give the** mne **rundown** […]	Give	Rundown	Give the rundown	No	English	ADJ	V	DET	FIL	PRT
	7.	S. 3	[…] bo ta like **neem** nan **op** as you go […]	Neem	Op	Opnemen	Yes	Dutch	FIL	V	PRN	PRT	CONJ
	8.	S. 3	[…] pero you can't like **haal in** sierto cosnan.	Haal	In	Inhalen	No	Dutch	FIL	V	PRT	ADV	N
	9.	S. 3	[…] anto once in a while mi ta **come across** un cas	Come	Across	Come across	No	English	TNS	V	PRT	DET	N

Corpus	Nr.	Speaker	VP	Verb	Particle	SV infinitive form	SV separated?	Language SV	Grammatical categories of the preceding and succeeding items of the SV					
AFY Corpus	*10.*	S. 10	Lunay nan ta artista cu ta echt **trek** mi **aan**.	Trek	Aan	Aantrekken	Yes	Dutch	ADV	**V**	PRN	**PRT**		
	11.	S. 10	Mi ta gusta **hang out** cu mi family and friends.	Hang	Out	Hang out	No	English	V	**V**	**PRT**	PREP	PRN	N
	12.	S. 10	[…] close friend and family cu bo por semper **count on** y […]	Count	On	Count on	No	English	ADV	**V**	**PRT**	CONJ		
	13.	S. 10	[…] y **hanging out** with them bo ta bay create un bond.	Hang	Out	Hang out	No	English	CONJ	**V**	**PRT**	CONJ	PRN	
	14.	S. 16	[…] paar di nan ta **val mee** cu mi.	Val	Mee	Meevallen	No	Dutch	TNS	**V**	**PRT**	CONJ	PRN	
	15.	S. 16	[…] pa asina mi por **figure out** kico ta pa mi.	Figure	Out	Figure out	No	English	AUX	**V**	**PRT**	CONJ		
	16.	S. 20	[…] cuanto studiante ta **sign up** pa bay haci e […]	Sign	Up	Sign up	No	English	TNS	**V**	**PRT**	PREP		
	17.	S. 20	[…] hala e kamber aya **ruim op**.	Ruim	Op	Opruimen	No	Dutch	PREP	**V**	**PRT**			
	18.	S. 29	[…] sigui lucha y no **give up.**	Give	Up	Give up	No	English	NEG	**V**	**PRT**			
	19.	S. 29	[…] sin cu bo mes a **maak mee** e experience […]	Maak	Mee	Meemaken	No	Dutch	TNS	**V**	**PRT**	DET	N	
	20.	S. 29	[…] cu el a **maak mee** anto […]	Maak	Mee	Meemaken	No	Dutch	TNS	**V**	**PRT**	CONJ		
	21.	S. 30	[…] bo ta get **paired up** mane […]	Pair	Up	Pair up	No	English	AUX	**V**	**PRT**	CONJ		
	22.	S. 30	[…] cu bo ta **breaking down**, time […]	Break	Down	Break down	No	English	TNS	**V**	**PRT**	N		
	23.	S. 30	[…]school, **hang out** cu friends un dia […]	Hang	Out	Hang out	No	English	N	**V**	**PRT**	CONJ	N	
	24.	S. 33	[…] e draai beweging nos a **vang** e **op** den energie […]	Vang	Op	Opvangen	Yes	Dutch	TNS	**V**	PRN	**PRT**	PREP	

Corpus	Nr.	Speaker	VP	Verb	Particle	SV infinitive form	SV separated?	Language SV	Grammatical categories of the preceding and succeeding items of the SV					
MPI CS Corpus (Part I)	*25.*	S. 38	[…] anto e ta **hoort** er**bij** anto e ta depende di e situacion.	Hoor	Bij	Bijhoren	No	Dutch	TNS	**V**	PREP	**PRT**	CONJ	
	26.	S. 39	[…] mas facil pa bo **schakkel over** riba Hulandes.	Schakkel	Over	Overschakkelen	No	Dutch	PRN	**V**	**PRT**	PREP	N	
	27.	S. 40	[…] bo ta **groei uit**, bo ta […]	Groei	Uit	Uitgroeien	No	Dutch	TNS	**V**	**PRT**	PRN		
	28.	S. 40	[…] mi ta bezig ta **studeer af**.	Studeer	Af	Afstuderen	No	Dutch	TNS	**V**	**PRT**			
	29.	S. 39	[…] dus bo ta **trek op** cu e hendenan ey.	Trek	Op	Optrekken	No	Dutch	TNS	**V**	**PRT**	CONJ	DET	N
	30.	S. 39	Nos tabata **zoek** elkaar **op.**	Zoek	Op	Opzoeken	Yes	Dutch	TNS	**V**	PRN	PRT		
	31.	S. 42	E ta **lig** mas **aan** na e […]	Lig	Aan	Aanliggen	Yes	Dutch	TNS	**V**	ADV	PRT	PREP	DET
	32.	S. 43	[…] cos, **maak mee** mas cos […]	Maak	Mee	Meemaken	No	Dutch	N	**V**	PRT	DET	N	
	33.	S. 43	[…] mi por **druk** mi mes mas mihor **uit** den Papiamentu.	Druk	Uit	Uitdrukken	Yes	Dutch	AUX	**V**	PRN	ADV	ADJ	**PRT** PREP
	34	S. 43	[…] pero ya mane pa **druk** mi mes **uit**, pero […]	Druk	Uit	Uitdrukken	Yes	Dutch	PREP	**V**	PRN	**PRT**	CONJ	
	35.	S. 43	[…] mi ta **kom over** mane mi ta verbaasd.	Kom	Over	Overkomen	No	Dutch	TNS	**V**	**PRT**	PREP		
	36.	S. 43	[…] nan no ta **vat** e **op** como algo cu ta beperk mi.	Vat	Op	Opvatten	Yes	Dutch	TNS	**V**	PRN	**PRT**	ADV	
	37.	S. 42	[…] gana di **reach na** nan […]	Reach	Na	Reach out	No	English	PREP	**V**	**PRT**	PRN		
	38.	S. 44	[…] pa mi **pas**'e **over,** e cos no ta sali […]	Pasa	Over	Overbrengen	Yes	Dutch	PRN	**V**	PRN	**PRT**	DET	
	39.	S. 43	[…] mi ta **vat op**.	Vat	Op	Opvatten	No	Dutch	TNS	**V**	**PRT**			
	40.	S. 43	[…] bo ta **vat** e **op** otro […]	Vat	Op	Opvatten	Yes	Dutch	TNS	**V**	PRN	**PRT**	ADJ	
	41.	S. 42	[…] esey ta **lig aan** de taal […]	Lig	Aan	Aanliggen	No	Dutch	TNS	**V**	**PRT**	DET	N	
	42.	S. 47	[…] pa **breng** e **over** serca […]	Bring	Over	Overbrengen	Yes	Dutch	PREP	**V**	PRN	**PRT**	PREP	

Corpus	Nr.	Speaker	VP	Verb	Particle	SV infinitive form	SV separated?	Language SV	Grammatical categories of the preceding and succeeding items of the SV						
	43.	S. 50	Bo ta **doe mee** cu Ramadan?	Doe	Mee	Meedoen	No	Dutch	TNS	V	**PRT**	PREP	N		
	44.	S. 50	[…] tampoco ta **doe mee** cu […]	Doe	Mee	Meedoen	No	Dutch	TNS	V	**PRT**	PREP			
	45.	S. 51	[…] pasobra nan ta **leg** bo **op** un […]	Leg	Op	Opleggen	Yes	Dutch	TNS	V	PRN	**PRT**	DET		
	46.	S. 50	[…] zorg pa nan **voer** e vriesmento ey **in** tur caminda […]	Over	In	Invoeren	Yes	Dutch	PRN	V	DET	N	PRN	**PRT**	DET
	47.	S. 52	[…] no ta **maak uit** ki […]	Maak	Uit	Uitmaken	No	Dutch	TNS	V	**PRT**	CONJ			
	48.	S. 53	[…] e muchanan mes tin cu **voed** nan mes **op**.	Voed	Op	Opvoeden	Yes	Dutch	PREP	V	PRN	**PRT**			
	49.	S. 56	[…] bo mester **pas** bo **aan**, integreer […]	Pas	Aan	Aanpassen	Yes	Dutch	MOD	V	PRN	**PRT**	V		
	50.	S. 56	Esey a **val op**, ora […]	Val	Op	Opvallen	No	Dutch	TNS	V	**PRT**	CONJ			
	51.	S. 58	[…] m'a **studeer af**, probablemente […]	Studeer	Af	Afstuderen	No	Dutch	TNS	V	**PRT**	ADV			
	*52.**	S. 58	Bo no por wordo **aangesproken** e ora.	Spreek	Aan	Aanspreken	No	Dutch	TNS	V	PRN	N			
	*53.**	S. 58	[…] e ta iets van twintig-dertig procent **afgekeurd** pa trabou.	Keur	Af	Afkeuren	No	Dutch	N	V	PREP	N			
	*54.**	S. 58	[…] ey tabata dificil pa **achterhaal** ken ta […]	Haal	Achter	Achterhalen	No	Dutch	PREP	V	PRN	TNS			
	*55.**	S. 58	[…] nan por a **achterhaal** ken ta e […]	Haal	Achter	Achterhalen	No	Dutch	TNS	V	PRN	TNS	DET		
	56.	S. 59	[…] ta **kom tegen** op straat […]	Kom	Tegen	Tegenkomen	No	Dutch	TNS	V	**PRT**	PREP			
	57.	S. 59	[…] bo ta **kom tegen**.	Kom	Tegen	Tegenkomen	No	Dutch	TNS	V	**PRT**				
	58.	S. 59	[…] mi no ta **hoort eynan** mas.	Hoor	Eynan	Bijhoren	No	Dutch	TNS	V	**PRT**	ADV			
	59.	S. 58	[…] ami no ta **trek** mi mes **aan** paso […]	Trek	Aan	Aantrekken	Yes	Dutch	TNS	V	PRN	**PRT**	CONJ		
	60.	S. 58	[…] nan **burger** nan mes **in** bou Hulandes […]	Burger	In	Inburgeren	Yes	Dutch	PRN	V	PRN	**PRT**	PREP		
	61.	S. 59	[…] mi no ta gusta **draag** e **over** pa niun hende.	Draag	Over	Overdragen	Yes	Dutch	V	V	PRN	**PRT**	CONJ		

Resumen na Papiamento

E tesis aki a investiga e fenomeno di *code-switching* entre Papiamento, Hulandes, Ingles y Spaño. *Code-switching* ta un fenomeno di contacto linguistico entre diferente idioma y por ta evidente ora un persona cambia di lenguahe mientras e ta papiando den un otro idioma. Mientras e area di *code-switching* ta amplio, e tesis aki ta enfoca su mes riba *code-switching* cu Papiamento y verbonan separabel Germanico. Es decir, e enfoke di e investigacion aki ta riba construccionnan produci pa Arubianonan cu ta consisti di un verbo separabel for di Hulandes of Ingles den un frase, primordialmente, na Papiamento. Ta importante pa tene na cuenta cu idiomanan Romano, p.e. Italiano of Spaño, no tin verbonan separabel. Esaki tambe ta conta pa Papiamento. Pues, manera e tesis aki a postula, no ta spera di mira ningun instante di *code-switching* entre Papiamento y Spaño den e dominio verbal.

Verbonan separabel ta un clase di verbo special como cu nan ta consisti di un componente verbal y un componente preposicional. Por ehempel, e verbo separabel *aansluiten* ('pa conecta') na Hulandes ta consisti di e verbo *sluiten* ('pa sera') y e preposicion *aan* ('na'). Hunto, e verbo *sluiten* ('pa sera') y e preposicion *aan* ('na') ta forma e verbo *aansluiten* ('pa conecta') cu tin un nificacion completamente diferente riba su mes cu e nificacion di su dos componentenan separa. Den un forma similar, verbonan separabel Ingles tambe tin un nificacion composicional (p.e. *to sign up* ('pa registra')) aunke no ta tur di nan por wordo separa. Esaki ta a causa di e desaroyo historico di Ingles cu a resulta den e verbonan separabel Ingles birando mas idiomatico compara cu e mesun verbonan aki den otro idioma Germanico (Seccion 2.2.).

E investigacion preliminar (Seccion 3.4. y Seccion 4.1.) a demonstra cu den e dominio verbal *code-switching* ta tuma lugar entre Papiamento cu Hulandes, y entre Papiamento cu Ingles. A base di e instantenan di *code-switching* observa den e investigacion preliminar, a nota e siguiente patronchinan: 1) verbonan separabel Hulandes ta aparece separa of no separa di otro, 2) verbonan separabel Ingles ta aparece no separa, 3) verbonan separabel Hulandes y Ingles ta aparece despues di e marcado di tempo na Papiamento, p.e. 'ta' of 'a', y 4) e obheto di e frase ta e componente cu ta separa e verbo di su preposicion. Utilisando e patronchinan aki como guia, e investigacion aki a intenta di contesta e siguiente pregunta: *kico ta e mecanismonan sintactico di code-switching cu Papiamento, Hulandes y Ingles den e dominio verbal specificamente cu verbonan separabel?* Pa medio di un estudio di corpus consistiendo di tres diferente corpus, esta e Geerman Corpus, e AFY Corpus, y e MPI CS Corpus (Capitulo 4), por a investiga e tres hipotesisnan formula (Seccion 4.2.). Na prome lugar, a postula cu e idioma di e marcado di tempo (T) lo influencia e complexidad morfologico di e verbo (V). Na di dos lugar, a postula cu e idioma di e forma sintactico di e marcado di tempo (head-T) y e frase sintactico comandando e verbo (little v (*v*)) mester pertenece na e mesun idioma. Por ultimo, a postula cu e verbo (V) y e frase sintactico comandando e (little v (*v*)) lo por pertenece na diferente idioma.

E resultado di e estudio di e corpusnan a confirma e hipotesisnan (Seccion 4.4.). Por a observa cu mayoria frasenan conteniendo verbonan separabel Germanico tin un marcado di tempo na Papiamento precediendo e componente verbal di e verbo Germanico. Es mas, por a observa cu solamente verbonan separabel Hulandes ta aparece separa; esnan cu ta separa, por observa cu mas tanto ta e obheto di e frase ta aparece entre e componente verbal y su preposicion (Appendix C). A base di e resultadonan aki, a subraya e mecanismonan sintactico cu ta goberna frasenan cu ta contene instantenan di *code-switching* entre Papiamento y verbonan separabel Germanico (Capitulo 5). Primeramente, e frase verbal di verbonan separabel ta conecta den e skema sintactico perfectamente. Na di dos lugar, como cu e posicion di marcador di tempo ta ocupa pa Papiamento, e verbo stranhero ta haya e morfologia di verbonan den Papiamento: un marcado nulo pa infinitivo. Pa medio di e composicion aki, e verbo separabel ta aparece cu un morfologia simpel. Es mas, e marcado nulo y e ocupacion di T door di un marcado di tempo den Papiamento ta stroba e verbo di bay mas ariba den e structura manera lo ta e caso den, p.e. Hulandes. E puntonan aki ta ilustra den ehempelnan (44) y (45) den Capitulo 5 di e tesis aki. En corto, e tesis aki ta considera e combinacion di idioma observa como un representacion di e competencia linguistico (*I-language*) di personanan bilingual y multilingual.

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