Valence adjusting structures in Pitjantjatjara, Yankunytjatjara and Ngaanyatjarra in a Role and Reference Grammar account

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Abstract

This thesis is a synchronic study of valence adjusting, switch-reference and ellipsis in three dialects of the Australian Western Desert language, Pitjantjatjara, Yankunytjatjara and Ngaanyatjarra (PYN). We investigate the morphosyntactic mechanisms and pragmatic motivating factors behind these phenomena. The dialects have mixed ergative and accusative case systems with productive derivational suffixing, serialisation of verbs and dependent clauses with switch-reference. We examine how these features are involved in valence adjusting and ellipsis and the situations where these occur. The material is based on a corpus of written sources, supplemented by grammaticality judgments by PYN speakers.

The theoretical framework underpinning the study is that of Role and Reference Grammar (RRG), which is designed to be able to be used for the study of any language. This provides a detailed functional account, mapping syntax to semantics by way of a linking algorithm, and has constituent, operator and focus syntactic projections. Together with semantic lexical decomposition and the concept of semantic macroroles, these projections enable a study of the communicative functions and strategies for topicalising or focusing the participants in a scene or clause.

Valence may refer to syntactic, semantic or macrorole elements and these may not coincide; we investigate how the three relate in PYN. Furthermore the pragmatic dropping of arguments in discourse relates to focus, presupposition and shared knowledge and we distinguish this from the argument demoting and omission that necessarily occurs in valence decreasing. Valence adjusting may impact the underlying semantics; the syntactic realisation of arguments; and the assignment of macroroles and Privileged Syntactic Argument and we examine how this is achieved in PYN.

It is found that the main valence-adjusting operations found in PYN are lexical rather than syntactic. Morphological derivation on nominals and intransitive verbs creates inchoative and causative verbs, depending on whether a state occurs spontaneously or is brought about by an external effector. Causation with base transitive verbs needs to be expressed syntactically and indirectly. Importantly, voice or syntactic valence adjusting is not found in the dialects. The functions of the passive are subsumed by the variance of topic and focus afforded by word order changes. Serial verbs are topic chains or complex predicates; sub-clauses may reduce the valence of the main verb, take the place of arguments or be adverbial; both actor and undergoer control is facilitated by the switch-reference ending used.

Ellipsis occurs frequently, but the default assumption is that a missing argument represents third person singular. Tracking of referents is facilitated by switch-reference between active and accessible participants both within a clause and a text, and we outline how this might be represented in the presupposition.

The thesis is a contribution to RRG's representation of non-overt arguments, and sheds light not only on valence adjusting in an ergative system but also the narrative tracking of referents. Its original contribution lies in conducting an RRG analysis of valence adjusting, argument reduction, switch-reference and ellipsis in the PYN dialects. This allows us to compare the structures with those in other languages and identify areas in RRG that need to take into account structures not currently catered for by the theory.

We suggest the RRG theory should be extended to take ellipsis and switch-reference structures into account and propose new ways of representing them in the constituent and semantic representations. In order to do this, we bring in elements of Common Ground, Discourse Representation Theory, Centering Theory, Basic Linguistic Theory and Systemic Functional Linguistics.

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Key to abbreviations

1, 2, 3 first, second and third persons	DU Dual	PASS Passive
A Agent-like argument in a transitive clause	E Extension to core argument	PERL Perlative
AAJ Argument adjunct	EMPH Emphatic	PFV Perfective
ABL Ablative	ERG Ergative	PL Plural
ABS Absolutive	EX Exclusive	POS Possessive
ACC Accusative	EXCLM Exclamation	PoCS Postcore slot
ACT Active	EXT Extensive	PP Prepositional phrase
ADJ Adjective	F Feminine	PrCS Precore slot
ADV Adverb	FUT Future	PRED Predicate
ADVAN Advancement marker	GEN Genitive	PRES Present
ALL Allative	HARM Harmful	PRO Pronoun
ANAPH Anaphoric demonstrative	IF Illocutionary force	PROC Process
ANT Anterior	IMP Imperative	PST Past
ANTIPASS Antipassive	INC Inclusive	PSTP Past participle
APPL Applicative	INCH Inchoative	PURP Purposive
ARG Argument	INF Infinitive	Q Query
ASP Aspect	INGR Ingressive	QNT Quantity
ASSOC Associative	INSTR Instrumental	RDP Right-detached position
AUH Actor-undergoer hierarchy	INT Interest	REC Reciprocal
AUX Auxiliary	INTEN Intentive	REFL Reflexive
AVERS Aversive	INTR Intransitive	REL Relative
CAUS Causative	IO Indirect object	REMPRT Remote preterite
CHAR Characteristic	IPFV Imperfective	REP Reported
CL Classifier	IV Intransitive verb	RP Reference phrase
CMPL Complementiser	LDP Left-detached position	S Single argument, intransitive clause
COM Comitative	LOC Locative	SEML Semelfactive
COMPL Completive	LS Logical structure	SER Serial participle
COND Conditional	M Masculine	SG Singular
CONJ Conjunction	MR Macrorole	SS Same subject
CONT Continuous	N Noun	SU Subject
DAT Dative	NEG Negative	SUPERESS Superessive
DCA Direct core argument	NMR Non macrorole	TAM Tense aspect and mood
DEACC Deaccusative	NOM Nominative	TNS Tense
DECAUS Decausative	NOML Nominalised	TR Transitive
DEF Definite	NP Noun phrase	TURN Turning point
DEIC Deictive	NPIP Noun phrase initial position	TV Transitive verb
DEM Demonstrative	NUC Nucleus	U Undergoer
DEOBJ Deobjective	NUM Number	V Verb
DET Determiner	O Less agent-like argument of transitive clause	VOC Vocative
DIR Directional	OBL Oblique	VP Verb phrase
DO Direct object	OBV Obviative	XP Phrase of any category
d-S Derived intransitive subject	OCOMP Object of comparison	= Clitic (Word boundary)
DS Different subject	P Patient-like argument	- Morpheme boundary

1 Introduction

In this thesis, we are primarily concerned with the motivating factors involved in how events or scenes are described by clauses and sentences in Pitjantjatjara, Yankunytjatjara and Ngaanyatjarra (PYN), three dialects of the Western Desert language in Australia. We are interested in both morphosyntactic and pragmatic phenomena, analysing these through the Role and Reference Grammar (RRG) framework. A clause can be thought of as predicating an event, situation or scene that involves a number of participants. How this scene is described in a language may be varied syntactically or semantically for different purposes. Thus while a scene may be thought of as inherently requiring a number of participants, not all need be overtly stated: the participants may in practice be expressed syntactically, omitted completely or otherwise implied. Furthermore, a participant may have its relative prominence changed with respect to other participants. Such prominence may be due to perceived importance, salience or newness with respect to the current discourse. We claim this is of central importance in an utterance, because both speaker and listener typically need to juggle several referents in the course of a conversation.

One means a language uses for this is the adjusting of valence. We will investigate valence in depth but briefly it refers to the number of participants the predicate (typically a verb) of a clause requires, either syntactically or semantically. Participants' roles may be foregrounded or backgrounded without fundamentally altering the scene: we describe this as syntactic valence adjusting. Alternatively, the nature of the scene itself may be changed by adding or removing participants, through semantic valence adjusting. The motivations for the adjusting of valence include the emphasising, focusing or obscuring of participants. Where the relation between semantic roles and grammatical relations is altered, valence is related to the concept of voice (Payne 1997: 169). This tradition goes back to Ancient Greek grammar, with its idea of two *diatheses*, performance and experience (Kulikov 2010: 368). This was later referred to in Latin as the distinction between *activum* and *passivum* and it refers to the syntactic valence decreasing operation represented by the passive voice, one of the topics investigated here.

A second strand of the thesis involves distinguishing morphosyntactic changes in argument realisation from pragmatic situations involving an argument being 'elided' or not expressed, where its referent is clear to both speaker and listener. This distinction forms an important part of the study. Phenomena such as switch-reference may facilitate this non-expression.

Traditionally in Europe grammatical studies have involved Indo-European languages which have numerous common characteristics. In this study we examine part of an unrelated language group, Western Desert, which is widely spoken in the centre and west of Australia.

The PYN dialects are closely related to each other and are spoken in neighbouring areas. Because they are so closely related, the syntactic and semantic structures discussed here apply to all of them, unless otherwise specified. Minor differences are noted that may be illuminating in themselves. As Dixon (2002: 5) points out, where speech is mutually intelligible, speech varieties are dialects and an overall grammar can be written, with notes on variations. Having three closely related dialects broadens the scope of available materials for the study, as well as allowing us to determine which grammatical constructions are central to the language and which can vary. Rose's (2001) work for example is a study of Western Desert grammar, with 'particular focus' on Pitjantjatjara (ibid.: 1).

One reservation expressed about descriptive grammars is the attempt to shoe horn the features of a language into the linguistic structures of the chosen grammar (D. Rose p.c., Lees 1957). Haspelmath (2010b) cautions on the use of theoretical frameworks as being too constraining: We circumvent these criticisms in part by responding to PYN data and identifying problems with RRG rather than the other way around. If RRG cannot handle the structures found, then its categories need expanding or refining. We claim this is a better approach than trying to impose structures from other languages where evidence for their occurrence in PYN is poor. Thus the wider goal of the study is to use PYN as a test case to examine RRG and ascertain whether the existing theory can explain all the features found. If not, then we will suggest areas where RRG could usefully be extended. Using a framework such as RRG can lead to valuable typological insights and cross-linguistic comparisons, but we should not feel constrained by its principles as currently developed.

1.1   Aims, motivation and purpose

The three dialects have been studied under a number of different theories, but this thesis sets out with the view that RRG can shed further light on the mechanisms and motivating factors behind the structures studied. The dialects have certain linguistic features that distinguish them from the more traditionally studied European languages and these features motivate and inform the research. They possess both ergative-absolutive and nominative-accusative case marking. There is no verb agreement, whether for gender, number or person: grammatical relations are indicated solely on dependents through case. This case marking allows for fully grammatical freedom of word order, facilitating pragmatic possibilities for topicalising and focusing through word order changes. The use of suffixes derives both nominals and verbs. Arguments are frequently dropped in ellipsis, leading to verb-rich utterances. Serial verbs form topic chains and complex predicates with different levels of argument sharing. Another notable feature is the use of switch-reference through conjunctions and dependent sub-clauses: these obviate the need for overt expression of arguments and call into question the nature of syntactic pivots in joined

clauses. The dependent sub-clauses may take the place of an argument or extend one of the arguments. There is substantial scope for investigation in all of these areas.

We note that the absence of an argument does not necessarily imply valence decreasing. It may relate to an elided specific argument or to a lack of specificity. Missing arguments generally require identification, the resolution of zero anaphora (Wheeler 2016). Ellipsis as a pragmatic phenomenon should be distinguished from valence-decreasing strategies which are syntactic and semantic phenomena. While a verb has certain requirements for arguments, a valence-changing operation on the verb alters this requirement; but the available positions are not necessarily overtly occupied. We draw a distinction between the argument requirements or valence of the verb and the number of overtly instantiated arguments in any particular usage of the verb.

RRG is a respected theory, but one of many. The apparent specific advantages of RRG as a functional theory include semantic and syntactic representations being linked by way of an algorithm; a well developed representation of focus and information structure; and RRG's general universality. These allow us to avoid the notions of, for example, 'verb phrase', 'subject' and 'object' that are posited by other theories but that may not be appropriate for PYN. We intend to capture and represent the valence-adjusting operations analysed in a way that allows us to compare the structures found to those occurring in other languages. Broadening the range of languages deepens RRG's range; as Van Valin (2005: 1) asks:

> What would linguistic theory look like if it were based on the analysis of languages with diverse structures such as Lakhota, Tagalog and Dyirbal, rather than on the analysis of English?

We suggest this broad level approach is necessary, and here we add PYN to the list of languages analysed in RRG. The study is based on actual use, and it is important to include pragmatic structures. Pavey (2004) in discussing syntax, semantics and pragmatics emphasises communication and cognition. While clause structure exists in all languages, the universal study of language use (pragmatics) precedes the study of the formal and semantic properties involved.

This is also current in linguistic studies, and the thesis contributes in two topical areas: Hellan, Malchukov & Cennamo (2017) describe a recent 'upsurge' in valence studies from a variety of perspectives. Staudinger & Kailuweit (2018) describe advances in RRG, due to deeper investigations cross-linguistically; we incorporate our findings in the theory, in line with this. Furthermore, 2019 was designated the 'Year of Indigenous Languages' by the UN[1], so studies such as this appear timely.

A further motivation is that these are relatively widely spoken dialects that form part of a dialect continuum within the Western Desert language occupying the widest linguistic range in

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[1] https://en.iyil2019.org/

Australia. While the dialects are considered secure in terms of number of speakers; there are many Australian languages that are in danger of extinction or that have already gone extinct. A thorough study of the better documented ones will help in language learning and perhaps inspire further work in describing those with more fragmented documentation. Australian languages have many common features, and a study of divergence may point to areas of language spread and diffusion as well as the origins of some of their characteristics. In addition, predictions can be made for valence adjusting in other languages that share PYN features.

The languages are relatively healthy and the thesis should contribute to both documentation and characterisation. It may be of interest to typologists and linguists studying under-documented languages as well as theorists working with RRG and other theories, speakers of the languages and those learning them.

1.2 Research questions

In the thesis, we ask:

> What morphosyntactic and pragmatic means does PYN use to foreground, background, introduce and remove participants in discourse and voice adjustment?
>
> How can RRG represent these means?
>
> And by applying the representation can we identify and resolve problems and gaps in the theory?

The research questions consider the pragmatic motivation behind argument expression in the dialects and the pragmatic, semantic or syntactic manipulation of referents. In other words, we go beyond describing what happens in clauses, and ask why the speaker might have chosen to utter a phrase the way they did as opposed to the other grammatical options available. Of course, some options that are allowed in other languages may not be available in PYN. Of central importance are the last two questions: we want to conduct a full study of how PYN approaches foregrounding and backgrounding, model this through RRG and in this way expose potential problems in the RRG theory. We then propose solutions that will adequately represent PYN data and suggest their formal inclusion in RRG.

Valence-adjusting operations change the verb and its requirement for arguments either through changing the scene itself, or the perspective of the scene through syntax-semantic linking. Cross-linguistically, this is often achieved through the affixation of morphemes (Keenan & Dryer 2007: 327). PYN has rich systems of derivational suffixing, and we investigate the ways in which these may affect the valence of the clause.

We compare the valence-adjusting structures found in PYN with those found in other languages, in order to place the dialects typologically. Silverstein (1976: 116) describes a hierarchy that distinguishes types of noun phrase argument based on a syntactic feature analysis and we leverage this in our discussion of the mixed case marking system of PYN, which

otherwise might present a challenge for typology. For instance since structures like passives are commonly found in accusative languages, we investigate whether these occur in PYN clauses with accusative pronouns but not those with ergative nouns.

The nature of voice and valence depends on the interaction between arguments and predicates. We broaden this by examining the nature of relations between predicates in complex clauses and examine how arguments are shared out in such structures. Dependent clauses may decrease the valence of the main clause, or take the place of arguments, fulfilling this valence.

Rather than morphologically changing a verb to switch perspective, word order in a clause can be altered in order to topicalise and focus constituents. We ask how word order changes may in some cases assume some of the functions of valence adjusting. The main purposes of constituent word order are to express grammatical relations and pragmatic information (Payne 1997: 80). Hale (1992: 63) distinguishes pragmatic from grammatical word orders, the marked or usual orders respectively. Pragmatics and syntax are interconnected: Payne (1992: 1-3) claims that language is a pragmatic tool with frequent patterns being grammaticalised. Despite this, there is a word order division between languages with either pragmatic or syntactic factors to the fore (ibid.). This is therefore an important question to ask of PYN, and we address it in chapter 7.

With ellipsis, the speaker does not overtly specify an argument because it is assumed to be recoverable by the listener. The verb is not altered. This is a discourse and pragmatic usage with motivations that encourage fluency, parsimony and efficiency of communication. RRG has already incorporated a concept of presupposition from Discourse Representation Theory to aid with ellipsis (Van Valin 2014); however PYN has a default interpretation of third person singular (nominative or accusative) if an argument is not overt. We will disentangle these instances of non-overt expression and represent them in RRG.

1.3   Methodology

At the outset of the thesis, we describe how the elements of RRG will help the analysis. We examine how PYN and other languages express semantic valence syntactically. The next part of the study examines valence adjusting cross-linguistically and asks whether structures found in other languages occur in PYN. This allows us to characterise valence adjusting as lexical or syntactic in the dialects. We group the means into valence decreasing or increasing, and ask which of the core arguments are dropped or obscured. With respect to pragmatics, we explore how the tracking of protagonists in a PYN text occurs as a narrative unfolds. We look for syntactic and pragmatic means, comparing the structures to those found in other languages. We discuss the differences between valence decreasing and ellipsis and check for problems in the RRG theory.

The thesis takes the premise that language is a communicative tool and uses the evidence of transcribed uttered words and originally written sentences to answer the research questions. To investigate these questions, we need a corpus of PYN data to draw upon: we require examples of language as it is actually used rather than suggesting phrases to fit the model. RRG should account for the data rather than vice versa.

There is a reasonable amount of published data in the PYN dialects, both in print and online, and these texts form the raw material for our study. A corpus has been built in order to gather representative material, including books, pamphlets, storybooks, a Pitjantjatjara recording made during a field trip to Australia in December 2016, dictionaries and guides. We include texts from different genres in order to have as wide a range of grammatical forms as possible. Languages use different strategies to convey a message in a clear manner, and these strategies may depend on the genre of text. Some of these printed materials were consulted in the state libraries in Sydney and Adelaide and a detailed inventory of sources is given in the next section. Interlinear Leipzig glossing is provided with free translations of the PYN text examples. We augment the text-based study with grammaticality judgments on particular points provided by PYN speakers, who have also suggested insights and workarounds. This is an accepted and established approach: written sources have been used in several studies (such as Simpson & Mushin 2008, Foley & Van Valin 1984) and form a basic substrate for linguistic investigation of different genres. Dixon & Aikhenvald (2000: 25) regard texts as ideal sources of data, and primary as compared to elicitation which can nevertheless supplement it. A limitation of this approach is that the material generally takes the form of monologues or utterances from one speaker or writer.

Problems and other factors are explicitly put forward as opportunities to expand and flesh out RRG. On the other hand, structures which are not relevant in PYN, remain catered for in RRG as non-universal elements found in other languages.

1.4   Sources of PYN data

The material for the study is principally based on written sources rather than fieldwork: the nature of these sources includes pragmatic and discursive considerations through oral narratives as well as more formal texts. Because these are primarily spoken languages, the majority of the sources are transcribed stories from the 1950s onwards. Oral stories have community roles, may be told repeatedly and have linguistic features of performance and control (M. Ponsonnet p.c.). As a genre, they are the least influenced by English (J. Hobson p.c.), so are good sources of linguistic data. In contrast, stories translated from other languages such as English may have influence from the original language and so, while being grammatical, should be treated with caution as exemplars of typical spoken language (D. Rose p.c.). Newsletters and official communications are similarly *sui generis*. Authenticity has been considered in terms of 'real-

world' language (MacDonald, Badger & Dasli 2006) and this is a consideration. There is a fifty-year stretch of data in the sources, and we do not rely solely on text from earlier eras in our examples. Details of some of the main sources are given in the following section. Glossed data from the sources can be found in Appendix A.

1.4.1 Stories and narratives

These are traditional tales that were recorded, transcribed and translated by field linguists; the originals occur with their English translations side by side.

Dingo, Monster, Rabbit, "I": Personal and Cultural Meanings in Sand Stories by a Young Girl, Central Australia (Eickelkamp 2014) is a series of five Pitjantjatjara stories told in the 2000s with the traditional *milpatjunanyi* sand storytelling at Ernabella (now Pukatja), South Australia.

Tjitji Maḻuringanyi 'A Child Transforms into a Kangaroo' is a Pitjantjatjara/ Yankunytjatjara story told in 1984 in Fregon (now Kaltjiti) South Australia, and re-transcribed by Danièle Klapproth (2004) in her book *Narrative as Social Practice: Anglo-Western and Australian Aboriginal Oral Traditions.*

Ngaanyatjarra texts (Glass & Hackett 1979) is a series of fifteen traditional stories told in January 1967. The book was originally published as *Pitjantjatjara texts* in 1969 and is based on the Warburton Ranges, Western Australia, dialect. The stories are variously told from the perspective of first and third persons. Sentence breaks and punctuation are not shown in the tales: Glass (1979) establishes sentence boundaries in Ngaanyatjarra.

An Introduction to the Western Desert Language of Australia (Douglas 1957) is a guide to the dialect from the Warburton Ranges, *wangka nga:nyatjara* (now known as Ngaanyatjarra). The volume covers phonology and grammar and has seven transcribed stories. The material was gathered between 1951 and 1957.

Pangkalangu 'The Giant' is a story in Douglas's (1955) study on Pitjantjatjara phonology at Ooldea, South Australia from 1951 to 1952.

1.4.2 Customs, art, biography and newsletters

Puṉu: Yankunytjatjara plant use: traditional methods of preparing foods, medicines, utensils and weapons from native plants (Kalotas et al. 2002) is edited by botanist Arpad Kalotas and linguist Cliff Goddard, and includes contributions from Yankunytjatjara speakers based around Mimili, South Australia. Such stories, describing the making of an artefact, represent public knowledge (M. Ponsonnet p.c.).

Don't ask for stories, compiled by Ute Eickelkamp (1999), is about the art of the women from Ernabella. The format of the stories is bilingual, with some originating in Pitjantjatjara and others in English.

Minyma Tjuta Tjunguringkula Kunpuringanyi: Women Growing Strong Together (Kavanagh 1990), is an anthology of local history and stories of the lives of various participants in the Ngaanyatjarra, Pitjantjatjara, Yankunytjatjara Women's Council from 1980 to 1990, transcribed and translated into English by the compilers.

A Semantically-Orientated Grammar of the Yankunytjatjara Dialect of the Western Desert Language (Goddard 1983) is a PhD thesis in the Australian National University, and contains eleven transcribed texts, including conversations with interviewees, medicinal knowledge and a traditional story. These were recorded between 1981 and 1983 at Mimili.

News items and official communication from the 1970s in Ngaanyatjarra are provided in Kral (2012).

1.4.3 Translations and reworkings from English

Tjukurpa palya. Nganmanyitja munu Malatja is a Pitjantjatjara Bible translation (Anon 2007).

Alitjinya Ngura Tjukurtjarangka 'Alitji in the Dreamtime' (Sheppard 1975) is a story based on Lewis Carroll's *Alice in Wonderland*. This tale has been adapted to Australian local fauna and flora by Nancy Sheppard, a teacher at Ernabella and Pitjantjatjara tutor.

1.4.4 Language guides and dictionaries

These are used for illustrating specific points of grammar but do not include the context of an extended conversation or narrative.

Ngaanyatjarra learner's guide (Glass 2006) has an accompanying CD with audio material based on Glass's previous publications with Hackett.

Ngaanyatjarra Picture Dictionary (Obata & Kral 2005) is part of a series of dictionaries of Australian Aboriginal languages.

Ngaanyatjarra & Ngaatjatjarra to English Dictionary (Glass & Hackett 2003) is one of the largest Australian language dictionaries (Alpher 2007) based on over forty years' work. All the examples come from Ngaanyatjarra and Ngaatjatjarra speakers through field notes and recordings from the 1960s on, or composed by speakers mainly in the 1996 to 2000 period.

Pitjantjatjara/Yankunytjatjara to English Dictionary (Goddard 1996). This material comes from Pitjantjatjara and Yankunytjatjara speakers, through field notes, recordings, oral literature and community newspapers.

Pitjantjatjara/Yankunytjatjara learner's guide (Goddard 1993) covers both dialects, stating that they are similar enough in their main structures for this to be valid. Minor vocabulary differences are listed in an appendix.

Wangka Wiru: A Handbook for the Pitjantjatjara Language Learner (Eckert & Hudson 1988) is a reference on grammar, pronunciation and conversation.

Yankunytjatjara learner's guide (Goddard 1981) is a short volume covering simple and complex sentences as well as phonology.

1.4.5 Grammatical studies

The Languages of Australia (Dixon 2011) is a discussion of Australian languages regarding history, distribution, phonetics and grammar. Western Desert is one of the main languages used to illustrate Australian grammatical phenomena.

The Western Desert Code: An Australian Cryptogrammar (Rose 2001) and *Pitjantjatjara Processes : An Australian Experiential Grammar* (Rose 1996) are studies on Pitjantjatjara through Systemic Functional Linguistics (SFL).

Categories, Constituents and Constituent Order in Pitjantjatjara (Bowe 1990) discusses simple and complex sentences to establish how word order works in Pitjantjatjara, based on fieldwork with the Aparawatatja community in Fregon.

Australian Aboriginal Grammar (Blake 1987) is a grammatical survey of Aboriginal languages, with many examples from the Western Desert and related languages.

Ngaanyatjarra Sentences (Glass 1983) and *The sentences: boundaries and basic types in Ngaanyatjarra narratives* (Glass 1979) are descriptions of simple and complex sentences and the uses to which they are put, with material from the Warburton Ranges mainly from 1963 to 1978.

Pitjantjatjara Grammar: A Tagmemic view of the Ngaanyatjarra (Warburton Ranges) Dialect (Glass & Hackett 1970) has material that was gathered from August 1963 to October 1968, with the descriptive framework approach being Robert E. Longacre's Tagmemics.

1.4.6 Consultants

Lee Brady, Sandra Lewis, Lizzie Ellis and David Rose, speakers of the dialects, helped clarify grammatical points and provided valuable data which are used throughout.

1.4.7 Genres

We may group the sources into: oral stories, which maintain a narrative involving a number of protagonists; isolated sentences as found in the dictionaries and grammars; translated or reworked texts; and official communications. These sources generally originate from one speaker or writer, so they do not involve conversations. As such their study is an analysis of narrative (Foley & Van Valin 1984: 2). Written sources lack intonation and prosody; Rose's (2001) book deals with this matter at length. Klapproth (2004: 220-221) describes the expressiveness of a storyteller through intonation, tempo and voice modulation to bring stories alive. Certain words are characteristic in oral narratives: *iriti* 'long ago'; *palu* 'but of course' and *munu/ka* 'and' are standard sentence initiators in stories; as well as *tjukuritja* 'from the dreaming' (J. Hobson p.c.). Glass (1980) discusses genres in Ngaanyatjarra discourse. A reservation expressed by Eickelkamp (1999: 4) is of an interviewee simplifying their language for the benefit of the interviewer's limited fluency.

The data will be used to provide grammatical sentences; we will also look at full texts to analyse referent tracking through syntax and context. As R. Defina (p.c.) notes, one can ask on the one hand whether a sentence is grammatical, and on the other hand ask when and why something would actually be said.

1.5   Significance in relation to previous studies

In comparison to other Australian languages, the three Western Desert dialects are relatively well documented, and we refer to other linguistic studies in providing raw material as well as a background and context to the structures investigated. They have been studied by a number of authors, from Trudinger's (1943) description of Pitjantjatjara onwards. Douglas (1957) is a comprehensive pedagological description of Western Desert phonology and grammar. Different theories have been applied to the study of PYN morphosyntax; these include Rose's (2001) work on Pitjantjatjara using Systemic Functional Linguistics as well as Glass & Hackett's (1970) study of Ngaanyatjarra with tagmemics. Bowe (1990) examines word order in Pitjantjatjara in simple and complex sentences, the latter including switch-reference. Goddard (1983: 99-101, 134-135) in his thesis on Yankunytjatjara, uses RRG in analysing intra-clause and inter-clause relations.

What these previous studies have not done is to use RRG in analysing valence adjusting, and this study aims to fill that gap. Its originality lies in investigating predicates themselves, both simple and complex, the nature of their arguments, and how arguments are added, removed and distributed for syntactic, semantic or pragmatic reasons. One of the defining and distinguishing features of valence-adjusting structures generally is the presence of special morphemes (King 2010, Sioupi 1999, Keenan & Dryer 2007). These are abundantly evident in PYN and we explore the mechanisms and motivations behind their use.

We look for grammatical insights through RRG: different aspects of this are expanded upon in later chapters. We ask how RRG approaches the problems, and what issues remain outstanding in the theory to which this study of PYN can contribute.

We claim that a full understanding of how language works relies on analysing as many different structures as possible. In turn these analyses explain how people maintain elements in discourse active and accessible, while keeping communication as concise and efficient as possible.

1.6   Organisation of thesis

The following is an outline of the layout of the thesis. Chapter 2 begins with a discussion of RRG and how it can be applied to the study of valence. RRG represents syntactic structure through the meaning and function of words (Van Valin 2005: 1). Linking syntax to semantics leads to a deeper understanding of the structures of a language and allows a systematic comparison with other languages. Predicates and arguments can be lexically decomposed to

their 'logical structure' to indicate their relationships; this semantic representation is also linked to the macrorole assignment principles. The focus projection in RRG is important in analysing the pragmatics of word order. We describe ellipsis and how it may be accounted for through RRG and other theories. Finally we ask what challenges PYN data might present to RRG.

Chapter 3 covers the background of Australian languages and Western Desert in particular. Various classifications have been proposed for Australian languages, and the relations between them have been debated. The Western Desert group is the largest group of Aboriginal languages, and covers the widest area, with a continuum of mutual intelligibility between its numerous dialects. We investigate how these dialects have typically Australian features, and what unique structures they may have. We discuss the nature of arguments in PYN and how their case marking is determined.

Chapter 4 considers definitions of valence, voice and transitivity and how they relate with particular reference to PYN. This involves syntactic, semantic and macrorole valence and the distinctions between these are established. Semantic valence involves the number of participants logically required in a proposition, so we use this as the base and determine how the others diverge from this.

In Chapter 5, we investigate valence adjusting in PYN under the RRG framework. We describe cross-linguistic means of valence adjusting and ask whether they are present in PYN: the processes potentially affect semantic, syntactic and/or macrorole valence. We characterise each mechanism found as lexical or syntactic in nature, and use the layered structure of the word to explain the nature of the derived predicates.

Chapter 6 investigates PYN multi-verb constructions and asks whether and how the component verbs pool their arguments; this requires a characterisation of nexus-juncture relations. The first part looks at constructions involving PYN serial verbs, which indicate actions closely followed in time, or simultaneous actions that are essentially one event. To investigate the difference we establish the valence of the entire construction and ask how it relates to the valences of the individual constituent verbs. We question how arguments are distributed and suggest this depends on how tightly bound the verbs are. In the second part of the chapter we examine dependent sub-clauses, which have suffixes that reflect whether the subject of the sub-clause is the same as or different to that of the main clause. In some languages a nominal or anaphor may be dropped if it refers to a participant in a preceding clause. In such cases this does not represent a decrease in grammatical valence. Because RRG does not allow null elements in syntax, we ask how the dependent form endings indicate required arguments.

Chapters 7 and 8 are more pragmatic in orientation. RRG posits different levels of focus, with narrow, predicate and sentence level focus (Van Valin & LaPolla 1997: 206-208). In chapter 7, we analyse the use of word order as a means of focusing and demonstrate what we

find through the focus projection. PYN is basically SOV in its unmarked order but case marking means other word orders are possible and frequently found. Some of these are put forward as alternatives to syntactic valence adjusting.

Elliptical sentences are very common in PYN (D. Rose p.c., Douglas 1957: 21), where the sense is recoverable either by context or wider background and subject ellipsis is facilitated by switch-reference particles (Goddard 1983: 138). In chapter 8, we distinguish the ellipsis of arguments in clauses from decreasing valence. Our approach borrows concepts from Discourse Representation Theory, Common Ground and Centering Theory in investigating how arguments are brought forward from previous clauses and elsewhere.

Chapter 9 offers a summary, discussion and conclusions. The findings are put into context with other related research, and avenues for further work are suggested.

2   The theoretical framework of Role and Reference Grammar

RRG provides the main theoretical structure for the investigation, and in this chapter we describe its relevant aspects. Full expositions of RRG are to be found in Van Valin (2005) and Van Valin & LaPolla (1997). RRG has grown and developed over the years, and as far as possible we characterise data within it. In practice if there are gaps between theory and how the language is actually used, we will augment the theory.

RRG is a monostratal and functional theory of language (Van Valin 2014) that only allows features that in principle have universal applicability (Van Valin & LaPolla 1997: 22-25). This monostratal view distinguishes it from other theories such as generative grammar that posit surface and deep structure (ibid.: 18); for example, in such theories the passive may be regarded as a surface manifestation of a deep structure shared with the active. RRG does not share this view: there are no abstract underlying representations or abstract to overt derivations assumed in RRG (Van Valin 2005: 4), and no phonologically null elements (Van Valin 2014). This latter assumption will be tested in our study of non-overt arguments. RRG has syntactic and semantic representations with direct mapping between them, as well as constituent, operator and focus projections. With its functional approach and cross-linguistic explanatory capability, we claim that RRG should, in principle, provide a typologically adequate theory in which to conduct the study. Allan (2009) emphasises this functional approach of RRG, with the interaction of semantic and pragmatic factors. Functional analyses extend beyond the sentence, taking into account context, and this approach forms an important part of our investigation.

Within the sentence, the constituents have grammatical relations and differing levels of dependency. Grammatical relations involve properties like case, agreement and word order rather than specific semantic roles (Payne 1997: 129-131) and the number of roles generally outnumbers the limited number of grammatical relations: this is the neutralisation of semantic roles. RRG allows us to link grammatical relations to semantic roles, and importantly for this study, we can thereby interpret the means by which these relations are altered. While traditional grammar based on Indo-European languages refers to the grammatical relations of subject, object and indirect object, this should be broadened to include languages in which these terms may not have such clear reference. The current investigation of dialects of a language unrelated to Indo-European is a case study in describing phenomena where subjects and objects need to be thought of differently.

2.1   Layered structure of the clause

Valence is concerned with the number and nature of arguments in a clause, and here we describe how RRG's clause model will be used in our analysis. Van Valin & LaPolla (1997: 25) draw two universal semantic distinctions: that between predicating and non-predicating elements; and that between arguments and non-arguments. Pavey (2004) considers these

distinctions, alongside monostratal syntax, as being 'robust' conditions in RRG preventing bias towards Indo-European languages.

Noun and verb are posited as universally valid categories, based on reference and predication respectively (Van Valin & LaPolla 1997: 28). These form the two inflecting word classes of three general classes of word in Australian languages (Blake 1987: 2). They are prototypes: the criterion for identifying word classes generally is morphological and syntactic or distributional (Tallerman 2011: 34-36). The semantic categories of 'argument' and 'predicate' are derivative of the natural logic categories of objects and properties/relations respectively and may be termed developmental primitives (Van Valin & LaPolla 1997: 642-3). The predicate/argument distinction is further discussed in Luuk (2009), who claims that the distinction is wider than verbs and nouns and that arguments are more fundamental than predicates. There is not unanimity on the distinction however: for instance all major class lexical items can function as predicates in the Canadian language Straits Salish (Jelinek 1995). Blair & McCormack (2010: 18) claim that nouns and verbs are not essential in classical Chinese: communicability involves semantic interactions between images. Evans & Levison (2009) also claim that there may be languages without a basic noun-verb distinction and pose the question as to whether a language can abolish this presumed fundamental distinction and have a single word class of predicate. The distinction would then be replaced by a predicate calculus, a term also used by Payne (1997: 174) in relation to valence. Caution should be exercised generally in the analysis of cross-linguistic categories (Haspelmath 2010).

RRG however holds the basic semantic categories of the clause to be predicates, arguments and non-arguments (Van Valin & LaPolla 1997: 26-27) and this is central to our analysis. The predicate describes what is going on in the clause and the arguments are the participants that are essential or inherent to the situation depicted by the predicate. The syntactic units of a clause are the nucleus, core and periphery. The nucleus contains the predicate (Van Valin 2001: 206); the core contains the nucleus and the arguments of the predicate; the periphery contains the non-arguments which are adjunct modifiers of the core (Van Valin 2007), clause or nucleus (Van Valin 2005: 21) or secondary participants (Van Valin & LaPolla 1997: 29). This is the layered structure of the clause (LSC), shown in Figure 2-1 with each layer being semantically motivated (Nolan 2012: 5). These are universal features claimed to be found in every language (Aikhenvald 2009). While the predicate is often a verb, this is not a requirement. The nucleus may also contain a copula or auxiliary if there is a non-verbal predicate (Pavey 2004), or a verb and noun stem (Van Valin & LaPolla 1997: 28) in noun incorporation. Arguments themselves are constituents that may have their own internal structure (ibid.: 52-53) as noun or adpositional phrases. Core arguments are typically coded differently from peripheral adjuncts cross-linguistically. There may be a further distinction between direct and oblique core arguments, which use adpositions in English (ibid.: 29).
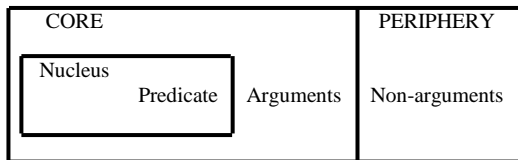
Figure 2-1: Layered structure of the clause

For our purposes, we are concerned with how many participants are involved in a scene and how they are syntactically expressed as referents in a clause; referents may be core arguments or in the periphery. The predicate-argument division is what is of central interest to us here; traditional word categories may overlap. For example, adjectives may have both predicative and argument properties (Luuk 2009: 1715).

In Table 2-1 we summarise the semantic elements and how they relate to the syntactic units (Van Valin 2014). Importantly, semantic arguments can also appear outside the syntactic core. Semantic valence is the number of predicate arguments in the scene or semantic representation while syntactic valence is the number of them in the core: so these are not necessarily the same. We will discuss this in more detail in chapter 4.

Table 2-1: Semantic and syntactic correspondence

Semantic Element	Syntactic Unit
Predicate	Nucleus
Argument in semantic representation of predicate	Core argument
Non-arguments	Periphery
Predicate + Arguments	Core
Predicate + Arguments + Non-arguments	Clause (= Core + Peripheries)

The lexical syntactic elements are shown in RRG's constituent projection. The general schema for this is shown in Figure 2-2, based on Van Valin (2014). A key element of the present study is changing the number of syntactic arguments in the core: arguments in theory can be brought in from or moved out to the periphery. There are various means of doing this cross-linguistically. While noun phrases are the most common arguments, this is not a prerequisite; reference is the main consideration (Van Valin 2008). Figure 2-2 reflects this with XP arguments, phrases of any category. Similarly while verbs are the most common predicates, words of other categories can predicate. In chapter 8, we investigate non-overt reference.
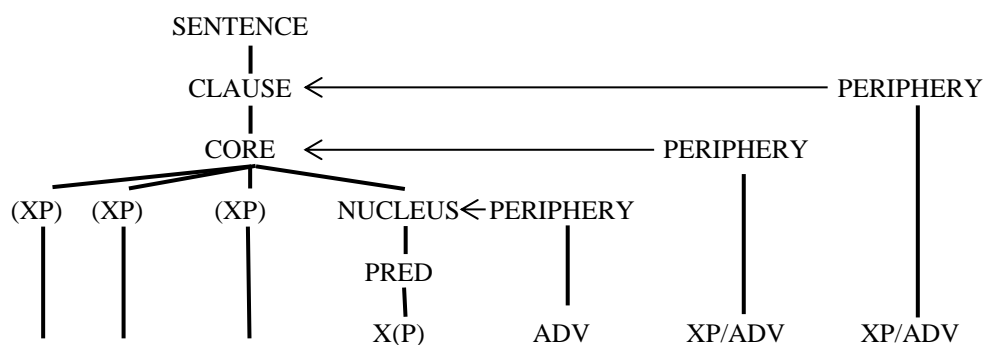
Figure 2-2: Constituent projection schema

Constituent representation can be conceived of as a series of syntactic templates. The syntactic template selection principle is given in (2.1) from Van Valin (2005: 130).

(2.1)   The number of syntactic slots for arguments and argument-adjuncts within the core is equal to the number of distinct specified argument positions in the semantic representation of the core.

This principle may further be qualified as in (2.2). Qualification (3) shows that a semantic argument may occur outside the core, perhaps in marked word order or with question words.

(2.2)   Language-specific qualifications of the principle in (2.1):
    1) All cores in the language have a minimum syntactic valence of 1.
    2) Argument-modulation voice constructions (e.g. passive) reduce the number of core slots by 1.
    3) The occurrence of a syntactic argument in the pre/postcore slot reduces the number of core slots by 1: this may override (1) above.

2.2 Operators

Syntactic representation has both lexical and functional elements (Van Valin & LaPolla 1997: 68). So as well as the elements of the LSC, clauses may contain functional operators that serve to modify the different parts of the clause (Foley & Van Valin 1984: 208ff). These are shown in the operator projection. Operators are a closed class of grammatical category (Van Valin 2005: 26). The kinds of operator and the level they modify are shown in (2.3).

(2.3)   (a) Nucleus: aspect; directionals; negation
        (b) Core: deontic modality; directionals, event quantification; internal negation
        (c) Clause: evidentials; illocutionary force; status; tense; external negation

Negation and illocutionary force are the only universal operators; negation is the only one that can act on all three levels of the clause, core and nucleus (Van Valin & LaPolla 1997: 46-49). Nuclear directionals refer to the direction of the action itself; core directionals refer to the movement of a core argument (ibid.: 42). Illocutionary or speech act force refers to a proposition and the speaker's intended speech act (Saeed 2009: 238) such as a statement, question, order or wish. This is relevant to valence: the types of illocutionary force may have

different means of expressing or implying arguments: for instance an imperative indicates the second person which is usually non-overt. Semantically, the addressee is involved in the expression. In addition, several predicates may form a complex and the sharing of operators helps to explain the nature of such complexes.

The specific forms operators take vary. Some languages have verbs whose inflections combine tense and aspect. Other languages differ: Sun (2006: 67-72) describes tense and aspect in Mandarin Chinese as being expressed by way of uninflected particles. However in contrast to constituent order which varies widely, the order of operators is the same cross-linguistically: nuclear operators are nearest the nucleus while clausal ones are furthest if they are on the same side of the verb (Van Valin & LaPolla 1997: 49-52).

2.3   Lexical decomposition

In semantic analysis, RRG lexically decomposes propositions into the logical structure (LS) of predicates and arguments. This is a means of breaking down what the clause describes and how the participants are involved. Indicating semantic arguments allows us to explore the nature of the verb, which in turn provides a theoretical underpinning to valence-changing derivations. The semantic representation is of the actual utterance, based on the LS of the predicate (King 2010: 155). This relates to argument structure and the nature of the participants, and is key to our analysis.

Aspect, iteration and duration can all be marked on predicates by operators; however these may also be indicated by the lexical semantics of the predicate itself (Van Valin 2005: 46). In order to analyse this, it is useful to group predicates into classes based on their characteristics. The predicate classes include 'state', 'activity', 'achievement', 'semelfactive', 'accomplishment', 'active achievement' and 'active accomplishment' (Nolan 2012: 10). These are based on *Aktionsarten* (Van Valin 2005: 31) or time schemata (Vendler 1957) and are claimed to be valid cross-linguistically. The *Aktionsarten* of verbs is part of a subtheory of lexicon. 'State of affairs' is the term used by Van Valin & LaPolla (1997: 89) to cover situations, events, processes and actions. There are five characteristics of predicates that are taken into account in determining the class: whether they are static, involve a change of state, dynamic, telic (inherent endpoint), and/or punctual (instantaneous). These characteristics are summarised in Table 2-2, and we describe tests to identify them later in this section. The lexical decomposition of predicates reflects the relative agency of the arguments and the predicate's position on a transitivity spectrum. We may ask whether a state arises of its own accord or requires outside agency; investigate the levels of agency inherent in activities; or determine the specificity and affectedness of patients. These factors influence the possibilities allowed in the syntactic expression of arguments and perhaps what kind of valence adjusting is likely. Hopper & Thompson (1980: 251) make the point that transitivity includes components such as

punctuality, telicity, agentivity and referentiality; the first three are among the criteria that RRG uses in determining predicate class. There is not universal agreement on this: for example Persohn (2018) identifies some problems with these categories in his study of Bantu languages.

Table 2-2: Characteristics of predicates

	Static	Change of state	Dynamic	Telic	Punctual
State	+	-	-	-	-
Activity	-	-	+	-	-
Achievement	-	+	-	+	+
Semelfactive	-	-	±	-	+
Accomplishment	-	+	-	+	-
Active Accomplishment	-	+	+	+	-

The basic two predicate classes are state and activity (Van Valin & LaPolla 1997: 104). In the LS or semantic representation, the predicate is placed in bold with a quote and any arguments (1 or 2) in brackets afterwards. State predicates are shown as **predicate'** () while activity ones have **do'** followed by **predicate'** () (Van Valin 2007). The other classes build on this depending on the nature of the action. These forms are a semantic metalanguage and do not represent words in a particular language (Chang 2007). An argument in the semantic representation of the predicate is equivalent to a syntactic core argument (Van Valin & LaPolla 1997: 27), though there is not always a correspondence. While operators can be included in semantic representations, here we do not generally include them as they are not always immediately relevant to the number of semantic participants, which is semantic valence.

Lexical decomposition identifies the predication of a clause and the role of the participants. Other approaches to the lexical decomposition of Western Desert have been suggested. Goddard (1991) tests the translatability of Western Desert into universal lexico-semantic primitives through Natural Semantic Metalanguage (NSM). Goddard (1983: 9) in his study of Yankunytjatjara has a discussion of semantic representation and primitives. This involves a reductive paraphrase in natural language into a set of indefinible basic semantic units, in order to avoid circularity in the definitions of words.

2.3.1 States

States may be temporary or permanent but they have no inherent endpoint (Van Valin & LaPolla 1997: 83, 92). A distinction is drawn between identificational and attributive states which use **be'** in the logical structure; and result states which do not (ibid.: 102-105). So the difference between an inherent attribute (2.4) and a state brought about by a process (2.5) is reflected in their respective logical structures. Coal is inherently black but wood may become black, perhaps by being burnt. In either event only one item is being described.

(2.4)   **be'** (coal, [**black'**])
(2.5)   **black'** (wood)

States can be attitudes too: 'desire' is a state verb, involving a wanter and a desire (Van Valin & LaPolla 1997: 125, 579), as shown in (2.6).

(2.6)   Sam wants a new car
         want' (Sam, car)

2.3.2   Activities

Activities also have no inherent endpoint (Van Valin & LaPolla 1997: 93). The second argument in the LS in (2.7) is the activity itself (Van Valin & LaPolla 1997: 103-105) rather than another referent. Only one item is inherent to the situation in this instance.

(2.7)   The wheel squeaks
         do' (wheel, [**squeak'** (wheel)])

2.3.3   Instantaneous classes

Achievements involve an instantaneous change of state or activity (Van Valin & LaPolla 1997: 93, 104) and have INGR (ingressive) in the LS, along with the result state or activity. Semelfactives are instantaneous or punctual events without a change of state (Van Valin 2005: 32) and have SEML in the LS. Intransitive and transitive examples are in (2.8) and (2.9) respectively.

(2.8)   The balloon popped
         INGR **popped'** (balloon)

(2.9)   Dana glimpsed the picture
         SEML **see'** (Dana, picture)

2.3.4   Non-instantaneous classes

Accomplishments involve a change of state or activity over an extended period; this distinguishes them from the instantaneous classes discussed in the previous section. The LS has BECOME included in it (Van Valin & LaPolla 1997: 109). BECOME can in turn be broken down to PROC & INGR (Van Valin 2014), a process and an achievement. A process is a pure change of state without an endpoint (ibid.); INGR then shows the endpoint, as in (2.10). An active accomplishment, also known as active achievement, is an activity with an endpoint (Nolan 2012, Van Valin 2014). (2.11) from Van Valin (2005: 44) shows the prepositional phrase giving further predication to the clause.

(2.10)   The snow melted
         BECOME **melted'** (snow)
         PROC **melt'** (snow) & INGR **melted'** (snow)

(2.11)   The soldiers marched to the park
          do' (soldiers, [**march'** (soldiers)]) & INGR **be-at'** (park, soldiers)

2.3.5 Causatives

A causative has a causer and a caused state or event. The understanding is that in the absence of the causer the state or event would not have happened. Each of the classes has a causative counterpart (Van Valin & LaPolla 1997: 106) as none is inherently causative. The general format is represented by α CAUSE β (Van Valin 2005: 45), as in (2.12). This might be paraphrased as 'the dog caused the boy to be afraid' (Van Valin & LaPolla 1997: 97-98).

(2.12)   The dog frightened the boy
          do' (dog, [**bark'** (dog)]) CAUSE **feel'** (boy, [**afraid'**])]

2.3.6 Agentives

Verbs that lexicalise agency such as 'murder' in English have DO in their LSs (Van Valin 2005: 56, Van Valin & LaPolla 1997: 118-119), as in (2.13). This is only used if the verb must be interpreted as deliberate. Normally in the logical structure the assumption unless stated otherwise, is that an action is not deliberate (ibid.: 119); the actor in such circumstances is an effector rather than an agent.

(2.13)   DO (x, [**do'** (x, Ø)] CAUSE [BECOME **dead'** (y)])

There is a specialised form of DO in purposive constructions (ibid.: 383). In (2.14), the protagonist wants something and does an action to achieve it; the abbreviation PURP is often used as in (2.15).

(2.14)   **want'** (x, LS$_2$) ∧ DO (x, [LS$_1$…CAUSE LS$_2$])
(2.15)   DO (x, (LS$_1$)) PURP LS$_2$

2.3.7 Adverbials

Peripheral location or time expressions modify the core, taking it as an argument (Van Valin & LaPolla 1997: 159, 162-163, 326). They are not arguments, so not directly related to valence.

2.3.8 Predicate class tests

While we have discussed the theory behind semantic representation, there are a number of tests that help determine the predicate class (Van Valin & LaPolla 1997: 94); these are summarised in Table 2-3, with tests for causatives in Table 2-4. The tests enable us to consider the nature of the predicate, its telicity, punctuality and to ask whether there is a change of state involved. Furthermore they allow us to determine the roles of participants in the clause (ibid.: 129), which is significant for this study. States of affairs are basic while participant roles are derived (ibid.: 89) so the roles played are a function of the state of affairs described by the verb. Van Valin

(2005: 59) emphasises that tests of *Aktionsarten* are vital in determining argument structure, rather than arbitrarily deciding thematic relations.

Table 2-3: Tests for determining logical structure of non-causative predicates

Criterion	State	Activity	Semelfactive	Achievement	Accomplishment	Active Acc.
1. Occurs with progressive aspect	No	Yes	No	No	Yes	Yes
2. Occurs with dynamic adverbs like *vigorously*	No	Yes	Some	No	No	Yes
3. Occurs with slow adverbs like *gradually*	No	Yes	No	No	Yes	Yes
4. Occurs with *for an hour*	Some	Yes	Yes	No	Irrelevant	Irrelevant
5. Occurs with *in an hour*	No	No	No	No	Yes	Yes
6. Has derived adjective representing terminal state	Yes	No	No	Yes	Yes	Yes
7. Has causative meaning	No	No	No	No	No	No
8. Has agentive meaning: cannot occur with *unintentionally*	No	Some	Some	No	Some	Some

Table 2-4: Tests for determining logical structure of causative predicates

Criterion	Caus. State	Causative Activity	Causative Semelfactive	Causative Achievement	Causative Acc.	Causative Active Acc.
1. Occurs with progressive aspect	Yes	Yes	No	No	Yes	Yes
2. Occurs with dynamic adverbs like *vigorously*	Yes	Yes	Yes	Yes	Yes	Yes
3. Occurs with slow adverbs like *gradually*	No	Yes	No	No	Yes	Yes
4. Occurs with *for an hour*	Yes	Yes	No	No	Irrelevant	Irrelevant
5. Occurs with *in an hour*	No	No	No	No	Yes	Yes
6. Has derived adjective representing terminal state	Yes	No	No	Yes	Yes	Yes
7. Has causative meaning	Yes	Yes	Yes	Yes	Yes	Yes
8. Has agentive meaning: cannot occur with *unintentionally*	No	Some	Some	No	Some	Some

The tests show that verbs that appear semantically similar cross-linguistically can vary and have different logical structures (Van Valin & LaPolla 1997: 106). Thus, for example, 'dying' is punctual in Mandarin Chinese, but not in English (ibid.). At the same time we should be cautious that the tests are not too language-specific. Künkel (2018) carries out a series of tests in Spanish. Inflected forms of verbs may have different connotations, so these tests are useful to tease out the differences. Van Valin & LaPolla (1997: 94) describe state verb tests in English, which do not work in languages where the morphological present tense has a present tense interpretation in all verbs. If the simple present has a present tense interpretation in English, the verb is a state verb (2.16); otherwise it describes a habitual action as in (2.17).

(2.16)   Chris knows the answer (right now)
(2.17)   Dana sings the song (*right now)

We should be alert to the possibility that this has a bearing on transitivity, although predicates based on both states and activities can have one or two semantic arguments. Active verbs denote events bounded in time while stative verbs are indeterminate (Schachter & Shopen 2007:

11, Langacker 1987). Vendler (1957) distinguishes accomplishments from activities by their reaching a terminus which defines them. For example the activity 'running for half an hour' (test 4) is distinguished from the (active) accomplishment 'running a mile in four minutes' (test 5). Because active accomplishments are based on activities, test 2 (occurs with 'vigorously') distinguishes them from accomplishments. The causative test in English involves paraphrasing using the word 'cause', as in (2.12).

We claim that some verbs such as 'fall' are not clear-cut with respect to the tests. While they resemble activities in 'fall for an hour', they are also like accomplishments with a terminal state such as 'a book falling to the floor' (Van Valin & LaPolla 1997: 83). The determinant is whether we are interested in the fall itself ('falling') or the end state ('fallen'). 'Fell in an hour' is awkward; this test works for accomplishments but not activities.

Tense and aspect may also have a bearing on argument structure, which is separate from determining the logical structure of a particular verb. So Fillmore (1977: 82) claims that the preterite 'wrote', for example, is more likely to need an object than the progressive 'writing'. This is because the former has a sense of completion. We can relate this to *Aktionsarten*: the preterite being like an active accomplishment, with something completed or created. The progressive then is more like an activity. This use of aspect and tense is separate from the innate nature of a particular verb.

2.3.9 Summary

Van Valin (2005: 45) summarises the verb classes with their logical structures as shown in Table 2-5; the agentive has been added. The tests will be important in determining the nature of valence-adjusted derived predicates later in the thesis.

Table 2-5: Argument positions in logical structure

Verb class	Logical structure
STATE	**predicate'** (x) or (x, y)
ACTIVITY	**do'** (x, [**predicate'** (x) or (x, y)])
ACHIEVEMENT	INGR **predicate'** (x) or (x, y)
SEMELFACTIVE	SEML **predicate'** (x) or (x, y)
ACCOMPLISHMENT	BECOME **predicate'** (x) or (x, y)
ACTIVE ACCOMPLISHMENT	**do'** (x, [**predicate'** (x) or (x, y)]) & INGR **predicate'** (x) or (x, y)
CAUSATIVE	α CAUSE β, where α, β are LSs of any type
AGENTIVE	DO **do'** (x, [**predicate'** (x) or (x, y)])

In the logical structure there are one or two arguments denoted by 'x' and 'y'. Our concerns are the nature of the verb and the number of arguments required. Whether these arguments have an overt instantiation is something that is governed by pragmatics and forms a major part of this thesis. We investigate what classes of verbs are most likely to be involved in valence changing, looking at both basic and derived verbs.

2.4   Layered structure of the noun phrase

A noun phrase (NP) is a typical predicate argument, and here we examine NP internal structure in order to assess its relevance. The syntax of NPs, other than those headed by pronouns or proper nouns, can be analysed similarly to that of clauses, with the proviso that NPs refer whereas clauses predicate (Van Valin & LaPolla 1997: 53-54). The nucleus of a NP is a nominal (Van Valin 2005: 24). This is the head noun, and there may optionally be an argument noun as a dependent, as shown in (2.18) where 'lid' is the head noun with 'the box' as the dependent. The possessive relation is indicated in English by an adposition or by genitive marking on the dependent. There may be a predicative relation between the elements of a NP (Van Valin & LaPolla 1997: 192), and this is indicated in the LS.

(2.18)   The lid of the box/The box's lid
         have' (box, lid)

English distinguishes two forms, 'my two children/two children of mine', the first of which is definite and in the NP initial position (NPIP) and the latter indefinite (Van Valin & LaPolla 1997: 61). Definiteness in such alternatives is a discourse property (ibid.: 321).

Like clauses, NPs have peripheries. Adjectives modify the noun, and are in the nuclear periphery. Core level periphery elements place the NP in space and time. Nouns may also have inherent properties, such as gender. Noun operators are not inherent but are assigned within syntax (Nolan 2012: 22-23) and work at different levels of the NP. By contrast, pronouns and proper nouns have no internal constituent structure. The generalised schema of the layered structure of the NP is shown in Figure 2-3 (ibid.: 23).
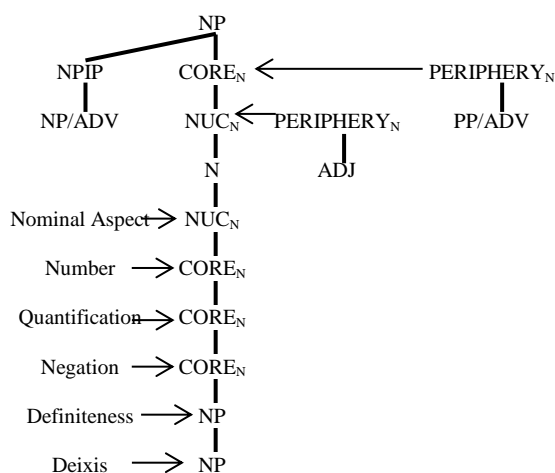
Figure 2-3: Layered structure of the noun phrase

The head of a NP is the component that determines the category of the NP as a whole (Dixon 2000b). In languages where adjectives and nouns are similar grammatically, identification of NP heads by category may be more difficult. See Van Valin & LaPolla (1997: 67-69) on this point. NPs are also discussed by Harvey (1992).

Nouns have nominal aspect, which has to do with individuation and the mass/count distinction (Van Valin 2005: 24). For example, Mandarin Chinese uses classifiers with nominals when they are quantified (Sun 2006: 164). Count parallels perfective temporally bounded aspect in verbs; mass parallels imperfective temporally unbounded aspect which can be described as a process (Schachter & Shopen 2007: 11, Van Valin & LaPolla 1997: 56-57, Langacker 1987). This informs what other elements are included in the NP.

The term 'reference phrase' is often used instead of 'noun phrase' in more recent work (Nolan 2012: 9). One reason is that there may be headless NPs, such as those with just a determiner and adjective and no noun. While there is a tendency for a reference phrase to be headed by a noun, similarly to a verb heading a clause, our main interest is in the referring qualities of the phrase as an argument. Thus we may refer more broadly to the 'layered structure of the reference phrase' (Van Valin 2008a: 167-168).

2.5 Phrases built on other categories

As well as nominals, phrases can be built on other word categories. However these are not necessarily universal. For example the 'verb phrase' is part of some theories but Nolan (2012) shows that Irish (Indo-European, Ireland) does not have a verb phrase with its strict VSO word order, nor does the Australian language Dyirbal (Pama-Nyungan, Queensland) with its free word order (Van Valin & LaPolla 1997: 20).

Where a language has adpositions, phrases may be built on them, and these also have internal structure. Van Valin & LaPolla (1997: 52-53) draw a distinction between predicative adpositional phrases where the adposition licenses the object such as 'in the library' and non-predicative ones where it does not such as 'to Mary'. Adpositions in the periphery of a clause are of the predicative type; non-predicative adpositions normally mark oblique core arguments, such as the recipient/beneficiary in a ditransitive construction. Case marking generally does this in Australian languages (Dixon 2011: 272).

2.6 Layered structure of the word

Valence changing often involves derivation, and the constitution of words will form part of our analysis. Words themselves can have a layered structure. A lexeme is realised in syntax as a word. There is a lexeme construction template as shown in (2.19); $\oplus$ represents fusion. The φ is then available for inflection.

(2.19)   [[**α Input_Lexeme**] $\oplus$ [**β Category_Lexeme**]] φ **type**

There is a relationship between the lexicon and morpheme inventory (Nolan 2011): the latter involves derivation and inflection and is analogous to a syntactic inventory (Nolan 2012: 7-9, 241). Derivation may occur to various ends: Anderson (1985: 16) discusses different kinds of nominalisation in English: some are general ('-ing') while others are very common but not

applicable to every verb ('-(at)ion'). In an agglutinative language (such as Western Desert), there is scope for investigation into the processes involved in the derivation and inflection of lexical items; Martín Arista (2009) examines morphology and the composition of words in Pitjantjatjara and Yankunytjatjara. The RRG workshop for processing is discussed in Van Valin (2005: 161).

2.7 Semantic representation of nouns

Nouns are typically the arguments of predicates, and characterising them semantically helps in understanding the predicate-argument relationship. As Nolan (2012: 19) points out, nouns have semantic properties contributing significantly to the sentence's compositional meaning.

Nouns have a semantic representation in RRG which is based on an analysis of qualia, the manner in which the lexical system defines the essential attributes of an object (Pustejovsky 1991, Nolan 2012: 19-20). There are four roles involved:

- Constitutive– the relation between an object and its constituents
- Formal– that which distinguishes the object within a larger domain, physical characteristics
- Telic– the purpose or function of the object
- Agentive– the factors involved in the origin of an object

This is paralleled by Wootton (2015: 69), who quotes Aristotle's material processes with four causes. Thus a table has a formal cause (design in mind), final cause (a desire to have something to eat on), a material cause (wood) and an efficient cause (a saw and hammer, the means of bringing it about). Van Valin & LaPolla (1997: 185, 321) illustrate the representation of the noun 'door' in terms of qualia. There are two variables for 'door', the physical object 'x' and the aperture 'y' in this example. This may be represented as **door** $(x \lor y)$.

- Constitutive: **obstruction'** (x), **aperture'** (y)
- Formal: **physical-object'** (x), **frame'** (y)
- Telic: BECOME **closed'/open'** (x), **do'** (z, [**go.through'** (z, y)])
- Agentive: **artifact'** (x), **artifact'** (y)

In (2.20), the apparent ambiguity is resolvable by looking at the argument structure of the verb and the roles of the participants. There is a telic notion of reading the novel and an agentive one of writing it.

(2.20)   John began a novel
         do' (John, [**begin'** (John, novel)])

2.8 Focus projection and information structure

RRG has a well-developed theory of information structure whereby pragmatic focus on different elements of a clause is interpreted. This is important here in analysing the pragmatic

motivations for marked word orders. In chapter 7, we investigate word order changes in PYN as alternatives to valence adjusting in highlighting different parts of the clause. Lambrecht (1994: 5) defines information structure as

> that component of sentence grammar in which propositions as conceptual representations of states of affairs are paired with lexicogrammatical structures in accordance with the mental states of interlocutors who use and interpret these structures as units of information in given discourse contexts.

Of particular interest to us here is 'given discourse contexts'. A sentence may be divided into topical and focal parts (Van Valin 2001: 209). The syntactic constituent where the focus occurs is the focus domain (Van Valin & LaPolla 1997: 205). Focus and presupposition make up an assertion. If there is a presupposed topic, the predicate phrase is a comment on the topic and is in the focus domain; otherwise the entire clause is in the focus domain. There may also be narrow focus, on a single constituent (Van Valin 2005: 69). Predicate focus is the universally unmarked type of focus structure. There are in fact two focus domains. The potential focus domain is the syntactic domain where focus may occur in a language. The actual focus domain is the part of the sentence that is in focus. In English, the potential focus domain is the full clause and the actual focus domain is shown by intonation. The distinction between completive and contrastive narrow focus is discussed by Van Valin (2005: 172). Lambrecht (1994, 2001) discusses focus in detail.

Focus structure forms a third, separate projection from the constituent and operator projections in RRG. In Figure 2-4 from Van Valin & LaPolla (1997: 215), there is a topic 'John' and a focused predicate (including other arguments) that is marked by intonation. This shows how the focus projection ties into the constituent projection.
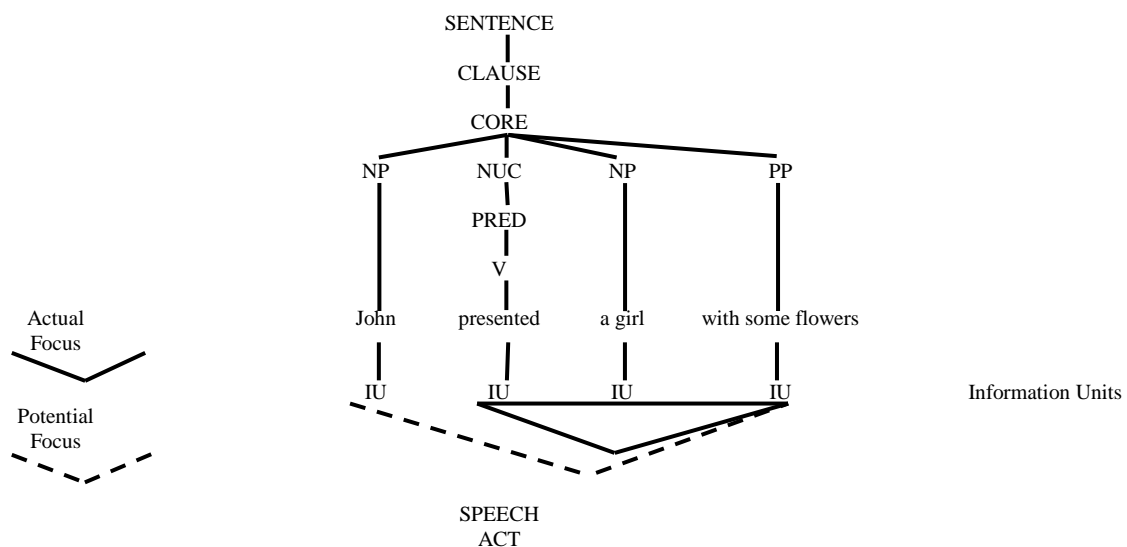
Figure 2-4: Focus domains: actual and potential

2.8.1 Topic, comment and focus

Topic, comment and focus are key considerations in the analysis of a sentence (Van Valin 2005: 68). The most frequent situation in a clause is that the NP topic comes first and the comment about it comes after (Van Valin & LaPolla 1997: 199); this is the situation in Mandarin Chinese (Sun 2006: 184) for example. Topic and comment occur in both configurational and non-configurational languages (Austin 2001). Other related concepts are subject-predicate, presupposition-focus, theme-rheme and given-new. Topic and comment is similar to unmarked predicate focus (Van Valin 2005). Blake (1987: 154-156) contrasts the topic (what is talked about), comment (what is said about the topic) and focus (the crucial part of the comment, which is the most resistant to ellipsis). Because focus is usually part of the comment, this can lead to conflict between topic-comment and focus-first principles. Lambrecht (1994) has a detailed discussion on topic and focus.

The things that are talked about have their own divisions. Van Valin (2005: 79) puts forward five levels of constituent in a particular utterance: active, accessible, inactive, brand new anchored and brand new unanchored. This determines what overt referring is needed in an utterance, and extends the activated, accessible and inactivated constituents discussed by Van Valin & LaPolla (1997: 327-328).

Communication involves context, including what is known and what has been discussed recently. To understand an utterance, context may be required which is provided by presupposition: old information and assumptions (Van Valin & LaPolla 1997: 202). The speaker assumes that the propositions are already known or taken for granted by the listener. Chafe (1974) describes this as assumptions about what is in the consciousness of the listener. Old information makes up the topic; by contrast new information is the focus and not recovered from the context. This in turn becomes associated with the presupposition (Van Valin & LaPolla 1997: 202) as discourse proceeds. However Saeed (2009: 110) in discussing pragmatic theories of presupposition, states that presuppositions can be introduced as new information through the principle of accommodation. If an utterance requires a presupposition which was not presupposed at the time, the required presupposition comes into existence.

As noted, predicate is the unmarked focus, a comment on a topic. By changing word order, different constituents may be focused. Identifiability or unidentifiability of a referent may be manifest by different levels of focus (Van Valin & LaPolla 1997: 200-203). If a noun is identifiable, this is the topic and it is not within the predicate focus; if unidentifiable it is not the topic but is within the sentence focus. Word order may achieve this distinction in languages (such as PYN) where there are no definite or indefinite articles. Definiteness is usually indicated by constituents coming towards the beginning of a clause, before the verb as a topic; newness after it as a comment. Halliday (2006: 332), for example, places the thematic element at the beginning of a clause in both English and Chinese. The focal element either gets tonic

prominence, or is in marked position at the end. Fronting is also discussed extensively by King (2010: 94, 143, 167).

This means that usual word orders may be changed. Van Valin & LaPolla (1997: 234-235) describe the inverted subject construction as presentational, involving focus structure and syntax: in (2.21), 'ran a cat' is the focus while the argument adjunct 'into the room' is the topic.

(2.21)   Into the room ran a cat

2.8.2   Non-universal elements involved in focus

The universal elements of a sentence (nucleus, core, periphery and clause) are semantically motivated. There are also non-universal elements (extra-core slots, detached phrases) that are pragmatically motivated (Van Valin & LaPolla 1997: 39) and, mainly in chapter 7, we will investigate whether these elements form part of PYN.

An extra-core slot can contain a question word or a word in a marked order, putting the word in narrow focus (Van Valin 2005: 133). Detached phrases are separated from the rest of the clause by a pause or intonation break (Van Valin & LaPolla 1997: 39). Rather than focus, these typically have topical information (Pavey 2004). This gives more freedom for the placement of syntactic arguments in non-canonical positions. If an element is in the core of a clause, there must be an argument in the semantic representation. The opposite is not necessarily true; an argument in the semantic representation can occur in the periphery (Van Valin 2005: 8), an extra-core slot or a detached position, as we see in Figure 2-5 (Van Valin & LaPolla 1997: 36) with the question word argument 'what' being in the precore slot and 'yesterday' in left detached position. Thus a 'core argument' is a syntactic notion rather than a semantic one. The operator 'did' is not part of this consideration but provides tense and illocutionary force. A semantic argument in a detached position needs a corresponding pronoun in the core; but this is not the case for one in an extra-core slot or the periphery.
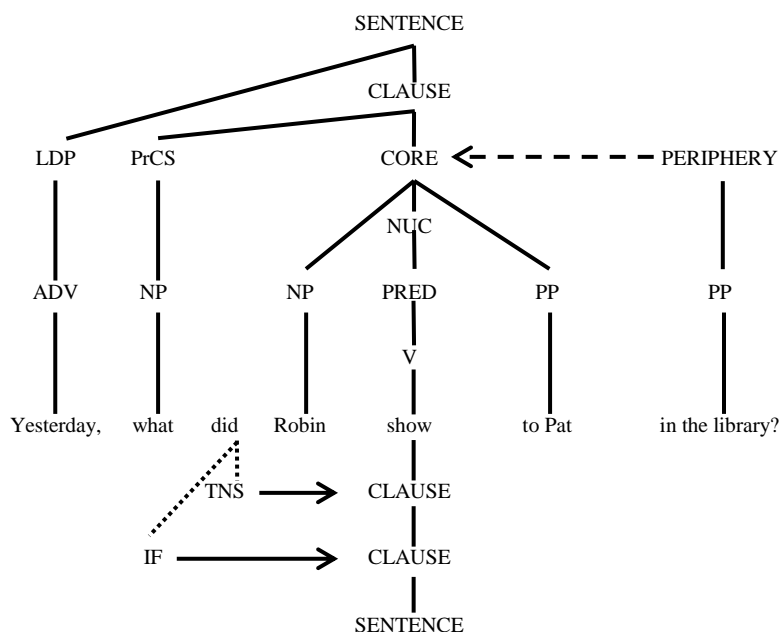
Figure 2-5: Left-detached position and precore slot

If these elements were found in PYN, this would be relevant for our study, giving scope for items to be moved out of the core or clause for purposes such as prominence or focus.

2.9 Semantic roles and macroroles

Semantic roles rather than grammatical relations are claimed to be universal (Nolan 2012: 14-15). These roles are functions of states of affairs and cannot be understood without them (Van Valin & LaPolla 1997: 86). Such roles as agent, patient, experiencer, theme, benefactive, source, goal, location and instrument (Kim & Sells 2008: 43-45) allow us to classify arguments of predicates into a closed set. They capture the relationship between two related sentences (ibid.) such as the active and passive where this distinction occurs in a language. Members of a given role interact in regular ways with grammatical types. Semantic or theta roles and participants are discussed by Saeed (2009: 152-158) while thematic protoroles and argument selection are described by Dowty (1991). Pustejovsky (1991) finds these roles to be too 'coarse grained' but nevertheless adequate for general mapping. Roles are relations that are open ended, ill-defined and not based on language; this latter makes them particularly useful in cross-linguistic comparisons.

Semantic roles can be generalised into two semantic macroroles that draw a distinction between generally agentive 'doers' and those that are 'affected' by the action (Van Valin & LaPolla 1997: 140). As Foley & Van Valin (1984: 29) put it, an actor 'performs, initiates or controls the situation' while an undergoer does none of these things but is prototypically affected by it. The actor and the undergoer macroroles are not synonymous with the syntactic subject or object (Van Valin 2007); in English, the actor can be the subject of an active voice transitive verb or the object of 'by' in a passive construction. The undergoer is the direct object

of an active voice transitive verb or the subject of a passive verb (Van Valin 2001: 30). English allows many argument types to be actor or undergoer; but some languages are stricter, for example only allowing animate or quasi-animate entities as actor (Van Valin & LaPolla 1997: 142-143). Furthermore a macrorole must also have definite reference: so in an activity like 'John wrote poetry' (ibid.: 111), the patient is not of definite reference and thus not an undergoer (Van Valin 2005: 63). By contrast 'John wrote a poem' is an active accomplishment, with a referent ('a poem') that is therefore an undergoer. We discuss this further in later sections; predicate tests help in this, as they identify predicates that entail an endpoint, leading to completion and potentially a fully affected undergoer.

Arguments in the logical structure are mapped onto the macroroles (Pavey 2004). Generally the 'x' in a two-argument construction is the more actor-like. An actor is not necessarily strongly agentive or controlling: in a sentence like 'the sun emits radiation', 'the sun' is the actor despite 'emit' being a non-control, non-action predicate (Klaiman 1991: 283). Another factor to consider is that verbs may have the actor and undergoer physically in the same place (such as 'hit') or not necessarily so (such as 'see') (Wheeler 2016). This has repercussions for impingement and affectedness of the undergoer, and thus potentially the transitivity of the verb (Hopper & Thompson 1980).

2.9.1 Macrorole assignment and actor-undergoer hierarchy

In assigning clause arguments to macroroles, there are default assignment principles, shown in (2.22) (Van Valin 2005: 63, King 2010).

(2.22) Default macrorole assignment
   a) Number: the number of macroroles a verb takes is less than or equal to the number of arguments in its LS.
      1) If a verb has two or more arguments in its LS, it will take two macroroles.
      2) If a verb has one argument in its LS, it will take one macrorole.
   b) Nature: for verbs which take one macrorole.
      1) If the verb has an activity predicate in its LS, the macrorole is actor.
      2) If the verb has no activity predicate in its LS, the macrorole is undergoer.

These principles lead to an actor-undergoer hierarchy (AUH), with the most actor-like being the conscious wilful agent role decomposed as DO. Macrorole assignment with inanimate arguments is discussed by Van Valin & LaPolla (1997: 152). At the other end of the spectrum, a patient would be a more marked choice as an actor. This is summarised in Figure 2-6 (Van Valin 2005: 58-61).
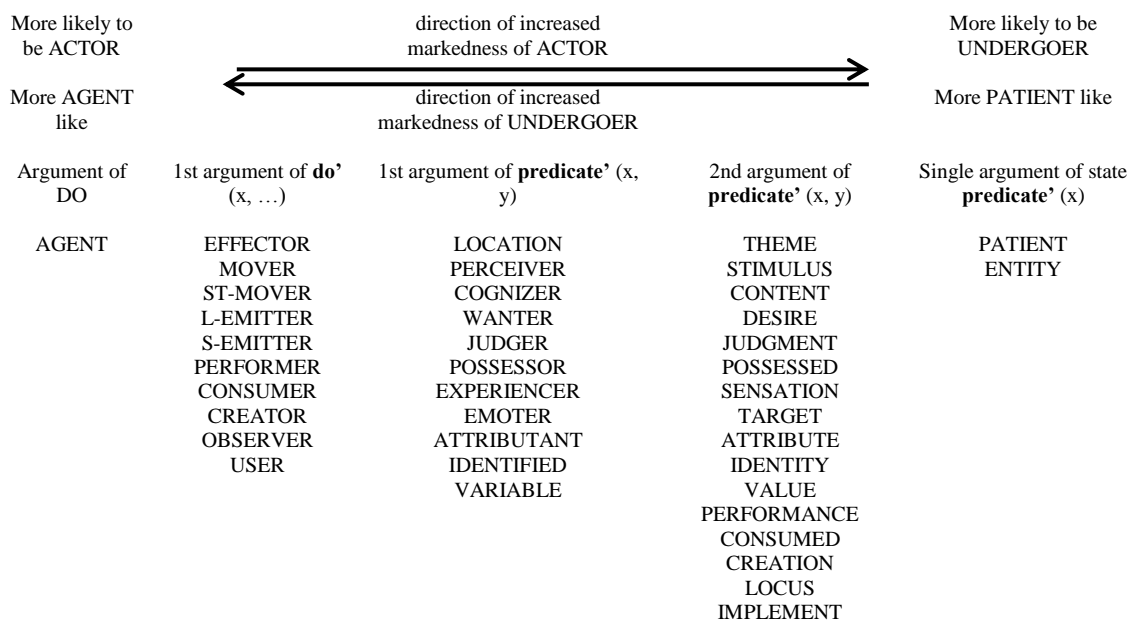
Figure 2-6: Actor-undergoer hierarchy

More likely to be ACTOR More AGENT like		direction of increased markedness of ACTOR direction of increased markedness of UNDERGOER		More likely to be UNDERGOER More PATIENT like
Argument of DO	1st argument of **do'** (x, …)	1st argument of **predicate'** (x, y)	2nd argument of **predicate'** (x, y)	Single argument of state **predicate'** (x)
AGENT	EFFECTOR MOVER ST-MOVER L-EMITTER S-EMITTER PERFORMER CONSUMER CREATOR OBSERVER USER	LOCATION PERCEIVER COGNIZER WANTER JUDGER POSSESSOR EXPERIENCER EMOTER ATTRIBUTANT IDENTIFIED VARIABLE	THEME STIMULUS CONTENT DESIRE JUDGMENT POSSESSED SENSATION TARGET ATTRIBUTE IDENTITY VALUE PERFORMANCE CONSUMED CREATION LOCUS IMPLEMENT	PATIENT ENTITY

This is extended with two other principles (Van Valin 2005: 61, 126, King 2010: 162), in (2.23) and (2.24).

(2.23)   Actor selection: Highest-ranking argument in LS
(2.24)   Undergoer selection: Principle A: lowest-ranking argument in LS (default)
                                            Principle B: second-highest ranking argument in LS

In the LS of a ditransitive verb, the argument on the left is the actor by default and the rightmost is undergoer, following Principle A in (2.24). If we take the LS in (2.25), sentence (2.26) has default actor and undergoer. Marked assignments such as dative shift can alter this. (2.27) is an example of a primary object, putting the recipient ahead of the theme, and taking principle B: the second highest element, 'Chris', is undergoer. Van Valin & LaPolla (1997: 141, 336) have a full discussion on variable macrorole assignment.

(2.25)   [**do'** (Pat, Ø)] CAUSE [BECOME **have'** (Chris, book)]
(2.26)   Pat$_{ACT}$ gave the book$_{UND}$ to Chris$_{NMR}$.
(2.27)   Pat$_{ACT}$ gave Chris$_{UND}$ the book$_{NMR}$.

Not all the arguments in a logical structure representation are necessarily macroroles. For example a locative state predicate such as **be-at'** only has one macrorole, an undergoer. It is the second argument of a predicate, the 'theme' whose location is being described.

2.10 Grammatical relations

A key element in our discussion is the concept of grammatical relations. These are part of traditional grammar (Van Valin & LaPolla 1997: 242) and Payne (1997: 129) defines them as the relations between arguments and predicates independent of semantics and pragmatics, such as subject, direct object, indirect object, ergative and absolutive. While this definition excludes

considerations such as semantics or topicality, there is a connection between these due to their communicative functions. We are interested in this because by changing valence, grammatical relations may be altered.

Grammatical relations have two distinct properties (Van Valin & LaPolla 1997: 250-252), shown in (2.28).

(2.28)   (a) Coding, such as case, verb agreement and other morphological features
(b) Behavioural properties which define the role of the NP in grammatical constructions, such as the interpretation of missing NPs

The syntactic relation between a head and its dependent may be coded on either (Nichols 1986). Noun case marking is one of the three structural features (alongside verb agreement and word order) that reflect grammatical relations in a clause (Payne 1997: 129, Kulikov 2010: 369). As we see in the following sections, traditional views of grammatical relations are treated differently in RRG. From an argument-predicate perspective, case indicates dependent marking (Van Valin & LaPolla 1997: 23). Case marking rules make reference to direct core arguments and macroroles, because RRG has no theoretical concepts of 'subject' and 'object' (Van Valin 2005: 108). Nordlinger (1998: 25-26) points out that where grammatical relations are realised in syntax, a language is fully configurational; if through morphology it is fully non-configurational. More usually there is a mix of the two.

2.10.1 'Subject' and 'object'
The categories of subject and object are not considered universal (Pavey 2004) in either their distribution cross-linguistically or as useful labels for common syntactic functions. While semantic roles are universal, grammatical relations are not assumed to be so 'subject', 'object' and 'direct object' are not part of the theory of RRG (Van Valin 2005: 89), and are present only where there is restricted neutralisation (Van Valin & LaPolla 1997: 242-253). They may though be used as descriptive terms (Van Valin 2014). Many of the definitions and discussions of valence adjusting in the literature refer to the adding or removal of subjects and objects, as well as switch-reference involving subjects. These are often shorthands for controlling and affected participants which are semantic concepts that can better be characterised by roles. Nevertheless we will review some definitions of these terms to assist in our analysis.

The concept of 'subject' is an old one, but there is flexibility in its use (Andrews 2007: 165). Keenan (1976) outlines certain properties about 'subject' and attempts to provide a universal definition. Givón (1976: 152) claims it to be highly universal and summarises it as the pairing of the discourse function 'topic' and semantic function 'agent'. This however is only appropriate in an active sentence; in a passive the patient has been promoted to subject. Keenan & Comrie (1977) investigate whether the subject as a syntactic category is valid cross-linguistically, based on an Accessibility Hierarchy of relativisability and the ranking of the

controller argument. The more patterns a category allows us to generalise about, the better justified it is.

One distinction between subject and object that some theories hold is that the object is the NP immediately dominated by a verb phrase rather than the sentence. This analysis is not compatible with RRG which requires features to be universal to be part of the theory, though where verb phrases exist they are considered the grammaticalisation of focus structure (Van Valin 2005: 81). The Australian language Warlpiri (Pama-Nyungan, Northern Territory) has no evidence of a verb phrase, or of the verb and object forming a phrase in any sense (Van Valin & LaPolla 1997: 245). Another possibility is that case marking indicates function in a sentence (Dixon 2011: 267), such as accusative marking nominals with object function. However this is not a reliable guide: apart from circularity in definition, objects do not have to be marked the same way, as evidenced by Differential Object Marking (DOM). In English with no case marking on nouns, subject and object are identified by position around the verb: a pattern not so useful in case marked languages with freer word order.

Rather than referring to 'subject' and 'object', RRG considers both to be predicate arguments within the core, meaning different definitions are needed. To circumvent difficulty, a more robust way to distinguish the participants is to refer to three prototypical sentence syntactic relations for verb arguments as identified by Dixon (1994: 6-8): 'S' the single argument of an intransitive clause, 'A' the argument most likely relevant to the success of the activity and 'O' the other core argument; 'A' and 'O' are in transitive clauses. Where there are three core arguments, there are different means of assigning 'O': Dixon also posits 'E' the extension to the core. These are not RRG terms but will be useful in our analysis. Bowe (1990: 14-15) describes these as syntactic roles, but uses the term P rather than O with a transitive verb. While 'A' and 'O' seem clear-cut, they are relative terms: 'A' does not always have to be an agentive participant and 'O' is not necessarily impacted. Thus the nature of the verb itself is important: Hopper & Thompson (1980) suggest degrees of transitivity in a clause, which they summarise as the transfer of activity from the agent to the patient. Complicating this are reflexives where A and O refer to the same individual, and reciprocals where there is reference to more than one individual but the participants are simultaneously A and O.

A, S and O are more straightforward categories than the ideas of subject or object as languages differ in how they group these participants for syntactic relations. Blake (2001: 25) calls S, A and P 'pre-theoretical syntactic functions' (like Bowe, he refers to P rather than O). He defines S as the single argument of an intransitive predicate; A as the agent argument of a transitive verb, and P as the patient argument of a two-place transitive verb. The terms A and P extend beyond agent and patient to other roles that are treated grammatically in the same way as these prototypes, so not only would 'Martha hit Ruben' be described in terms of A and P, but so would 'Martha saw Ruben' with a perceiver and a stimulus. Blake (1987: 27) argues that O

comprises affected, effected patients and neutral patients (perception), while A comprises agents and experiencers. S can be agents, patients and experiencers (ibid.). The definition 'A is the agent argument of a transitive verb' is intended to exclude the agent adjunct of the passive, since this agent is not treated the same way grammatically as the A in an active clause. While syntactic functions map onto semantic roles, we are interested in changes to this brought about by marked clauses.

Alignment refers to how case marking systems relate subjects and objects (Hurford 2012: 384). Languages vary typologically in how A, S and O are related to each other morphologically and/or syntactically. Where S and A pattern similarly, as in the English 'subject', the language has a nominative-accusative system. Where S patterns with O, the language is ergative-absolutive (Dixon 2002: 520). There is a third type of alignment: active alignment, where A and agentive S pattern together while O and patient-like S pattern together. In split ergativity, more active S arguments may be distinguished from less active ones (Hopper & Thompson 1980). In the semantic representation, single arguments of state verbs are undergoers and single arguments of activity verbs are actors. These alignments are summarised in Figure 2-7.
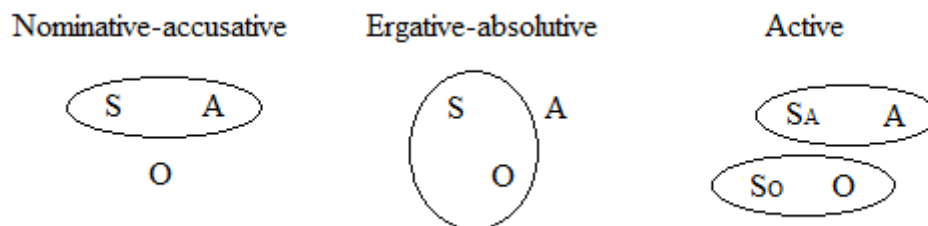
Figure 2-7: Accusative, ergative and active alignments

Where the patterning involves morphological case marking, the outlier case is marked, hence O with accusative case, or A with ergative case. The corresponding opposite core case is nominative and absolutive respectively and is usually unmarked if any case is. Rose (1996: 302) considers ergative inflection an active form distinguishing actor from goal. Alignment can be syntactic too, with a consideration of which pair behaves similarly in various syntactic constructions.

Traditionally in Indo-European language active sentences, S and A were termed the 'subject' and we can see the problem in using this term if S and A do not group together. Despite this, Anderson (1976: 7-8) says that the concept of 'subject' is actually valid syntactically in the vast majority of ergative languages. Such properties as equi-NP deletion, reflexives, raising and the formation of conjunctions all indicate a valid category of 'subject' in the same manner as that found in accusative languages. By this reasoning ergative morphological marking is relatively superficial and may just be a marking to distinguish two

arguments in free word order languages. Equi-NP deletion (ibid.: 8) deletes the subject of an embedded element if it has the same identity as the controlling NP in the main clause. So there is a 'subject' in both actives and passives: in passives the new NP subject (formerly object) is the controller. Not all languages share this feature: the Australian language Dyirbal for example has the equi-NP deleting of the subject of intransitives and object of transitives (ibid.: 17), suggesting deep syntactic ergativity.

Much of the literature in Australian lanaguages refers to 'same subject' and 'different subject' in connection with switch-reference (Dixon 2011: 248, 466), and we discuss this further in later chapters with respect to PYN. Morphological alignment also has an influence on what types of syntactic valence changing occurs, such as passives and antipassives.

2.10.2 Privileged Syntactic Argument

To get around the problems with 'subject' and 'object' as grammatical relations, RRG posits the Privileged Syntactic Argument (PSA) as the sole grammatical relation, with its closest traditional equivalent being the subject. Nolan (2012: 14) refers to the PSA as the restricted neutralisation of semantic roles and pragmatic functions for syntactic purposes: it has certain syntactic properties that are not determined by its semantics. The PSA is restricted to macroroles (Van Valin & LaPolla 1997: 361) in some languages such as English (ibid.: 251) or non-macrorole direct core arguments in other languages such as Icelandic (Van Valin 2007: 40).

Van Valin & LaPolla (1997: 285) make the point that the only grammatical relations required are controller and pivot, and so these are the two subtypes of PSA. The former triggers verb agreement and the latter controls the interpretation of a missing argument in an adjacent unit, for example in the raising constructions of English (Van Valin 2005: 94). Van Valin (2001: 212, 2005: 95) expands on this with the controller being involved in reflexives as well. PSAs are construction- as well as language-specific (King 2010: 175) and this is significant in determining the PSAs in the valence-adjusted verbs found.

2.10.2.1 Controller of verb agreement

The means by which the PSA controls verb agreement are language-specific (Nolan 2012: 14). The examples in (2.29) of restricted neutralisation in English (Van Valin 2005: 90) show that the 'subject' may have different semantic roles in English.

(2.29)   (a) The teacher has read the words. (Actor of transitive verb)
         (b) The teacher has sung. (Actor of intransitive verb)
         (c) The teacher has fainted. (Undergoer of intransitive verb)
         (d) *The teacher have read the words. (*Undergoer of transitive verb [active voice])
         (e) The words have been read by the teacher. (Undergoer of transitive verb [passive voice])

The verb agrees with the subject ('the teacher' in a, b and c; 'the words' in e), regardless of whether it is an actor or undergoer: so there is neutralisation of the semantic opposition between actor and undergoer for morphosyntactic purposes. The controller of verb agreement or cross-reference may be syntactic (restricted neutralisation) or semantic (restriction without neutralisation) (Van Valin & LaPolla 1997: 274). The examples above are examples of a syntactic PSA, with restricted neutralisation of semantic roles: the PSA may be the actor or undergoer, but no other role.

2.10.2.2 Pivot

Syntactic and semantic pivots are discussed in Van Valin & LaPolla (1997: 275). The interpretation of missing arguments is illustrated by the 'want' construction in (2.30) from Van Valin & LaPolla (1997: 252). The actor of the transitive verb 'eat' is omitted. As the PSA, 'Susan' is implied in the gap in the sub-clause. In this example, it is a semantic PSA as it is the actor (not undergoer) of 'want' that determines coreference: there is no neutralisation.

(2.30)   Susan$_i$ wants _$_i$ to eat a hamburger

Other languages do this differently. In these Dyirbal examples, clauses are instead joined by S/O pivots. In (2.31) the S argument *balan guda* 'the dog' from the first clause becomes O in the second clause. If the clauses are switched around as in (2.32), O *balan guda* in the first clause is S in the second. Dixon (1994: 15) claims this means that Dyirbal is syntactically exclusively ergative, in that clauses can only be coordinated if the shared arguments are S or O.

Dyirbal (Dixon 2011: 462)

(2.31)   *Balan   guda   buŋa-n   baŋgul   yara-ŋgu bura-n*
         She.ABS dog.ABS   descend-PST   he.ERG   man-ERG   see-PST
         'The dog$_i$ went downhill and _$_i$ was seen by the man'

(2.32)   *Balan   guda   baŋgul yara-ŋgu bura-n   buŋa-n*
         She.ABS dog.ABS   he.ERG man-ERG see-PST   descend-PST
         'The dog$_i$ was seen by the man and _$_i$ went downhill'

These constraints on coreferentiality are common in Australian languages (Dixon 2011: 461) where two clauses are linked. The deletion of an argument in the second clause is understood by the constraints in that language.

Table 2-6 is drawn from Van Valin & LaPolla (1997: 281) with data from two Australian languages as well as English. This is based on the restricted neutralisation of the 'subject' in pivot constructions such as 'want'. We will investigate in later chapters where PYN fits into this.

Table 2-6: Restricted neutralisation and pivot types

Language	Restricted neutralisation	Pivot type
English	[S, A, d-S]	Variable syntactic pivot
Dyirbal	[S, U, d-S]	Variable syntactic pivot
Warlpiri	[S, A]	Invariable syntactic pivot

2.10.3 PSA selection hierarchy

The PSA selection hierarchy is similar to the actor/undergoer one and is shown in Figure 2-8; in accusative languages the most actor-like is the PSA and is nominative; in ergative languages it is the most undergoer-like one which is absolutive (Van Valin 2007). This raises a question as to PSA selection in languages with mixed ergative-accusative systems such as PYN. There are a number of PSA principles (Van Valin 2005: 100) to assist in its identification: these are described in (2.33).

Argument of DO > 1st argument of **do'** (x, …) > 1st argument of **predicate'** (x, y) > 2nd argument of **predicate'** (x, y) > Single argument of state **predicate'** (x)

Figure 2-8: PSA selection hierarchy

(2.33) Accessibility to Privileged Syntactic Argument principles
  a) Accusative constructions: highest ranking direct core argument in terms of Figure 2-8 (default)
  b) Ergative constructions: lowest ranking direct core argument in terms of Figure 2-8 (default)
  c) Restrictions on PSA in terms of macrorole status:
    1. Languages in which only macrorole arguments can be PSA: German, Italian, Dyirbal, Jakaltek, Sama
    2. Languages in which non-macrorole direct core arguments can be PSA: Icelandic, Georgian, Japanese, Korean, Kinyarwanda
  d) Restrictions on PSA in terms of coding (Bickel 2003):
    1. Languages with case-sensitive PSAs, such as English, German, Nepali,Maithili
    2. Languages with case-insensitive PSAs, such as Belhare, Tibetan

The traditional idea of 'subject' is thus replaced by identifying one from this selection hierarchy (Van Valin & LaPolla 1997: 175-176), with the PSA being equivalent to syntactic subject. For both accusative and ergative languages S is the PSA; for ergative languages the undergoer is the default choice for PSA, with the actor only in antipassive constructions, where the undergoer has been put into an oblique case. Theoretically, PSA modulation voice permits another choice for pivot or controller (ibid.: 317) in marked sentences, and this forms part of our diagnostic analysis of syntactic valence adjusting.

2.11 Linking algorithm

Multiple levels of syntactic representation are not required in RRG (Van Valin & LaPolla 1997: 21). There is a single level from the syntactic representation through the linking algorithm to the semantic representation, shown in Figure 2-9, based on Van Valin (2005: 134). We will leverage this in our study of syntactic and semantic valence. The linking goes in both directions:

semantics is linked to syntax for the speaker's perspective and syntax to semantics for the listener's perspective (Pavey 2004: 94). In this way meaning is conveyed from speaker to listener through syntax.

Syntactic Inventory ⟶ Syntactic Representation ⟵ Parser

Discourse pragmatics   Linking Algorithm ⟵ Constructional Schemas

Lexicon ⟶ Semantic Representation
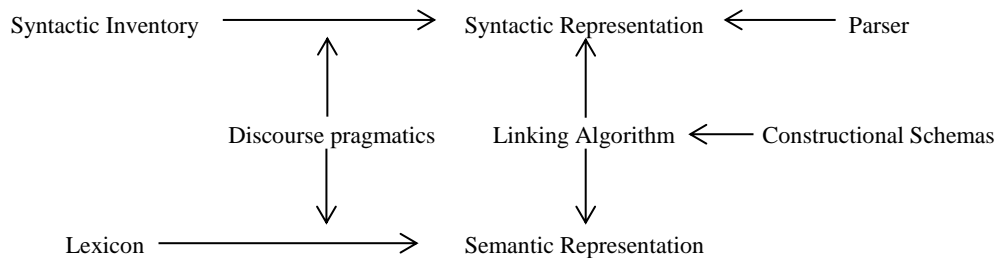
Figure 2-9: Linking algorithm of syntactic and semantic representations

The 'completeness constraint' in RRG requires that the semantic and syntactic elements must be accounted for and match (Van Valin 2005: 129, Van Valin 2007). All the arguments in the semantic representation must be realised in the syntax and all referring expressions in the syntax must be linked to an element in the semantic representation. This presents apparent difficulties where an argument is not overt as in ellipsis: we will examine ways of resolving this in chapters 6 and 8.

The linking of semantic and syntactic representations involves syntactic function, semantic macroroles and the logical structure (Van Valin & LaPolla 1997: 177). The first of these is language-specific and the other two universal. In later chapters, we investigate how these are manifest in PYN clauses.

The linking of semantics to syntax is based on the principles in (2.34) (Van Valin 2005: 136). This is intimately bound to valence adjusting and will form a major part of our analysis. King (2010: 181-182) says that lexical valence-adjusting processes involve the first two, while syntactic processes involve the third step, PSA assignment. Lexical processes change the semantic scene; syntactic ones alter the syntax-semantic linking, such as where an undergoer becomes the subject in the passive voice. Step 5 outlines situations where constituents can be outside the core.

(2.34) Linking algorithm: semantics to syntax:
1) Construct the semantic representation of the sentence, based on the logical structure of the predicator.
2) Determine the actor and undergoer assignments, following the actor-undergoer hierarchy in Figure 2-6.
3) Determine the morphosyntactic coding of the arguments.
    a) Select the privileged syntactic argument, based on the privileged syntactic argument selection hierarchy in Figure 2-8 and principles in (2.33).
    b) Assign the arguments the appropriate case markers and/or adpositions.
    c) Assign the agreement marking to the main or auxiliary verb, as appropriate.
4) Select the syntactic template(s) for the sentence following the principles in (2.1) and (2.2).
5) Assign arguments to positions in the syntactic representation of the sentence.
    a) Assign the [-WH] argument(s) to the appropriate positions in the clause.
    b) If there is a [+WH] argument of a logical structure,
        i.   assign it to the normal position of a [-WH] argument with same function, or
        ii. assign it to the precore or postcore slot, or
        iii. assign it to a position within the potential focus domain of the clause (default is the unmarked focus position).
    c) A [-WH] argument may be assigned to the PrCS/PoCS slot, subject to focus structure restrictions (optional).
    d) Assign the [-WH] argument(s) of logical structure(s) other than that of the predicator in the nucleus to
        i.   a periphery (default), or
        ii. the precore or postcore slot, or
        iii. the left- or right-detached position.

The corresponding linking algorithm from syntax to semantics is found in Van Valin (2005: 149). In our PYN analysis we will go through the steps to determine whether the valence-adjusting structures found are lexical or syntactic. We will also investigate the extra-core slots and detached positions in relation to topicalisation and focus, in chapter 7.

2.12 Word order and its significance

Languages often have characteristic word orders (Greenberg 1963), and deviations from the normal order may have communicative significance. Preposing of a word or string moves it to the front of a sentence (Larson 2010: 109); an example is the preposing of the object to the position after the subject in Mandarin Chinese for contrastive focus, giving SOV word order instead of the unmarked SVO (Ernst & Wang 1995). There are other reasons for word order differences (Dryer & Haspelmath 2013): for instance Abeillé & Godard (2000) consider the influence of lexical weight on word order in French. Cross-linguistic generalisations can however be made: in a declarative sentence with nominal subject and object, the dominant order is almost always one in which the subject precedes the object (Greenberg 1963). Typologically, there is a distinction between languages where syntactic heads normally precede complements and those where syntactic heads follow them (Nichols 1986). In a constituent diagram, this

leads to 'branching' with complements of heads branching off to the left or right. Languages tend to be consistently left- or right-branching (Van Valin & LaPolla 1997: 70-71).

The basic constituent order is in pragmatically neutral clauses with no part of the clause highlighted (Payne 1997: 76-77) and the author contrasts this with marked clauses where word order is changed. There are however reservations to the idea of a 'basic order': Mithun (1991) discusses the difficulties inherent in identifying pragmatically neutral sentences. This assumes that discourse initial utterances may be made because of the lack of presupposition. This is what will be of interest to us in our investigation of how narrative proceeds.

Word order can also vary depending on whether we are considering pronouns or nouns: for example Dyirbal has AOV for pronouns, OAV for nouns and other orders in different circumstances (Dixon 2011: 442). In ergative systems generally, the A argument tends to be more marked grammatically (Klaiman 1991: 107). The manifestations vary; as well as non-null A case assignment, there may be greater restriction in the linear positioning of A nominals.

Altering word order is not just a question of reordering elements in the core: the extra-core slots and detached positions are pragmatically motivated (Van Valin & LaPolla 1997: 39). For example in the clause 'bean soup I can't stand', 'bean soup' is fronted and in the precore slot (Van Valin 2005: 5). It is in narrow focus and not being in the core escapes the usual SVO constraint of English. In 'bean soup, I can't stand it', 'bean soup' has instead been topicalised to the LDP. The core maintains SVO, with the resumptive pronoun 'it'.

2.12.1 Clefting

Clefting is a construction in some languages that involves word order realignment for focusing. Nolan (2012: 192) discusses copula clefts and focus in Irish. With 'it-clefts', a single clause is divided into two sections, each with its own verb and one being a dependent relative clause (Pavey 2004: 16). Clefting places a constituent in narrow focus; the cleft and copula, with the rest the sub-clause (Pavey 2004: 286). In (2.35) both the referent of the name 'John' and the proposition 'someone left early' must already be known to the listener (Van Valin & LaPolla 1997: 200). These are the focus and presupposition respectively. The pronoun 'it' occupies a dummy position as an expletive, non-referential subject. Since not all languages require subjects, the structure is not found universally. Compare this with the neutral unmarked order in (2.36).

(2.35)   It was John that left early.
(2.36)   John left early.

2.13 Ellipsis: the non-expression of arguments

Ellipsis involves the syntactic omission of obligatory elements from a sentence, but the semantic message itself remains unchanged. More generally, ellipsis involves the omission of words or phrases where the meaning is clear: the elided elements must be unambiguously specifiable (Broad 2013: 64). Omission of a sequence of words is an indication that these form

a phrase but this is not always the case: ellipsis tests may be used to determine whether elided strings are constituents (Larson 2010: 106-108) by deciding whether the remaining text is well-formed. In speech almost anything may be omitted if the utterance can be understood, so the elided element may be described as being present but not overt. There is a distinction between nominal ellipsis, verbal ellipsis and phrasal ellipsis, but here we concentrate on nominal and NP ellipsis, where the arguments of a predicate are not overtly expressed. This is the type of ellipsis that most resembles valence decreasing. Importantly in the latter but not the former, either the scene itself or the semantic-syntactic linking has been modified.

While ellipsis may be prosodically conditioned; in general it applies to syntactic rather than morphological constituents (Bresnan & Mchombo 1995). Morphemes can be elided, for example with tense morphemes in Japanese coordinated clauses (Haspelmath 2011: 49) or the initial *m* in interrogative pronominals in Berber (Afroasiatic, North Africa) if they are part of a larger construction (Idiatov 2007). We will not pursue this here as we are interested in the ellipsis of arguments.

Since RRG does not posit the existence of deep and surface structure or null elements in syntax (Van Valin 2014), all elements in the semantic representation are expected to be in the syntax and vice versa through the completeness constraint (Van Valin & LaPolla 1997: 325). How are missing arguments reconciled with this?

Core arguments are by definition required elements of a clause. The understanding is that the predicate governs the number of arguments; elided elements could be included in careful speech or if the utterance were needed to be repeated due to misunderstanding. Ellipsis is not relevant to modifiers such as adjectives and adverbs as these are optional anyway.

Complements have however been described as having degrees of obligatoriness (Herbst & Götz-Votteler 2007: v) while Matthews (2007) suggests that complements are optional only under ellipsis. Where an argument is a noun phrase denoting a semantic participant, such arguments may be syntactically unexpressed while the semantic participant remains in the message, in other words is clearly understood by the listener. Hopper & Thompson's (1980) spectrum of transitivity is relevant because certain verbs have a stronger requirement for overt arguments: cognate objects for example can easily be dropped since the verb implies them. There are different circumstances in which arguments may be omitted. Lexically specific verbs tend to have more ellipsis of arguments as meaning is already encoded in the verb (Behrens 2007: 202). McShane (2005: 19) contrasts direct and inverse valence with respect to ellipsis. In the former the head implies its elided complements; in the latter the complements imply the head.

In Japanese the pivot is the topic, which may then be elided as representing 'sameness' (Nariyama 2003) and this is a discourse device. Johnson (2008: 14) is in agreement with this: true elided constituents are discourse anaphora, similar to pronouns.

In this study, we characterise ellipsis through RRG, but bring in the theories of common ground, centering and discourse representation in studying the means by which non-overt arguments are sustained and tracked in narrative or dialogue. This is potentially broader than syntax: one can account for data through a pragmatic theory of inference rather than innate categories controlling referents (N. Enfield p.c.).

2.13.1 Arguments in narrative

N. Enfield (p.c.) draws a distinction between role and reference, which have the functions in syntax given in (2.37). Significantly, we can derive reference from outside the clause.

(2.37)   signalling the role of arguments with respect to the clause;
         with reference to what was said in previous clauses

A clause argument on introduction in discourse or text is typically stated as a noun, and thereafter referred to by a pronoun. Furthermore, new arguments introduced as full NPs in narrative have a strong tendency to be S or O (Du Bois 1987: 827, N. Enfield p.c.). A is usually the topic and referenced by a pronoun, whereas the O argument is often ephemeral. A pronoun is referential and usually anaphoric. A further stage in some languages is to omit an argument completely in ellipsis. Goddard (1983: 21) states that it is important to distinguish ellipsis which is of a specific recoverable NP, from the absence of an explicit argument which may be for a generalised purpose with no specific NP in mind. Additionally, we see how such a recoverable 'zero pronoun' is distinguished from valence decreasing: a zero pronoun is anaphoric and 'present' but not overt. With valence decreasing, an argument is no longer required as befits the changed valence of the verb.

A 'new' argument is more likely to have a full NP rather than a pronoun. Reference can be interpreted from outside a text: an argument can be seen as 'given' in discourse if it is visible. There is cross-linguistic variation in these factors. In Chinese, topics can be dropped (Behrens 2007: 206) once established in discourse and do not need to be used again until the topic changes. Ellipsis itself may be a referential device in such a situation[2] (Halliday 2006: 354-355). As an example, (2.38b) is a complete sentence and understandable from the preceding discourse in (2.38a). There must be clearly preceded referents for such sentences in Chinese, or else they are ungrammatical (Sun 2006: 150).

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[2] This is not the case for English (ibid.).

(2.38)　(a) *Ni　　muqin　gei　　wo　zhejijian　yifu.*
　　　　　　2SG　　mother　give　1SG　DEM.CL　clothes
　　　　　　'Your mother has given me these clothes'
　　　(b) *Xi　　hao　le*
　　　　　　wash　well　PERF
　　　　　　'(She) washed (them)'

There is however a danger of confusing ellipsis, which is grammatical, with implicit information (Pickering 1980: 31, quoted by Broad 2013: 64). Since an elided item has definite reference and is anaphoric, the missing information can be recovered. McShane (2005: 209-210) states that context and world knowledge determine whether the unexpressed agent in the passive for example is specific or generalised; this also relates to agentive impersonals. Ellipsis is described as an extreme form of reduction or de-categorialisation: the reference is recovered by pragmatic inference (Hopper & Thompson 1984: 722). There are differences of opinion on this: Blake (1983) does not think that ellipsis lies within the domain of grammar.

Baker & Mushin (2008: 13-14) group ellipsis with pro-drop forms and zero anaphora as the absence of overt referring expressions in syntax for notionally present referents. There is no loss of grammaticality or understandibility. There are however constraints on the omission of nominals in some constructions. Zero anaphora may be grammatical or governed by implicature (Pavey 2004, Stalnaker 2002, McGregor 2013, Lutz-Hughes 2016).

2.13.2 Motivations for ellipsis

The reasons for argument dropping may involve obscuring a protagonist, taking a different viewpoint on a state of affairs or parsimony. These three are quite different. While syntactic valence adjusting may obscure a participant, ellipsis is the opposite: the participant is so obvious that it does not need to be mentioned.

Various other factors might motivate ellipsis. Hari (1973), in describing Nepali (Indo-European, Nepal) sentences, shows how what she terms 'minor' sentences are left incomplete in order to avoid repetition or emphasis. Different constituents are more or less likely to be elided. Lambrecht (1994: 136) claims the topic is more likely to be elided than the focus. Blake (1987: 154) says that focus is the crucial part of the comment in a sentence and is the most resistant to ellipsis; the topic then is most likely to be non-overt. Hopper & Thompson (1984) stress discourse manipulability: things that can be referred to over time. New participants in discourse have the highest level of manipulability. Ellipsis may be part of a drive in language for parsimony and economy. Phonetic reduction and the ritualisation in frequent use patterns are described by Evans (2003): Zipfian effects reduce free words to grammatical morphemes. The end result is non-overt expression. Redundant expressions include proforms and elided or unpronounced elements (Larson 2010: 106-108). However, McGregor (2013) cautions in

interpreting ellipsis solely in the context of optionality, and claims that there are pragmatic and meaningful motivations behind its use. McShane (2005: 8-9) lays out the premises of an ellipsis theory, asking what can be left out and what licenses this.

2.13.3 Grammaticality versus acceptability

In discussing ellipsis, we draw a distinction between grammaticality and acceptability. In the latter, ellipsis of constituents may occur where the sense is understood by context. Leaving things out may be acceptable while not being fully grammatical. So while the resulting sentence is incomplete (Glass 1980), it is capable of being understood; meaning in context is the key functional characteristic of language (Van Valin 2005: 1). There are caveats to this: Matthewson (2004) cautions on the interpretation of the meaning of utterances that are subtle and context-dependent. Allan (2009) regards grammaticality and acceptability as existing on a continuum: Bowe (1990: 66) also discusses this idea. Keenan (1976), in considering basic sentences generally, states that those which are too 'context dependent' do not express a 'complete thought', but that this may not matter in practice.

2.13.4 Pivots and ellipsis

We saw that one of the functions of the PSA is the interpretation of pivots and missing arguments. Pivots may be S/A or S/O (Dixon 1994: 144). In a tightly controlled situation, there is no ambiguity for listeners in the mapping of the inference of a missing argument. Thus in the constructions (2.39) and (2.40) the missing argument has to be 'I' and 'the man' respectively. The situation in (2.41) is looser; while there is a strong sense of probability that the pronoun is 'the man', this is not strictly controlled (N. Enfield p.c.).

(2.39) I_i want $\_{i/*j}$ to eat
(2.40)   The man_i came in and $\_{i/*j}$ sat down
(2.41)   The man_i came in and $he_{i/j}$ sat down

Where there is an S/O or S/A pivot in coordinated clauses, the common argument in the second clause may be elided in coreferential omission (Dixon 2002: 86). However most languages, both in Australia and worldwide, do not have syntactic pivots (ibid.: 520-521). Any pair of clauses may be linked with repeated NPs omitted; the main criterion for which one is omitted is pragmatic plausibility rather than syntax, so this is a pragmatic pivot. Frequently the topic is present in consecutive clauses: 'pivot' is a grammatically specified topic (ibid.), a definition integrating semantic, syntactic and discourse factors (Dixon & Aikhenvald 2000: 16).

2.13.5 Pro-drop

Languages differ in what types of argument ellipsis occur or are allowed. Arguments can appear as pronouns or verbal affixes removing their need to be overt (Behrens 2007: 206). Such verbal affixes are two separate phenomena: head-marking and agreement. RRG regards head-marking

bound forms as arguments both in constituency and semantics (Van Valin & LaPolla 1997: 331-332); independent NPs are outside the core and may be dropped. Subject agreement on the head takes an intermediate position between head-marking and dependent-marking (ibid.). If the independent NP is present, it is the core argument; otherwise a bound agreement marker on the verb serves as argument. The dropping of an independent NP is facilitated since reference can be understood through the bound verb marker. Spanish and Latin are examples of such 'pro-drop' languages, where number and person marked on the verb allow subject nouns and pronouns to be readily elided.

Other languages like French that have verbal agreement still require an overt subject (Van Valin & LaPolla 1997: 338). There is weaker agreement in English (third person singular <s> on verbs) and there is a requirement for overt pronouns, including expletive pronouns where necessary for grammaticality. In English, subjects are only regularly elided in sub-clauses or coordinated clauses like (2.39) and (2.40).

In other pro-drop languages there may be no head or dependent marking, and the argument is understood by context. Mandarin Chinese is an example (Chang 2007), with arguments frequently not being expressed in discourse; it is isolating with no head marking. Mandarin allows the dropping of the nominal in subject position (Tardif 2006: 130, Cheng 2011) as well as the direct object and this is in practice very common. This leads to a high proportion of verbs to nouns in everyday speech. It also indicates that head marking is not the only factor that licenses subject ellipsis (ibid.).

Such dropping of referents is common cross-linguistically, and Halliday (2006: 354-355) cautions that 'pro-drop' is an Anglocentric concept with English being in a minority in requiring overt pronouns. On the other hand, King (2010: 83) suggests that in pro-drop languages generally, the omission of pronouns is marked, whereas in her study of Falam Chin (Sino-Tibetan, Burma and India), the inclusion of pronouns is marked and used in emphasis.

Anaphors in general have little or no intrinsic meaning and are interpreted by reference to antecedents, items that occur earlier in discourse (Trask 1993: 15). While a prototypical anaphor is a pronoun, inflected forms of a verb can in some languages be anaphoric devices: a pronoun is not required unless in emphasis (Van Valin & LaPolla 1997: 338)[3].

Austin & Bresnan (1996) advocate a dual structure hypothesis separating constituent and functional representations in connection with null pronouns. The alternative discussed is the pronominal hypothesis where expressed pronouns are deemed to be adjuncts.

2.13.6 Common ground

Why else might argument ellipsis be acceptable? 'Common ground' is defined as mutual knowledge, beliefs and assumptions (Clark & Brennan 1991). As participants speak, they

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[3] English pronouns mirror this with unstressed and stressed forms being used depending on emphasis.

'ground' what has been said in the conversation in order to accumulate common ground. There is a presupposition by the speaker of what is common ground and this is taken for granted (Stalnaker 2002). A sentence may be appropriate only in a situation with a given common ground. There is though a distinction between core common ground (including common sense and cultural knowledge) and emergent or pragmatic common ground (Kecskes & Zhang 2009) which builds during a conversation. These may mismatch. In small communities there is a high degree of local knowledge so perhaps no need to specify everything in conversation (Baker & Mushin 2008: 13-14). This situation leads to high rates of ellipsis.

The nature of core common ground is culture specific; in some cases an argument does not need to be specified even though this leaves the sentence technically incomplete. Perceived knowledge relates to context, so culture informs the interpretation of elided arguments: for example cognate verbs imply the existence of a particular undergoer that does not need to be overtly expressed.

This relates to the different levels at which elliptical expressions operate. Exophoric expressions derive their reference from the situation, such as demonstratives and pronouns; endophoric ones refer to something already in the text and can point backwards or forwards; homophoric ones derive their interpretation from cultural reference (D. Rose p.c.). The first two are emergent and the last core. We will integrate this into our analysis where appropriate.

2.13.7 Centering Theory

A related concept is that of 'centering'. As a conversation progresses, the topics under discussion can develop and change. Centering Theory (CT) refers to the centre of attention in a conversation and this affects the form that referring expressions take (Thomason 2003, Walker, Joshi & Prince 1998: 1). In CT, there are forward-looking centres which are discourse entities evoked by an utterance. By contrast backward-looking entities are similar to topics (ibid.: 3). CT can usefully inform an RRG discourse representation.

CT seeks to address anaphora resolution. There is a presupposition of there being rich information in the first utterance. Participants' memory of utterances fades rapidly (Roberts 1998: 359-361) which means that unless referents are constantly refreshed, they may need to be explicitly stated again. There is local coherence among utterances in a segment, and global coherence with other segments in a discourse (Grosz, Joshi & Weinstein 1995).

In a discussion on forward-looking centres, Cote (1998: 59) notes that English has certain verb classes that may have null objects. These differ as to whether a salient antecedent is required. For example the verb 'eat' cannot have a null salient antecedent while 'call' and 'see' require one (ibid.: 59-61). Thus 'eat' has one or two syntactic arguments, but semantically there must be two participants. Where the undergoer is known it cannot be omitted, if unknown it can. This lexical dependence means that such null objects are not thought of as being examples

of ellipsis, which is the non-overt expression of specific constituents. So in English, if 'eat' appears without a direct object, the gap is not anaphoric. If there is nothing specified as eaten, a 'y' argument is not included in the logical structure (Van Valin & LaPolla 1997: 115) as in (2.42).

(2.42)   **do'** (x, [**eat'** (x)])

2.13.8 Presupposition and discourse representation

Ellipsis may be conditioned by topic and focus. Van Valin (2005: 174) claims that dropped referents are part of presupposition due to the preceding context. This zero is the form of a referent that is the most likely topic; an indefinite NP is the most likely focus as shown in Figure 2-10 (Van Valin & LaPolla 1997: 321).
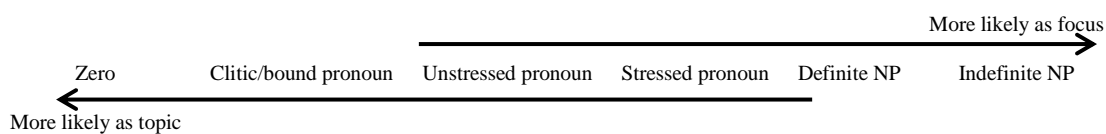
Figure 2-10: Pragmatic status hierarchy of NP expression

In a narrative, sentence focus sets the scene and introduces the participants. Thereafter the narrative typically progresses to predicate focus, with a topic and an assertion made about that topic.

In sentence focus (Van Valin & LaPolla 1997: 207), there is no presupposition and the subject is not the topic, as in (2.43):

(2.43)   'What happened?'
'My CAR broke down.'

In the predicate focus example (2.44), the presupposition is that the car is a topic which a comment can be made about (Van Valin & LaPolla 1997: 206); the car can be referred to by pronoun 'it'. 'Broke down' is the focus.

(2.44)   'What happened to your car?'
'My car/ it broke DOWN'

The topic can elided in Mandarin Chinese as in the predicate focus example (2.45). This is in response to the question 'How's your car?' There is no need to say the topic *wo de che zi* as speaker and listener know what is being talked about.

Mandarin Chinese (LaPolla 1995: 299)

(2.45)   (*Wo de   che zi*)   *huai   le*
1SG POS car   broken PFV
'(My car) is broken down.'

This is part of a larger need to interpret incomplete utterances. Discourse involves keeping track of categories in human experience (Halliday 2006: 354) and is itself context (Saeed 2009: 200-

201). In context sentence fragments become meaningful. This can be through the discourse topic which aids in interpretation, or through background knowledge which is shared by different communities. In discourse there are exceptions in such phrases as 'dunno', 'want anything?' (Wheeler 2016) where the missing argument is clear from the context of the verb.

This is paralleled by Schmid (2007: 119), who distinguishes cognitively salient units (those loaded into current working memory, active and thus requiring minimal cognitive effort) from ontologically salient ones (relating to knowledge of the world). In the management of discourse and salience, arguments may refer back to the previous clause where they are salient. Discourse builds on this and introduces new topics as it progresses. Halliday (2006: 348) refers to discourse in terms of a continuous flow of information which needs to maintain coherence. Understanding in communication generally involves inferences which may or may not be noticed (Clark 2009). Pragmatics is contextually inferred meaning that is distinguished from linguistically encoded meaning; so a syntactically incomplete sentence may be acceptable. This leads to the ability to make salient inferences about the topic.

Discourse Representation Theory (DRT) acts in terms of reference and proposition in the pragmatic tracking of referents that occurs in discourse (Van Valin 2005: 171-174). Discourse representation structure represents common ground, with information in discourse being added to common ground (Roberts 1998: 362-363). The theory informs RRG's representations of pragmatic assertion and presupposition (Van Valin 2005: 171). The semantic representation is linked to the discourse representation with the arguments realised in zero form being properly represented even if they are missing in the clause structure (ibid.: 174, Shimojo 2008: 293), satisfying the completeness constraint of RRG.

Shimojo (2008) integrates discourse representation structure and RRG with respect to missing verbs, and we leverage this in chapter 8 on ellipsis. (2.46) illustrates nominal and verbal ellipsis in Japanese and shows the role of presupposition in retrieving elided clausal elements.

Japanese (Van Valin 2014)

(2.46) *Ringo-o   ni-ko da*
        apple-ACC 2-CL be.PRES
        '(Taro got/will eat etc.) two apples'. Lit. 'two apples [ACC] is'

Presupposition provides the context to the utterance. In (2.46), there is an overt accusative undergoer in focus and the actor is understood by presupposition. The verb is recoverable too: *da* 'be' is a copula making the sentence finite. This example stretches the completeness constraint; discourse elements satisfy it. The apples *ringo* are in focus and have to be expressed as they are not in the presupposition. This is shown in Figure 2-11 (Van Valin 2014). In the constituent projection we include two boxes: the presupposition and the assertion. The assertion is the actual uttered words: the presupposition is material that is active in the discourse, or

otherwise resolvable. This adds context to the assertion. Both can supply elements that link to the LS, satisfying the completeness constraint.

Figure 2-11: Semantics to syntax linking with presupposition
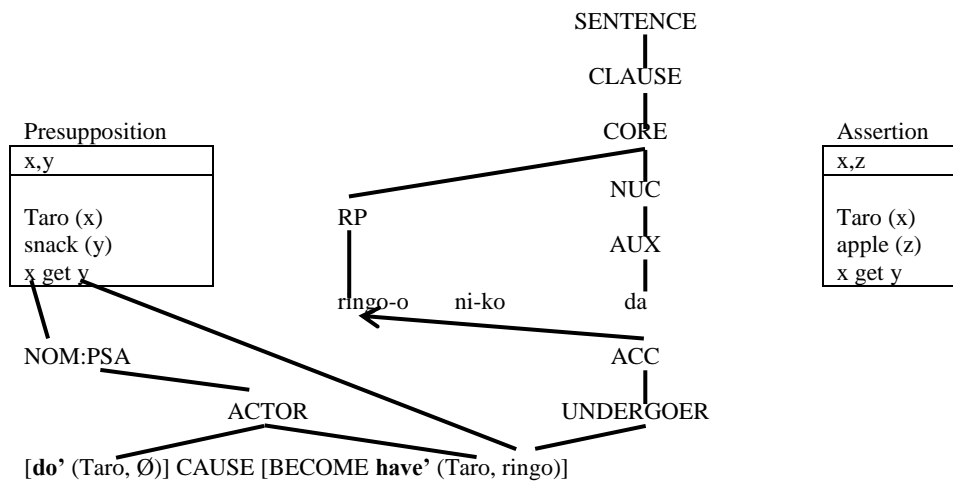
Information structure and linking is discussed in Van Valin (2014). Missing verbs may be salient by the preceding context (explicitly mentioned in previous sentence); predictable from the preceding context (verb recovered from one's knowledge); part of shared knowledge without the preceding context (for example online classified advertisements with no need for explicitness); or unidentifiable. Verb phrase ellipsis may also be licensed by an auxiliary (McShane 2005: 146). This is paralleled by missing arguments which is our main concern here.

2.14 Anticipated challenges for RRG

An important part of this thesis is our consideration that RRG has certain limitations, and that the study can point towards some means of improving its analysis. We suggest that PYN can emerge as a case study of significant problems that expose shortcomings in RRG. We identify weaknesses by an analysis of the data: thus it might be said that we 'confront' the theory with the data. This approach is not new: RRG has been steadily added to since its inception. Van Valin & LaPolla (1997) is primarily based on RRG but brings in elements from other theories (ibid.: 640).

The RRG theory is clear about what it does and its representational toolbox is of great value. It has three different syntactic projections, with bidirectional linking to semantic representations. This part of the theory is well developed: in the first instance, we will test whether it can adequately represent valence-adjusting structures in PYN.

We will incorporate elements of other theories, where we identify things RRG does not do well. Some parts of RRG at first glance appear to be undeveloped. It perhaps pays lip service to pragmatics and the management of discourse; for example, we ask whether RRG can explain the problems of the non-overt arguments evident in PYN. Are the latter left vague, definite, recoverable from context or syntax? RRG also needs to cater for predication in general where

switch-reference is involved. This is a functional rather than formal approach, emphasising the communicative motivation of the language.

Dixon's (2010) work on Basic Linguistic Theory builds on insights developed over many years, as far back as the time of Sanskrit grammarians (ibid.). We borrow some of the typological ideas in this; Dixon emphasises the primacy of source data over theory. Rose's (1996, 2001) studies are Systemic Functional Linguistics treatments of Pitjantjatjara and we compare some of his analysis with that of RRG. Ellipsis is a discourse phenomenon: we examine Centering Theory (CT), Common Ground and variations of Discourse Representation Theory (DRT) from an RRG perspective to characterise ellipsis and switch-reference as found in PYN. We ask how this study might challenge and change RRG's view of these two phenomena. We raise a number of other questions to a more general nature and compare with solutions from studies of other languages.

2.15 Summary and discussion

We have discussed the elements of RRG that will be used in our study. The main representational elements in RRG are the syntactic representation (constituent and operator projections), semantic representation (logical structure) and information structure (focus projection). We summarise the RRG constituent and operator projections in Figure 2-12 (Nolan 2012: 9); some elements such as detached positions and extra-core slots are not universally found so are bracketed.
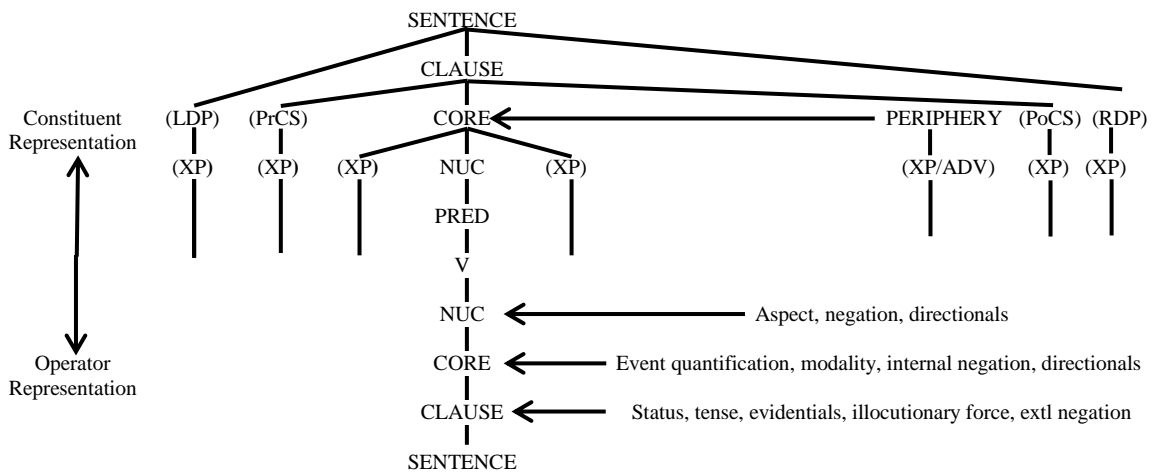
Figure 2-12: RRG projections and non-universal elements

Clauses are represented through the constituent, operator and focus projections and decomposed in the logical structure/semantic representation; semantic roles are generalised to two macroroles. The sole grammatical relation is the PSA and we examined its control and pivot functions. While the PSA takes the place of the 'subject', the traditional notion of 'object' can be handled by its being a non-PSA argument of the core.

The RRG principles provide a firm foundation for our study of valence and ellipsis in PYN. The nature of the predicate itself may be changed in valence adjusting and this may alter the number and nature of semantic or core syntactic arguments. Such changes would be reflected in the LS and constituent projections. Through the constituent and focus projections we show how the participants in a clause may be foregrounded, backgrounded, added or removed. The operator projection sheds light on the nature of the relationship between neighbouring predicates depending on what level an operator works at. Drawing these strands together, our analysis of valence will involve the identification and study of the following elements:

- The logical structure, including the nature of derived predicates
- The number of syntactic arguments in the core
- Syntactic templates
- PSA assignment
- Macrorole assignment
- The layered structure of the word, with morphological derivations

In the next chapter we describe PYN and its grammar, with an emphasis on arguments and predicates.

3   An overview of PYN and its grammar

Here we sketch the background of the Western Desert language, give a brief description of PYN phonetics and orthography, and follow with a description of the dialects' grammar. We base this latter on the two main word classes, nominals and verbs, for our purposes arguments and predicates respectively where they co-occur in a clause. This is central to the thesis because valence involves predicates and their requirements for semantic and syntactic arguments. We conclude with an outline of the main grammatical and phonological differences between the three dialects.

3.1   Australian languages

People have been in Australia for well over 40,000 and possibly over 50,000 years (Dixon 2011: 227, Blake 1987: 178). Despite the great depth of time and possibilities for language introduction from Asia, Australian languages appear to be related (ibid.) with features in common such as singular, dual and plural pronominals (Dixon 2011: 3) and agglutination (Blake 1987: 2). Speech in Australia is similar in phonology and grammar but diverse in vocabulary (Miller 1972). This phonological similarity may be due to diffusion (Blake 1987: 178). The grammatical similarity allows us to offer generalised explanations in this study that are in principle applicable to other languages, without being distracted by lexical differences.

Australian languages have three basic word classes: inflecting verbs, inflecting nouns; and non-inflecting particles (Blake 1987: 2-3). This expands to roughly ten more narrowly defined classes (Dixon 2011: 271). Roots typically belong to one class and suffixes are used to move a part of speech to another class. Almost all Australian languages have the ergative case system, and freedom of word order (Blake 1987: 9-10). Verbs in Australian languages are divided into around one third intransitive with the rest transitive (Dixon 2011: 278-281); this is significant with respect to PYN as the number of ditransitive and ambitransitive verbs is limited and atransitive verbs do not exist. While the languages vary widely in their number of phonemes (ibid.: 3), the vowels /a/, /i/ and /u/ are found in most and there is normally no voiced-unvoiced consonant distinction (Blake 1987: 10). PYN is quite typical and shares these characteristically Australian features.

Various ideas for classification of Australian languages have been proposed. An early one is that by Schmidt (1919) distinguishing the languages of the north of the continent from those of the south (quoted in Dixon 2011: 20-21). A division between suffixing and prefixing languages is drawn by Capell (1956: 3, 114-115), but he does not regard this as a fundamental dichotomy and suggests an underlying unity. He elaborates by claiming that defining a group as comprising suffixing languages has no geographical suppositions or genetic implications (ibid.: 45). This concurs with Sands (1995) who claims that Australian languages are genetically related.

A more recent division made is that between Pama-Nyungan and non-Pama-Nyungan languages. One of the first papers with Pama-Nyungan shows 29 families of Australian languages, with the Pama-Nyungan family covering most of Australia outside the Top End (O'Grady, Voegelin & Voegelin 1966). Clendon (2006) regards the division as fundamental and suggests that Pama-Nyungan and non-Pama-Nyungan 'Arafuran' languages originated separately. Not all authors agree with this division: Dixon (2002) denies the significance of Pama-Nyungan while O'Grady & Hale (2004) defend it. Morphosyntactic comparisons have cast further light on genetic relations and Pama-Nyungan apparently diverges from non-Pama-Nyungan; Pama-Nyungan function roots are very similar (Blake 1987: 178). Dixon (2011: 469) characterises 'so-called' Pama-Nyungan as being suffixing and agglutinative. The former characteristic may be significant: Sands (1995) shows that the Pama-Nyungan/non-Pama-Nyungan and non-prefixing/prefixing divisions almost coincide. Dixon (2011: 255-256) concedes Pama-Nyungan is a useful term to describe languages that have not undergone the radical developments of verb prefixes and polysynthesis. Studies on classification abound (Bowern & Atkinson 2012, Bowern 2010, O'Grady 1998). Obscuring the relations between languages is the fact that words can transfer easily between neighbouring dialects. One impetus for this is in the matter of taboo words discussed by Dixon (2011: 98-99) necessitating the borrowing of vocabulary from neighbouring groups.

Of the estimated 250 languages spoken at the time of European settlement (Bowern 2010), around fifty have become extinct, many others endangered, while perhaps fifty may be healthy (Dixon 2011: 18). There are efforts at reviving some of the languages using written sources where there are few speakers (Gale 2011).

3.2 Western Desert

The Western Desert language group is Pama-Nyungan (Smith 2005) and covers around one and a quarter million square kilometres (Dixon 2002: 5) in Western Australia, South Australia and the Northern Territory. O'Grady, Voegelin & Voegelin (1966) give the full classification as Pama-Nyungan, South West group, Nyungic, Wati, Western Desert. It is a continuum of dialects of varying mutual intelligibility; they are grammatically similar though lexical differences are common. Veth (2000) suggests that the relative homogeneity of the languages points to divergence in the last 1,000-2,000 years and evidence suggests a rapid growth of population at this time (Smith 2005). Western Desert dialects have much lexical but little grammatical variation (Dixon 2011: 507). This fact is relevant to the present study as the grammatical structures discussed apply to all three Western Desert dialects analysed unless differences are highlighted in the text.

There is difficulty in defining dialects of Western Desert, and most names refer to communolects, people who 'have' a certain word or way of speaking (Goddard 1996: ix). There

are familial ways of speaking and gradations of mutual intelligibility, meaning describing the dialects as separate languages is problematic (Hansen & Hansen 1975). Hansen (1984) tests the communicability of some of the dialects. Marsh's (1976) grammar of the Western Desert language Mantjiltjara notes homogenisation and merging of neighbouring dialects forming communolects. He estimates there are up to forty Western Desert dialects, with communities like the Maṯutjara using *maṯu* 'man' and Piniritjara using *piniri* 'run'. Furthermore groups themselves often take their name from 'having' a language (Dixon 2011: 41). The underlying unity is reflected in the phrase *wangka uti*, 'understandable speech' (Goddard 1996: 204) that is used to cover most dialects of the Western Desert Language. Nomadic or semi-nomadic band societies differ from more sedentary tribes in that the latter have a bounded speech community while bands have a loose network over a wide area and interlocking communities (Miller 1972). Speakers of one dialect may modify speech during temporary associations with speakers of other dialects (Douglas 1955) though he later states (Douglas 1957: IV) that it is more polite for each speaker to use their own speech in such situations.

The three dialects involved in this study have neighbouring territories, with Pitjantjatjara and Yankunytjatjara being in South Australia and Ngaanyatjarra over the border in Western Australia. Ethnologue (Lewis, Simons & Fennig 2014) quotes the 2006 census as recording 2,660 speakers of Pitjantjatjara, 560 of Yankunytjatjara and 1,000 of Ngaanyatjarra. The dialects are closely related. Pitjantjatjara and Yankunytjatjara are similar enough to share dictionaries and grammars (Goddard 1993, 1996) and where relevant we will collectively refer to them as P/Y. Ngaanyatjarra was known as the Warburton Ranges dialect of Pitjantjatjara and Glass & Hackett's 1979 book 'Ngaanyatjarra texts' was first published in 1969 as 'Pitjantjatjara texts'. The name 'Pitjantjatjara' has been used to describe the dialect spoken in Ernabella, South Australia; but also to a group of dialects including Ngaanyatjarra that share the verb root *pitja* 'come' (Bowe 1990: 1). Douglas (1957: IV) bases his study on the *wangka nga:nyatjara* dialect, spoken in the Warburton Ranges. The location and distribution of the dialects are shown in Figure 3-1.
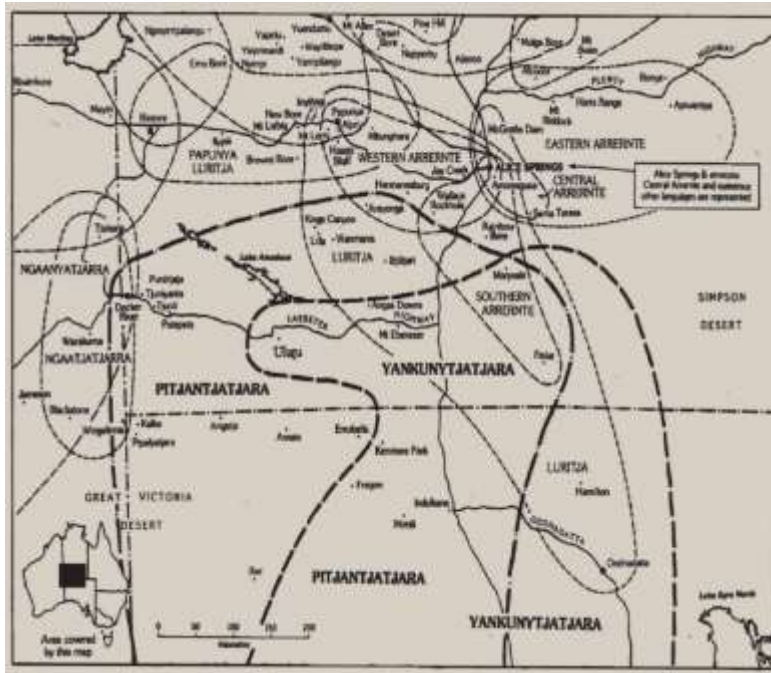
Figure 3-1: PYN dialect locations (Hobson 1990 in Goddard 1996: viii)

Pitjantjatjara and Yankunytjatjara get their names from the words for 'come/go', in the dialects respectively *pitjantja* and *yankunytja* (Goddard 1993: 2), suffixed by *-tjara* 'having'. Ngaanyatjarra speakers have the word *pitja* too, so they derive their name from the word *ngaanya* 'this' which is used as opposed to Pitjantjatjara *nyangatja* (Glass & Hackett 2003: 3). About 70% of the vocabulary of Ngaanyatjarra is shared with Pitjantjatjara and Ngaanyatjarra speakers regard it as a separate language (ibid.). Miller (1972) claims there can be lack of agreement over who speaks what dialect despite this being tied in with identity. There are finer divisions too such as Walaringkunytjatjara, a southern variety of Yankunytjatjara (Goddard 1996: 209). Another dialect, Ngaatjatjarra, shares dictionaries and grammars with Ngaanyatjarra and has certain word forms that overlap with Pitjantjatjara in communities such as Blackstone (Glass & Hackett 2003: 12). P/Y speakers refer to themselves as *an̲angu* (Anon 2002); *yarnangu* is the term in Ngaanyatjarra (Kral 2012: 18). This latter shows the permitted initial <y> in this dialect as well as highlighting the different spellings of the retroflex <n̲>/<rn>.

For over a hundred years there have been movements of Western Desert people eastwards and southwards, often to escape drought (Naessan 2008, 2010). These population movements have included that of Pitjantjatjara people to Yankunytjatjara areas (Goddard 1993: 1), impacting the dialects. In a study on the vitality of Yankunytjatjara in Coober Pedy, Naessan (2008) found that Yankunytjatjara is under pressure from both Pitjantjatjara and Standard Australian English. Gale (2011) found Yankunytjatjara being taken over by Pitjantjatjara, while Yankunytjatjara speakers are keen to emphasise its separateness (Naessan 2008, Bowe 1990: 3). In English speaking schools in Coober Pedy, Pitjantjatjara words are often scattered by students

in daily conversation (A. Phin p.c.). Kral (2012: 95-96) has examples of mixed Ngaanyatjarra-English speech with interviewees.

3.3 Phonetics

There are three short vowels in PYN, <a>, <i> and <u> and three long ones written as <aa>, <ii> and <uu> (Goddard 1993: 5-6, Glass & Hackett 2003: 4). These are modified depending on their environment (Douglas 1955). Long vowels only occur in initial syllables (Dixon 2011: 145). Table 3-1 shows the position of the three short vowels.

Table 3-1: PYN Vowels

	Front	Central	Back
High	i		u
Low		a	

The consonants are shown in Table 3-2. Where there are two entries, the one on the right refers to Ngaanyatjarra. As is typical for Australian languages (Dixon 2011: 1), there is a lack of sibilants in PYN (Hilliard 1968: 105-106, Goddard 1983: 11, Glass 2006: 9-10) and the dialects do not distinguish between voiced and unvoiced plosives: in speech these are unaspirated and unvoiced or almost so (Trudinger 1943: 206, Goddard 1993: 4, Glass & Hackett 2003: 3). The laminodentals <tj>, <ny> and <ly> are pronounced with the tongue between or against the teeth (Glass & Hackett 2003: 3-4), though this can vary depending on the context. The retroflex or 'cerebral' (Trudinger 1943: 206) is pronounced with the tongue turned up and back. The retroflex <r̲>/<r> is similar to the English one; the <r>/<rr> is rolled or tapped. There are pronunciation differences with a tendency for eastern dialects to be laminal and western ones dental (J. Hobson p.c.).

Table 3-2: PYN Consonants

	Labial	Laminodental	Dental	Retroflex	Velar
Stops	p	tj	t	t̲ /rt	k
Nasals	m	ny	n	n̲ /rn	ng
L-sounds		ly	l	l̲ /rl	
Other	w	y	r /rr	r̲ /r	

The stress is on the first syllable of words (Anon 2002, Glass 2006: 8). Tabain, Fletcher & Butcher (2014) show that word initial syllables are prominent in Pitjantjatjara speech, but there is no evidence for secondary stress. Douglas (1957: 8) claims sentence stress is heavier than syllable stress and is also used for emphasis on items within a sentence. In chapter 7 we see the use of tonic focus in picking out words.

The place of articulation is important for our study: case endings vary to match a nominal stem if it ends in a consonant, giving a different allomorph. An awareness of phonological conditioning is important in understanding this (Goddard 1983: 24). For nasals the

ergative becomes a homorganic stop plus *u* (Dixon 2011: 209); the locative a homorganic stop plus *a*. Absolutive *-nya* becomes *-nga* after liquids and nasals (Rose 2001: 306-307). In (3.1) the laminodental stem ending *ny* takes laminodental *-tju* ergative rather than the usual velar *-ngku* ergative (Goddard 1993: 16). The instrumental/locative similarly uses dental *-ta* instead of *-ngka*, as *piṟan* ends in a dental. We take this into account in glossing.

Pitjantjatjara (Goddard 1993: 16)

(3.1) *Maḻany-tju   wati piṟan-ta   tjapi-nu*
       kid.brother-ERG   man   white.person-LOC ask-PST
       '(My) kid brother asked the white man.'

There are also prosodic features, for example in (3.2) where *la* is pronounced |ləʊ| and extended in duration in a situation of projection with distance, or more effort (L. Brady p.c.). This however is not reflected in written material.

Pitjantjatjara

(3.2) *Pakal-tjinga-la*
       raise-CAUS-IMP
       'Lift (him) up'

3.4 Orthography

The material in this thesis is based on written sources and it should be borne in mind that spelling conventions can vary, which will be reflected in the text examples used. Pitjantjatjara (as opposed to Yankunytjatjara) has been written since the early 1940s (Goddard 1993: 1), with early work on a grammar being carried out at a school in the Ernabella mission in 1940 (Hilliard 1968: 155). There is some inconsistency in the writing of sounds, with a standard alphabet in place since 1979 (Eckert & Hudson 1988: 7). W. H. Douglas developed Ngaanyatjarra orthography in the 1950s based on Trudinger's Pitjantjatjara one in Ernabella (Kral 2012: 163). This Ngaanyatjarra spelling was modified in the 1970s (Glass 2006: 7). An appreciation of the different orthographies occurring in written texts allows us to focus on morphosyntactic phenomena in the dialects.

The dialects are primarily oral: Pitjantjatjara is described as being a purely spoken language (Rose 1996) and a strong literary tradition has not yet developed (Rose 2001). Kral (2012: 161) however suggests that the development of writing in Ngaanyatjarra has led to a shift in discourse practice and communication forms, with textually mediated roles and identities.

Orthography has varied since Pitjantjatjara was first written down. The long vowels <aa>, <ii>, <uu> were previously <a:>, <i:>, <u:> (Goddard 2006: vii, Douglas 1955). Sheppard (1975) uses these forms. Trudinger (1943: 206, 210) has a third 'a' sound, written <a̱>, found in *tj̱a̱na* 'they'. (3.3) shows the long <i:>.

(3.3)   *Tjilpi:rpa lipi   mulapa   kati*
        piece   wide really.ABS   bring.IMP
        'bring the widest piece'

Trudinger (1943) uses <j> for <y> and <ŋ> for <ng>: for example he has *njaŋatja* 'here' rather than the more recent *nyangatja*. He does not distinguish <ny> preceding consonants so has *minma* rather than the current *minyma* 'woman' in (3.4) as well as *ŋana* rather than *ngana*.

(3.4)   *Minma ŋana-la=na   ninti-lku*
        woman who-LOC=1SG.NOM   show-FUT
        'To which woman shall I show it?'

As seen in Table 3-2, P/Y retroflex <l̲>, <n̲> and <t̲> are spelt <rl>, <rn>, <rt> in the Ngaanyatjarra orthography used by Glass & Hackett (2003) (earlier work by Douglas as well as Glass & Hackett uses a similar orthography to that of Pitjantjatjara). Ngaanyatjarra uses <rr> for the trilled r, hence *tjarra* instead of *tjara* in the other two dialects. P/Y does not always use the underlined letters in handwriting (Goddard 1993: 5) or where there is no ambiguity; some texts like *Alitji Ngura Tjukurtjarangka* (Sheppard 1975) and Rose's (2001, 1996) work on Pitjantjatjara are written without them. The underlinings are used by learners of the languages; first language speakers do not always use them and their usefulness in resolving ambiguity is limited (J. Hobson p.c.). There are other spelling variations: Goddard (1983) in his Yankunytjatjara study, uses <w> in *pawu̲ni* 'roasting, shooting' and <y> in *mayi* 'vegetable food' instead of the standard South Australian *pau̲ni* and *mai*. Ngaanyatjarra uses hyphenation (Glass 2006: 17) for pronominal clitics, while Pitjantjatjara and Yankunytjatjara do not. All three dialects use hyphenation for reduplication.

As the dialects were only recently given a written form, it is useful to consider the definition of a word when analysing morphological derivations. While there is indeterminacy surrounding the concept of a 'word' (Haspelmath 2011), Mithun (1999: 38) claims native speaker judgment is the best guide. Douglas (1955) determines wordhood in Western Desert by isolatibility; the placement of non-phonemic stress; the occurrence of initial and final phonemes of allowed types; the presence of pauses in utterances and native speaker reaction to written material. As noted, PYN has word stress on the first syllable (Glass 2006: 8, Goddard 1993: 3). Sentence boundaries in some narratives are not clear: Glass (1979) has a discussion on the criteria she uses to place these boundaries in her Ngaanyatjarra transcriptions.

3.5 Nominals

In PYN, nouns, adjectives and demonstratives have similar suffixes and can head a noun phrase (NP), so they are together classed as nominals (Bowe 1990: 4) or substantives (Glass & Hackett

1970: 34). This situation is common in Australian languages and the suffixes involved may be inflectional or derivational (Dixon 2011: 272) which is significant in this study. NPs in PYN are case marked, indicating grammatical relations through dependent marking. Marking is on the NP itself rather than its individual elements. Nordlinger (1998: 166-167) calls this right-edge marking, where only the final member of a NP is marked for case (ibid.: 96).

Case marking on a nominal as a member of a NP serves to distinguish it from a predicating nominal which lacks inflection. Category distinctions within the nominal class are reflected in the fact that the Ngaanyatjarra suffix *-ngkatja* derives adjectives from nouns (Glass & Hackett 1970: 9): syntactically the derived form is still a nominal.

The PYN nominal cases are shown in Table 3-3, the terms used are drawn from Dixon (2011: 302) with input from Goddard (1996: x-xi) for P/Y and Glass (2006: 48) for Ngaanyatjarra. Caution should be taken when analysing case: these rarely coincide exactly with case in other languages (Blake 2001: 28). When discussing core cases, those involved in valence, we will also refer to the arguments involved as S, A, O and E for clarity.

Table 3-3: PYN nominal case forms

		Common	**Proper**
Core	**ABSolutive (S, O)**	-Ø (*-pa*)	*-nya/-nga*
	ERGative (A)	*-ngku* (*-tju*, *-tu*)/*-lu* (N)	*-lu*
Local peripheral	**LOCative**	*-ngka* (*-tja*, *-ta*)	*-la*
	ALLative	PURP + *-tu*	LOC + PURP+ *-tu*
	ABLative	*-nguru*	LOC + *-nguru*
	TRANSverse	*-wanu*	LOC + *-wanu*
Syntactic peripheral	**DATive**	LOC, PURP, ABS	
	PURPosive	*-ku*	
	CAUSal	*-tjara*, LOC, ABL	
	INSTRumental	LOC	
	AVERSive	LOC + *-tawara/-tarra* (N)	
	GENitive	PURP	

The RRG layered structure of the clause is reflected in this case system, showing the typical Australian core and peripheral cases (Dixon 2011: 294-297). Core nominal case marking is on an ergative-absolutive basis. Core and local peripheral cases distinguish between common and proper nouns (or names) in the forms they take (Capell 1956: 50). An exception is in Ngaanyatjarra where this distinction is not made in the ergative, both forms being *-lu*. Case forms also vary depending on the form of the root such as whether it ends in a vowel or a consonant (Glass 2006: 35-37, Goddard 1996: x, Goddard 1993: 14-16, Platt 1969): allomorphs are shown in brackets in the table. Locative and purposive are involved in the forming of several of the other cases; locative is added to names in local peripheral cases. Nouns are not inflected for gender, class or number (Trudinger 1943: 206). The common noun/name case

suffix distinction shows up with interrogative pronouns *nyaa* 'what' and *ngana* 'who' respectively (Platt 1969, Trudinger 1943: 214). It has been suggested that names have a marked absolutive allomorph *-nya* to distinguish them from the vocative which has no inflections (Rose 2001).

PYN case endings can be used for different, but related roles (Goddard 1993: 15, Glass 2006: 40-47). Goddard (1991) states that the ablative suffix *-nguru* is polysemous, one of its functions indicating the causality of 'because'. It is also used for location, and in (3.5), for time. Despite morphological overlaps, he claims that the spatial, temporal and causal domains remain distinct in all cultures. As seen in Table 3-3, case syncretism is apparent. For example, the genitive and purposive take the same case form *-ku*. However this is not necessarily a semantic extension of a particular case: elsewhere Heath (1981) describes syncretism in Basque (isolate, Spain and France) where case forms become homophonous. The flipside, as we saw in the discussion of PYN phonetics, is where a given case can have several different realisations according to phonetic rules.

P/Y (Goddard 1996: 123)

(3.5) *Ka=la   ngula wiki kutjara-nguru palyalkati-nyi.*
      and.DS=1PL.NOM future week two-ABL   put.out-PRES
      And in future we're going to keep putting (it) out every two weeks.

The cases (apart from the genitive) mark the entire NP regardless of its internal structure. Adjectives function as referents in the absence of nouns in (3.6), with the transitive verb *pungu*, one argument is ergative and the other absolutive.

Ngaanyatjarra (Douglas 1957: 75)

(3.6) *Pulka-lu tjukupi   pu-ngu*
      big-ERG small.ABS hit-PST
      'The big (one) hit the small (one).'

Thus a head noun may be omitted where its referent is obvious, interpreted as 'the one' (Glass 1983: 29). This is reverse valence, with complements implying an elided head (McShane 2005: 19).

Sub-classes of nominal in PYN with their case systems are shown with examples in Table 3-4. Nouns and adjectives can receive the full array of cases. Cardinal directions and other spatial adverbs behave like nominals but receive a limited set of local peripheral case endings, indicating movement. Adverbs of frequency or manner are ergative in transitive sentences (Bowe 1990: 8), whereas those of time do not have core case marking. As spatial and time adverbs do not receive the full panoply of cases, this is presumably a semantic restriction. Some of these nominals occur only as part of a NP and others, such as adverbs, are separable from the main NP but are case marked similarly.

Table 3-4: Nominal types in PYN

Sub-class	PYN	English	cases
Noun	*papa*	dog	all (ergative)
Adjective	*palya*	good	all (ergative)
Active adjective/ adverb of manner	*anku/kunkun*	asleep	core (ergative)
Spatial adverb	*paṯu/tiwa*	far	local only
Time adverb	*ngula*	later	*-ku* only
Interrogative pronoun	*ngananya*	who	all (ergative)
	nyaa	what	all (ergative)
Demonstrative pronoun	*nyanga/ngaanya*	this	all (ergative)
Demonstrative adverb	*nyangatja/ngaatja*	here	

In (3.7), the adverb of manner ('active adjective' in Goddard's terminology) is marked like the nominal but is separate from it (Blake 1987: 3). Both actor and adverb are marked ergative as they occur with a transitive verb; the object's being elided has no impact on this.

<div align="right">Ngaanyatjarra (Blake 1987: 3)</div>

(3.7)   *Wati-lu   pu-ngu   wala-lu*
        man-ERG hit-PST   quick-ERG
        'The man hit (it) quickly.'

In most dialects of Western Desert, definite determiners inflect like proper nouns (Dixon 2011 357). This is true in PYN, but they often form part of the NP which receives the inflection; this phrase is normally headed by a common noun. The demonstrative *ngaa* is illustrated in (3.8), as part of a NP marked by purposive *-ku*.

<div align="right">Ngaanyatjarra (Glass & Hackett 2003: 202)</div>

(3.8)   *Ngurra ngaa-ku   yula-ngu.*
        place   DEM-PURP cry-PST
        '(He/she) cried for this place.'

As well as receiving case endings as part of a NP, demonstratives can have a case ending on their own as shown with ergative on *nyara* in (3.9). In this case, *nyara* heads an NP.

<div align="right">P/Y (Goddard 1996: 20)</div>

(3.9)   *Pitulu   kutitju-nu nyara-ngku, ini   nyanga-ngku.*
        petrol.ABS steal-PST DEM-ERG, name DEM-ERG
        'They stole the petrol, (people with) these names'

Optional adjuncts, typically describing information about location or time, are non-arguments and in the periphery (Van Valin & LaPolla 1997: 27). The main PYN case markings involved are the locative-instrumental *-ngka/-la* and the purposive-genitive *-ku*. Sheppard (1975: 51) shows the Pitjantjatjara intransitive verb *nyinanyi* 'sit' with demonstrative *nyanga* having locative case in (3.10), indicating where the sitting takes place. The purposive is used with time adverb *ngula* in the imperative (3.11).

(3.10)   *Ngayu-lu   tjirirpi kutjupa tjirirpi kutjupa nyanga-ngka nyina-ku.*
         1SG-NOM day   other   day   other   DEM-LOC   sit-FUT
         'I shall sit here every day.'

P/Y (Goddard 1996: 100)

(3.11)   *Ngula-ku   wanti*
         Later-PURP leave.IMP
         '(You) leave (it) till later'

Trudinger (1943: 208) takes a different approach and considers there to be two non-core cases, the ablative *-la* and genitive *-ku*. The others involved with direction and aversion are posited as postpositions. He describes four postposition classes in Pitjantjatjara; those following the absolutive (for instance *-tjara*), those following the absolutive of common nouns and ablative of proper nouns (local cases above such as *-kutu*); those following the ablative of nominals and subjunctive of verbs (aversive case *-tawara*); and those that can occur as suffixes following the ablative, or occurring independently as adverbs (such as *unngu* 'inside'). Capell (1956: 46-47) says particles indicating grammatical relations follow the nucleus; so they became fused with the noun and are now thought of as case endings: many 'case endings' could equally be written as separate particles. We occasionally see this in written materials such as Kavanagh (1990).

3.6 Personal pronoun full forms

Unlike the situation with nominals, PYN personal pronouns work on a nominative-accusative basis. Full forms and clitics are shown in Tables 3-5 (Goddard 1996: xi) and 3-6 (Glass 2006: 52-55, 63). Ngaanyatjarra only has full form first and second person singular pronouns; the other persons and number are clitics. In first and second person full form singular the nominative takes *-lu*, which is phonetically similar to the ergative proper noun ending; while the accusative takes *-nya*, similar to the absolutive proper noun ending. Glass & Hackett (2003: 229) have *ngayunya* also for S, indicating ergativity: but this is rare in the corpus, and it occurs as *ngayunya=rna* in Kavanagh (1990: 29), coreferenced by a nominative clitic.

Table 3-5: Pronoun core cases in Pitjantjatjara/Yankunytjatjara

Singular	Subject (A and S)		Object (O)	
	Full	Clitic	Full	Clitic
1st Person	*ngayulu*	*=<u>na</u>*	*ngayunya*	*=<u>ni</u>*
2nd Person	*nyuntu/nyuntulu*	*=n*	*nyuntunya*	*=nta*
3rd Person	*palu<u>ru</u>*	*=Ø*	*palunya*	*=Ø*
Dual				
1st Person	*ngali*	*=li*	*ngalinya*	*=linya*
2nd Person	*nyupali*		*nyupalinya*	
3rd Person	*pula*		*pulanya*	
Plural				
1st Person	*ngana<u>na</u>*	*=la*	*nganananya*	*=lanya*
2nd Person	*nyura*		*nyuranya*	
3rd Person	*tjana*	*=ya*	*tjananya*	

Table 3-6: Ngaanyatjarra pronoun core cases

Singular	Subject (A and S)		Object (O)	
	Full	Clitic	Full	Clitic
1st Person	*ngayulu*	*=rna*	*ngayunya*	*=rni*
2nd Person	*nyuntulu*	*=n*	*nyuntunya*	*=nta*
3rd Person		*=Ø*		*=Ø/=lu*
Dual				
1st Person incl		*=li/=lin*		*=linya/=linyanta*
1st Person excl		*=litju*		*=linyatju*
2nd Person		*=pula/=pulan*		*=pulanyanta*
3rd Person		*=pula*		*=pulanya*
Plural				
1st Person incl		*=la/=lan*		*=lanya/=lanyanta*
1st Person excl		*=latju*		*=lanyatju*
2nd Person		*=ya/=yan*		*=tjananyanta*
3rd Person		*=ya*		*=tjananya*

While Glass & Hackett (2003: 9) and Glass (2006: 63) only list Ngaanyatjarra full form first and second person pronouns, in older work Douglas (1957: 35, 45-50) gives a series of four third person pronouns, shown in Table 3-7. These are distinguished by the distance of the referent from the speaker. In the Douglas scheme, third person S pronouns are marked like third person O pronouns, demonstrating an ergative pattern. Glass & Hackett (1970: 50) claim this means they are not really third person pronouns but rather demonstratives; the clitic forms however do not have these distance distinctions and remain S/A.

Table 3-7: Ngaanyatjarra pronouns in Douglas (1957)

	A Full	Clitic	S Full	Clitic	O Full	Clitic
Singular						
1st Person	*ngankulu*	=*na*	*ngankulu*	=*na*	*ngankunya*	=*ni*
2nd Person	*nyuntulu*	=*n*	*nyuntulu*	=*n*	*nyuntunya*	=*nta*
3rd near	*nga:lu*	=Ø	*nga:nya*	=Ø	*nga:nya*	=Ø/=*lu*
mid distant	*palalu*		*palanya*		*palanya*	
distant	*nyaralu*		*nyaranya*		*nyaranya*	
not visible	*palunyalu*		*palunyanya*		*palunyanya*	
Dual						
1st Person	*yali*	=*litju*	*yali/ ngankululitju*	=*litju*	*yalinya*	=*linya*
2nd Person	*nyuntulumpula*	=*pulan*	*nyuntulu pula*	=*pulan*	*nyuntunyapula*	=*pulanyanta*
3rd Person	*kutjara pulalu*	=*pula/ =tjanapula*	*kutjara pulanya*	=*pula/ =tjanapula*	*kutjaranyapula*	=*tjananya-pulanya*
Plural						
1st Person	*yala/ ngankululatju*	=*latju*	*yala/ ngankululatju*	=*latju*	*yalanya*	=*lanya*
2nd Person	*nyuntuluya*	=*yan*	*nyuntuluya*	=*yan*	*nyuntunyaya*	=*ntaya*
3rd near	*nga:luya*	=*ya/ =tjana*	*nga:nyaya*	=*ya/ =tjana*	*nga:nyaya*	=*tjananya*
mid distant	*palaluya*		*palanyaya*		*palanyaya*	
distant	*nyaraluya/ nyaratjintu*		*nyaranyaya*		*nyaranyaya*	
not visible	*palunyaluya*		*palunyanyaya*		*palunyanyaya*	

Dixon (2011: 356-362) states many Australian languages lack third person pronouns but that these may develop from demonstratives and this appears to be the case in Douglas's scheme. This is similar to the situation in Basque where the western dialects have third person pronouns but the other dialects use demonstratives (Trask 1997: 96). So Ngaanyatjarra appears to use demonstratives for third person, while P/Y keeps demonstratives and pronouns separate. In Pitjantjatjara, *palu*[4] is the third person personal pronoun (Platt 1969); *pala* is the demonstrative 'that one near'; this parallels the not visible and mid-distant in Douglas's work.

As with nouns, there is no gender distinction in PYN pronouns (Goddard 1993: 19, Glass 2006: 50). Unlike nouns, pronouns in PYN have singular, dual and plural number (Bowe 1990: 11, Goddard 1993: 19-20, Goddard 1996: xi, Glass 2006: 50, Platt 1969). Different forms of interrogative occur for human/non-human reference (Platt 1969). Demonstrative pronouns also have singular, dual and plural number as well as a pluralising morpheme <n> not found elsewhere (ibid.: 25-27). This scenario of pronouns having greater number is predicted by Greenberg (1963) and Silverstein (1976: 119). The first person dual *ngalinya* is shown in (3.12).

P/Y (Goddard 1996: 63)

(3.12)   *ngali-nya=lta*   *kati-nyi*
       1DU-ACC=TURN   take-PRES
       '(he) will take us two'

P/Y *paluru* 'he/she/it' also translates as a definite determiner, and serves as an anaphor with nouns and the dual and plural pronouns *pulu* and *tjana* (Goddard 1996: 122). It may also be

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[4] Realised as *paluru/palunya*.

used as a demonstrative as in *palu<u>r</u>u pula* 'these two' (Klapproth 2004: 248). Pronouns are arguments; determiners may be either operators in the LSNP (Van Valin & LaPolla 1997: 56-57), lexical members of a NP or alternatively serve as arguments themselves. The distinction between these possibilities is important in relation to valence.

In (3.13) *palunyanya* 'he/she' is the S argument. The ergative *palunyalu* is A in (3.14) because *nyu<u>t</u>inu* is transitive. The former appears in Glass & Hackett (1979) as a demonstrative grouping S and O. The latter is translated as 'then, same subject' (Glass & Hackett 2003: 276). These demonstratives/third person pronouns inhabit the border between pronouns and nominals; the referent is determined by discourse.

<div align="right">Ngaanyatjarra (Douglas 1957: 37, 114)</div>

(3.13) *Palunya-nya   katu-ri-ngu*
        3SG-ABS   rise-INCH-PST
        'He/she (of whom we spoke, not visible) arose'

(3.14) *Palunya-lu   katu-ri-ngu   nyu<u>t</u>i-nu*
        3SG-ERG   rise-INCH-PST   put.meat.on.head-PST
        'He/she (not visible) arose, put the meat on his head.'

Peripheral pronoun case forms in PYN are shown in Table 3-8 (Goddard 1996, Glass 2006: 63, Glass & Hackett 2003: 276). These are generally similar to the peripheral forms for names (except purposive *-mpa* in most forms in P/Y). Ngaanyatjarra only uses the singular full forms and has a strong preference for clitics; genitive clitics are discussed in the next section.

Table 3-8: Peripheral pronouns in PYN

		ngayu; nyuntu; palu/palunya*(N) *ngali; nyupali; pula* *nganana; nyura; tjana
Local Peripheral	**LOCative**	*-la*
	ALLative	LOC + *-ku*+ *-tu*
	ABLative	LOC + *-nguru*
Syntactic Peripheral	**DATive**	LOC
	PURPosive	*-mpa* (except *ngayuku*)/*-ku* (N)
	INSTRumental	LOC
	GENitive	PURP

3.7   Pronominal clitics

PYN has a set of commonly used pronominal clitics, the forms of which are in Tables 3-5 to 3-7. Ngaanyatjarra has a distinction between inclusive/exclusive first person plural pronoun clitics as indicated in Table 3-6. A clitic is a bound morpheme that attaches phonologically to a host, which is often the first or last word of a syntactic phrase (Payne 1997: 22) and forms a prosodic constituent with it (Booij 2005: 166). Importantly for our discussion, cliticisation is distinct from inflection (Zwicky & Pullum 1983), derivation and compounding; the latter two of which form grammatical words rather than phonological ones. In common with most Western Desert

dialects, PYN clitic pronouns bind to the first constituent in the clause (Blake 1987: 103), which may be the last word of a phrase or a connective word such as *munu* 'and' or *ka* 'and, but' (Goddard 1996: xii). This feature is shared with a small number of other Pama-Nyungan languages. Because the suffixing occurs regardless of host word category, the bound pronoun is a clitic (Blake 1987: 17-18) rather than a verbal inflection. The pronominal clitics occur in lieu of or alongside the full forms, representing arguments. Especially in Ngaanyatjarra, the independent pronouns are only used in emphasis (Glass & Hackett 2003: 9), similarly to stressed pronouns in English. Capell (1956: 27-29) examines object pronouns in relation to clitics and free forms. Clitic arguments are discussed by Van Valin & LaPolla (1997: 256). Nordlinger (1998: 37-41) asks in relation to overt nominals whether the bound pronouns are the arguments and nominals coreferential. Baker & Mushin (2008: 13-14) claim that Pitjantjatjara clitic pronouns are not counted as independent referential devices but that their person and number marking do help identify a referent.

Some languages have personal pronoun clitics whose distribution is consistently distinct from non-clitic nominals (Schachter & Shopen 2007: 24-25) and this is demonstrably true for PYN. For example, the pronoun *ngayulu* 'I' has the short form equivalent =*na*, attached to an inflected intransitive activity verb in (3.15b) and a predicating nominal in (3.16b). The valence of the predicate in these examples (1) remains unchanged whether the full or clitic pronoun is used.

P/Y (Goddard 1996: xi)

(3.15) (a) *Ngayu-lu   a-nu*
            1SG-NOM leave-PST
        (b) *A-nu=na*
            leave-PST=1SG.NOM
            'I left'

P/Y

(3.16) (a) *Ngayu-lu   palya*
            1SG-NOM good
        (b) *Palya=na*
            good=1SG.NOM
            'I am well'

The difference between inflection and cliticisation is illustrated in (3.17) to (3.21). Inflections must attach to NPs or verbs as appropriate; clitics are independent but rely phonologically on a host word. In (3.17), the pronominal clitic =*rna* on *kunkunpa* serves as the sole argument of the intransitive verb *tjaatiku*. *Kunkunpa* has the absolutive ending -*pa* for consonants, confirming that =*rna* is not an inflecting part of the nominal but rather a clitic. Similarly, (3.18) shows inflection on *kuul*; but in (3.19), *kuul* has absolutive -*pa* and a clitic. Examples with first person singular accusative are given in the imperative examples (3.20) and (3.21).

(3.17) *Kunkunpa=rna*   *tjaati-ngu*
        asleep.ABS=1SG.NOM yawn-PST
        'I yawned sleepily'

(3.18) *kuul-kutu*
        school-ALL
        'to school'

(3.19) *kuulpa=rna*   *wiya-rri-ngkula=lpi*
        school.ABS=1SG.NOM   NEG-INCH-SER=in.turn
        'I having finished school'

Pitjantjatjara

(3.20) *Ngula=ni*   *nya-wa*
        later=1SG.ACC   see-IMP
        '(you) see me later'

(3.21) *Kuka malu=ni*   *u-wa*
        meat roo.ABS=1SG.ACC give-IMP
        '(you) give me kangaroo meat'

Importantly for the thesis, if there is a (non-imperative) verb with a missing overt core argument in PYN, the third person singular is implied unless the context suggests otherwise (J. Hobson p.c., Bowe 1990: 24). Another way of putting this is that the third person singular nominative clitic pronoun is =Ø (Glass 2006: 159). We take this analysis because while P/Y has the full forms *paluṟu/palunya*, in all three dialects there is a gap in the clitic paradigm for third person singular. In P/Y the zero clitic extends to third person singular accusative; this is usually the case for Ngaanyatjarra too, though the clitic =*lu* is attested with some verbs as shown below. The zero clitic is of great significance in later discussions on valence, ellipsis and anaphora resolution.

The recipient with the semantically trivalent verb *nintilku* 'give' is the object clitic =*nta* in (3.22); giver and theme are both Ø.

(3.22) *Ninti-nu munta=nta*
        give-PST Q=2SG.ACC
        'Did (he/she) give (it) to you?'

Ngaanyatjarra example (3.23) shows that the default third person singular nominative is understood. In this and (3.24) however the third person singular accusative is a pronominal clitic =*lu*. Douglas (1957: 48) says this only occurs on two verbs (*nyaku* 'see' and *watjalku* 'tell') in Ngaanyatjarra, though in (3.24) the verb is *kutikatiku* 'take' and =*lu* is not attached to it

but to an argument. This clitic does not exist in P/Y; both nominative and accusative third person singular clitic pronouns are always =Ø in these dialects[5].

(3.23) *Watja-<u>nu</u>=lu*
     tell-PST=3SG.ACC
     '(He) told him.'

(3.24) *Ka   Donnegan-nga=lu   kutikati-ngu.*
     and.DS [name]-ABS=3SG.ACC   take-PST
     'And (they) took Donnegan away = and Donnegan was taken away.'

The zero clitic could be other person or number if this is implied in the narrative (J. Hobson p.c.) but this is unlikely (S. Lewis via R. Defina). An example of non-third person singular is in (3.25b), where *kutikatiku* is transitive and the sole overt argument *wikarru* is ergative. The translators suggest 'them' as the missing argument because the previous clause (3.25a) introduces =*ya* 'they'.

(3.25) (a) *pitja-yilku=ya   kapi-ngka nyina-yilku*
     come-COND=3PL water-LOC stay-COND
     nya-ku   pitja-ku   wati waalkarra-ntja wikarru
     see-COND come-COND man appear-NOML messenger.ABS
     'They would come (and) stay at that water hole (and) might see a messenger come into view'
    (b) *Pitja-ku   waalkarra-ra wikarru-lu   kutikati-ku kutjupa kapi-ku*
     IV   IV   A   TV
     come-COND appear-SER   messenger-ERG take-FUT   another water-PURP
     'The messenger would come (and) take (them) to another water hole'

The Western Desert pronominal 'suffixes' have been claimed to be abbreviated versions of the full forms and attached to the verb root (Capell 1956: 13-16). Blake (1987: 183-184), on the other hand, says that only the plural bound forms are derivable from free pronouns. As the clitics do not preferentially attach to the verb, this is not evidence of noun incorporation or head marking; nor are they the verbal suffixes described by O'Grady & Laughren (1997). The clitics attach to any class of word as long as it is the first constituent of a clause, although there are certain words that they cannot attach to. In (3.26), the third person plural nominative clitic =*ya* attaches to *munu*. Since *munu* already carries the connotation of same subject from the previous sentence, =*ya* might be deemed extraneous. However it is very common in practice to add these clitics, perhaps to recapitulate or for emphasis.

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[5] Dixon (2011: 363) gives Western Desert third person singular O as =*lu*, suggesting it is more common in other dialects.

(3.26) *Munu=ya*   *kunyu kuka pulka*   *kati-ra*   *u-ngkupai*
       and.SS=3PL.NOM   REP   meat much.ABS   bring-SER give-CHAR
       minyma, tjitji tjuta ngura-ngka.
       woman, child PL camp-LOC
       'They would bring back a lot of meat and give (it) to the women and children in camp.'

The order of pronominal clitics is first person followed by second and third regardless of case (except second person *=n* which is always last) (Glass 2006: 60). An example is in (3.27). This is significant in later discussions on pragmatic word order changes.

(3.27) *Ka=nta=ya*   *pirni-lu*   *nya-ku*
       and.DS=2SG.ACC=3PL.NOM   many-ERG   see-FUT
       'And everyone will see you.'

While Ngaanyatjarra has an almost complete set of clitic pronouns and rarely uses the full forms except in emphasis or contrast (Glass 2006: 63), only the most common P/Y pronouns have clitic equivalents (Goddard 1996: xi). In P/Y the clitics are not used as commonly as heretofore; full forms are now used preferentially (J. Hobson p.c.). However both are used in displays of oratorical flair, with a competing imperative for economy. Alternatively a sentence can have both, for example *ngayuluna* which is similar to 'I myself' in English (ibid.).

Nouns in PYN have core and two types of peripheral case (local and syntactic); pronominal clitics have a reduced number of peripheral forms. The genitive-purposive clitics are shown in Table 3-9 (Bowe 1990: 17, Glass 2006: 56-57); forms which are only found in Ngaanyatjarra are indicated.

Table 3-9: PYN genitive/purposive clitics

	Singular	**Dual**	**Plural**
1st	*=tju*	*=limpa*	*=lampa*
1st **excl**		*=limpatju* (N)	*=lampatju* (N)
2nd	*=nku*	*=pulampanku* (N)	*=tjanampanku* (N)
3rd	*=ra*	*=pulampa* (N)	*=tjanampa* (N)

Bowe (1990: 17) claims that these genitive/purposive clitics attach to the first element regardless of whether they are being used as genitive or purposive; they do not attach preferentially to the noun they qualify. Therefore unlike the full versions they are not in the NP they qualify. This mirrors the nominative and accusative pronoun clitics and similarly they do not represent head marking within a NP. Alternative means are shown, using an inflected independent pronoun in (3.28a) and a genitive clitic in (3.28b). The LS is based on Van Valin (2005: 52), with the head underlined.

(3.28) (a) *Ngayu-ku papa*
        1SG-GEN dog
    (b) *Papa=tju*
        dog=1SG.GEN
        'My dog'
        have' (1SG, <u>papa</u>)

The Ngayarta language Palyku (Pama-Nyungan, Western Australia)[6], has three sets of bound pronominals marking person, number and grammatical function (O'Grady & Laughren 1997). By contrast, PYN combines all three functions in one form.

3.8 Cross-referencing of pronominal clitics and nominals

In PYN, the pronominal clitics may exist in a clause together with full form pronouns or NPs. This cross-referencing means there are potentially two (or more) sets of arguments. With respect to valence adjusting considerations, is there is a difference between cliticised pronominals and free standing ones? Blake (1987: 17) discusses cross-referencing in Australian languages and claims that it may distinguish two grammatical relations within one case (ibid.: 34): for example where the ergative case covers A and instrument, A is cross-referenced but not instrument. Van Valin & LaPolla (1997: 33-34) compare clitics and full forms. The use of a full NP and a cross-referencing clitic creates emphasis in Pitjantjatjara (Bowe 1990: 19). Glass (2006: 54) says that since pronouns have number, they are often used alongside nouns, which do not. In (3.29), the clitic pronoun *=pula* and NP *kurrirarra* cross-reference the sole argument of the intransitive verb *pitjaku*. Example (3.30) has *ngayulu=<u>na</u>,* first person full form and clitic for emphasis. In (3.31), the ergative marked NP is cross-referenced by *=ya*.

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 43)</div>

(3.29) *Ka=pula*   *kurrirarra*   *pitja-yintja*   *kayili-nguru*
       and.DS=3DU.NOM man.and.wife.ABS come-EXT   north-ABL
       'A man and his wife were coming from the north'

<div align="right">P/Y (Goddard 1996: 9)</div>

(3.30) *Ngayu-lu=<u>na</u>*   *palatja*   *watarku-ngku*   *a<u>n</u>tawa<u>n</u>i-ngu*
       1SG-NOM=1SG.NOM   DEM.ABS   accidentally-ERG drop-PST
       'I dropped that by mistake'

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[6] Some have related this to Western Desert but this is disputed by the authors.

(3.31) *Governmenta nyanga   four-ngku=ya   kanyi-ni.*
        government   DEM   four-ERG=3PL.NOM   keep-PRES
        'And four governments kept (it).'

In other cases, there is an accusative pronoun clitic but another non-nominative case for the full form. Blake (1987: 102) shows that the core pronoun 'object' clitic covers certain non-core cases including destination and source, which are both low in the hierarchy. This is because there is a more limited set of cases with pronominal clitics. Destination is cross-referenced (ibid.) in (3.32) with *=nta* and *nyuntu-lakutu*. The clitic *=nta* is usually glossed 2G.ACC, but it might be better thought of as non-nominative or oblique (Glass & Hackett 1970: 41), covering other cases including non-core ones like the allative as here.

(3.32) *Vincent-nga=nta   mapitya-ngu nyuntu-lakutu*
        [name]-ABS=2SG.OBL   go-PST   2SG-ALL
        'Vincent went to you'

Several clitics may occur in a clause referring to the same semantic entity in PYN as in (3.33). Glass (1979: 25) says the second *=latju* may be omitted in the example to leave only one instance in the clause, indicating a level of redundancy. This is a use of more arguments than strictly required syntactically, for emphasis. Removing the second instance is not regarded as syntactic valence decreasing if all the syntactic slots are still filled.

(3.33) *Ka=latju   rapita-ku=latju   katu-rri-ngu*
        and.DS=1PL.EX.NOM rabbit-PURP=1PL.EX.NOM up-INCH-PST
        'And we got up for rabbits'

3.9 Co-existence of case systems

Goddard (1982) claims that Australian languages have three core cases: ergative, nominative and accusative. He distinguishes case systems from case marking systems. This is in contrast to Dixon (2011: 286-288), who states that there are two systems of case marking co-existing. Based on Dixon's view and following Van Valin & LaPolla 1997: 353, 359), the core case assignment rules for PYN pronouns in (3.34) and nouns in (3.35) are proposed.

(3.34) Assign nominative to highest ranking macrorole argument;
        assign accusative to the other macrorole argument;
        assign dative case to non-macrorole direct core argument.

(3.35) Assign absolutive to lowest ranking macrorole argument;
        assign ergative to the other macrorole argument;
        assign dative case to non-macrorole direct core argument.

This means that the accusative and ergative case marking systems co-exist without issue, as shown in (3.36) and (3.37) with transitive *nyangu* 'saw'. In each case the argument behaves as it would in a non-mixed case situation, and this is not affected by the presence of the other argument from the opposite case system.

<div align="right">Pitjantjatjara (Bowe 1990: 11)</div>

(3.36) *Ngayu-lu   tjitji   nya-ngu*
        1SG-NOM   child.ABS   see-PST
        'I saw the child'

(3.37) *Tjitji-ngku   ngayu-nya nya-ngu*
        child-ERG   1SG-ACC   see-PST
        'The child saw me'

In the whole-part construction in (3.38), while both the pronoun and noun encode a transitive verb patient, they are marked differently as befits their different case marking systems. The 'owner' of a body part is not marked with the genitive in PYN, but shares case with the body part.

<div align="right">Pitjantjatjara (Bowe 1990: 54)</div>

(3.38) *Tjilka-ngku   ngayu-nya tjina   waka-<u>nu</u>*
        prickle-ERG 1SG-ACC foot.ABS pierce-PST
        'A prickle pierced my foot'

Blake (2001: 26) claims that a problem arises with whole-part constructions where, as in Australian languages generally, the whole and the part appear in parallel with the case appropriate to their function in the clause. This is not an issue if the RRG assignment principles are followed. In (3.38) the pronoun whole and noun part encoding the patient of a transitive verb do not match in case marking, since the pronoun has accusative marking and the noun absolutive; both have patient semantic role.

3.10 Core/non-core cases

Australian languages rarely have prepositions, because they have case systems that carry out similar functions (Dixon 2011: 272). PYN is typical in this regard. The dialects use case marking rather than adpositions for both core and non-core elements. Ergative, absolutive, nominative and accusative are the core cases according to Dixon (2011: 302), but semantically trivalent verbs (such as 'give', 'tell' or 'put') implicitly involve a beneficiary/recipient or locus/goal of action. While a recipient of a 'give' verb is regarded as intrinsic to the action semantically, a beneficiary of an action may not be. The dative and locative cases are classed as peripheral in Table 3-3; we will investigate whether NPs marked with these cases are syntactically in the core with certain verbs.

In lieu of non-predicative adpositional phrases, PYN marks a recipient of 'giving' verbs with purposive *-ku* like a beneficiary[7]. The locus/goal of 'put' verbs such as *tjunanyi/tjunku* is marked locative *-ngka*. A consideration of this is important in the study, as we are interested in syntactic core arguments versus those in the periphery. Van Valin (2005: 109-110) says the dative is the default non-macrorole argument; other cases such as instrumentals can be non-macrorole arguments under specific conditions.

To decide whether a particular case is marking core or non-core, we need to be aware of the nature of the predicate and in section 3.14 we will outline some tests. The following two examples illustrate the issue. Intransitive *anu* 'went' in (3.39) has the destination in purposive case. The sole syntactic argument *kungka* is absolute.

P/Y (Goddard 1996: 42)

(3.39) *Kungka   ngura-ku   a-nu*
         woman.ABS home-PURP go-PST
         'The woman went home'

PYN uses bleached posture verbs to indicate location (Goddard 1993: 13, Glass 2006: 43) rather than predicative adpositional phrases. An example is intransitive *nyinanyi* 'sit' and locative case marked *wali* in (3.40). Sole syntactic argument *wati tjuṯa* is absolute.

P/Y (Goddard 1996: 98)

(3.40) *Wati tjuṯa   waḻi-ngka   nyina-nyi*
         man PL.ABS   house-LOC sit-PRES
         'The men are in/at the house'

Determining the LS of these verbs will assist in understanding the particular use of a case, as well as macrorole assignment.

3.11 Animacy hierarchy

Why are the case marking systems different in PYN nouns and pronouns? Factors such as animacy and referentiality should be taken into account: not all referring expressions are the same (Silverstein 1976). With respect to split case marking, Silverstein (ibid.) describes a hierarchy of 'inherent lexical content' of NPs. This reflects the naturalness of the NP being the agent of a true transitive verb. This is claimed by Rose (2001) to be an important explanatory factor in case marking.

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[7] P/Y has the option of a double object with the recipient absolutive if the theme is closer to the verb.

The following nominal hierarchy of sub-classes is based on Blake (1987: 20-21) and Dixon (2011: 289):

- Non-singular first and second person pronouns
- Singular first and second person pronouns
- third person pronouns
- Personal names, kin terms, proper nouns
- Human
- Animate
- Inanimate

While it has received some criticism (such as Blake 1987: 165), the Silverstein hierarchy has features such as animacy, control and propensity to be the topic of a clause indicating a higher position. There may be an attendant split in the behaviour of case marking with respect to the complexity of forms or split ergativity, from first person pronouns to inanimate nouns. Those at the top of the hierarchy are more likely to have accusative marking; those at the bottom ergative. In both cases the more natural role argument (nominative and absolutive) is unmarked. If both systems are present then they meet at some point in the hierarchy.

There is a clear difference in function within pronouns, which have a division between first and second person on the one hand and third person on the other (Silverstein 1976). First and second person pronouns refer to the speaker and addressee (Van Valin 2001: 6) in a speech event. third person pronouns are anaphora with antecedents, nouns which usually need to be introduced at the outset. Australian case systems (Dixon 2011: 285-291) generally have accusative pronoun and ergative noun case marking systems. PYN has accusative up to second person pronouns. In Ngaanyatjarra, third person independent pronouns are effectively demonstratives with ergative marking, while P/Y has separate pronominals that have accusative marking. These are thus on the border as regards animacy between second person and common nouns. The pattern of non-overt cases partially applies in PYN. Absolutive is Ø in non-names; however some pronouns have an overt nominative. Personal names have different markings to non-names in certain case markings including an overt absolutive. PYN is thus one of several varieties of Western Desert reported as having absolutive suffixes on personal names (Blake 1987: 30): on the Silverstein hierarchy personal names are adjacent to pronouns.

Historically the situation in Australia varied. Dixon (1994: 41) states that Dhalanji (Pama-Nyungan, Western Australia) has ergative nominals, except for the first person pronoun which is accusative. An earlier stage had all pronouns accusative but the nominal ergative encroached on this. There is a split ergative system for nominals and pronouns in Diyari (Pama-Nyungan, South Australia) (Austin 2011: 13): some nominals have three case markings, others have an ergative system. Generally terms higher up on the hierarchy show a greater marking of number such as singular, dual and plural than lower ones: pronouns in PYN have dual and

plural number; nominals have no number marking or forms. In languages generally with person ergative-absolutive splits first and second person are accusative; third is ergative (Alexiadou & Anagnostopoulou 2006). PYN is in accord with this only if we count demonstratives as third person singular; third person dual and plural are accusative.

Silverstein (1976) states that actants are treated differently not only with respect to a subject/object dichotomy, but also to their place on the agentivity scale. There is a semantic reason why case marking is motivated by hierarchy: components further up the hierarchy are more natural instigators. Overt case – ergative or accusative – marks a form in a function which is semantically marked (Dixon 2011: 291). In Umpithamu (Pama-Nyungan, Queensland) the ergative case marker is determined by animacy and information structure. Inanimate transitive subjects are most likely to get the ergative marking as this is more unexpected (Verstraete 2010), while animate transitive subjects only receive ergative marking when in focus with local prominence. Ergative marking may be optional, and semantically or pragmatically motivated (McGregor 2010).

The relationship between animacy and syntactic structure such as word order might be explained by the influence of animacy or psychological processes during language production (Branigan, Pickering and Tanaka 2008). Animacy has a correlation with conceptual accessibility, how easily a concept is retrieved from memory. Animate entities are retrieved more easily; easily accessed information is processed first. Split systems can have split intransitivity or split ergativity, depending on semantics, pragmatics, agentivity and volition (Payne 1997: 144-146). These last two are relevant to a consideration of animacy. Payne (ibid.) discusses split systems where the S_O is distinguished from S_A with intransitive non-volitional or stative clauses versus intransitive volitional or active clauses. Single arguments can vary in case marking depending on whether they are agentive or patientive; the motivations are explored but may include lexicalisation and diachronic processes (Mithun 1991).

The animacy nominal hierarchy is also discussed in Dixon (1994: 85). The morphological forms used in the classification of nominals are represented by noun class affixes in Australian languages. Historically there is a distinction between human and non-human in demonstratives (Sands 1995) which indicates the significance of animacy.

There are some similarities in the realised forms between proper noun and pronoun case endings in PYN. Object pronouns have the case ending -*nya* which is similar to the absolutive ending on names and Dixon (2011: 315) claims that the -*nya* pronoun accusative has become extended to S as well as O in Western Desert in proper nouns. first person singular nominative *ngayulu* has the ending -*lu* which is similar to ergative case with names in P/Y and the ergative case in general in Ngaanyatjarra; *nyuntulu* is an optional form of second person singular nominative. The PYN purposive/genitive suffix -*ku* occurs on first person singular, while it is -*mpa* on other pronominals in P/Y. The -*ku* suffix is the same form as that found with nouns and

nominalised clauses, which is interesting if it associates first person singular with entities lower down the hierarchy.

Differential object marking (DOM) is a phenomenon found in many language groups including Pama-Nyungan (Aissen 2003: 439). In relation to DOM, Aissen puts forward an animacy scale (3.41) and a definiteness scale (3.42) (ibid: 437), which splits Silverstein's animacy hierarchy and adds other elements. PYN does not distinguish on this animacy scale; but there are different forms on the definiteness scale.

(3.41)   human>animate>inanimate
(3.42)   personal pronoun>proper name>definite NP>indefinite specific NP>non-specific NP

As well as determining how instigators are marked, animacy has an influence on the marking of objects. DOM is illustrated in Spanish with these examples from the animacy scale, showing the low prominence object unmarked in (3.43) and high prominence one marked in (3.44).

Spanish (Aissen 2003)

(3.43)   *Veo   la   casa*
         see.1SG.PRES DET house
         'I see the house'

(3.44)   *Veo   a   la   mujer*
         see.1SG.PRES IO DET woman
         'I see the woman'

Third person has divisions of salience. A distinction between proximate and obviative third person is drawn by Aissen (1997). Proximate and obviative morphology is related to 'aboutness' as discussed in Goddard (1990). When there are two animate third person pronouns, the more salient is proximate. In Algonquian (North America) languages, third person nominals are ranked according to grammatical function, discourse salience and inherent semantic properties (Aissen 1997). The highest ranked third person is proximate: the rest obviative. This is claimed to be relevant in the study of other languages too. We can see this with the different forms of demonstrative in Ngaanyatjarra, referring to the distance of the referent from the speaker. The degree of prominence is correlated with the likelihood of overt case marking such as a marked direct object. The need for economy is an impetus to avoid case marking (Aissen 2003).

3.12 Noun phrases

3.12.1 Structure of noun phrases

The elements of a NP are contiguous in PYN, with word order constraints and phrase final case marking. This opposes it to non-configurational Australian languages such as Dyirbal (Van Valin & LaPolla 1997: 23, 33). This restriction on the order of words is unlike the freedom of constituent order in a clause (Bowe 1990: 8). Despite this constraint, there are slightly different

reports as to the position of determiners or demonstratives in noun phrases in the dialects. The constrained NP word order in Pitjantjatjara is genitive-head-determiner-adjective-number (ibid.: 148), or head-demonstrative-attribute-quantifier (ibid.: 111-113). The general Western Desert NP order is possessor-head-adjective-demonstrative (Blake 1987: 78) which Blake claims is the order in Ngaanyatjarra. Glass & Hackett (1970: 60) however put the Ngaanyatjarra order as possessor-head-demonstrative-adjective-numeral which is in accord with Bowe. The authors agree on adjective following noun: this is significant as syntactic distribution is one of the means of distinguishing nouns and adjectives in Australian languages because inflectionally they are both sub-classes of nominal (Blake 1987: 3). Full NPs are indefinite if they lack a demonstrative (Bowe 1990: 35), but from the corpus the division appears to be indefinite/definite versus specific. The NP initial position (NPIP) in RRG has possession, deixis and determiners (Van Valin 2005: 26-27). A PYN NP has possessives first in word order, with other determiners after the head noun[8]: as Capell (1956: 26) says, the possessor occurs before the possessed as an independent morpheme in Western Desert. PYN indicates this relation with a genitive suffix *-ku*. In (3.45), there is a NP *tjilku kurluny* within a NP. The head of the main NP is *papa*.

(3.45) *Tjilku kurluny-ku papa*
       child little-GEN dog
       'The little child's dog'

Within a NP there are not necessarily complements but rather modifiers, with the phrase headed by a noun or nouns. Adjectival nominals may head NPs, with nouns missing and being implied as 'one'. Capell (1956: 26) states that separate word possessives consisting of a pronominal base and possessive suffix are found universally in Western Desert. Other than the genitive, case marking in PYN is on the NP itself rather than any of the individual constituent nominals. In (3.46), the genitive marked pronominal *nyuntuku* precedes the head noun *papa*, with attribute, number and demonstrative following in that order. The entire NP is case marked absolutive. The constituent and operator projections are shown in Figure 3-2.

(3.46) *Nyuntu-ku papa puḻkanya kutjara nga:nya   pika-ri-ngu*
       2SG-GEN dog big   two   DEM.ABS sick-INCH-PST
       'These two big dogs of yours have become sick'

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[8] So being in the NPIP is not a prequisite for definiteness in PYN.
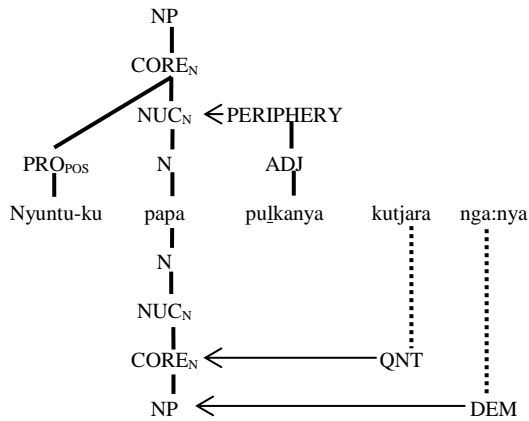
Figure 3-2: Ngaanyatjarra layered structure of the noun phrase

PYN lacks the definite alternatives of English ('my book'/'a book of mine') and there is no evidence for a NPIP grouping possessives and demonstratives, suggesting that in PYN the genitive noun exists as a NP core argument. The genitive always occurs with a following referring expression. Aside from the genitive if present, PYN is head-initial within NPs. Adverbs form separate phrases and match the case marking of the phrase that is the actor in a transitive clause.

There is no plural marking on NPs in PYN. Instead *tjuṯa/tjurta/pirni* 'lots' is included as the last element of a NP, as in (3.47). Only the last element of the NP gets case marking, and there is no number agreement within the phrase.

<div align="right">

P/Y (Goddard 1996: 191)

</div>

(3.47)   *Papa tjapu tjuṯa-ngku mai   ngalku-ṉu*
         dog small PL-ERG   food.ABS eat-PST
         'The small dogs ate the food'

3.12.2 Continuity and discontinuity in noun phrases

Blake (2001: 71) states that the rule that each role is included only once per clause takes into account coordination in noun phrases such as with the two names in (3.48), where the coordinated constituents fulfil one role and thus one argument. There is more than one head in a coordinate phrase, but both heads must be of the same category.

(3.48)   'Jack and Jill went up the hill'

NPs in PYN may contain several nouns, each case marked individually or with phrase final marking only. RRG posits a maximum of two arguments per predicate in a logical structure, so in coordinate NPs the constituents together form an argument, the Referential Phrase (RP) (Van Valin 2005: 28) or as later termed, the Reference Phrase (Van Valin 2008a: 168-169). This analysis is confirmed in PYN by clitic behaviour. In a Pitjantjatjara compound NP, while the constituent NPs can be separately case marked, they form one unit for clitic placement (Bowe 1990: 141) as in (3.49). It is still a single constituent with *munu* 'and, same subject' as in (3.50). Because the three nouns form part of one complex NP; there is no 'different subject'. These are

conjoined NPs, in NP coordination (Van Valin & LaPolla 1997: 492). Ergative marking only on the last noun of the phrase is also grammatical as in (3.51).

(3.49)   *Wati-ngku tjitji-ngku minyma-ngku=<u>ni</u>*   *nya-ngu*
        [man-ERG child-ERG woman-ERG]=1SG.ACC   see-PST
        '<u>The man, the child and the woman</u>_ACT all saw me_UND'

(3.50)   *Wati-ngku tjitji-ngku munu   minyma-ngku=<u>ni</u>*   *nya-ngu*
        [man-ERG child-ERG and.SS   woman-ERG]=1SG.ACC see-PST
        'The man, the child and the woman saw me'

(3.51)   *Wati tjitji minyma-ngku=<u>ni</u>*   *nya-ngu*
        [man child woman-ERG]=1SG.ACC see-PST
        'The man, the child and the woman saw me'

Many right-edged languages allow full concord within the NP (for example Warlpiri), and probably all require it across discontinuous NPs (Nordlinger 1998: 96). With apposed nouns that are coreferent, it might be said that only one of the apposed elements is in the clause (Blake 2001: 71). More than one case marked item is possible relating to a single argument; these are separate conjuncts becoming a single constituent: an uninflected particle like *kunyu* 'reportedly, apparently' comes after the first constituent in a clause (Bowe 1990: 42-43). In (3.52) the constituent *wati, tjitji, minyma* is absolutive with intransitive *ngaringu*.

(3.52)   *Wati, tjitji, minyma*   *kunyu paltjatjiratja ngari-ngu*
        [man child woman.ABS] REP   hungry   lie.down-PST
        'The story goes that <u>the man, the child and the woman</u>_UND went to sleep still hungry'

In (3.53) the sub-clause *kukatjiratja* 'because without meat' is ergative as it relates to the ergative NP compound in the main clause. The compound cannot be split by particles like *kunyu* or the anaphor *panya*, as shown by the ungrammatical nature of (3.54). This again indicates that the nouns form one unit. *Tjanampa* in (3.55) is the determiner for both following nouns; *puṯu* follows the NP.

(3.53)   *Wati-ngku, tjitji-ngku, minyma-ngku kunyu,*
        [man-ERG child-ERG woman-ERG] REP
        kuka-tjiratja-ngku mai   ngalku-nu
        meat-lacking-ERG food.ABS eat-PST
        'The story goes that <u>the man, the child and the woman</u>_ACT ate bread_UND because they didn't have any meat'

(3.54) *Wati-ngku, tjitji-ngku kunyu minyma-ngku kuka-tjiratja-ngku mai   ngalku-nu
      man-ERG child-ERG REP woman-ERG meat-lacking-ERG food.ABS eat-PST

<div align="right">P/Y (Goddard 1996: 102)</div>

(3.55) *Tjana-mpa ngunytju-ngku mama-ngku   putu   nguri-ningi*
      [3PL-GEN mother-ERG father-ERG]   in.vain   find-PST.CONT
      'Their mother and father couldn't find (them)'

Having a multiple constituent argument does not increase semantic valence and the constituents behave as one unit syntactically, so S-transitivity is unaffected. In RRG terms this represents multiple coordinated actors or undergoers fulfilling one macrorole. In PYN, the elements of an argument are contiguous. While RRG can handle discontinuous arguments, there may be constraints in languages where the elements are not contiguous[9].

In (3.56) combining a name and a pronoun *tjana*, each is a separate case marked NP but these must still be adjacent like the previous examples, making a complex NP (Blake 1987: 94).

<div align="right">Yankunytjatjara (Blake 1987: 94)</div>

(3.56) *Ngayu-lu   Tjampu-la   tjana-la   nyina-ngi*
      1SG-NOM   [name]-LOC   3PL-LOC   sit-PST.CONT
      'I stayed with Tjampu and the others'

With whole-part constructions such as body parts there is rarely a genitive in Australian languages: 'owner' and part are marked similarly (Blake 1987: 94-95). This means that in (3.57) there is no instrumental case; *mara* is marked ergative like the 'owner' *wati*.

<div align="right">Yankunytjatjara (Blake 1987: 95)</div>

(3.57) *Wati-ngku   mara-ngku   papa   pu-ngu*
      man-ERG   hand-ERG   dog.ABS   hit-PST
      'The man hit the dog with his hand.'
      do' (wati, **hit'** (**have.as.part'** (wati, mara), papa))

Blake claims that owner and part are in separate phrases, and gives additional evidence for this by the fact that *wati* and *mara* can be separated as in (3.58). Discontinuity of phrases is not the norm in Western Desert languages, but a person or animal and body part can be separated (Blake 1987: 96) as here. This is similar to the case agreement shown by adverbs.

<div align="right">Yankunytjatjara (Goddard 1983: 42)</div>

(3.58) *Wati-ngku papa   mara-ngku pu-ngu*
      man-ERG dog.ABS   hand-ERG hit-PST
      'The man hit the dog with his hand.'

Is *wati* or *mara* the actor? As we have seen with natural forces like wind or rain, the actor does not have to be agentive. However, Schultze-Berndt & Simard (2012) claim that the possessor is

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[9] For example despite apparent NP discontinuity in the non-Pama-Nyungan language Jaminjung (Mirndi, Northern Territory), in fact constraining can be discerned (Schultze-Berndt & Simard 2012).

the core argument; meronymy means that the body-part shows the locus of the possessor's involvement in the event. These authors agree with Blake that the two are in separate phrases; their analysis suggests that the owner is the actor.

An example like (3.59) may look like a discontinuous ergative marked phrase. Afterthought comments like this are very common in Pitjantjatjara with such late news being marked (D. Rose p.c.). The comment provides more information on one of the arguments, and with the pause is in the RDP. This is significant in cases where a pronoun is the argument in the clause. In this instance though rather than a coreferring pronoun in the main clause, there is the full NP *wati nyanga* which is qualified by the afterthought. By its nature the elements of the RDP will be discontinuous to elements in the main clause, and they do not together form a phrase.

Pitjantjatjara (Bowe 1990: 29)

(3.59) *Wati nyanga-ngku mutaka   palya-nu, ninti puḻka-ngku*
        man DEM-ERG   car.ABS fix-PST   clever lot-ERG
        'The man fixed the car, the very clever fellow!'

3.13 Verbs

There are four PYN verb classes each with its own series of inflectional endings (Goddard 1996: xii, Glass 2006: 30-32, Glass & Hackett 2003: 6), shown in Tables 3-10 and 3-11; the roots are similar but with slightly different endings. The very few irregular verbs only have minor irregularities, without suppletion. For verbs, an inflected form rather than the root is used for citation: this is the future tense for Ngaanyatjarra (Glass & Hackett 2003) and present tense for P/Y (Goddard 1996), and the thesis follows this practice. The form reflects and indicates to which of the four verb classes the verb belongs. As a rule, intransitive verbs are Ø class and transitive ones *l* class (Goddard 1993: 12, Bowe 1990: 29, Glass 2006: 32-34). The other two classes are less populous, have a mix of intransitive and transitive, and are apparently closed classes (Bowe 1990: 29). They do however contain the root verbs *punganyi/pungku* 'hit' and *tjunanyi/tjunku* 'put' which take part in numerous compounds. Note the retroflex consonant of several verb endings in *l* class, distinguished from Ø class.

Table 3-10: Pitjantjatjara/Yankunytjatjara verb classes

	(Ø)	(l)	(ng)	(n)
	('zero' class)	(la-class)	(wa-class)	(ra-class)
	'talk'	'bite'	'hit'	'put'
Imperative	wangka-Ø	patja-la	pu-wa	tju-ra
Past	wangka-ngu	patja-_nu_	pu-ngu	tju-nu
Imperative (continuous)	wangka-ma	patja-nma	pu-ngama	tju-nama
Present	wangka-nyi	patja-_ni_	pu-nganyi	tju-nanyi
Past (continuous)	wangka-ngi	patja-_ni_ngi	pu-ngangi	tju-nangi
Future	wangka-ku	patja-lku	pu-ngkuku	tju-nkuku
Characteristic	wangka-pai	patja-lpai	pu-ngkupai	tju-nkupai
Serial	wangka-ra	patja-_ra_	pu-ngkula	tju-nkula
Nominal form	wangka-nytja	patja-ntja	pu-ngkunytja	tju-nkunytja

Table 3-11: Ngaanyatjarra verb classes

	(Ø)	(l)	(ng)	(n)
	('zero' class)	(la-class)	(wa-class)	(rra-class)
	'talk'	'bite'	'hit'	'put'
Imperative	wangka-Ø	patja-la	pu-wa	tju-rra
Past	wangka-ngu	patja-rnu	pu-ngu	tju-nu
Imperative (continuous) Future (continuous)	wangka-ma	patja-nma	pu-ngama/ pu-ngkuma	tju-nama/ tju-nkuma
Present	wangka-rra	patja-ra	pu-ngkula	tju-nkula
Past (continuous)	wangka-rranytja	patja-ranytja	pu-ngkulanytja	tju-nkulanytja
Future	wangka-ku	patja-lku	pu-ngku	tju-nku
Characteristic	wangka-payi	patja-lpayi	pu-ngkupayi	tju-nkupayi
Serial	wangka-rra	patja-ra	pu-ngkula	tju-nkula
Nominal form	wangka-nytja	patja-ntja	pu-ngkutja pu-ngkunytja	tju-nkutja tju-nkunytja

Tense, aspect or mood (TAM) operators are generally indicated by suffixes on the verb stem, with no participant reference marking on the verb or agreement. While the present tense refers to an event that is happening at the time of utterance, Goddard (1993: 10) states that it is also used for future events that are quite certain. The future tense does not have the certainty of English, but is also used for questions, suggestions, and notions like 'will' or 'might' (ibid.) as well as the habituative in Ngaanyatjarra (Glass & Hackett 1979: vii, Glass 2006: 89). Thus we may draw a basic distinction between realis and irrealis in verb forms. Furthermore, Rose (2001: 400) states that aspect may be expressed in Pitjantjatjara through verb complexes; for example *wiyani/wiyalku* 'finish' can occur after a non-finite verb to indicate completion. The lexical roots and tense potentials of verbs are distinct and independently variable. Tenses locate events or situations in time, in relation to the time of speaking, so a PYN verb in present tense is happening now, while one in past continuous was happening in the past.

A theory put forward by Capell (1956: 77) suggests that *-gu* is a common Australian suffix for both nouns and verbs, indicating purpose. Thus for nouns it is used in the purposive, dative and genitive, while in verbs it indicates the future or intended action. This suffix, or

voiceless *-ku* (Dixon 1976: 11) occurs in languages throughout Australia including PYN (which does not have a voiced/voiceless distinction).

An important element in PYN narratives and discourse is the presence of verbs of 'posture'. While these intransitive verbs are literally translated as *nyinanyi/nyinaku* 'sit', *nga̱ranyi/ ngaraku* 'stand', *ngarinyi/ngarriku* 'lie' and *pupanyi/pupaku* 'stoop, crouch', they can also be interpreted as 'live', 'be' and so on. They may describe states or activities, appearing with nominals or other verbs. With adverbs of manner/active adjectives needing a posture verb, this reflects the case that many forms of 'be' are posture verbs (Goddard & Harkins 2002).

3.14 Predication in PYN: predicate tests

The valence adjusting means discussed in later chapters include the addition, removal, promotion and demotion of arguments, and this requires an understanding of the spectrum of verb transitivity (Hopper & Thompson 1980). Here, we use tests to categorise the nature of PYN predicates and to make predictions about the number and kinds of arguments they require. This leads on to the question of what kinds of valence adjusting the verbs can be involved with. We apply the tests to Pitjantjatjara valence-adjusted derived verbs in chapter 5, so our test cases in this section are in that dialect, with notes and examples from the other two dialects.

We base the tests on those described in Van Valin & LaPolla (1997), while being cognisant that certain tests may not be appropriate in a particular language: care should be taken with the lexemes chosen for the tests. In Western Desert, these meanings may not be innate to the lexical item functioning as verb (D. Rose p.c.) and such tests are intended to examine this. Relations between these kinds of meanings and general categories of Pitjantjatjara verbs are discussed by Rose (2001, 1996). Instantaneous or drawn out actions for example may be conveyed by serialised verbs rather than aspect or adverbs; we investigate this in chapter 6.

Because the tests may be language-specific, we should not lose sight of the rationale for having such tests in the first place. Künkel (2018) sums them up as ±static, ±dynamic, ±telic and ±punctual. We also consider changes of state, causativity and agency.

Other theories of syntax use different terminology. Meanings such as 'change of state', 'dynamic', 'is telic', 'takes time' or 'has agency' are 'clause rank features' in Systemic Functional Linguistics, realised by configurations of verbs with other elements. The primary distinction in transitivity is between types of processes, such as 'doing', 'saying', 'sensing' and 'being' (D. Rose p.c.). RRG represents these distinctions through the LS, and linking it to the constituent projection.

The Pitjantjatjara verbs selected for the tests are given in Table 3-12; some are common and others were chosen as appearing to fit semantically into a category. Nevertheless we do not wish to make assumptions; the tests allow us to describe verbs, as well as refining the tests as

appropriate to PYN. We ran tests 1-6 on these verbs, through a search of the corpus as well as data from consultants.

Table 3-12: Pitjantjatjara predicates for Aktionsart testing

Verb		Verb	
nyinanyi	sit	*ananyi*	go
wangkanyi	say	*nyanganyi*	see
punkaṉi	fall	*taaṉi*	burst
kampanyi	burn	*kuntjulpunganyi*	cough
wirtjapakaṉi	run, speed off	*nintiringanyi*	learn
ngalkuṉi	eat	*wirtjapakani 1 mile/ karukutu*	run a mile/to the creek

The results are found in Appendix B. A limitation is that the absence of an item from the corpus does not mean a posited structure is ungrammatical; rather it may mean that it is not commonly used. We will discuss the tests in the following sections.

3.14.1 Test 1: Progressive aspect: -static

Criterion	State	Activity	Semelfactive	Achievement	Accomplishment	Act. Acc.[10]
1. Occurs with progressive aspect	No	Yes	No	No	Yes	Yes

States and achievements do not take time, so progressive aspect should not occur with them. Single argument state predicates in PYN consist of a tenseless, aspectless nominal: as these are not verbs, there are no progressive aspect endings to add. In (3.60), *palya* is a predicating adjective.

P/Y (Goddard 1996: 122)

(3.60) *Katja,   nyuntu   palya?*
         son.VOC   2SG.NOM   good
         'Son, are you OK?'

In contrast, active adjectives or adverbs of manner take a posture verb which has TAM. The posture verb *nyinangi* is past continuous in (3.61). This is similar to English 'the book is lying on the table' (Van Valin 2005: 35) with non-permanent attributes.

Pitjantjatjara (Kavanagh 1990: 28)

(3.61) *Iriti=ya   anangu tjuta-ngku mai kuka palya tjuta   ngalku-la*
         long.ago=3PL.NOM person PL-ERG   veg meat good PL.ABS   eat-SER
         palya nyina-ngi.
         good   sit-PST.CONT
         'In the old days people used to eat good food and meat and they were living well.'

The intransitive verb *wirtjapakaṉi* 'run' in (3.62) has past continuous tense and aspect. Here they are running to a location, a finite event.

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[10] Active accomplishment.

(3.62) *Pula   kunyu karu-kutu   wirtjapaka-ningi*
       3DU.NOM REP   creek-ALL run-PST.CONT
       'The two of them were running down to the creek'

Continuous aspect is part of the verb ending, but an extended action can also be communicated in Pitjantjatjara by using a repeated serial form of one of the causative *-tjinga* verbs (*-tjingara*) or with an extended vowel sound *-tjinga*:::::::::::::*nu* (L. Brady p.c.).

Kuntjulpungangi 'coughing' (Appendix B, section 12.10) has the progressive ending and *taa-taannyangka* 'while (they) were bursting' indicates something going on for some time (Appendix B, section 12.9). Because semantically these are brief actions, and the latter involves a change of state, these have a special meaning, a series of events rather than a drawn out process.

3.14.2 Test 2: Dynamic adverbs: +dynamic

Criterion	State	Activity	Semelfactive	Achievement	Accomplishment	Act. Acc.
2. Occurs with dynamic adverbs like *vigorously*	No	Yes	Some	No	No	Yes

This test identifies predicates involving activity. In (3.63), the adverb *pulkara* 'really, strongly, forcefully' indicates *wangkanyi* is an active verb.

(3.63) *Ka   kutju-ngku pulkara wangka-ngu*
       and.DS one-ERG   strongly speak-PST
       'Someone said in a loud voice…'

However *pulkara* can also occur with emotions which are state-like in English as in (3.64); here it is translated as 'really'. So in applying the test, we need to be aware of how the adverb is being used. There is a danger of circularity here; we claim emotions are state-like, and that therefore the use of *pulkara* is different than with active verbs.

(3.64) *Ka=la   urulyara-nu   pulkara alatjitu*
       and.DS=1PL.NOM be.surprised-PST   really   really
       'And we were really surprised'

The infix *warra-warra* 'violently' works with Ngaanyatjarra compound verbs (Glass & Hackett 2003: 500); an example is in (3.65), but this is a minority construction. The P/Y equivalent *war-warpunganyi* indicates haste (Goddard 1996: 225).

(3.65) *Wirru<warra-warra>pu-ngu   yilkari katu*
       throw<violently>-PST   sky   above
       '(He/she) flung (them) high above the sky'

3.14.3 Test 3: Slow pace adverbs: -static, -punctual

Criterion	State	Activity	Semelfactive	Achievement	Accomplishment	Act. Acc.
3. Occurs with slow adverbs like *gradually*	No	Yes	No	No	Yes	Yes

Similarly to test 1, this identifies verbs that take place over time, so separates activities from semelfactives and states. Example (3.66) with the adverb *purkara* 'slowly' indicates that *punkani* 'fall' is not a state. *Pitja* 'come' in (3.67) has the 'extensive' aspect inflection *-yintja* indicating it is going on for a long time, as well as the adverb *purinypa* 'slowly'. This test is better than continuous aspect for ruling out states: We have not found posture verbs using *purkara* in the corpus.

<div align="right">Pitjantjatjara (Sheppard 1975: 2)</div>

(3.66)   *Purkara=na   punka-ni*
       slowly=1SG.NOM fall-PRES
       'I am slowly falling'

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 22)</div>

(3.67)   *pitja-yintja=lta   purinypa*
       come-EXT=TURN   slow.ABS
       '(He) was coming along slowly'

3.14.4 Test 4: Time duration: -telic, -punctual

Criterion	State	Activity	Semelfactive	Achievement	Accomplishment	Act. Acc.
4. Occurs with *for an hour*	Some	Yes	Yes	No	Irrelevant	Irrelevant

This test describes internal duration. Activities and semelfactives (with iterative meaning) as well as some states pass the test; changes of state do not. (3.68) and (3.69) have the intransitive verbs *wirtjapakani/kukurralku* 'run'; there is no change of state. The purposive case is used here on the length of time.

<div align="right">Pitjantjatjara</div>

(3.68)   *Ngayu-lu   hour kutju-ku   wirtjapaka-nu*
       1SG-NOM hour one-PURP run-PST
       'I ran for an hour'

<div align="right">Ngaanyatjarra</div>

(3.69)   *Kukurra-rnu=rna   1 hour-ku*
       run-PST=1SG.NOM   1 hour-PURP
       'I ran for an hour'

However, the *-ku* ending in such expressions is not always used; in (3.70), *wiki kutju* 'one week' has no overt case ending. continuous aspect on *nyinangi* confirms they stayed over time (as noted, some states pass this test).

(3.70) *Munu=ya   pitja-la   Ernabella-la   nyina-ngi   wiki   kutju*
      and.SS=3PL.NOM come-SER [place]-LOC   sit-PST.CONT week one.ABS
      'They came and stayed at Ernabella for one week'

Time is described metaphorically similarly to space[11]. *Nyinangi wiki kutju* 'stayed for one week' is analogous with extent in space, such as in 'walked for a mile' (D. Rose p.c.).

    The active adjective/adverb of manner *rawa* 'for a long time' is also appropriate for this test, confirming internal duration as in (3.71) to (3.73). Both past continuous and simple past can accompany this. We need to be cautious as it can also mean 'always' as in regular actions.

(3.71) *Munu kunyu rawa   punka-ningi*
      and.SS REP   long.time fall-PST.CONT
      'She was falling for a long time'

(3.72) *Ngayu-lu   wirtjapaka-nu rawa   nguwanpa*
      1SG-NOM run-PST   long.time nearly
      'I ran for a long time'

(3.73) *Ka=ya   nyina-rra rawa-lu*
      and=3PL.NOM   sit-SER   long.time-ERG
      nga-lkulanytja - nga-lkulanytja nga-lkulanytja - nga-lkulanytja nga-lkulanytja
      eat-PST.CONT (x5)
      nga-langu - nga-langu nga-langu
      eat-PST (x3)
      'And they stayed a long time and ate and ate and ate'

Rose (1996) refers to repeated serial forms as imperfective non-finite processes indicating duration. This is exemplified in (3.74) and (3.75). A single instance by contrast indicates a prior action.

(3.74) *nyina-ra nyina-ra nyina-ra*
      sit-SER (x3)
      'sitting sitting sitting'

(3.75) *a-nkula a-nkula a-nkula*
      go-SER (x3)
      'going going going'

---

[11] Different cultures use different metaphors (D. Rose p.c.).

3.14.5 Test 5: End point: +telic

Criterion	State	Activity	Semelfactive	Achievement	Accomplishment	Act. Acc.
5. Occurs with *in an hour*	No	No	No	No	Yes	Yes

This test identifies accomplishments and active accomplishments, where there is an inherent end point and associated change of state or location. Giving a test like 'in an hour' means the event described takes that time for completion. With one-place predicates of moving, this suggests the person has reached a destination. With two-argument predicates of eating this would mean the undergoer is consumed, distinguishing it from an activity.

Accomplishments are changes of state or location taking place over time with no active verb. (3.76) shows a trip is complete after the specified time; this is more common than saying 'arrived there in two days'.

<div align="right">Ngaanyatjarra (Glass 2006: 68)</div>

(3.76) *Munga kutjarra-tjanu ma-tjarrpa-ku*
night   two-after   away-arrive-FUT
'You arrive after two nights'

In English, an activity by itself fails the test (*'ran in four minutes'): an active accomplishment passes ('ran a mile in four minutes'). These examples from consultants illustrate different approaches to this. A periphrastic means with two clauses is in (3.77); the event is described first, followed by a clause defining the finite nature of the event. (3.78) is more succinct: it has absolute case for the distance travelled and locative for the length of time it took.

<div align="right">Pitjantjatjara</div>

(3.77) *Ngalyu-lu mile kutju-ku   wirtjapaka-nu,*
1SG-NOM mile one-PURP run-PST
panya   minute kutjara-kutjara-ku=na   ma-a-nkula wiyari-ngu=lta
ANAPH minute two-two-PURP=1SG.NOM arrive-SER   finish-PST=TURN
'I ran a mile in four minutes' lit. 'I ran a mile, for four minutes arrived and then finished'

<div align="right">Ngaanyatjarra</div>

(3.78) *Kukurra-rnu=rna   1 milepa,   four minutespa-ngka*
run-PST=1SG.NOM 1 mile.ABS   four minutes-LOC
'I ran a mile in four minutes'

(3.77) involves a common means using intransitive *wiyaringanyi* 'finish' in a serial construction, which indicates the finite nature of the event (Goddard 1996: 239). However, this can also be used with activities such as *puyira wiyaringu* 'rained and stopped' (ibid.: 25) so may be an unsatisfactory test of active accomplishments. Another example showing completed action is in (3.79): serial verbs with a finite verb, literally 'working until it became night'. It is the construction that is finite, not the verb *workaringanyi* itself; thus aspect is conveyed through a complex rather than by verb endings.

(3.79) *Paluru   work-arira work-arira munga-ri-ngu*
         3SG.NOM work-SER (x2)   night-INCH-PST
         'He/she worked until nightfall' lit. 'He/she worked and worked then it became night'

Verbs that require *wiya* to indicate an ending, such as *wirtjapakanu* 'run (off)' thus are atelic in themselves. Other verbs such as *punkani* 'fall' indicate completion (D. Rose p.c.) so do not require *wiya*. This test is intended to identify this; in practice though the test 'in X time' is not common in the corpus, and unlikely to be used (J. Hobson p.c.). *Punkani* might be assumed to be very fast; the examples with 'falling slowly' are from a fictional story (Sheppard 1975).

3.14.6 Test 6: Derived adjective representing terminal state: +static

Criterion	State	Activity	Semelfactive	Achievement	Accomplishment	Act. Acc.
6. Has derived adjective representing terminal state	Yes	No	No	Yes	Yes	Yes

Certain PYN verbs can be nominalised by suffixing *-nytja/-ntja*, taking the function of an adjective. Used as predicates these are states, not activities; this means they are suitable as representing terminal states as per the test. The adjective indicates a change of state, as in (3.80). They can also relate to a class of 'things' that suffered the effects of the verb, making them noun-like as referents.

(3.80) *Purku puriny, waru-ngka kampa-nytja.*
         coal   like   fire-LOC burn-NOML
         '(It's) like charcoal, burnt on the fire.'

3.14.7 Test 7: Causation

Criterion	State	Activity	Semelfactive	Achievement	Accomplishment	Act. Acc.
7. Has causative meaning	No	No	No	No	No	No

None of the simple classes of verb are inherently causative. With the causative verb *pupatjunu* in (3.81), the end result is the important part; the adverb shows it was not purposive.

(3.81) *Watanyku-ngku=na   tii   pupatju-nu*
         accidentally-ERG=1SG.NOM tea.ABS spill-PST
         'I accidentally spilt the tea'

PYN has a set of derivational affixes and periphrastic means of indicating causation, as well as lexically causative verbs; we consider these in later chapters. We appeal to a semantic interpretation; the 'paraphrase' test in English using a word such as 'cause' is not suitable in PYN.

3.14.8 Test 8: Agency

Criterion	State	Activity	Semelfactive	Achievement	Accomplishment	Act. Acc.
8. Has agentive meaning: cannot occur with *unintentionally*	No	Some	Some	No	Some	Some

The test for lexicalised agency means that if a verb can be modified by 'unintentionally' or 'inadvertently', it is not agentive (Van Valin & LaPolla 1997: 120). An agent must be animate too, ruling out forces such as wind or storms. Pitjantjatjara *watarku* 'accidentally' and Ngaanyatjarra *yangarra* 'mistakenly' are exemplified in (3.82) and (3.83). Despite ergative marking, the adverbs indicate the verbs are not agentive. The Ngaanyatjarra verb *mirrilku* 'kill' has a non-human effector *waru* in (3.84).

<div style="text-align: right">Pitjantjatjara (Goddard 1996: 219)</div>

(3.82) *Ka=na   atu-ra atu-ra watarku-ngku   wanikati-ngu*
       and.DS=1SG.NOM hit-SER (x2) accidentally-ERG leave-PST
       'After all that chopping I absent-mindedly left (it) behind'

<div style="text-align: right">Ngaanyatjarra (Glass & Hackett 2003: 554, 167)</div>

(3.83) *Nyangka-lu   yangarra pu-ngu*
       and.DS-ERG   mistakenly hit-PST
       'Somebody hit (him/her) by mistake'

(3.84) *Waru-lu   kampara-yirnu   mirri-rnu*
       fire-ERG   burn-PST.EXT   kill-PST
       'The fire burned for a long time and killed (him/her)'

McGregor (2002: 29) says Australian languages do not encode intentional and unintentional actions lexically; suggesting this test is of limited value in PYN. There is however a small number of lexemes where deliberate action is entailed. P/Y uses the lexicalised compound of *miri* 'corpse' and *punganyi* to form *miripunganyi* for deliberate killing or murder (Goddard 1996: 77). The DO agentive can also be included in some purposive constructions, which use a special form of the verb, investigated in chapter 6.

3.14.9 Summary
A series of *Aktionsarten* tests assist in determining the LSs of Pitjantjatjara verbs. We summarise in Tables 3-13 to 3-15; results are found in Appendix B. + indicates occurrence in the corpus; a blank indicates it was not found; - indicates examples were found that suggest a negative result. Van Valin (2005: 40) says such tests are not perfect, but they do help in characterising verbs; and so it is here.

Table 3-13: Pitjantjatjara predicate tests

Verb		Test1	Test2	Test3	Test4	Test5	Test6
		progr.	dynamic	slowly	duration	telic	derived adj. state
nyinanyi	sit	+		-	+		+
wangkanyi	say	+	+	+	+	-	+/-
punkani	fall	+		+	+		+
kampanyi	burn	+					+
wirtjapakani	run, speed off	+			+		-
ngalkuni	eat	+	+	+		-	
ananyi	go	+		+	+		
nyanganyi	see	+					
taani	burst	+					+
kuntjulpunganyi	cough	+	+		+		
nintiringanyi	learn	+	+/-				
wirtjapakani 1 mile/ karukutu	run a mile/ to the creek	+				+	

Table 3-14: Proposed predicate class of some Pitjantjatjara verbs

Verb		static	dynamic	telic	punctual	change of state	class
nyinanyi	sit	+	-	-	-	-	state
wangkanyi	say	-	+	+/-	-	-	activity
punka̲ni	fall	-	+	+	-	+/-	activity/active accomplishment
kampanyi	burn	-	+		-	+/-	activity
wirtjapakani	run, speed off	-	+	-	-	-	activity
ngalku̲ni	eat	-	+	-	-	-	activity
ananyi	go	-	+	-	-	-	activity
nyanganyi	see/watch	+/-	+/-	-	-	-	state/ activity
taa̲ni	burst	-		+	+	+	achievement
kuntjulpunganyi	cough	-	+	+	+	-	semelfactive
nintiringanyi	learn	+/-	-	+/-	-	+	accomplishment
wirtjapakani 1 mile/ karukutu	run a mile	-	+	+	-	+	active accomplishment

Table 3-15: Proposed PYN verbs and Aktionsart based classes

Predicate class	**PYN**	**English**
STATE	*nyinanyi/nyinaku*	be, sit
ACTIVITY	*wirtjapaka̲ni/wirrtjalku*	run
ACHIEVEMENT	*taani/taalku*	burst
SEMELFACTIVE	*kuntjulpunganyi*	cough
ACCOMPLISHMENT	*nintiringanyi/nintirringku*	learn
ACTIVE ACCOMPLISHMENT	*(y)ananyi/yanku ngur(r)akutu*	go home
CAUSATIVE	*pupatjunanyi/wiralpungku*	spill
AGENTIVE	*miripunganyi* (P/Y)	murder

We will use tests 1-7 with Pitjantjatjara valence-adjusted derived predicates in chapter 5. The means we use are continuous aspect, *pu̲lka̲ra* 'strongly', *purka̲ra* 'slowly', *hour kutjuku* 'for an hour', *fourminutespangka* 'in four minutes', **-*nytja*** nomimalised verb and causative meaning. There are some problems in the atelic/telic tests of tests 4 and 5, in that the typical means employed are syntactic constructions involving serial verbs. The test 5 *fourminutespangka* was

offered in Ngaanyatjarra, so we need to be aware of this when testing the Pitjantjatjara derived predicates.

3.15 Predication in PYN: logical structures

In this section, we propose LSs for PYN predicates based on the results of the tests.

3.15.1 State predicates

In PYN, one-argument states are expressed by nominal predicates; some, though not all, require a separate posture verb as an auxiliary. The tests confirmed both of these types are stative and not dynamic. Nordlinger (1998: 39) describes situations where there is genetically no distinction between nouns and adjectives, making nominals available for secondary predication. Nominal predicates may describe both non-volatile and volatile states. Examples (3.85) to (3.87) are non-volatile. The first two are identificational predicates, nouns; the third an attributative predicate (Van Valin & LaPolla 1997: 115, 125), an adjective. In all cases the predicate is clause-final, which is the unmarked order. Although the predicate itself has one argument, in the LS, the nominal predicate is conceived of as a second argument of **be'**. According to the AUH, the sole referential argument is the undergoer. Figure 3-3 shows the relationship between the nominals in (3.87); *papa nyangatja* forms a reference phrase as the sole argument.

Ngaanyatjarra (Glass & Hackett 2003: 13-14)

(3.85) *Ngaanya   wayatjarra*
        DEM.ABS billycan
        'This$_{\text{UND}}$ is a billycan'
        be' (DEM, [**billycan'**])

P/Y (Goddard 1993: 13)

(3.86) *Nyangatja   papa*
        DEM.ABS dog
        'This$_{\text{UND}}$ is a dog'
        be' (DEM, [**dog'**])

(3.87) *Papa nyangatja   tjukutjuku*
        dog   DEM.ABS   small
        'This dog$_{\text{UND}}$ is small'
        be' (papa nyangatja, [**small'**])

```
                    SENTENCE
                       |
                    CLAUSE
                       |
                     CORE
                    /    \
                 ARG      NUC
                  |        |
                  |      PRED
                  |        |
                 RP       ADJ
                 /\        |
                /  \       |
        Papa nyangatja  tjukutjuku
```
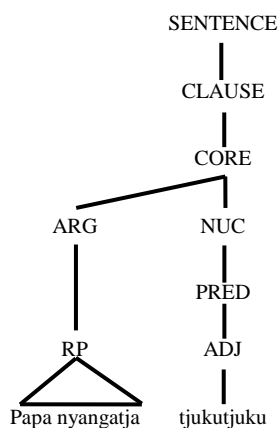
Figure 3-3: Verbless non-volatile state predicate

No verb is required for volatile attributes either; an example is shown in (3.88). The predicating adjective *paḻtjatjiratja* has *ngayulu* as the sole argument. The LS in RRG distinguishes internal sensation from result state and attributive representations (Van Valin & LaPolla 1997: 103).

<div align="right">P/Y (Goddard 1996: 121)</div>

(3.88) *Ngayu-lu   paḻtja-tjiratja!*
        1SG-NOM   sated-lacking
        'I_{UND} am hungry!'
        feel' (1SG, [**hungry'**])

Nominal predicates in PYN have no marking for TAM: they are not verbs as they lack the appropriate endings whose presence is a morphological criterion for category membership (Tallerman 2011: 59). Because the present tense ending in PYN refers to something happening now, attributative states do not require it and use these tenseless predicating nominals. On the other hand, an active adjective or adverb of manner, like *anku* 'asleep' requires a posture verb (Goddard 1996: xi); *ngarinyi* 'lie' in the example in (3.89). *Anku* on its own as a predicate is considered ungrammatical. Posture verbs are used to describe the physical state of a subject and provide a similar meaning to the English verb 'to be' (Goddard 1993: 13, Glass 2006: 28). The verb is inflected and provides TAM to the predicate; it is bleached, an auxiliary to the predicating active adjective and suggesting a transient state (Goddard & Harkins 2002). Nolan (2011) draws a contrast between adjectives which may be permanent states and adverbs which describe states that are not permanent and this appears to be true in PYN; with the latter requiring posture verbs. See also Blake (1987: 3) on this point. Being asleep is not inherent and the tests suggested active adjectives and posture verbs together express states: so we give this the LS of a result state.

<div align="right">Yankunytjatjara (Goddard 1996: 9)</div>

(3.89) *anku   ngari-nyi*
        asleep lie-PRES
        '(he/she/it_{UND}) is asleep.'
        asleep' (3SG)

The posture verb *nyinanyi* 'sit' is the auxiliary for the predicate *pukulpa* 'happy' in (3.90). The sole argument, shown in the logical structure, is *kutjupa tjuta*, coreferenced by third person plural clitic =*ya* which attaches to the first element. This is interpreted as a volatile state, an internal sensation. A permanent attributive is depicted by *nyinapai*, with the 'characteristic/habitual' verbal ending as in (3.91). The LSs are different: the constituent projection of (3.91) is given in Figure 3-4.

<div align="right">Pitjantjatjara (Sheppard 1975: 21)</div>

(3.90)   *Ka=ya*   *kutjupa tjuta pukulpa nyina-ngi*   *tjintjulu-tjara*
    and.DS=3PL.NOM other   PL   happy   sit-PST.CONT berry-having
    'The others were happy, having (eaten) berries'
    state: **feel'** (kutjupa tjuta, [**happy'**])

<div align="right">Pitjantjatjara (Kavanagh 1990: 60)</div>

(3.91)   *Nganana pukulpa nyina-pai*
    1PL.NOM happy   sit-CHAR
    'We_UND are happy (in general)'
    attributive: **be'** (1PL, [**happy'**])
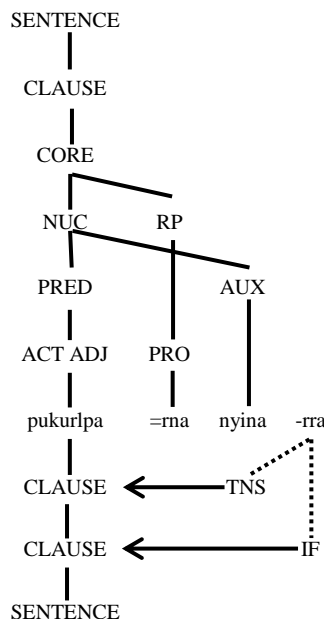
Figure 3-4: Volatile state predicate

Goddard & Harkins (2002) discuss posture verbs in Western Desert and make the point that they can refer both to indefinite existential predication or definite location. Example (3.92) has a state indicating location: *kuul* has locative case, again with the posture verb *nyinanyi*. Locative core arguments are part of the main predicate LS[12].

---

[12] Peripheral locatives where an event takes place have the LS as an argument.

(3.92) *Tjitji tjuṯa   kuwari kuul-ngka   nyina-nyi*
child PL.ABS   now   school-LOC   sit-PRES
'The children_{UND} are at school_{NMR} now'
be-in' (kuul, tjitji tjuṯa)

Such verbs in the present tense describe a state as being true right now. The PYN active adjective *ninti* 'know', means knowing a fact, knowing a person, or being competent at something. As a nominal it is tenseless, but unlike most active adjectives does not require a posture verb as in (3.93) with a two semantic argument stative predication clause. Syntactically, *ninti* is intransitive with only one core argument *ngayulu*; *palumpa* is marked with the non-core purposive case.

(3.93) *Ngayu-lu   palu-mpa   ninti*
1SG-NOM 3SG-PURP know
'I_{ACT} know him/her_{UND}'
know' (1SG, 3SG)

State predicates can also be lexical verbs, such as *nyinanyi/nyaku* 'see'. The perceiver *wati* in (3.94) is the more actor-like, and the stimulus *maḻu* the more undergoer-like. This is a transitive clause with two semantic participants, two syntactic arguments and two macroroles. The ablative suffix shows the location of the man doing the seeing. The linking between the syntactic and semantic representations is in Figure 3-5; location taking the main LS as an argument.

(3.94) *Wati-ngku maḻu   apu katu-nguru nya-ngu*
man-ERG kangaroo.ABS hill   top-ABL   see-PST
'The man_{ACT} saw a kangaroo_{UND} from the hilltop'
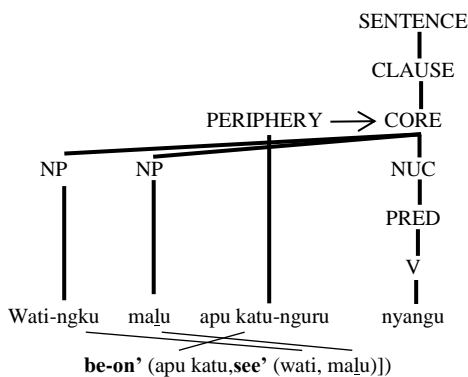
Figure 3-5: Linking of syntactic and semantic representations

3.15.2 Activity

The intransitive verb *wirtjapakanu* in (3.95) is an activity. Transitive *ngalkuni* in (3.96) and (3.97) introduces a complication. In (3.96) with past tense and food *kuka ilytjanpa* specified, it

is implied the food was finished, in which case we have an active accomplishment. (3.97) in past continuous has no suggestion the activity was finished so is an activity of food-eating. Actor and undergoer are assigned according to the AUH, with the proviso that there is no undergoer if nothing specific was affected. This will be of interest to us later: is a non-overt object elided and specific, or general and non-specific?

<div align="right">P/Y (Goddard 1996: 16, 20)</div>

(3.95) *ka   maḻu   panya wirtjapaka-nu*
        and.DS roo.ABS DEM   run-PST
        'And the kangaroo_{ACT} ran off'
        do' (maḻu, [**run'** (maḻu)])

(3.96) *Papa nyara-ngku kuka ilytjanpa   ngalku-nu*
        dog   DEM-ERG meat meat.ABS eat-PST
        'That dog_{ACT} over there ate the meat_{UND}'
        do' (papa, [**eat'** (papa, kuka ilytjan)]) ∧ BECOME **consumed'** (kuka ilytjan)

<div align="right">Pitjantjatjara</div>

(3.97) *Paluru   ngalku-ningi*
        3SG.NOM eat-PST.CONT
        'He/she/it_{ACT} was eating Ø/(it_{UND})'
        do' (3SG, [**eat'** (3SG)]) / **do'** (3SG_i, [**eat'** (3SG_i, 3SG_j)])

3.15.3 Instantaneous classes

The intransitive verbs *taaṉi/taalku* and *tjaḻakatinyi/tjarlakatiku* 'burst', indicate a quick one way change of state. As achievements we use INGR; the water bag in (3.98) and eggs in (3.99b) burst at a moment of time. (3.99a) places the latter event in context.

<div align="right">P/Y (Goddard 1996: 157)</div>

(3.98) *Kapi   taa-ṉu,   pupakati-ngu*
        water.ABS burst-PST spill-PST
        'The water bag_{UND} burst open and spilt'
        INGR **burst'** (kapi)

<div align="right">Ngaanyatjarra (Glass & Hackett 2003: 415)</div>

(3.99) (a) *Tjilku-lu   ngampu   lingkirr-tu warni-ku*
            child-ERG   egg.ABS hard-ERG throw-FUT
            'A little child might throw eggs hard'
        (b) *Ka   tjarlakati-ku.*
            and.DS burst-FUT
            'and (they_{UND}'ll) break open.'
            INGR **broken'** (ngampu)

The reduplicated verb *punga-punganyi/pungku-pungku* (Goddard 1996: 144, Glass & Hackett 2003: 344) indicates a series of events of hitting, meaning 'knocking' in (3.100). This is a

<div align="right">115</div>

repeated activity so has **do'** as well as SEML in the LS. Example (3.101) is a repeated intransitive verb.

(3.100) *Tuu   pu-ngu-pu-ngu*
        door.ABS hit-PST-hit-PST
        '(He/she_ACT) knocked (on) the door_UND'
        SEML **do'** (3SG, [**knock'** (3SG, tuu)])

(3.101) *Rawa   kunytjulpu-ngu-kunytjulpu-ngu*
        long.time cough-PST-cough-PST
        'He_ACT coughed for a long time'
        SEML **do'** (3SG, [**cough'** (3SG)])

The reduplicated forms *taa-taa<u>ni</u>/taa-taalku* (Goddard 1996: 157, Glass & Hackett 2003: 368) are used for things bursting in succession: similarly to 'the balloons are popping'. Any particular object only bursts once as it is a one-way change of state.

3.15.4 Non-instantaneous classes
Examples (3.102) and (3.103) show processes culminating in an ability to do something, an accomplishment. *Nintiringanyi* 'learn' is intransitive (the target would be in non-core *-ku* if present); this is derived from the state predicate *ninti* 'know'; a process leading to knowing[13]. We discuss this 'inchoative' derivation in chapter 5. *Mantjilku* 'get' is translated as 'learn' here for languages, and is transitive. (3.104) shows that *ilunyi* is not punctual, similar to English and different to Mandarin Chinese (Van Valin & LaPolla 1997: 106).

(3.102) *Ka=<u>na</u>   nyara palu-la=lta   pulka<u>ra</u> ninti-ri-ngu.*
        and.DS=1SG.NOM DEM DEM-LOC=TURN really   know-INCH-PST
        'and that's where I_UND really learnt a lot'
        BECOME **know'** (1SG, Ø)

(3.103) *Tjaa   mantji-rnu palunya-tjanu wangka-payi*
        speech.ABS learn-PST   DEM-after   speak-CHAR
        '(He/she)_ACT learned (the Ernabella) language_UND and now can speak (it).'
        BECOME **know'** (3SG, tjaa)
        = PROC **learn'** (3SG, tjaa) & INGR **know'** (3SG, tjaa)

(3.104) *munu   kunyu nguwanpa=lta   ilu-ngi.*
        and.SS REP almost=TURN   die-PST.CONT
        'and (he) was almost dying.'
        BECOME **dead'** (3SG)

---

[13] It should be pointed out that this is sometimes translated as 'study', which implies more agency.

With the active accomplishment in (3.105), there is moving, and then being at the destination. While first person plural is the actor of moving, and the undergoer whose location is described, actor is the assigned macrorole where there is a conflict.

<div align="right">P/Y (Goddard 1996: 59)</div>

(3.105) *Ka=la   a-nu   ngura-kutu*
       and.DS=1PL.NOM   go-PST   home-ALL
       'And we_ACT went home'
       do' (1PL, [**move.away.from.ref.point'** (1PL)]) & INGR **be-at'** (ngurra, 1PL)

3.15.5 Causation and agency

As we saw, causative predicates in PYN are not necessarily deliberate, so according to the LS rules, DO is not included in the LS. An example is the use of *punganyi* meaning 'kill' in (3.106).

<div align="right">P/Y (Goddard 1996: 144)</div>

(3.106) *Munu   ngayu-lu   papa tjuṯa   pu-ngu   ngayu-ku   ngura-ngka*
       and.SS   1SG-NOM   dog   PL   hit-PST   1SG-GEN country-LOC
       'I_ACT killed a lot of dingoes_UND in my country'
       be-in' (ngura, **do'** (1SG, **hit'** (1SG, papa tjuṯa)) CAUSE BECOME **dead'** (papa tjuṯa))

3.16 PYN operators

Aspect and tense are indicated by verb inflectional endings in PYN (Goddard 1996: xii, Glass 2006: 30-32). Evidential operators include words like *kunyu* and the clitic *=nyu* 'reportedly'. Directional morphemes in PYN operate at the nucleus or at the core. Despite being classed as suffixing languages, there is a small set of verbal prefixes in PYN that act as nuclear operators showing the direction of the action itself, rather than of a core argument. The prefixes include *ma-* 'move away'; *ngalya-* 'move towards'; *wati-* 'move across'; *para-/parra-* 'move around' (Goddard 1993: 44, Glass 2006: 88). In (3.107), *parra-* 'around' is prefixed to *wirrtjarnu* 'hurried' to indicate the direction of movement. The constituent and operator projections are given in Figure 3-6.

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 16)</div>

(3.107) *Ka=rna   parra-wirrtja-rnu*
       and.DS=1SG.NOM   around-hurry-PST
       'And I hastened around'
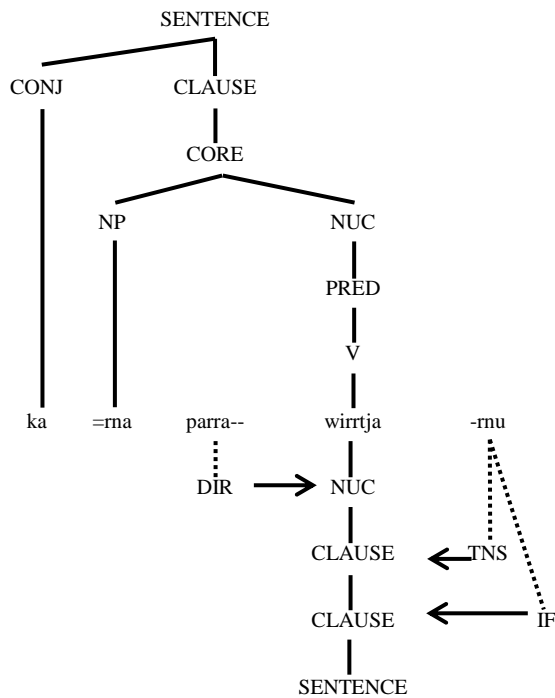
Figure 3-6: Nuclear directional operator

By contrast the directional nominal case endings are core operators because they indicate the movement of an argument. An example is the PYN ablative case *-nguru*, which in (3.108) indicates the dog's movement in relation to the shelter. *Papa* is in absolutive case as it is the only core argument, S, of intransitive verb *wuurlarralku* 'jump'. Non-core case marking marks the entity that the core argument's movement relates to, *wiltja* in this case. The constituent and operator projections are in Figure 3-7.

Ngaanyatjarra (Glass & Hackett 2003: 240)

(3.108) *Papa   wuurlarra-lku wiltja-nguru*
        dog.ABS jump-FUT   shelter-ABL
        'A dog might jump down from a shelter.'
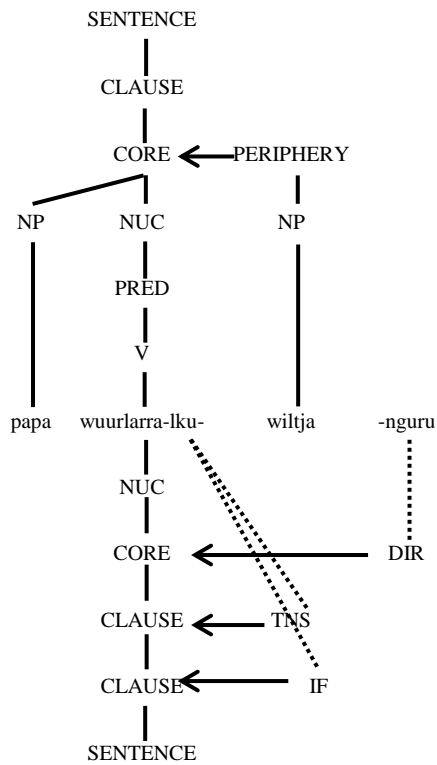
Figure 3-7: Core directional operator

The negator *wiya* in (3.109) is a core operator on the predicating nominal *wa<u>r</u>u*; the projections are in Figure 3-8.

P/Y (Goddard 1996: 239)

(3.109) *Nyangatja   wa<u>r</u>u wiya.*
       DEM.ABS   fire   NEG
       'This isn't a fire.'
       _{NEG}+ (**be'** (nyangatja, [**wa<u>r</u>u'**]))

```
                    SENTENCE
                       |
                    CLAUSE
                       |
                     CORE
                    /    |
                 NP      NUC
                 |        |
                 |       PRED
                 |        |
                 |        N
                 |        |
            Nyangatja   waṟu    wiya
                          |      :
                         NUC     :
                          |      :
                       CORE  ◄─ NEG
                          |
                       CLAUSE
                          |
                       SENTENCE
```
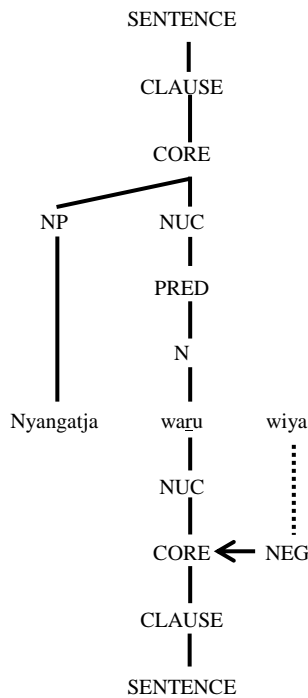
Figure 3-8: Nuclear negation operator

The different forms PYN operators take and the level at which they operate are summarised in Table 3-16. The notion of nuclear operators being closer to the predicate is partly evident.

Table 3-16: PYN operators

	Verb inflection	Verb prefix	Noun case	Lexical	Clitic
Nucleus	Aspect	Direction		Negation	
Core			Direction	Negation	
Clause	Tense, IF			Evidential, negation	Evidential

The scope of operators in a clause assists in the valence analysis of PYN multi-verb constructions, including complex predicates and looser serial verbs. In describing whether the nucleus (predicate), core (arguments) or clause (core and non-arguments) is being modified, we establish how tightly bound the predicates are and whether their arguments are shared. This is explored in chapter 6.

3.17 Grammatical relations and PSA

In PYN, grammatical relations are shown by case marking on dependents with no verb agreement. Apart from the genitive case, only the final constituent of a NP argument receives case marking so there is no nominal agreement either within or between the elements in a NP. There are core and non-core cases: of primary interest to us is the core case marking because it reflects syntactic transitivity.

3.17.1 Core grammatical relations

In (3.110) and (3.111), *papa* is shown as absolutive, in S and O roles respectively. The single argument of a state predicate, *papa* in (3.110) and the second argument of an activity predicate, *papa* in (3.111) pattern together in case marking, which indicates morphological ergativity. In a syntactically ergative language, this would make these the PSAs according to the hierarchy; if the language is syntactically accusative, *tjitji* would be PSA in (3.111). *Papa* in both examples has undergoer macrorole according to the AUH. Myers (1978: 13) suggests that every action has an undergoer so a person that is hit undergoes hitting, and a person sitting down undergoes sitting. However in RRG the single argument of an activity verb is an actor rather than undergoer. An example is (3.112) where *kukurraarnu* 'ran' is an intransitive activity verb, making the sole argument an actor.

P/Y (Goddard 1993: 7-8)

(3.110) *Papa   nyina-nyi*
       dog.ABS   sit-PRES
       'The dog$_{UND}$ is sitting'
       sit' (papa)

(3.111) *Tjitji-ngku papa   patja-nu*
       child-ERG dog.ABS bite-PST
       'The child$_{ACT}$ bit the dog$_{UND}$'
       do' (tjitji, [**bite'** (tjitji, papa)])

Ngaanyatjarra (Glass & Hackett 1979: 30)

(3.112) *Wati kutju   paka-ra   kukurraa-rnu*
       man one.ABS   get.up-SER run-PST
       'One man$_{ACT}$ got up and ran away'
       do' (wati kutju, [**run'** (wati kutju)])

3.17.2 PSA

There is no verb agreement in PYN, so the role of the PSA in controlling verb agreement is not an issue. There is though evidence for the PSA controlling the pivot in PYN. A pivot may be at clause level, with rules of clause combining typologically varying. If S and A are the same for example, there is an S/A pivot (Dixon 1994: 11). In (3.113) there is an S/A pivot, the clitic *=latju* 'we all (exclusive)'. This is the A argument of *ngalangu* 'ate' and S argument of *nyinangu* 'sat' and *ngarringu* 'lay down'. The first verb hosts the clitic suggesting the verbs are separate and do not form a complex predicate. This represents a syntactic nominative-accusative system because the A argument from the first clause is S in the second and third; grouping S and A as the 'subject'. The 'subject' clitic on the first verb is the PSA, and controls the reference of the gaps.

(3.113) *ngala-ngu=latju   nyina-ngu   ngarri-ngu*
       eat-PST=1PL.EX.NOM sit-PST   lie.down-PST
       'We$_i$ ate (them), _$_i$ sat, _$_i$ lay down'
       do' (1PL, **eat'** (1PL, 3PL)) $\wedge$ **sit'** (1PL) $\wedge$ **lie.down'** (1PL)

In (3.114), the third person plural clitic =*ya* on the first verb is the 'subject' (A or S) of all the verbs. The verbs include both transitive and intransitive ones. This confirms the S/A pivots; the non-overt argument is understood from the subject of the first verb. Like (3.113), the marking on the verbs is only for tense and aspect, not agreement.

(3.114) *Ngala-ngu=ya   katurri-ngu mapitja-ngu puru tali-ngka   tjawa-rnu*
       eat-PST=3PL.NOM get.up-PST go-PST   again sandhill-LOC dig-PST
       'They$_i$ ate, _$_i$ got up, _$_i$ went on and again _$_i$ dug at the sandhills'

As well as pivots by apposition as in (3.114), it is very common in PYN to use switch-reference conjunctions for clause joining: *munu/palunyalu*[14] (same subject) (Goddard 1996: 84, Glass 2006: 109) and *ka* (different subject). The contrast between the particles is shown in (3.115) and (3.116) where the conjunction determines whether A or O from the first clause is S in the second. Again this is syntactic accusativity as the 'subject' is the relevant protagonist in question.

(3.115) *Wati-ngku papa   pu-ngu munu mira-ngu*
       man-ERG dog.ABS hit-PST and.SS cry.out-PST
       'The man$_i$ hit the dog and (he$_i$) cried out'
       do' (wati$_i$, **hit'** (wati$_i$, papa$_j$)) $\wedge$ **do'** (3SG$_i$, **cry'** (3SG$_i$))

(3.116) *Wati-ngku papa   pu-ngu ka   mira-ngu*
       man-ERG dog.ABS   hit-PST and.DS cry.out-PST
       'The man hit the dog$_i$ and (it$_i$) cried out'
       do' (wati$_i$, **hit'** (wati$_i$, papa$_j$)) $\wedge$ **do'** (3SG$_j$, **cry'** (3SG$_j$))

In the last example, (3.116), *papa* is the undergoer O in the first clause, but the actor S in the second. (3.117) is slightly different. The O argument in (3.117a) is an elided undergoer and this has the same identity as the S argument in (3.117b), also an undergoer. This interpretation is informed by *ka* as being an entity other than the A argument *mamu* of (3.117a).

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[14] Sometimes shortened to *nyalu*.

(3.117) (a) *Tjinguṟu mamu-ngku   patja-lku*
       perhaps   mamu-ERG   bite-FUT
   (b) *ka   ilu-ku*
     and.DS   die-FUT
     'Maybe a mamu will bite (you) and (you'll) die'
     do' (mamu, **bite'** (mamu, 2SG)) ∧ BECOME **dead'** (2SG)

If *munu* is SS and *ka* DS, the evidence given is that A and S group together with *munu*. We cannot say that *ka* groups S and O together, because S in one clause may not be O from the other: a third party may be introduced.

In (3.118), *munu* indicates S from the first is carried through to the second clause as A. The intransitive verb in the first clause shows that the relevant argument referred to by *munu/ka* is 'subject' rather than 'object', grouping S and A.

(3.118) *Palu Angel   pitja-ngu munu   kati-ngu   ngura Ilkaṟitja-kutu.*
     but   angel.ABS   come-PST and.SS   bring-PST   place   heaven-ALL
     'Then an angel$_i$ came and _$_i$ took (him) off to heaven.'
     do' (angel, **move.to.ref.point'** (angel)) ∧ **do'** (angel, **bring'** (angel, 3SG))

By contrast in (3.119), *ka* indicates a switch to different subject so *pungu* has the protagonist as the agent and a different person, the patient of *pungu*, is the sole argument of *ilungu*. No nominals are present so third person singular is understood with both of the verbs, subject and object. The English free translation uses the passive to allow a control structure; PYN uses switch-reference instead and there is no change in verb form. S in the second clause is a different individual to A; the criterion is comparing S and A, indicating syntactic accusativity. By semantic plausibility we understand S in the second clause to be O in the first, but this is not specified syntactically.

(3.119) *Pu-ngu ka   ilu-ngu.*
     hit-PST   and.DS   lose.consciousness-PST
     '(He)$_{ACT}$ hit (him)$_{UND}$ and (he)$_{UND}$ lost consciousness.'
     'He$_i$ hit him$_j$ and he$_j$ lost consciousness' = 'He was hit and knocked out.'
     [**do'** (3SG$_i$, **hit'** (3SG$_i$, 3SG$_j$))] CAUSE [INGR **unconscious'** (3SG$_j$)]

Pivots in PYN thus have specific means of indicating coreference. This is handled by apposition and by the particles *munu/palunyalu/ka*. The particles indicate the subject argument, and this can be either macrorole indicating neutralisation. This places PYN amongst the languages where the PSA must be a macrorole as described in chapter 2, section 10.2, (2.33c).

Other means are by serial verbs indicating a series of actions by one S/A subject, and by different sub-clause endings. These latter two will be further explored in chapter 6 on complex clauses.

3.18 Head and dependent marking in PYN

A sentence has a head and dependents (Blake 1987: 12) with the head of the clause being the predicating nucleus (Van Valin & LaPolla 1997: 68). The different elements in a clause or phrase relate to each other grammatically and semantically and languages differ in how the relationship between the elements is shown. Grammatical relations are indicated by case, agreement on a verb, and constituent order (Payne 1997: 129, Van Valin & LaPolla 1997: 250). This is a distinction between morphological (case and agreement) and syntactic (word order) coding.

There is a hierarchy of agreement and government (Nichols 1986). Agreement involves the verb and argument agreeing in such things as person or number; government is the case imposed on arguments by the verb. Verbs are most likely to agree with subjects, followed by objects and then goals. Verb agreement occurs with NPs that are readily topicalised, and this means in effect the 'subject'. Agreement is one of the functions of the PSA and we have found it does not apply in PYN. We look at situations which may resemble head marking in PYN.

Head and dependent marking are distinguished by where the syntactic relation between a head and its dependent is coded (Van Valin & LaPolla 1997: 23). At the clause level this is a general distinction between predicate marking and dependent case marking (Nichols 1986). In head marking the governing head receives morphemes for the person and number of its arguments (Nichols 1986: 57). In other words, NPs are cross-referenced by pronominal verbal affixes (Van Valin & LaPolla 1997: 30); the NPs are not assigned case by the verb. Alternatively in dependent marking, the relation is indicated by case or adpositional marking (Van Valin 2005: 16, Nichols 1986). The distinction is not absolute (Van Valin & LaPolla 1997: 34-35); agreement systems in some European languages such as Spanish mean independent pronouns are not necessary but they can co-occur with predicate marking. Other languages use double marking, having both head and NP case marking. Some head marking languages mark more than one argument on the head (Van Valin & LaPolla 1997: 24).

PYN has dependent marking represented by the case marking of NPs. As we saw, there is frequent cross-referencing with the co-existence of more than one item in a clause referring to the same entity. The constituents that may co-exist include nouns, independent pronouns and pronoun clitics. This may superficially resemble agreement on the head predicate. For example in (3.120), the oblique first person clitic =*rni* attaches to the first constituent of the clause, a verb. The full version of the pronoun, with ablative case marking, *ngankulamartatyi* occurs next. In Western Desert generally, cross-referencing with core relations is common. This has

led to claims that agreement occurs on a subject/object basis (Blake 1987: 23-24). This 'agreement' is actually a clitic on the verb rather than a verbal inflection.

<div align="right">Ngaanyatjarra (Blake 1987: 102)</div>

(3.120) *Mantyi-nu=rni* *nganku-la-martatyi* *kuka*
   get-PST=1SG.OBL 1SG-LOC-ABL meat.ABS
   '(He/she) got the meat from me'

Although verbs are central to the Western Desert language and sentences can be composed of verbs only (Douglas 1957: 21), the bound pronominals on the verb in a verb-only sentence are not head marking arguments as defined by Nichols (1986: 57). Subject pronouns are suffixed to the predicate (Douglas 1957: 38) in intransitive sentences but in such a situation the clitics attach to the only structure in the sentence. Similarly subject and object pronoun clitics can attach to the verb in a transitive clause. This appears at first glance similar to head marking but the presence of clauses with more than just a predicate confims that the clitics are neither mandatorily nor preferentially suffixed to the predicate. Indeed, as verbs are rarely clause-first, clitics on them are the exception.

   The full second person dual pronoun *nyupali* is an argument in (3.121) and third person plural clitic *=ya* in (3.122). The predicate *nyinanyi* 'sit' does not receive any marking to agree with arguments: it is only marked for tense and aspect.

<div align="right">P/Y (Goddard 1996: 112)</div>

(3.121) *Yaaltji nyupali* *nyina-nyi?*
   where 2DU.NOM sit-PRES
   'Where are you two?'

(3.122) *Munu=ya*   *putji-ngka nyina-ngi* *pika* *wiya alatjiṯu pukuḻpa.*
   and.SS=3PL.NOM bush-LOC sit-PST.CONT illness NEG really happy
   'They used to live in the bush without any illnesses, contented.'

While verbs do not have gender, person or number marking, the 'subjunctive' forms (Trudinger 1943: 215) take the case of the subject of the main clause; thus transitive main verb *utulunanyi* 'gather' in (3.123) dictates that the intent form verb *makatintjikitja* 'to take away' has ergative ending *-ngku*. These are non-finite forms based on nominalisation, and are marked similarly to adverbs. They indicate agreement with the A or S argument of the main clause. We refer to these as switch-reference dependent clauses and discuss them in chapter 6.

<div align="right">Pitjantjatjara (Trudinger 1943: 215)</div>

(3.123) *Utuluna-nji=na*   *njaŋanpa* *ŋajulu* *ma kati-ntjikitja-ngku*
   utuluna-nyi=ṉa   *nyanganpa ngayu-lu* *ma kati-ntjikitja-ngku*
   Gather-PRES=1SG.NOM DEM   1SG-NOM away-take-INTEN-ERG
   'I am gathering these up to take them away'

Some Western Desert dialects have 'catalysts' which serve to act as a locus for subject and object markers to attach to. It has been claimed that in Pitjantjatjara the clitics are added directly to the verb and only to the verb (Capell 1956: 11) as it does not have catalysts. However as we have seen this is only true if there are no other elements in the clause: typically the clitics attach to the first element regardless of category.

A possible exception is that as we saw in section 3.7, the Ngaanyatjarra verbs for 'see' and 'tell' have the clitic =*lu* as third person singular accusative (Douglas 1957: 48): an example is given in (3.124). The third person singular accusative clitic, like the nominative, is normally a zero; and clitic pronouns normally attach to the first element of the clause. This represents a limited case of head marking; it is unusual in that the pronominal clitic preferentially attaches to the head, the predicate. With other verbs this is not the case: in (3.125), =*lu* attaches to the first element.

<div align="right">Ngaanyatjarra (Douglas 1957: 48)</div>

(3.124) *Palunya-lu watja-nu=lu,   ma-pitja*
      3SG-NOM tell-PST=3SG.ACC away-go.IMP
      'He told him, go away.'

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 34)</div>

(3.125) *Pantjiti-nya=lu   kati-nytja   marlaku-lu*
      [name]-ABS=3SG.ACC bring-NOML back-ERG
      '(He) brought Pantjiti back'

With respect to head marking in NPs, the case endings in PYN are on the NP itself rather than on its head or individual components. There is no case agreement required within the NP as (except for the genitive) only the final member of the phrase is case marked. Haspelmath (2011: 53) suggests the ergative marker in Pitjantjatjara is a clitic because it is not selective; it goes on the NP rather than any particular element such as the head noun. However, unlike pronoun clitics, it does not attach to verbs but only to members of the nominal class and we treat it as a case marker on the NP as a single constituent. Within a PYN NP the only grammatical relation shown by case marking is the genitive -*ku*. There is no special marking on the head of the NP in such a circumstance: however genitive pronoun clitics do occur in PYN (Goddard 1996: 183, Glass 2006: 56-57) that attach to the possessed item, which may be the head of the phrase. This is not directly relevant to our study of predicate valence. The transitivity of the PYN verb determines the case forms of the core NP arguments. This places PYN firmly as dependent marking.

3.19 Relative clauses

King (2010), in relation to valence adjusting, suggests that relativisation can be a useful test for identifying core constituents. Relative clauses are clauses inside noun phrases that give further information about the referent of the head noun: some thus modify nominals (Payne 1997: 325), while others are headless or sentential (Van Valin & LaPolla 1997: 503-504). In an RRG analysis we approach this from the perspective that grammatical relations are not universal, and Van Valin & LaPolla (1997: 253) describe relative clauses in terms of semantic roles: agent, patient, recipient, location or source. The head noun of the main clause has a coreferent in the relative clause. This may be left unexpressed with a 'gap strategy' in fixed word order languages. An alternative is pronoun retention in the relative clause, involving a relativiser or relative pronoun.

The accessibility hierarchy of the relativisation of the subject (Keenan & Comrie 1977: 66) is given in (3.126). This relates to the use of resumptive pronouns; as we go to the right there is an increasing tendency for resumptive pronouns to occur.

(3.126) SU>DO>IO>OBL>GEN>OCOMP

Relative clause constructions occur with non-finite embedded verbs in Pitjantjatjara (Bowe 1990: 70). Typical of these are the nominalisers *-nytja*, *-ntja* and *-ntjitja*. A relative clause and its head are a NP constituent (ibid.: 145). The demonstrative *panya* introduces relative clauses in P/Y and is an anaphoric device (ibid.: 100); *nyarra* may be used in Ngaanyatjarra (Glass 2006: 114). Bowe (1990: 100-104) gives examples of relativisation in Pitjantjatjara including subject, object, instrumental, allative, ablative and genitive. In (3.127) the relative clause has a non-tensed verb and forms an ergative marked constituent with the head *wati*, the whole structure being the actor of the clause, a RP. The anaphoric particle *panya* behaves as a relative pronoun here, relativising A.

Pitjantjatjara (Bowe 1990: 101)

(3.127) *Wati panya waru atu-ntja-lu ngayu-nya u-ngu*
man ANAPH wood.ABS chop-NOML-ERG 1SG-ACC give-PST
'The man who chops wood gave me (some wood).'

The Ngaanyatjarra relative clause is within the NP *tjilku tjii kuḻuny* in (3.128). The locative case is used in three ways here: indicating the time, on a nominalised verb relative clause, and as the listener of the act of talking.

Ngaanyatjarra (Glass & Hackett 1970: 79)

(3.128) *Tjilku tjii munga-ngka yula-ranytja-la kuḻuny-tja wangka-rnu*
child DEM night-LOC cry-NOML-LOC little-LOC talk-PST
'(He/she) talked to the little child who was crying in the night'

In (3.129) the placing of the pronominal clitic =_ni_ indicates that the sub-clause forms a constituent with *mitjitji*. The relative clause is part of an actor in (3.130) and undergoer in (3.131).

<div align="right">Ngaanyatjarra (Glass & Hackett 1970: 100)</div>

(3.129) *Mitjitji   nyara-ngka train-ta   nyina-ranytja-lu=ni   nya-ngu*
       white.woman DEM-LOC train-LOC sit-PST.CONT-ERG=1SG.ACC   see-PST
       'The white woman who was sitting in the train saw me'

<div align="right">Pitjantjatjara (Rose 2001: 513)</div>

(3.130) *Wati panya   mungartji ngalya-ya-nkunytja-lu   mutaka kati-ngu*
       man ANAPH   yesterday this.way-go-NOML-ERG car.ABS take-PST
       'The man who came yesterday took the car'

<div align="right">Pitjantjatjara (Bowe 1990: 103)</div>

(3.131) *Ngayu-lu   kuli-ni   minyma panya   wati   pu-ngkuntja-nya*
       1SG-NOM know-PRES woman ANAPH man.ABS hit-NOML-ABS
       'I know the woman who hit the man'

The reference of a NP may be restricted by an appositive NP in Pitjantjatjara (Bowe 1990: 100). Example (3.132) has a relative clause with a tensed verb showing the use of *panya* as an anaphoric demonstrative, equivalent to '(you know) the one'. *Wati* is the antecedent, and actor of both *ngalyakatingu* 'brought back' and *palyanu* 'fixed'. It is ergative, so the relative clause is apposed rather than a member of the NP.

<div align="right">Pitjantjatjara (Bowe 1990: 100)</div>

(3.132) *Wati-ngku panya   kuka   ngalya-kati-ngu*
       man-ERG ANAPH meat.ABS back-bring-PST
       panya   palu_r_u   mutaka palya-nu
       ANAPH 3SG.NOM car.ABS fix-PST
       'The man$_i$ who brought back the meat, the same one$_i$ fixed the car'

The relative clause forms part of the NP with the head noun in (3.133), indicated by the case marking. The whole NP has the recipient role, but here it is marked with allative case rather than the usual dative/purposive. The example demonstrates an externally headed relative clause (Van Valin & LaPolla 1997: 498) with the relative clause appearing after the head noun and introduced by the complementiser *panya*. The relative clause forms a constituent with *wati*; the whole constituent is then marked with allative -*kutu*. This is unusual in that P/Y usually has an absolutive or purposive case marked recipient with verbs of giving; also here it appears post-verbally, possibly as a heavy element.

(3.133) *Njaŋatja   u-wa   wati   panja njina-nji   njara-kutu*
       Nyangatja u-wa   wati   panya nyina-nyi   nyara-kutu
       DEM   give-IMP man   DEM   sit-PRES   DEM-ALL
       'Give this to the man <u>who is sitting over there</u>'

Genitive and object of comparison are exemplified as follows: in (3.134) the son relates to the man using the genitive *palumpa* and (3.135) relates the brother to the man.

(3.134) *wati panya   palu-mpa katja kula-ngka   nyina-nyi*
       man ANAPH 3SG-GEN   son   school-LOC sit-PRES
       'the man <u>whose son is a student</u>'

(3.135) *wati panya   ngayu-ku   kuta   wara munkara*
       man ANAPH 1SG-GEN   brother tall   other.side
       'the man <u>who my brother is taller than</u>'

Thus all members of the hierarchy in (3.126) may be relativized using *panya*, demonstratives or apposition in PYN, so unlike the case with Falam Chin for example (King 2010), relativisation is not a useful way of identifying PYN core constituents. In Pitjantjatjara relative clauses, the qualified element is a participant in the relative clause and the relative clause is within the NP (D. Rose p.c.) and embedded (Bowe 1990: 70, 93, 136)[15]. Goddard (1983: 29) says he has not found any non-restrictive relative clauses in Yankunytjatjara; instead circumstantial sub-clauses, discussed in chapter 6, section 5, fulfil this function.

3.20 Sentence boundaries

Glass (1979) explores how to set sentence boundaries in Ngaanyatjarra narratives. The criteria involve a consideration of pronoun clitics, a free form subject opening rule, fulfilment particle opening rule, past continuous closing rule, quotation closing rule, departure verb closing rule and dependent clause closing rule. This is of interest in considering the introduction of arguments; we will where useful leverage this in determining how arguments are distributed amongst predicates.

3.21 Distinctions between the dialects

Minor distinctions between the three Western Desert dialects of this study can be discerned by phonetics, the ergative suffix, present tense, lexical items and pronouns (Miller 1972).

       Yankunytjatjara traditionally allows words to end in a consonant; Pitjantjatjara and Ngaanyatjarra do not and must suffix *-pa* to consonant final words. Roots themselves may end in a consonant, so *-pa* is discarded if there are any inflections or suffixes. For example the

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[15] Other Australian languages have adjoined relative clauses (Hale 1976, Blake 1979: 299). An example is Warlpiri (Pama-Nyungan, Northern Territory), where a relative clause is adjoined to the sentence rather than a noun phrase (Hale 1975).

Yankunytjatjara *maḻany* 'younger sibling' is *maḻanypa* and *marlanypa* in Pitjantjatjara and Ngaanyatjarra respectively (Goddard 1996: viii, Glass 2006: 143). Because this is the unmarked citation form *-pa* may be glossed as the absolutive case marker, and regarded as an allomorph of Ø.

The dropping of initial <y> is attested in some Western Desert dialects (Koch 2004: 135) and Pitjantjatjara is one of these. Thus the citation word 'go' is *ananyi/yananyi/yanku* in Pitjantjatjara, Yankunytjatjara and Ngaanyatjarra respectively (Goddard 1996: viii-ix, Glass 2006: 146). Ngaanyatjarra does not have many words beginning with a vowel; these are common in P/Y.

P/Y distinguishes common from proper nouns in the ergative case endings *-ngku* and *-lu*; Ngaanyatjarra does not and has *-lu* for both. Examples are in (3.136) and (3.137).

P/Y (Goddard 1996: x)

(3.136) *wati-ngku/ Yami-lu*
man-ERG/ [name]-ERG

Ngaanyatjarra (Glass 2006: 38)

(3.137) *tjilku-lu/ Nuni-lu*
child-ERG/ [name]-ERG

Ngaanyatjarra does not have the separate present tense *-nyi* as Pitjantjatjara and Yankunytjatjara do in (3.138) but instead uses the suffix *-ra*, shared with the serial participle as in (3.139). The serial participle is discussed further in chapter 6.

P/Y (Miller 1972)

(3.138) *wati   nyina-nyi*
man.ABS sit-PRES
'the man is sitting'

Ngaanyatjarra (Miller 1972)

(3.139) *wati   nyina-ra*
man.ABS sit-SER/PRES
'the man having sat/the man is sitting'

Ngaanyatjarra makes more use of pronominal clitics than the two other dialects and does not have independent third person pronouns: this is discussed further in later chapters. It also distinguishes exclusive and inclusive clitics for first person dual and plural. We summarise in Table 3-17.

Table 3-17: Dialectical differences

	End consonant	Begin vowel/y	Ergative	Separate present	3rd pronoun
Pitjantjatjara	No	Yes/no	*ngku/lu*	Yes	Yes
Yankunytjatjara	Yes	Yes/yes	*ngku/lu*	Yes	Yes
Ngaanyatjarra	No	No/yes	*lu*	No	No

These differences vary in their significance. While the first two are phonetic and lexical, the ergative difference in form and presence or absence of third person pronoun suggests differing analyses of animacy are available; while the separate present tense for P/Y may be significant in the analysis of complex predicates and serial verbs. Aside from that, there are no major syntactic differences amongst the three dialects.

As noted, Pitjantjatjara and Ngaanyatjarra share around 70% of their lexemes. Pitjantjatjara and Yankunytjatjara are closer, but have a couple of dozen common words that differ such as *tjukurpa*/*wapar* 'story, Law', *pana*/*manta* 'earth, land' and *kinara*/*pira* 'moon' (Kalotas et al. 2002: 17, Goddard 1993: 41).

3.22 Summary of chapter

Western Desert is a fairly representative suffixing Pama-Nyungan language. A number of different orthographies were used before today's standardisation; together with phonologically conditioned variants in case form, we take this into account in our text analysis. PYN (like other Australian languages) has three groups of case marking: the core, local peripheral and syntactic peripheral (Dixon 2011: 294-297). Core cases mark the syntactic arguments of the predicate. PYN nominals have an ergative-absolutive core case marking system while pronouns have nominative-accusative. Pronouns also occur as clitics and this is the norm in Ngaanyatjarra.

Using Dixon's (2011: 271) full list of Australian word classes, we group them in Table 3-18 through Blake's (1987: 3) prototypical three classes of case inflecting, TAM inflecting and non-inflecting; examples of each word class are given. In this thesis, we are interested in how the case inflecting classes are affected by valence adjusting and ellipsis. Directly related to this is the transitivity of the TAM inflecting classes and their requirements for case inflecting arguments.

Table 3-18: PYN word categories, with the three main classes

Class type	Word class	PYN	English
Case inflecting	Noun	*papa*	dog
	Adjective	*palya/palyarungu*	good
	Active adjective/ adverb of manner	*kunkun/anku/kunkun*	asleep
	Spatial adverb	*patu/tiwa*	far
	Time adverb	*ngula*	later
	Interrogative pronoun	*ngananya*	who
	Interrogative pronoun	*nyaa*	what
	Demonstrative pronoun	*nyanga/ngaa*	this
	Personal pronoun	*ngayulu*	I
TAM inflecting	Intransitive verb	*nyina*	sit
	Transitive verb	*nya*	see
	Ambitransitive verb	*inka/ngarlpu*	play
Non-inflecting	Particle	*=mpa/=mpanyu*	interest
	Interjection	*ai*	hey
	Adverb	*ngapartji/ngaparrtjika*	in return
	Demonstrative adverb	*alatji/ngaapiriny*	like this
	Conjunction	*munu/ka*	and

We have also discussed the nature of arguments in PYN, comparing nominals, pronouns and clitics, the similarities and differences between third person pronouns and demonstratives and the integrity of the NP. Core case marking is syntactic rather than semantic in nature, insofar as the S argument has actor and undergoer neutralisation. While nominals, NPs, pronouns and clitics can all be predicate arguments, cross-referencing and syntactically extraneous or redundant pronominal clitics indicate that the nature of argumentation is complex. An understanding of this is important in discussing valence adjusting and the tracking of referents.

We conducted tests on predicates and determined the LSs based on this. It is apparent that the LSC is suitable for representing a predicate, arguments and periphery in PYN. We will harness all this in our analysis of derived predicates and other structures in later chapters. This will also enable us to identify problems in RRG's representation if they arise, and to propose solutions.

4 Valence in PYN

We delineate the terms and parameters for the valence element of the thesis in this chapter. Different definitions of valence are given in the literature, so we compare the various approaches and establish the route we will take. We discuss valence as defined in RRG, and follow with an examination of syntactic and macrorole transitivity in PYN and other languages as they relate to semantic valence. This lays the groundwork for the study of valence adjusting in chapter 5.

4.1 Valence

Linguistic valence – or valency in British English (Van Valin 2001: 92) – has been defined as the inherent relationality that a lexical item possesses allowing it to govern arguments of a given type. The term can be applied to all major word classes and some functional types (Haspelmath & Müller-Bardey 2004: 1130), but in this thesis we are mainly concerned with verbal valence. The term valence itself comes from chemistry (Fernandez 2008). Tesnière (1966: 238) introduced the concept of an *atome crochu* 'hooked atom', a verb that exercises its attraction over a greater or lesser number of actants. The number of hooks a verb has is the number of actants it is susceptible to rule, which is the valence of the verb. Valence is also defined as the narrow sense of the term 'argument structure', which includes the predicate and its lexically encoded arguments (Juarros-Daussa 2010). In this analysis there is a restriction to a maximum of three arguments: Juarros-Daussa refers to these as one external 'subject' and two internal 'objects'. Blake (1987: 12) uses the term 'complements' for the arguments required to complete the sense of the verb. There is a distinction between complements selected by the verb, and optional modifiers (Kim & Sells 2008: 41); complements relate to valence because they are mandatory and in the core while modifiers are in the periphery. RRG does not posit external or internal arguments; verbs may have up to three (or perhaps four) syntactic arguments but the semantic representation of a predicate has a maximum of two, so semantically trivalent verbs have their semantic representations broken down to reflect this. Similarly there is a maximum of two macroroles in a clause: any further semantic participants are non-macrorole.

More specifically for this study, we investigate how the semantic participants in a scene are represented syntactically. Language gives morphosyntactic and lexical 'pigeon holes' for classifying our experience of the universe (Blake 1987: 26). This means that valence may be considered from both a semantic and a syntactic point of view. Semantic valence is concerned with the number of participants inherent to the scene. Syntactic, or grammatical valence (Payne 1997: 170), refers to the number of overt morphosyntactically coded arguments a verb takes (Van Valin & LaPolla 1997: 147). A third type of valence, macrorole valence, is defined as the number of macroroles present in a clause. The semantic, syntactic and macrorole valences need not necessarily be the same (Van Valin 2005: 64): thus a semantic argument can be in the

syntactic periphery or an extra-core slot for example. So the different types of valence reflect the distinction between syntactic and semantic arguments (Van Valin & LaPolla 1997: 28). Furthermore, a verb that requires a participant in the event it describes does not necessarily require that participant as a lexical argument (Williams 2005: 16-17). Syntactic, semantic and macrorole valence are discussed in detail by Fernandez (2008) and Dixon & Aikhenvald (2000) analyse valence with respect to semantic verb class and clause type. This can be extended: Ruzicka (1978) discusses three aspects of valence: syntactic, semantic ('deep case' relations), and pragmatic.

Semantic valence involves events in the world, 'on stage' (Payne 1997: 169) as well as role and argument structure. Syntactic valence is linked to function structure (Haspelmath & Sims 2010: 234-235). In RRG, the constituent representation relates the syntactic arguments; the logical structure indicates semantic roles, some of which may be assigned macroroles. The two are closely related: idealised scenes that are evoked in the mind by verbs have semantic features that affect the grammatical properties of the verbs. So a scene with one semantic participant may be described by a one syntactic argument verb (Payne 1997: 171). The RRG algorithm linking the syntactic and semantic representations posits no underlying or surface forms: these are two perspectives on the same utterance (Pavey 2004). It is not always necessary that all the actants are present and that the verb is 'saturated'. Importantly for this thesis, some valences can remain unused or free (Tesnière 1966: 239).

Van Valin & LaPolla (1997: 83) show that there may be numerous participants in complex states of affairs, such as in (4.1). A grammatical description assigns roles to these participants and analyses their grammatical relations.

(4.1)   'Kim buying a book from Pat for Sandy with a ten-dollar bill.'

Valence is considered a semantic rather than syntactic concept by McGregor (2002: 29-32) which can lead to mismatches with transitivity in some Australian languages; verbal semantic valence is not the same as clause transitivity. In a discussion of the classification of verbs in Australian languages, McGregor (ibid.) points out that there are three semantic features of event configuration: vectorial (is the action goal-directed?), *Aktionsart* (telicity and others) and valence (transitivity). All three are of importance here.

4.2 Transitivity

While valence can apply to any category of word, with respect to verbs it relates to the traditional understanding of their transitivity. Transitivity in this view is bound up with the number of complements of the predicate. RRG posits two types of transitivity. The number of semantic macroroles a verb takes is its M-transitivity. A traditionally-termed ditransitive verb such as 'give' is M-transitive in RRG: it has both macroroles but the third argument is a non-

macrorole direct core argument (Van Valin 2007). Proposals for a third macrorole are rejected by Van Valin (2005: 64). By contrast, S-transitivity refers to the number of syntactic core arguments (Nolan 2012: 13) and this may be more than two. Van Valin & LaPolla (1997: 149-150) stress the primacy of M-transitivity in RRG; macroroles must be specific referents. Fernandez (2008) considers syntactic valence to be comparatively overlooked in RRG.

Sun (2006: 150), in his study of Mandarin Chinese, uses the term 'subcategorisation frame' for the number of nominals a verb must co-occur with. Subcategorisation is however not a feature of RRG (Van Valin & LaPolla 1997: 156). Verbs both determine their environment and are determined by it: the meaning of a verb may have different uses, some of which may be idiomatic, with complements as arguments (Agel & Fischer 2010: 245).

It has been pointed out that one participant is the more likely instigator, or that the action flows from an instigator to an affected participant or 'object'. The presence of an object is not necessarily a defining feature of a transitive verb though: transitivity is considered a spectrum by some authors. There are criteria for a verb's place on the spectrum: the number of participants, kinesis (action), aspect (telicity), punctuality, volitionality, affirmation (affirmative or negative), mode (realis/irrealis), agency, affectedness of O and individuation of O (Hopper & Thompson 1980: 252). This can be summed up as the foci of high transitivity correlating with foregrounding and low transitivity with backgrounding (ibid.: 294). Many of these are tested in the RRG predicate tests.

Contrary to Hopper & Thompson, King (2010: 34) claims that transitivity, as opposed to valence, is always syntactic, referring to the number of direct object arguments a verb has. The transitivity of the verb determines that of the clause. Dixon (2000: 30, 2002b) divides clauses into three types in the more traditional analysis of Basic Linguistic Theory:

- Intransitive: one core argument, S
- Transitive: at least two core arguments, A and O
  - Simple transitive
  - Ditransitive
- Copula: two core arguments, copula subject (CS) and copula complement (CC) (omissible in some languages)

Verbs in PYN are classed as transitive or intransitive (Goddard 1996: x-xii, Glass & Hackett 1970: 11, Glass 2006: 33), depending on their argument structure which is lexically defined (Bowe 1990: 8); this determines how many core arguments are required (Bowe 1990: 23) so is S-transitivity. This agrees with Dixon's (2011: 278) claim that Australian languages make a basic division between transitive and intransitive verbs. Copula clauses such as those with 'to be' in English have their equivalent in PYN predicating nominal clauses, some of which require 'posture' verbs whose function is similar to a copula in providing TAM.

4.3 Analysis of semantic valence

In the following sections we examine valence from a semantic perspective, referring to the number of arguments in the logical structure. We base the discussion on semantics as this refers to the participants in the message, which is in principle neutral as to language. While a verb may be thought to inherently require a number of participants, individual languages may use different strategies to convey the same message syntactically and this forms a major part of our investigation. We discuss areas where the syntactic and macrorole valence differ from the semantic and this acts as a foundation for the chapters that follow.

4.4 Semantic valence 0

Certain weather related predicates have a semantic valence of zero (Van Valin & LaPolla 1997: 147) and so are semantically atransitive with the action playing out with no argument. They are not necessarily S-atransitive however. In languages like French or English where a syntactic argument is required, an expletive pronoun (ibid.: 56) or dummy argument fills the slot, such as both *il* and its English translation 'it' in (4.2). Unlike other third person pronouns, this has no antecedent and refers to nothing specific; it is not a PSA (ibid.: 338) although it has controlling and agreement characteristics. The verb *neige* is thus semantically avalent, M-atransitive but S-intransitive. There are accordingly no semantic arguments in the logical structure.

French (Tesnière 1966: 239)

(4.2) *il   neige*
       3SG snow.PRES
       'it is snowing'
       do' ([**snow'**])

A copula verb may be required. The nature of the copula verb in a semantically avalent scenario varies depending on the language. In English and German 'cold' is a state: 'it is cold'; *es ist kalt*. By contrast, in French it is an action with the verb *faire* (usually translated as 'make'): *il fait froid*.

Semantically avalent verbs are not generally a feature of PYN: the basic syntactic division between transitive and intransitive extends to semantics. This is in line with Australian languages generally: they do not have subjects with no reference such as the weather examples (4.3) and (4.4) (Blake 1987: 27).

(4.3)   'It is cold'
(4.4)   'It rained'

In PYN 'cold' is neither semantically avalent nor S-intransitive with a dummy subject as in English: the S-transitive verb *puyini/puyilku* 'chill' is used, requiring two semantic and syntactic arguments. This is illustrated in (4.5) with the arguments *wari* and *ngayinya*. In (4.6) the verb has no overt arguments; this is normally the syntactic zero third person pronoun which

is specific though here it is more general. In (4.7) the only overt argument is =*ni*. Based on (4.5), we can infer that the zero third person 'it' in (4.6) and (4.7) is *wari*. Something that can feel cold is animate, so 'him/her'.

(4.5)   *Wari-ngku ngayi-nya puyi-ni*
        cold-ERG 1SG-ACC chill-PRES
        'The cold's chilling me = it is cold'
        do' (wari, Ø) CAUSE BECOME **feel'** (1SG, [**cold'**])

(4.6)   *Ka   puyi-ningi   alatjiṯu*
        and.DS chill-PST.CONT really
        '(It) chilled (him/her) = it was really cold'
        do' (Ø, Ø) CAUSE BECOME **feel'** (3SG, [**cold'**])

(4.7)   *Puyi-ni=ni*
        chill-PRES=1SG.ACC
        '(It) chills me = I am chilled'
        do' (Ø, Ø) CAUSE BECOME **feel'** (1SG, [**cold'**])

However an exception is found in example (4.8), where a zero pronoun accounts for the sole argument of an S-intransitive verb. *Tjirntu* is the root of the derived predicate and there is no direct reference to a participant; the zero pronoun can be thought of as a dummy subject. There is no semantic argument or macrorole.

(4.8)   *Tjirntu-rri-ngu*
        day-INCH-PRES
        '(It) became day'
        BECOME **day'**

The general lack of overt expletive pronouns in PYN means there are no dummy subjects that are coreferential with complement clauses (Blake 1987: 27) as in (4.9). Non-inflecting particles serve this function, such as *ruku* in (4.10)[16].

(4.9)   'It suddenly struck me that Mary was right.'

(4.10) *Ruku   nyanga alatji-kutu*
        looks.like DEM   like.this-ALL
        'Looks like it goes on this way'

Other verbs that have zero semantic valences in some languages include light verbs and auxiliaries which are classed as 'functor' predicates. These only add aspect and do not

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[16] There are numerous PYN particles that take part in this kind of construction; another is *kunyu* 'it is said'.

contribute an argument so have a valence of zero (Ritter & Rosen 1993). PYN light verbs include verbs of posture that provide aspect and tense but behave syntactically like ordinary verbs. They may also occur in serial form with semantically rich verbs in which case arguments are pooled; in neither scenario do such verbs have a semantic valence of zero, which is consistent with the other verbs discussed here.

4.5 Semantic valence 1

Semantically monovalent verbs often express states (Tesnière 1966: 240), as in French example (4.11) with the auxiliary verb *est* 'is' and predicating *vert* 'green'. (4.12) is a result state; with *verdroie* 'become green' there is a description of change, with an internal active force or inchoation: the sole argument in both cases is an undergoer according to the AUH. With the inchoative[17] verb, the argument is affected by the process.

French (Tesnière 1966: 240)

(4.11) *L'arbre est   vert*.
        DET tree be.3SG.PRES green
        'The tree$_{UND}$ is green.'
        green' (arbre)

(4.12) *L'arbre verdroie.*
        DET tree become.green.3SG.PRES
        'The tree$_{UND}$ becomes green.'
        BECOME **green'** (arbre)

A state and result state are not always different in the form taken. Intrinsically there is one participant 'S' in a verb such as 'die', an undergoer. French does not distinguish between a state and inchoation in (4.13): *est* can be translated as the copula 'is' or alternatively as 'become'. Distinctions can be introduced if required by the use of time adverbials like *hier* 'yesterday'.

French (Jones 1996: 52-4)

(4.13) *Le   chat est   mort*
        DET cat be.3SG.PRES   dead
        'The cat$_{UND}$ is dead/the cat$_{UND}$ died'
        dead' (chat)/BECOME/INGR **dead'** (chat)

Monovalent verbs also include activities such as 'swim' where there is intrinsically only one, unaffected, animate participant. This is an actor according to the AUH.

       S nominal arguments are in absolutive case in PYN. In (4.14) and (4.15), there is a sole syntactic and semantic argument. As these are activity verbs the sole arguments are actors.

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[17] In this thesis we will use the term 'inchoative' in the sense that Haspelmath (1993) and Goddard (1983) use it, involving changes of state without a causer. This brackets achievements and accomplishments. It is slightly different to another usage, for example in Capell (1956: 70), where it is similar to the 'inceptive' aspect, to 'be about to'.

(4.14) *Papa   yula-rra*
      dog.ABS howl-PRES
      'The dog$_{ACT}$ is howling'
      do' (papa, [**howl'** (papa)])

P/Y (Goddard 1996: 236)

(4.15) *I<u>r</u>upulaina   tja<u>r</u>u-wanu wirtjapaka-<u>n</u>u*
      aeroplane.ABS low-PERL   speed-PST
      'The aeroplane$_{ACT}$ sped along really low'
      do' (i<u>r</u>upulaina, **speed'** (i<u>r</u>upulaina))

The predicate in (4.16) is the adjective *pu<u>l</u>ka*. Demonstrative *nyangatja* serves as the first argument, or attributant, of **be'**. As the single argument of a state predicate, *nyangatja* is undergoer.

P/Y (Goddard 1996: 142)

(4.16) *Pu<u>l</u>ka nyangatja*
      big   DEM.ABS
      'This$_{UND}$ is big/heavy'
      be' (nyangatja**,** [**big'**])

Example (4.16) has a single noun NP but frequently the NP is more complex; (4.17) is an intransitive sentence with the absolutive solo argument *minyma kutjutja*. While verbs of posture such as *nyinanyi* 'sit' can occur with active adjectives, *kutjutja* is described as an adjective in P/Y (Goddard 1996: 55). The fact that the order here cannot be changed suggests it is part of the noun phrase; (4.18) is ungrammatical. This sole argument of stative *nyinangi* 'sit/be' is an undergoer.

Pitjantjatjara (Goddard 1996: 108)

(4.17) *Minyma kutjutja   nyina-ngi*
      woman   alone.ABS   sit-PST.CONT
      'There was a woman by herself.'
      sit' (minyma kutjutja)

Pitjantjatjara

(4.18) **Minyma* nyina-ngi kutjutja*

This view is reinforced by (4.19) with *kutjutja* as part of an ergative marked NP with divalent *ngalkuningi*. By contrast *kutjutja* in Ngaanyatjarra is an adverb (L. Ellis p.c., Glass & Hackett 2003: 109).

Pitjantjatjara

(4.19) *Minyma kutjutja-ngku nyina-ra mai   ngalku-ningi*
      woman alone-ERG   sit-SER food.ABS eat-PST.CONT
      'The woman was sitting alone eating food'

As we have seen, we distinguish between states and result states in the LS. The following example features a result state described by the inchoative which we discuss further in chapter 5. The derived verb has a valence of one, so there is no change in valence from that of a state: nevertheless we include inchoation in valence adjusting as the LS changes, and as a result state, a putative causer is not in the scene: it was 'spontaneous'.

Pitjantjatjara (Sheppard 1975: 92)

(4.20) *Ka   Alitji-nya   pukul-ari-ngu.*
        and.DS [name]-ABS happy-INCH-PST
        'And Alice_{UND} was relieved.'
        BECOME **feel'** (Alitji, [**happy'**])

4.6 Semantic valence 2

Semantically divalent verbs have a two-place logical structure, but M- and S-transitivity can diverge. This depends on a variety of factors including impingement, affectedness and definiteness/ specificity. We examine this here.

Semantically divalent *pungu* in (4.21) is S-transitive (witnessed by case marking) and M-transitive with two definite referents. The ergative and absolutive arguments (agent and patient roles) map respectively to actor and undergoer.

Pitjantjajara (Bowe 1990: 23)

(4.21) *Mary-lu   Sally-nya   pu-ngu*
        [name]-ERG [name]-ABS hit-PST
        'Mary_{ACT} hit Sally_{UND}'
        do' (Mary, [**hit'** (Mary, Sally)])

It is not necessary that an ergative marked PYN noun should have animacy, as in (4.22) with *walpa* or (4.23) and (4.24) with (*y*)*apu*. An inanimate noun is ruled out from having an agent role, so it is an effector or force, though still with actor macrorole.

P/Y (Goddard 1996: 113-114, 196)

(4.22) *Ka   walpa-ngku nyiri   ngalya-kati-ngi*
        and.DS wind-ERG paper.ABS this.way-take-PST.CONT
        'The wind_{ACT} was blowing a piece of paper_{UND} over'
        do' (walpa, [**blow'** (walpa, nyiri)])

(4.23) *Apu-ngku=ni   tjana   ularpu-nganyi.*
        stone-ERG=1SG.ACC back.ABS scrape-PRES
        'A stone_{ACT} is scraping my back_{UND} (through mattress)'

Ngaanyatjarra (Glass & Hackett 2003: 331)

(4.24) *Yapu-lu=rni   pirtu-pu-ngu*
        stone-ERG=1SG.ACC toe-hit-PST
        'The stone_{ACT} toe-stubbed me_{UND} = I stubbed my toe on a stone'

In general terms, the nature of the second argument of a transitive verb turns out to be important in characterising an event. For example, the verb 'drink' where the referent is known is an active achievement/accomplishment and is both M- and S-transitive with 'Carl' and 'beer' in (4.25) (Van Valin & LaPolla 1997: 111). This is also discussed in Van Valin (2005: 67).

(4.25)   Carl$_{ACT}$ drank a beer$_{UND}$
        do' (Carl, [**drink'** (Carl, beer)]) & BECOME **consumed'** (beer)

If the second argument is inherent and non-referential it is not a macrorole (Van Valin & LaPolla 1997: 149). (4.26) is therefore M-intransitive, but still semantically divalent as reflected in the LS as well as S-transitive. This is an activity rather than active achievement: it has no inherent end point. Being atelic is a characteristic of low transitivity (Hopper & Thompson 1980). So in English, removing the determiner or article decreases macrorole valence.

(4.26)   Carl$_{ACT}$ drank beer
        do' (Carl, [**drink'** (Carl, beer)])

The distinction between referential and non-referential objects is significant: it determines what verbal forms can be used in some languages. The perfective Mandarin Chinese particle *le* is used in situations that are referential and bounded (Sun 2006: 65-67). (4.27) is an active achievement with reference to a specific O argument, evidenced by classifier *wǎn* on the quantified nominal *fàn*. In (4.28), there is no particular referent and *le* cannot be used as an indication of the rice being finished. However it is grammatical for 'he ate' (C. Gao p.c.). The LS shows this is an activity.

Mandarin Chinese (Sun 2006: 65-67)

(4.27)   *Tā   chī-le   liǎng-wǎn   fàn*
        3SG eat-PFV two   bowl rice
        'He ate two bowls of rice.'
        do' (3SG, [**eat'** (3SG, fàn)]) & BECOME **consumed'** (fàn)

(4.28)   *Tā   chī-le   fàn*
        3SG eat-PFV rice
        do' (3SG, [**eat'** (3SG, fàn)])
        *'He ate the rice.'
        'He ate.'

In English, tense and aspect also suggest completion or lack thereof; compare 'he ate a bowl of rice' and 'he is eating a bowl of rice'.

While the presence of a determiner characterises reference in English, definite or indefinite articles are not required in PYN (Goddard 1993: 7, Douglas 1957: 17, 112). A demonstrative such as *nyangatja* may be used if an item is specific as in (4.29). This is part of the NP, with the head noun occurring first; so (4.30) is ungrammatical. *Palu_ru* 'he/she/it' is also

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referred to as the definite nominal (Goddard 1983: 27). In relation to cognate objects: *mai* is what is eaten and not specific. O can be included as in (4.31) or elided as in (4.32). Similarly, if someone asks has a person been eating, the answer could include O (4.33) or elide it (4.34).

(4.29) *Mai   nyangatja ngalku-ningi*
        food DEM.ABS eat-PST.CONT
        'He/she was eating this food'

(4.30) **Nyanga mai   ngalku-ningi*
        DEM   food.ABS eat-PST.CONT
        'He/she was eating food'

(4.31) *Paluru   ngalku-ningi   mai*
        3SG.NOM   eat-PST.CONT food.ABS
        'He/she was eating'

(4.32) *Paluru   ngalku-ningi*
        3SG.NOM   eat-PST.CONT
        'He/she was eating'

(4.33) *Uwa paluru   mai   ngalku-ningi*
        yes 3SG.NOM   food.ABS eat-PST.CONT
        'Yes he/she was eating'

(4.34) *Uwa paluru   ngalku-nu*
        yes 3SG.NOM   eat-PST
        'Yes he/she ate'

As we saw in section 4.4, weather related verbs that are semantically avalent in some languages (Van Valin & LaPolla 1997: 147), are semantically divalent in PYN with lexical rather than dummy or expletive arguments. In the following examples, *kapi* 'water' and *puyini* 'chill' together translate as 'rain'. In (4.35), it is clear that the verb is S-transitive with the ergative noun *kapi* and accusative pronoun *=lanya*. In (4.36), the object is dropped while *kapi* is still ergative.

(4.35) *Kapi-ngku=lanya   puyi-ningi*
        water-ERG=1PL.ACC chill-PST.CONT
        'Water~ACT~ was chilling us~UND~ = it was raining'
        do' (kapi, Ø) CAUSE **feel'** (1PL, [**cold'**])

(4.36) *Kapi-ngku=nti   puyi-lku*
        water-ERG=maybe   chill-FUT
        'Maybe water~ACT~ will chill (us) = it might rain'
        do' (kapi, Ø) CAUSE **feel'** (Ø, [**cold'**])

Semantically divalent verbs do not necessarily have two syntactic core arguments either. Dixon & Aikhenvald (2000: 3) refer to 'extended intransitives' that have two participants S and E (extension to core), and that are typically used for verbs of seeing, hearing, liking and wanting. These are stative verbs (Van Valin & LaPolla 1997: 105, 125) with the first argument being the experiencer or perceiver and the second the stimulus, target or sensation. The salient feature is non-impingement; the stimulus is unaffected so is not a patient; the experiencer is not an agent or effector. Thus they are not prototypical transitives; this is in line with Hopper & Thompson's (1980) transitivity spectrum, where verbs of emotion may be low on transitivity and coded like intransitives.

PYN distinguishes between verbs of non-impingement. Verbs of 'passive perception' (Van Valin & LaPolla 1997: 474) such as *nyanganyi/nyaku* 'see' are coded like ordinary transitives: (4.37) is a state transitive, with nominative and absolutive.

<div align="right">Pitjantjatjara (Sheppard 1975: 59-60)</div>

(4.37)   *Ngayu-lu   kuwari kutju   nya-nganyi*
        1SG-NOM now   one.ABS see-PRES
        'I$_{ACT}$ now see one$_{UND}$'
        see' (1SG, kutju)

With verbs of emotion in PYN, the non-core purposive case *-ku* is used for the target or sensation (Bowe 1990: 16, Goddard 1993: 18, Glass 2006: 42) while the experiencer or emoter is absolutive. This means that a verb like *mukuringanyi* 'like/want' is S-intransitive with the target or goal being outside the core (Bowe 1990: 26), reflecting non-impingement (Blake 1979). Verbs that take goal for such purposes are commonly those of loving, hating, fearing and knowing (Myers (1978: 22).

The E argument being in purposive case with extended intransitives parallels the similar 'extended transitive' or ditransitive discussed in section 4.7 where the recipient or beneficiary is marked with the purposive. There is a semantic distinction between the usages: the suffix *-ku/-mpa* in emotion verbs is a marker of attitude rather than indicating the actual transfer or movement of words or objects. Example (4.38) shows *mukuringanyi* with the target *nyuntumpa* having the purposive case ending and the emoter *ngayuku malpa* being absolutive rather than ergative. This agrees with Hopper & Thompson's (1980) prediction on experiencers being coded like intransitive sole arguments. Semantically it is still a two-argument state verb. In (4.39) the emoter is default third person singular zero; the target is still purposive.

<div align="right">P/Y (Goddard 1996: 80)</div>

(4.38)   *Ngayu-ku malpa   nyuntu-mpa mukuri-nganyi*
        1SG-GEN friend.ABS 2SG-PURP   like-PRES
        'My friend fancies you.'
        like' (malpa, 2SG)

(4.39)   *Ku<u>n</u>ta-ri-ngu*   *nyuntu-ku*
         embarrassed-INCH-PST 2SG-PURP
         '(He/she) became shy of you.'
         BECOME **feel'** (3SG, [**shy.towards'** (2SG)])

In (4.40), the nominal *wati* is absolutive rather than ergative, confirming that *mukurringku* and *katantu-katanturriku* are S-intransitive verbs; *minyma kutju* is thus marked as purposive non-core.

(4.40)   *Wati*   *tjinguru minyma kutju-ku   mukurri-ngkula=lpi katantu-katanturri-ku*
         man.ABS maybe   woman one-PURP love-PRES=in.turn   nod.head-FUT
         'If a man loves one woman (he)'ll nod (his) head (to her).'

The relation between experiencer/emoter and sensation/target is expressed differently cross-linguistically. In English 'I like x' is an emotion from an emoter towards a target, with nominative and accusative cases respectively. Greek turns it the other way around: there is an emotion happening to an emoter. For example, the construction *mou aresei* 'is pleasing to me' is shown in (4.41). This is not a prototypical transitive with an agent and an affected patient; and is therefore low on the transitivity spectrum; but unlike PYN, it is the emoter that is dative and the target nominative. The controller is thus not obvious: the one which likes or the one which pleases?

(4.41)   *Αυτή   τη   στιγμη   μου   αρεσ-ει   παρα πολύ η   Ελλαδα*
         Afti   ti   stigmi   mou   ares-ei   para poli i   Ellada
         DEM DET moment   me.DAT   please-3SG.PRES very much DET Greece
         'Right now I like Greece very much.'

'Wanting' is another emotion verb. The 'wanted' nominal has non-core purposive *-ku* in (4.42). Again this is semantically divalent but S-intransitive. In chapter 6, we examine how wanting to do an activity is expressed with purposive sub-clauses.

(4.42)   *Ngayu-lu wipu-ku   mukuri-nganyi.*
         1SG-NOM tail-PURP want-PRES
         'I want some (kangaroo) tail.'
         want' (1SG, **have'** (1SG, wipu))

Goddard (1996: 103) claims *ngurpa* 'ignorant of' requires *-ku* on the target. This is exemplified in (4.43), but in the corpus it is not always used as in (4.44) and (4.45)[18]. Example (4.46) shows

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[18] Bossong (1991) finds a distinction in DOM between living systems with speaker flexibility and the petrified systems in some older Indo-European languages such as Latin; this appears true in examples (4.43) to (4.46), with

the emoter NP is absolutive as sole syntactic argument of *ngurrpa*, confirming an S-intransitive clause.

P/Y (Goddard 1996: 197)

(4.43) *Ngayu-lu   tjikita-ku   ngurpa.*
        1SG-NOM cigarette-PURP not.know
        'I don't know about cigarettes = I don't smoke.'

(4.44) *Ngayu-lu   ngura   ngurpa.*
        1SG-NOM place.ABS not.know
        'I don't know about the place.'

Pitjantjatjara (Douglas 1955)

(4.45) *Ngayu-lu   kuka   ngurpa.*
        1SG-NOM meat.ABS not.know.
        'I don't know anything about meat.'

Ngaanyatjarra (Glass & Hackett 2003: 242)

(4.46) *Walypala ngaanya   wangka Ngaanyatjarra-ku ngurrpa*
        white.man DEM.ABS speech [name]-PURP   not.know
        'The white man doesn't know the Ngaanyatjarra language'

In (4.47), *nyinarra* 'is sitting' is an intransitive posture verb indicating location. Only *minyma pirni* is a macrorole; *ngurra* is not. Because there is only one macrorole, the predicate is M-intransitive. It is also S-intransitive, as *ngurra* is marked non-core, and *minyma pirni* is absolutive. Semantically it is divalent, a two-place state predicate (Van Valin & LaPolla 1997: 125).

Ngaanyatjarra (Glass 2006: 43)

(4.47) *Minyma pirni=ya   ngurra-ngka nyina-rra*
        woman PL=3PL.NOM home-LOC   sit-PRES
        'The women$_{UND}$ are (sitting) at home'
        be-at' (ngurra, minyma pirni)

Two-place 'predicators' have a major and minor class in numerous languages. The major class contains activity verbs that feature impingement and are deemed transitive. Minor class verbs do not feature impingement. In the latter scenario Australian languages often have an experiencer as sole core argument and its complement, the stimulus, in dative case and this is the case in PYN. These can be characterised as middle, semi-transitive verbs (Blake 1987: 12, 27-28) and again this agrees with Hopper & Thompson's spectrum of transitivity.

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alternative choices of object marking (purposive and absolutive). Haspelmath (2011: 49) mentions morpheme ellipsis: if this is instantiated here, we would need to test with marked absolutive case.

4.7 Semantic valence 3

With semantically trivalent verbs, there is typically an agent, theme and either a receiver (for example with 'give') or goal (such as with 'put'). Not all semantically trivalent verbs are described as 'ditransitive'; only those with a receiver are so defined (Malchukov et al. 2010: 2). Dixon & Aikhenvald (2000: 3) describe ditransitives as 'extended transitives', with three arguments A, O and E. The E argument may have its own marking or be marked like a peripheral. Terminology can vary too. Kittilä (2006) discusses 'give' verbs and asks how the receiver and theme relate. Where there are two direct objects he considers the verbs ditransitive. Kittilä regards differential marking of the objects as 'trivalent transitive'. How the roles are grouped leads to a dichotomy in terminology. Patient and theme versus goal is 'indirective'; patient and goal versus theme is 'secundative' (Van Lier 2012). In PYN the theme is absolutive; the receiver can be absolutive or dative; the goal is locative. Semantic representation through the logical structure in RRG takes a maximum of two arguments. So trivalent verbs need to be paraphrased, as in (4.48):

(4.48) [**do'** (x, Ø)] CAUSE [BECOME/INGR **predicate'** (y, z)]

In the LS **predicate'** may be **have'** or **be**-LOC**'**, exemplified by English 'give' and 'put' respectively. Simple ownership in RRG is semantically represented as in (4.49) (Van Valin & LaPolla 1997: 155). By adding a giver as in (4.50), the semantic valence increases to three, with the giver taking actor macrorole. The giver is x, receiver y and the theme z (ibid., Nolan 2012: 42-44). The giver transfers possession, and the end result is that it no longer possesses the theme. Other verbs such as 'take' turn this around and have the instigator as the recipient as in (4.51) (Van Valin & LaPolla 1997: 157). Because this is causative, the LSs have two events, linked by CAUSE.

(4.49) 'Fred has the book'
        have' (Fred, book)

(4.50) 'Bill gave the book to Fred'
        [**do'** (Bill, Ø)]
            CAUSE [BECOME **have'** (Fred, book) & BECOME NOT **have'** (Bill, book)]

(4.51) 'Bill took the book from Fred'
        [**do'** (Bill, Ø)]
            CAUSE [BECOME NOT **have'** (Fred, book) & BECOME **have'** (Bill, book)]

The PYN verb (*y*)*unganyi/yungku* 'give' is transitive (Goddard 1996: 199, 244, Glass & Hackett 2003: 595). In P/Y the recipient and theme are both 'objects' marked absolutive/accusative, with the recipient usually coming first if both occur (Bowe 1990: 24) as in (4.52). However, with the recipient beside the verb, it is marked dative/purposive as in (4.53),

or else the sentence is ungrammatical as in (4.54). We will discuss these alternations further in chapter 5.

(4.52) *Ngayu-lu   wati   mai   u-ngu*
         1SG-NOM man.ABS food.ABS give-PST
         'I$_{ACT}$ gave the man$_{UND}$ food$_{NMR}$'
         [**do'** (1SG, Ø)] CAUSE [BECOME **have'** (wati, mai)]

(4.53) *Ngayu-lu   mai   wati-ku   u-ngu*
         1SG-NOM food.ABS man-PURP give-PST
         'I$_{ACT}$ gave the man$_{NMR}$ food$_{UND}$'

(4.54) **Ngayu-lu   mai   wati   u-ngu*
         1SG-NOM food.ABS man.ABS give-PST
         'I gave the man food'

By contrast, *yungku* in Ngaanyatjarra requires the recipient to have the purposive/dative case ending -*ku* (L. Ellis p.c.) so does not allow the alternation with absolutive.

Van Valin & LaPolla (1997: 160) show verbs of putting also have a causative logical structure as in (4.55); for example 'put' with three semantic arguments.

(4.55) 'Robin$_{ACT}$ put the book$_{UND}$ in/next to/behind the box$_{NMR}$.'
         [**do'** (Robin, Ø)] CAUSE [BECOME **be-in/next.to/behind'** (box, book)]

'Box' is a non-macrorole core argument: locations are not macroroles. Van Valin & LaPolla (1997: 159) call these argument-adjunct adpositional phrases, distinguishing them ('in the box') from argument marking adpositional phrases such as recipients ('to John') in English. The verb 'put' can also have just two arguments. For example, 'down' is part of the locational predicate in (4.56) (ibid.: 160).

(4.56) 'Yolanda$_{ACT}$ put the book$_{UND}$ down.'
         [**do'** (Yolanda, Ø)] CAUSE [BECOME **be-down'** (book)]

PYN does not have adpositions so uses different means. In (4.57), the goal *kata* is marked with non-core locative case. The verb *tjunanyi* without location specified implies a general 'put aside, put down' (Goddard 1996: 186), either with a spatial adverb such as *unngu* in (4.58), or with nothing specified at all as in (4.59). This suggests that the verb here is semantically divalent.

P/Y (Goddard 1996: 186)

(4.57) *Kata-ngka   tju-nkupai*
         head-LOC   put-CHAR
         '(You) put (it) on the head'
         [**do'** (2SG, Ø)] CAUSE [BECOME **be-on'** (kata, 3SG)]

(4.58) *Mai=la   unngu tju-nu*
food.ABS=1PL.NOM inside put-PST
'We_ACT put the food_UND inside'
[**do'** (1PL, Ø)] CAUSE [BECOME **be-inside'** (mai)]

(4.59) *Tju-ra!*
put-IMP
'(You) put (it) (down)!'
[**do'** (2SG, Ø)] CAUSE [BECOME **be-down'** (3SG)]

To summarise: for the third argument, PYN has *-ku* or absolutive for verbs of giving and *-ngka* for verbs of putting if a location is specified, rather than argument-adjunct or argument-marking adpositional phrases. The 'non-core' dative/purposive and locative/instrumental cases thus mark semantic arguments as well as optional peripheral adjuncts.

4.8 Semantic valence 4

The possibility of tetravalent verbs is considered by Tesnière (1966: 258) who claims that leaving aside periphrastic verbs, there are apparently no single verb forms that have a valence greater than three but that this could develop in theory. Other authors have suggested that a verb like 'bet' is a four-place predicate. Herbst (2010: 186) gives the example in (4.60), with the arguments underlined.

(4.60) 'I'll bet you all the expenses of the experiment you can't do it.'

Bickel (2010) refers to four-place predicates such as causatives or benefactives of ditransitives and regards them in some languages as part of an important class that deserves more attention than it has traditionally received. Abaza (Northwest Caucasian, Russia and Turkey) has four-place predicates, or four-participant marking on the verb, such as the translated example in (4.61) from Dixon (2000: 57). This adds a causative argument 'he' to the ditransitive verb 'give'. Bickel (2010) distinguishes the non-agentive roles as P (patient-like), T (theme-like) and G (goal-like).

(4.61) 'He couldn't make them give it back to her'

There is no evidence of simple predicates with a semantic valence of four in PYN. There is no head marking in the dialects, which rules out constructions such as that found in Abaza. Coordinated clauses and sub-clauses are however involved in interpersonal causation and requests; we explore this in chapter 6 on multi-verb clauses, where we investigate complex predicates, periphrastic causation and the sharing of arguments.

4.9 Verbs of varying semantic valence

Instead of undergoing a valence-adjusting process some verbs may be used in different ways with different numbers of arguments. The distinction between syntactic and semantic valence is highlighted in such situations. Latin for instance has a number of verbs that have different meanings if they have an accusative or dative complement (Blake 1987: 30). Many verbs in English can be considered both intransitive and transitive. For example 'eat' (Payne 1997: 169-170, Van Valin & LaPolla 1997: 148) inherently requires two participants: it is understood that something was eaten. On the other hand it may have a syntactic valence of one or two. So 'eat' where the referent is unknown is S-intransitive though still semantically divalent (Payne 1997: 48, 171). The only syntactic argument in (4.62) is 'George'. Unlike Payne however, RRG gives this a semantic valence of one if there is nothing specified as eaten (Van Valin & LaPolla 1997: 115), as in (4.63) rather than having an unspecified Ø as in (4.64).

(4.62)   George already ate
(4.63)   **do'** (George, [**eat'** (George)])
(4.64)   **do'** (George, [**eat'** (George, Ø)])

Most verbs in PYN are either intransitive or transitive (Bowe 1990: 25-26, Goddard 1981: 18, Glass 2006: 33-34) and Goddard (1996: ix) describes this as an important difference to the situation in English. In PYN *ngalkuni/ngalku* 'eat' is transitive (ibid.: 89, Glass & Hackett 2003: 204). A question arises as to whether an unexpressed patient with such a verb represents ellipsis of a definite entity or the verb's being an activity with an indefinite one. The examples in (4.65) and (4.66) have no overt object of *ngalkuni/ngalku*. The overt arguments maintain the ergative case marking appropriate to the S-transitivity of the verb. These can be accounted for by the third person singular zero object, so is definite and this is reflected in the translations. The object in (4.65) remains constant even after the subject switch in (4.65b).

<div align="right">P/Y (Goddard 1996: 49)</div>

(4.65)   (a) *Ka   kutjupa-lu   ngalku-<u>ni</u>*
              and.DS   other-ERG   eat-PRES
              'And the other (person) eats (some of it)'

         (b) *ka   palu<u>ru</u>=lta   ngalku-<u>ni</u>, wati panya   umari-ngku=lta.*
              and.DS   3SG.NOM=TURN   eat-PRES   man ANAPH   son.in.law-ERG=TURN
              'then he eats (some), the son-in-law.'

         (c) *Kutju-ngku ngalku-nytja wiya.*
              alone-ERG   eat-NOML   NEG
              '(He) doesn't eat (it) alone.'

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 103)</div>

(4.66)   *Palya-lku=ya   pirni-lu=rtu   nga-lku*
         cut-COND=3PL.NOM   many-ERG=EMPH   eat-COND
         'They would cut (it) up (and) everybody would eat (it)'

A small number of PYN verbs are however classed as 'ambitransitive' where transitivity is dependent on the semantic environment (Baumgarten 2006). Five are listed in Goddard's (1996) P/Y dictionary: *inkanyi* 'laugh, play'; *kampanyi* 'burn'; *kuntjulpunganyi* 'cough'; *tjukurmananyi* 'dream' and *wangkanyi* 'speak'. Ngaanyatjarra *kampaku* 'burn' is listed as both intransitive and transitive by Glass & Hackett (2003: 31). Verbs for 'burn' in Australian languages are often an agentless passive with just O, or a transitive verb (Blake 1987: 66). In (4.67) *kampanyi* is used intransitively; *waṟu lipi* is the S argument and absolutive as actor. In (4.68) and (4.69), *kampangu* is S-transitive so the A arguments *tjintu* and *waru* are marked ergative, even though in (4.69) the patient is elided. Ergative marking is on the originator of the action, inanimate in these instances. In (4.69), *pikinu* 'dried up' is also S-transitive; *waru* is shared.

P/Y (Goddard 1996: 33)

(4.67) *Nyaratja waṟu lipi   kampa-nyi*
         DEM   fire broad.ABS burn-PRES
         'There's a bush fire burning over there'
         do' (waṟu, **burn'** (waṟu))

(4.68) *Tjinṯu-ngku=ṉi   kampa-ngu kutu*
         sun-ERG=1SG.ACC burn-PST   really
         'The sun's really burnt me'
         do' (tjinṯu, **burn'** (tjinṯu, 1SG))

Ngaanyatjarra (Douglas 1957: 116)

(4.69) *Waru-lu   kampa-ngu piki-nu*
         fire-ERG burn-PST   dry.up-PST
         'The fire burned (them) and (it) made (them) dry'
         do' (waru, **burn'** (waru, 3PL)) ∧ **do'** (waru, **dry'** (waru, 3PL))

Similarly, *inkanyi* can be used S-intransitively or transitively (Bowe 1990: 25-26). In (4.70), it is S-intransitive with one absolutive argument. In (4.71), *inkanyi* is also S-intransitive, with the instrument being locative/instrumental case. The agent is correspondingly in absolutive case as the sole S argument. It is S-transitive in (4.72), with ergative and absolutive arguments.

Pitjantjatjara (Bowe 1990: 25)

(4.70) *Tjitji kuḻunypa   inka-nyi*
         child young.ABS   play-PRES
         'The young child is playing'

P/Y (Goddard 1996: 21)

(4.71) *Yangupala   nyaratja   kita-ngka inka-nyi*
         young.bloke DEM.ABS   guitar-LOC play-PRES
         'That young bloke over there is playing the guitar'

(4.72)   *Wati tjil̲pi-ngku   inma   inka-nyi,   pun̲u tjut̲iny   kutjara-la*
         man old.man-ERG song.ABS play-PRES wood hitting.stick two-LOC
         'The old man is playing a song, with two hitting sticks'

Ngaanyatjarra distinguishes intransitive *ngarlpurringku* and transitive *ngarlpuyungku* 'play' (Glass & Hackett 2003: 207) rather than having one ambitransitive verb like P/Y.

       With ambitransitive verbs, the case marking of arguments reflects the varying valence. There is no morphological valence changing in the verb, so the valence varies depending on how the verb is used rather than indicating a valence-adjusting construction. There is a strong semantic component to how the verb is used, and this is reflected syntactically. We note that there is a difference in 'ambitransitive' verbs; in *kampanyi* 'burn', if 'S' is affected as an undergoer (such as wood burning), it can be regarded as really an agentless passive with an unspecified third person singular agent so S-transitive; with *inkanyi* 'play', 'S' is agentive and if marked absolutive would indicate it is being used S-intransitively.

4.10 Verbs of saying

Verbs of saying are described by Van Valin & LaPolla (1997: 116-118) as being a sub-class of complex activity verbs. In English, verbs like 'speak', 'say' and 'tell' have widely varying second arguments, and the logical structure is generalised in RRG to reflect this complexity. Verbs of saying realise different aspects of this semantic representation, given in (4.73). In this LS, x is the speaker, α the content, β the addressee and γ the language.

(4.73)   **do'** (x, [**express.**(α).**to**.(β).**in.language**.(γ)**'** (x, y)])

Van Valin (2005: 42, 249) has simpler representations of 'speak' and 'say', which we will also use for clarity:

(4.74)   **do'** (x, **speak'** (x))
(4.75)   **do'** (x, **say'** (x, y))

4.10.1 Talking and speaking

The PYN noun *wangka* 'word' derives *wangkanyi/wangkaku* 'talk, speak to, tell' (Goddard 1996: 216-217, Glass & Hackett 2003: 492-493). The addition of verb inflectional endings to nominals is a productive causative verb forming process, discussed in chapter 5. This process predicts *wangkanyi/wangkaku* is to 'create words' which as a causative would be transitive. However in P/Y this is a verb of varying valence and S-transitivity; in Ngaanyatjarra it is S-intransitive. The clause (4.76) has the NP *kungka kutjara* in absolutive case as the sole argument, so the verb here is S-intransitive. Nothing specific is being said.

(4.76) *Kungka kutjara   nyaratja wangka-nyi*
        woman two.ABS   over.there speak-PRES
        'Two women are talking over there.'
        [**do'** (kungka kutjara, **speak'** (kungka kutjara))]

On the other hand if something is said, the valence and transitivity change. The following examples involving *wangkanyi* are described as transitive by Goddard (1996: 217). *Wangkanyi* uses ergative for the speaker x, absolutive for the topic α and locative or absolutive for the one spoken to β (Goddard 1993: 16, Goddard 1996: 217); or nominative and accusative as appropriate for pronouns. In (4.77), all three of these roles are present.

(4.77) *Ka   nyura   a<u>r</u>a   kutjupa-kutjupa palu-la   wangka-ra nyina-ku.*
        and.DS 2SG.NOM matter other.ABS   3SG-LOC speak-SER sit-FUT
        'You might discuss different matters with him.'
        do' (2SG, [**express.**(α).**to**.(β).**in.language**.(γ)**'** (2SG, a<u>r</u>a)]), where α = *a<u>r</u>a*, β = 3SG

In (4.78), *mani* is in absolutive case as the thing talked about, but no one is specified as being talked to. In (4.79), the thing spoken about is not mentioned; the person talked to maintains locative case marking.

(4.78) *Mani=la   wangka-nyi*
        money.ABS=1PL.NOM   talk-PRES
        'We're talking about money.'
        [**do'** (1PL, [**express.**(α).**to**.(β).**in.language**.(γ)**'** (1PL, mani)])], where α = *mani*

(4.79) *Palu<u>r</u>u   Yami-la   wangka-ngu*
        3SG.NOM [name]-LOC speak-PST
        'He spoke with Yami.'
        [**do'** (3SG, [**express.**(α).**to**.(β).**in.language**.(γ)**'** (3SG, Yami)])],where β=*Yami*

The language spoken, *Yankunytjatjara*, receives ergative case marking in (4.80), alongside nominative *palu<u>r</u>u*. This is similar to the way active adjectives or adverbs of manner take on the case marking of the agent in transitive clauses: this suggests *palu<u>r</u>u* is A rather than S, despite no O argument being expressed.

(4.80) *Palu<u>r</u>u   Yankunytjatjara-ngku   wangka-nyi*
        3SG.NOM [name]-ERG   speak-PRES
        'He's speaking in Yankunytjatjara.'
        [**do'** (3SG, [**express.**(α).**to**.(β).**in.language**.(γ)**'** (3SG, Yankunytjatjara)])],
                where γ= *Yankunytjatjara*

This has added significance in that it confirms that language names are case marked in different ways cross-linguistically. Blake (1987: 27) asks whether in a clause such as 'Martha spoke Aramaic', 'Aramaic' is a patient or an instrument. The language is not affected or impacted, but one uses the language to speak. Since the language name cannot be straightforwardly pigeonholed in a particular role, Australian languages use different cases, including accusative, dative, locative, perlative, instrumental and ablative. PYN uses the ergative, like an adverb agreeing with the speaker.

4.10.2 Telling

The verb 'tell' has an additional causative meaning where y= β and z= α, as in (4.81) (Van Valin & LaPolla 1997: 118).

(4.81)   **[do'** (x, [**express.**(α).**to**.(β).**in.language**.(γ)**'** (x, y)])]
                CAUSE [BECOME **aware.of'** (y, z)], where y = β, z = α

Watjani/watjalku 'say or tell something' (Goddard 1996: 228, Glass & Hackett 2003: 508) is an S-transitive verb. The person spoken to may be either absolutive/accusative as in (4.82) and (4.84) or locative as in (4.83) or (4.85). The thing talked about is in absolutive, as in (4.86).

<div align="right">P/Y (Goddard 1996: 228)</div>

(4.82)   *Paluṟu   palu-mpa kamuṟu   watja-ntja wiya*
        3SG.NOM 3SG-GEN   uncle.ABS tell-NOML NEG
        'He didn't tell his uncle'
        [do' (3SG, [**express.**(α).**to**.(β).**in.language**.(γ)**'** (3SG, kamuṟu)])]
                CAUSE [BECOME **aware.of'** (kamuṟu, Ø)], where β = *kamuṟu*

(4.83)   *Nyuntu   tjinguru palu-la   watja-lku*
        2SG.NOM perhaps   3SG-LOC tell-FUT
        'Maybe you'll speak with him'
        [do' (2SG, [**express.**(α).**to**.(β).**in.language**.(γ)**'** (2SG, 3SG)])]
                CAUSE [BECOME **aware.of'** (3SG, Ø)], where β = 3SG

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 24, 33)</div>

(4.84)   *nyalu   tjilku=pula   kutjarra-nya watja-rnu*
        and.SS   child-=3DU.NOM two-ABS   say-PST
        ngaanya ngara-latjaku left-hand-pa   right-hand-pa=kamu=pula
        DEM   stand-PURP   left-hand-ABS right-hand-ABS=too=3DU.NOM
        ngara-latjaku
        stand-PURP
        'And (he) told two children, one left-handed and the other right-handed, to stay there.'

(4.85)   *Ka=rna   katurri-ngu watja-rnu Thomas-tja=rna   watja-rnu,*
        and.DS=1SG.NOM rise-PST   say-PST   [name]-LOC=1SG.NOM say-PST
        'Katurri.'
        rise-IMP
        'And I got up (and) I said, I said to Thomas, "Get up."'

(4.86) *Yuwa kurranyu=rna   watja-lku ngayu-ku work-tjarra.*
   yes first=1SG.NOM say-FUT 1SG-GEN work-having.ABS
   'Well first I'll tell (you) about my job.'
   [do' (1SG, [**express.**(α).**to.**(β).**in.language**.(γ)**'** (1SG, worktjarra)])]
      CAUSE [BECOME **aware.of'** (2SG, worktjarra)],
        where α = *worktjarra*, β = 2SG

PYN *watjani/watjalku* has the listener in either absolutive or locative case, which Dixon (2011: 302) claims is shared with the dative. By comparison in the transfer of objects, P/Y (*y*)*unganyi* 'give' has the recipient in absolutive or dative *-ku*. Ngaanyatjarra *yungku* only has *-ku* on the recipient. Thus in PYN we have to distinguish these two 'datives', respectively based on locative *-ngka/-la* for words and purposive *-ku* for objects.

4.10.3 Addressing

Walkuni/warlkulku 'address someone as relative' is described as 'bitransitive' by Goddard (1996: 211). It has three core arguments: the speaker in nominative or ergative case; the others in absolutive or accusative. This is shown in (4.87) and (4.88).

(4.87) *Ngayu-lu tjilpi   panya kuta   walku-ni*
   1SG-NOM old.man.ABS ANAPH senior.brother.ABS address-PRES
   'I$_{ACT}$ address that old man$_{UND}$ as big brother$_{NMR}$'
   [do' (1SG, [**express.**(α).**to.**(β).**in.language**.(γ)**'** (3SG, tjilpi)])]
      CAUSE [BECOME **have.as.name'** (tjilpi, kuta)], where α = *kuta*, β = *tjilpi*

(4.88) *Walypala-lu tjukarurru-lu warlku-rnu Yirrpintirri-nya kurnili*
   white.man-ERG correctly-ERG address-PST [name]-ABS aunt.ABS
   'The white man$_{ACT}$ correctly addressed Yirrpintirri$_{UND}$ as auntie$_{NMR}$'

4.11 Summary and discussion

We have discussed predicate valence from semantic, syntactic and macrorole perspectives, with particular reference to PYN. These valences may mismatch (Van Valin & LaPolla 1997: 147-148): semantic valence is understood as the number of participants inherent in a scene; syntactic valence is how they are expressed grammatically. A semantic argument can occur outside the syntactic core, and semantic arguments are not necessarily macroroles. Verbs may have varying valence in some languages but the number of such verbs in PYN is small. We discussed the most common in the dialects, verbs of speaking. Furthermore, certain predicates may have no semantic arguments. These distinctions are depicted in the LS. The linking algorithm (Van Valin 2005: 130) indicates the semantic-syntactic relations.

   Case marking is a key indicator of S-transtivity in PYN. Ergative and absolutive cases are syntactic neutralisations of semantic roles: ergative in two-argument clauses; absolutive

subsuming actors and undergoers, depending on the nature of the predicate and assigned according to the AUH. This is of great importance in studying ellipsis later.

In Table 4-1, we place six PYN verbs on Hopper & Thompson's (1980) transitivity scale. This is based on a semantic reading: how verbs behave is the focus of the present study. For example the emotion verb *mukuringanyi*, even though it has two semantic arguments, is low in transitivity and this is reflected in its syntactic behaviour where it acts like an extended intransitive. As well as the number of arguments they have, verbs have requirements for the thematic roles that their arguments hold (Saeed 2009: 160).

Table 4-1: Transitivity scale of PYN verbs

	wangkanyi wangkaku	*punganyi pungku*	*nyanganyi nyaku*	*mukuringanyi mukurringku*	*tjurpinyi tjarrpaku*	*ilunyi yulirrilku*
	'say'	'hit'	'see'	'like'	'swim'	'die'
participants	1 or 2	2	2	2	1	1
kinesis	low	high	low	low	high	low
aspect	medium	high	low	low	medium	high
punctuality	medium	high	low	low	low	high
volitionality	high	high	low	low	high	low
affirmation	high	high	high	high	high	high
mode	high	high	high	high	high	high
agency	high	high	low	low	high	low
affectedness of O	low	high	low	low	-	-
individuation of O	medium	high	low	medium	-	-
transitivity	medium	high	low	low	medium	medium

Examples of PYN verbs are given in Table 4-2, derived from Van Valin & LaPolla (1997: 147-150) and expanded, to compare the different types of valence and macrorole numbers.

Table 4-2: Valence and macrorole number in PYN

		Semantic	Syntactic	Macrorole number
puyinyi/puyunku	rain	2	2	1 or 2
ilunyi/yulirrilku	die	1	1	1
ngalkuni/ngalku (activity)	eat	1 or 2	2	1
ngalkuni/ngalku (act acc)	eat	2	2	2
punganyi/pungku	hit	2	2	2
tjunanyi/tjungku	put	3	2 or 3	2
(y)unganyi/yungku	give	3	2 or 3	2
wangkanyi/wangkaku	speak	1, 2 or 3	1, 2 or 3	1 or 2

While PYN predicates have lexically defined valences and transitivities, in the next chapter we examine the means by which semantic, syntactic and macrorole valence may be adjusted in PYN.

5 Valence adjusting processes in PYN

In this chapter, we probe PYN valence adjusting through a broad comparative study that refers to processes found in other languages. We have discussed the nature of arguments and valence in PYN and the distinctions between three types of valence. We now bring these strands together to examine how valence adjusting is carried out in the dialects, asking whether the strategies observed are primarily morphological or syntactic. Putting forward an account of the different permutations means we will be well-placed to position PYN typologically.

Valence adjusting has been widely studied cross-linguistically. Constructions found in a particular language may not be universal, so we are interested in the shared features between different mechanisms, and the intersection of syntactic, semantic and discourse/pragmatic factors. Different authors have stressed the primacy of one over another. Payne (1997: 169-170) refers to morphosyntactic operations altering the grammatical valence of a clause. As a result, the links between semantic roles and grammatical relations are changed through 'voice'. Dixon & Aikhenvald (2000: 25-27) distinguish voice which is akin to Payne's definition, from other constructions that change the semantic valence of the clause by altering the number of participants in the scene itself. The approach we take includes examining semantic, syntactic and macrorole valence adjusting. While different, these are clearly linked: there is a calculus between the level of semantic roles on the one hand and syntactic functions on the other (Kulikov 2010: 369).

The semantics of a proposition is a key consideration in any analysis. Scenario-conserving valence modifications are distinguished from scenario-altering valence modifications (Agel & Fischer 2010: 243-244). These correspond to the two types of valence-changing morphological operation described by Haspelmath & Sims (2010: 236-237). The two are shown in (5.1) and (5.2) and refer respectively to changing perspectives of an event, and changing the event itself. The linking or mapping in the former is referred to as 'diathesis' by Kulikov (2010: 370).

(5.1)   Those that change the linking of semantic roles to syntactic functions: this is function changing and relates to voice.

(5.2)   Those that change the conceptual structure (or event structure) of a verb so that the argument structure is affected: these are event changing operations.

Valence adjusting may involve increasing, decreasing or combinations thereof (Payne 1997: 172). The means employed can be lexical, morphological or syntactic through auxiliaries and copulas (Haspelmath & Müller-Bardey 2004, Dixon 2000). The changing of valence may move towards derivation (Haspelmath & Müller-Bardey 2004: 1139), and in fact Dixon & Aikhenvald (2000: 6) regard derivation as a central valence-changing device. With semantic valence adjusting, the number or nature of the arguments is changed along with the nature of

the predicate as reflected in the logical structure. Certain referents are more likely instigators; others are more likely to be affected. So the nature of both arguments and verbs is relevant. There may be constraints: restrictions on NP density in a clause may influence syntactic structures in a language (Munro & Gordon 1982) and limit the forms of syntactic valence adjusting available.

Many of the references in the literature talk in terms of 'subject' or 'object' demoting. As we have seen, these terms do not have a theoretical status in RRG, and may not be relevant anyway in languages such as PYN which feature ergativity. Nevertheless, we will in some cases refer to subject (S and A) and object (O) as shorthand notations. To avoid relying solely on these terms, in this chapter we examine valence adjusting from the perspective of adding or demoting controlling or affected participants. In a divalent predicate, these are A and O respectively.

For our analysis we take an unmarked sentence to be S-transitive and M-transitive with a divalent predicate; or S-intransitive with a monovalent predicate, where S may be actor or undergoer. Semantic valence adjusting creates another unmarked sentence, and this may affect macrorole assignment. Syntactic valence adjusted forms are marked alternatives to these and include changes to linking as well as the PSA. The literature on valence adjusting has numerous terms, some of which overlap; we analyse and categorise them by asking whether the syntax-semantics linking or semantics itself is primarily affected.

The purpose of this approach is firstly to conduct a cross-linguistic survey under general categories, secondly to see how RRG represents the structures found in PYN, and thirdly to identify structures that do not occur in PYN. We claim this is necessary to provide a full and typologically adequate account. Essentially we are surveying the combinations of obscuring, removing and adding participants in other languages and examining how PYN does this. Where we find evidence for a structure in PYN, we then go through the steps to analyse it, and provide a constructional schema. If there is no evidence, we note the fact and put forward alternatives or equivalents, which is itself significant in a complete characterisation of the dialects.

We begin by defining voice and outlining the RRG theoretical analysis we will use. Derivations are characterised through the layered structure of the word and lexical rules, and we determine the predicate class of derived verbs using the tests.

5.1 Voice

Certain valence-adjusting operations relate to the traditional concept of 'voice'. This is commonly referred to in the literature, so it is important to understand how RRG conceives of the phenomena involved. An RRG analysis of voice is given in Van Valin & LaPolla (1997: 294-302). Voice refers to the morphosyntactic patterns for adjusting the relation between semantic roles and grammatical relations (Payne 1997: 169). Crucially, this does not change the

semantics of a clause but presents a different perspective (Haspelmath & Müller-Bardey 2004: 1140), and it is a grammatical category giving flexibility in the viewing of thematic roles (Saeed 2009: 169). The classical division of voice is between active and passive, with middle voice as a third type (ibid.: 175). Klaiman (1991: xiii-xiv) divides voice up differently, with basic, derived and pragmatic voice. Basic voice is exemplified by active-middle systems; derived voice by passives and pragmatic voice by inverses. Voice is linked with control and predicates may be classified according to a control construct, with a 'theta hierarchy' (ibid.: 111) whereby logical subjects of control predicates are agents. Marked constructions can then have subjects which are patients. Argument-modulation voice constructions such as the passive are language-specific qualifications of the syntactic template selection principles in chapter 2, item (2.1), reducing the number of core slots by 1. Significantly, voice is not universal: for example Van Valin & LaPolla (1997: 255) assert that the Papua New Guinea language Enga has no voice constructions. We will investigate whether that is true for PYN.

Voice was traditionally studied in Latin and Greek and involved changes to verb morphology (Halliday 2006: 349). However Halliday claims this is not a prerequisite: voice is to do with the clause itself rather than the verb. This point of view is relevant in later discussions where we investigate valence adjusting and voice through morphological changes but also pragmatic alterations to clauses and sentences through marked word order. Van Valin (2005: 116) provides a general RRG characterisation of basic voice constructions in (5.3) and (5.4). These may be independent in some languages.

(5.3)   PSA modulation voice: permits an argument other than the default argument to function as the privileged syntactic argument.

(5.4)   Argument modulation voice: gives non-canonical realization to a macrorole argument.

Lakoff (1987: 65-66) discusses basic clause types, with simple declarative sentences being 'natural' and deviations from this including the passive among others. This is based on the 'subject' being a prototypical agent and topic. Klaiman (1991: 3) says voice allows a transitive situation to be projected grammatically from two viewpoints, that of the agent and that of the patient. While this primarily affects syntactic valence adjusting, semantic valence may change too, depending on whether all the participants involved in the new viewpoint are still required.

There may be other motivations. Valence adjusting may be used in some languages in the coordination of clauses in order to satisfy constraints in pivots (Dixon 1979). Voice and pivot thus act in keeping track of referents (Van Valin & LaPolla 1997: 285). An S/A pivot features in the following two examples (ibid.: 277); the gap in both sentences refers to the subject 'the man' from the previous clause. In (5.5), 'saw' still has a grammatical as well as semantic valence of 2. By contrast in (5.6) 'seen' has had its syntactic valence decreased to 1 by a passive, the agent is not required and is oblique if present. 'The man' in both sentences is the PSA and

controls the reference of the missing argument in the second clause. As seen, the PSA replaces 'subject' in RRG but this accords with the traditional analysis.

(5.5)   The man$_i$ got up and _$_i$ saw the woman.
(5.6)   The man$_i$ got up and _$_i$ was seen (by the woman).

Different types of valence are affected by passives, clauses with gapping as well as imperatives (Fernandez 2008); passives are part of syntactic valence adjusting and discussed in this chapter. In chapters 6 and 8 we examine gapping as represented by the non-expression of arguments where more than one clause is involved. Imperatives are expressed in PYN by a dedicated verb form.

5.2   RRG theoretical analysis of valence adjusting

Much of the terminology comes from traditional grammars, but this thesis takes an RRG approach in identifying changes to valence. Semantic valence adjusting introduces or omits a participant from the scene. Syntactic valence or S-transitivity is adjusted by removing or adding an argument to the core. The types of valence adjusting may overlap but they are not the same. As noted in chapter 2, while semantic arguments can occur outside the core, the reverse is not the case. In such a scenario the syntactic but not the semantic valence may be decreased. Macrorole valence or M-transitivity may be adjusted too; an actor or undergoer may be removed, added or reassigned, depending on whether the participant in the event remains an agentive or affected referent. Changes in specificity may alter an M-transitive clause to being M-intransitive, lacking an undergoer: the verb is then an activity while still being semantically divalent and S-transitive.

Valence adjusting potentially affects the underlying semantics of the predicate; the assignment of macroroles and M-transitivity; PSA assignment; the syntactic template; syntactic realisation involving case marking and cross-referencing; as well as behavioural factors, involving reflexives (Van Valin & LaPolla 1997, King 2010: 193) and relativisation. King's (ibid.) study of Falam Chin describes valence adjusting in terms of combining logical structures in valence increasing; fusing macrorole assignment in reflexives; and blocking macrorole assignment in valence decreasing.

Van Valin (2005: 158) distinguishes lexical operations that affect the formation of the LS and/or macrorole assignment, and syntactic operations that affect PSA assignment. Lexical operations are scenario changing (semantic valence) while syntactic operations relate to voice. Valence adjusting may have other effects in a clause which need to be included in our analysis. The following sub-sections outline the elements of the analysis that will be carried out.

5.2.1 Underlying semantics

Payne (1997: 47) refers to the 'message-world scene', the nature of an event intrinsically requiring a number of participants; so we first determine the number of semantic participants in the clause. Changes to the underlying semantics, such as the number of participants in the scene, are reflected in the semantic representation and logical structure. Chapter 3 discussed how predicate tests aid in determining the LS of predicates in PYN as well as the nature of the predicate. In this chapter we apply the tests for P/Y derived verbs to ascertain whether they are states, activities and so on. The tests applied are listed in Table 5-1, with results in Appendix C. We need to keep in mind the rationale of the tests, such as for establishing telicity and agentivity.

Table 5-1: Tests for P/Y derived verb Aktionsarten

Test	P/Y	
1. Occurs with progressive aspect	*-ngi*	past continuous verb ending
2. Occurs with dynamic adverbs like *vigorously*	*pu<u>l</u>ka<u>r</u>a*	'really, strongly, forcefully'
3. Occurs with slow adverbs like *gradually*	*purka<u>r</u>a*	'slowly'
4. Occurs with *for an hour*	*hour kutjuku*	'for an hour'
5. Occurs with *in four minutes*	*four minutespangka*	'in four minutes/four minutes ago'
6. Has derived adjective representing terminal state	*-nytja/-ntja*	nominalising of verb

5.2.2 Assigning of macroroles

The assigning of the actor and undergoer macroroles may be altered, by adding, removing or switching. Macroroles are identified through the actor-undergoer hierarchy and predicate classes (based on state or activity). As there is a maximum of two macroroles in a clause we paraphrase the semantic representation of trivalent verbs. Direct core arguments may also be non-macroroles.

5.2.3 Assignment of PSA

RRG's concept of voice constructions is of marked PSA assignment (Van Valin & LaPolla 1997: 176, Van Valin 2014: 11) which is a syntactic operation. We establish the PSA in each construction, using the hierarchy. While the PSA is the only grammatical relation posited in RRG, it has limited practical applicability in PYN as there is no verb agreement and pivots are controlled by switch-reference. This latter however is by reference to the 'subject', bracketing A and S, as the baseline to which the switch-reference relates.

5.2.4 Syntactic template

The syntactic template represents the number of core slots of a predicate, and we determine in any instance whether the available slots are filled. Semantic arguments may also appear syntactically in extra-core slots, or in the periphery, leading to a mismatch between semantic and syntactic valence. Examples of syntactic templates are given in Van Valin & LaPolla (1997: 323-324).

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5.2.5 Syntactic realisation of arguments

Syntactic realisation may involve coding (case marking and/or cross-referencing on the verb) or behavioural factors such as the ability to antecede a reflexive/reciprocal argument or to be relativised.

5.2.5.1 Case marking and cross-referencing on the verb

Case marking of arguments indicates the S-transitivity of the predicate in dependent-marked languages. This is not expected to always coincide with semantic valence and we highlight where there is a difference. PYN has no agreement on the verb for arguments.

5.2.5.2 Behavioural factors

Reflexivisation is put forward by King (2010: 196) as a behavioural test in valence adjusting analysis: it can only occur if there are at least two semantic arguments. In some languages, a reflexive cancels a valence increase (ibid.). Universally the argument that can be reflexivised is the actor-like one (Dixon & Aikhenvald 2000: 11). In Falam Chin, core arguments are identified as those that can be relativised (King 2010: 196): this language has different relativisation markers for ergative and absolutive. As seen in chapter 3, section 19, PYN does not make this distinction and can relativise any constituents, so we will not use this as a test for membership of the core in PYN.

5.2.6 Linking

As the final part of our analysis, we link the semantic and syntactic representations to the macroroles and PSA. Syntactic valence adjusting or voice alters the linking; for example in the English passive, the undergoer rather than the actor links to the PSA. Only specific referents can link to macroroles.

5.2.7 Constructional schemas

We summarise our findings through constructional schemas (Van Valin 2014: 13) or templates (Van Valin & LaPolla 1997: 430), which indicate the morphology, syntax, semantics and pragmatics involved in a particular valence-adjusting construction. These are sets of specific grammatical structures, each of which has its own properties (ibid.: 73-75).

5.3 Valence decreasing

Valence decreasing may be subdivided into downplaying a controlling participant, downplaying an affected participant or merging the controlling and affected participants (Payne 1997: 172). The first two are termed 'agent removing' and 'object removing' respectively by Haspelmath & Müller-Bardey (2004: 1131). However, 'removing' may be thought of in terms of either demoting a core argument to the periphery or else removing it completely. An example is PSA modulation voice where an argument other than the default is selected for PSA, making it more prominent (Van Valin & LaPolla 1997: 294). The argument that was the default PSA is then

demoted or omitted, potentially decreasing the syntactic or semantic valence. Keenan & Dryer (2007) distinguish two axes in valence decreasing: the dropping of controlling versus affected participants, and dropping participants from the core or from the sentence as a whole. The flipside of this is the foregrounding of controlling or affected participants. Because prototypical valence-decreasing mechanisms convert transitive clauses to intransitive (Dixon & Aikhenvald 2000), we will generally speak in terms of A and O in the original clause rather than subject and object. Dixon & Aikhenvald (ibid.) posit A as the argument whose referent does or could initiate or control the action. In talking of controlling or affected participants, these are prototypes: with verbs such as 'see', the arguments behave syntactically like prototypical controlling and affected participants.

5.3.1 Downplay a controlling participant

This involves downgrading or removing the more agent-like participant or actor. In this section we investigate the cross-linguistic means by which this may be done.

5.3.1.1 *Subject or A demotion: passive*

The passive expresses a transitive clause as superficially intransitive with the O argument as 'subject' or discourse topic (Silverstein 1976: 140). Dixon (1994: 146) says that since the O argument becomes the passive S, an intransitive clause is derived from an underlying transitive one. The underlying A argument goes into a peripheral function, marked by a non-core case or preposition. As it is now peripheral, this NP can be omitted, although there is always the option of including it. Regardless of whether it is omitted, the agent is not fully eliminated and is implied (Dixon & Aikhenvald 2000: 7) so there is still a semantic valence of 2. Other authors differ and state the means vary: some languages actually exclude A; others such as English allow its inclusion (Silverstein 1976: 140).

What unites these is that a passive proposition is from the point of view of the patient rather than that of agent, so the agent can be obscured (Saeed 2009: 169). Prototypically, a passive focuses attention on the state of the derived S (d-S), downgrading the importance of the original A (Dixon & Aikhenvald 2000: 8). It is significant whether the original A is omitted or just demoted: Halliday (2006: 349) says that in the passive the actor is presumed, or if it is overtly present, actually given prominence by placing it in a marked position. Since English requires a subject, the passive is often used where the agent is not known (Dixon 1994: 24) or the motivation exists to obscure it. Semantic focus on the non-agent in the passive also decreases the cataphoric persistence of the agent in the texts that follow (Kulikov 2010: 396-397).

In syntactic terms, Van Valin & LaPolla (1997: 141) claim the generalised patient type becomes the subject in the English passive. This affects PSA assignment in RRG: the undergoer becomes PSA. Examples (5.7) and (5.8) show the PSA determining appropriate verb inflection

for singular and plural respectively. Figure 5-1 shows the linking of these active and passive sentences. Passives affect PSA but not macrorole assignment, so are syntactic rather than semantic constructions: the subject of the derived passive verb is still semantically the patient/undergoer.

(5.7)   He$_{ACT}$ **sees** them$_{UND}$
(5.8)   They$_{UND}$ **are** seen (by him$_{ACT}$)
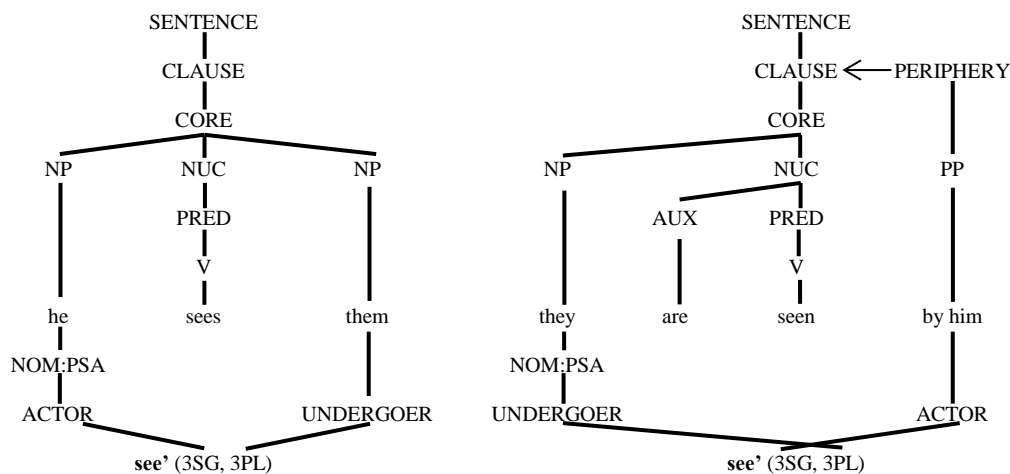
Figure 5-1: Active-passive alternation

Other languages are different in this respect. In the passive in Ute (Uto-Aztecan, United States) the actor is unexpressed in the clause, but remains as PSA, controlling head marking of the verb (Van Valin & LaPolla 1997: 298-9).

A language may have different forms of passive. In English, stative passives like 'be' focus attention on the state of the object while dynamic passives such as 'get' focus attention on the action (Keenan & Dryer 2007: 341). These contrasting passives are illustrated with a stative passive in (5.9) and a dynamic passive in (5.10). The first is actually ambiguous as a state or a causative; as Keenan & Dryer (ibid.: 337) point out, with such sentences it is unclear as to whether an external agent caused the situation or not. The vase is the undergoer in either situation. With the verb 'break', there are two arguments in the logical structure and it is an activity, so the default macrorole assignment is of an actor and an undergoer (Van Valin & LaPolla 1997: 151-153). However the agent is unspecified in these passives so can no longer be an actor.

(5.9)   The vase$_{UND}$ was broken
         broken' (vase)
         [**do'** (Ø, Ø)] CAUSE [BECOME **broken'** (vase)]

(5.10)   The vase$_{UND}$ got broken
         *****broken'** (vase)
         [**do'** (Ø, Ø)] CAUSE [BECOME **broken'** (vase)]

Kulikov (2010) summarises the passive derivation as in Figure 5-2 with SU as subject and DO as direct object.

X	Y
SU	DO

$\longrightarrow$

X	Y
Obl/-	SU
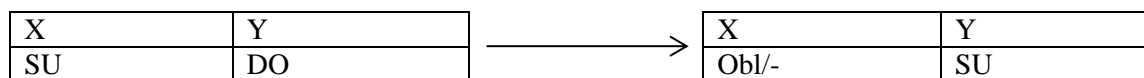
Figure 5-2: Active to passive derivation

The definition can be broadened: a passive generally is a predicate with $n+1$ places becoming one with n places (Keenan & Dryer 2007: 345). Similar forms occur with passives derived from S-ditransitive, semantically trivalent, verbs like 'give'. This becomes S-transitive, with the agent being put in the periphery. The original indirect and direct objects in (5.11) in turn become subject in (5.12) and (5.13) respectively.

(5.11) John gave me a book
(5.12) I was given a book (*by John*)
(5.13) A book was given to me (*by John*)

The passive requires some morphological characteristic to indicate its status (Keenan & Dryer 2007: 327); based on this criterion PYN has no passive. Thus in Pitjantjatjara one cannot have a passive like 'I was given': not only is there no passive verb form, but there needs to be an actor (D. Rose p.c.) even if it is not necessarily overt. In its state-like connotation ('the vase was broken'), PYN can express this with nominalised verbs, as we see in section 5.3.5.1.

How else might a PYN clause place prominence on the O argument? Rose (2001b) states that rather than a passive, Pitjantjatjara uses strategies such as presenting a non-active participant as topic. In practice, word order is changed to accomplish this effect (L. Brady p.c.). This is in accordance with Trudinger (1943: 207) who claims that there is no passive voice in Pitjantjatjara but that the subject of transitive verbs 'nom1' can also be 'ablative of agent', which is the equivalent of a 'by' construction in the English passive: an example is in (5.14). He opposes this to 'nom2' the subject of intransitive verbs and the accusative. These terms are based on nominative-accusative languages, but nevertheless illustrate the unity between S and O with A being separate. The linking is given in Figure 5-3; there is evidence given later for the fronting of topics (such as example (5.15) and further in chapter 7), so we put the zero first in word order.

(5.14) *Nja-ri-ŋu=lta?*   *Patja-nu li:ru-ŋku*
        Nyaa-ri-ngu=lta   *patja-nu liru-ngku*
        what-INCH-PST=TURN   bite-PST snake-ERG
        'What happened (to him)? (He)$_{UND}$ was bitten by a snake$_{ACT}$'
        do' (liru, **bite'** (liru, 3SG))
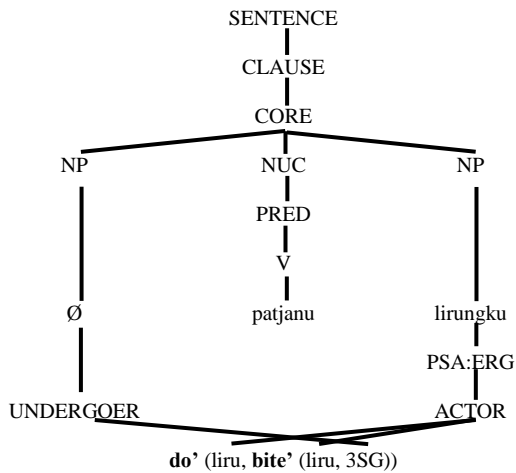
Figure 5-3: Ablative of agent

This lack of a true passive is not altogether unexpected. Voice has been claimed to be limited to the active in Australian languages, although in some languages the omission of a subject gives a generalised passive-like function (Capell 1956: 71) as above; this idea is discussed later in the chapter.

On the other hand, Hale (1970) says that while ergative languages in Australia usually lack the active-passive distinction, accusative languages have it. Because PYN pronouns have an accusative case marking system, this raises the possibility that they may have passives, that an accusative marked pronoun becomes the nominative marked subject. However, the evidence in (5.15) suggests that pronouns do not enter passive constructions either; a similar word order workaround to that with nominals is used. The nominal actor *wanatjiti pulkangku* is still in ergative case; the pronoun undergoer *ngayunya* is accusative. With the fronting of the undergoer, the word order has changed to OVA from the unmarked AOV. The valence of the transitive verb *patjani* has not changed; there are still two core arguments and two semantic participants. There is no special passive marking on the verb; but the clause has an unusual word order with the bitten entity, the patient and undergoer, coming first.

P/Y (Goddard 1996: 128)

(5.15) *Ka*   *ngayu-nya mara*   *patja-nu wanatjiti pulka-ngku.*
                O   V   A
        and.DS 1SG-ACC hand.ABS bite-PST centipede big-ERG
        'I$_{UND}$ got bitten on the hand by a big centipede$_{ACT}$'
        do' (wanatjiti, **bite'** (wanatjiti, 1SG[mara]))

Other definitions of passives have been made: as well as morphological verbal affixes, the explicit formal marking of passives may include analytical periphrastic elements (Dixon 1994: 146). Payne (1997: 204-208) claims that passives may also be lexical.

Van Valin & LaPolla (1997: 249) dismiss the idea posited by some authors that the passive is the origin of ergativity historically. This is based on the undergoer being the unmarked choice for 'subject'. The authors disagree, because as they point out some languages have both ergativity and productive passives.

5.3.1.2   Inchoative

With the inchoative (also known as anticausative or spontaneous) there is an S argument which is affected as a patient, with a change of state, but without any indication as to what caused the effect. This lack of apparent involvement of a causing agent distinguishes inchoatives from passives where an agent is implied. Not all verbs can do this: the event needs the potential to happen spontaneously (Haspelmath & Müller-Bardey 2004: 1133). Example (5.16) from Languedoc (Romance, France) show -ejà as an inchoative morpheme suffixed to an adjective. This derives a verb that describes a process bringing about a result state. As reflected in the LS there is no agent. Payne (1997: 94-95) describes this type of denominalisation or verbalisation as common cross-linguistically. As a valence-adjusting operation, semantic valence as well as S-transitivity is the same as its nominal predicating counterpart; there is no net change.

Languedoc (Tesnière 1966: 240)

(5.16)   *Amar-ejà*
     bitter-INCH
     'become bitter'
     BECOME **bitter'** (x)
     PROC **bitter'** (x) & INGR **bitter'** (x)

King (2010: 55) calls the anticausative a detransitivising operation that may be effected in some languages by a single morpheme. In the previous example the situation is not detransitivising as without the -ejà morpheme the predicate has the same valence, 1. King relates this to the middle and naturally reciprocal cases in Falam Chin (Tibeto-Burman, Burma), which involve combining controlling and affected participants. Levin (2009) discusses the anticausative in Greek, which she defines as the intransitive use of 'cause unspecified' change of state verbs.

Intransitive inchoative verbs may be derived from stative nominals through the suffixing of -ri/-ari in P/Y or -rri/-arri in Ngaanyatjarra (Bowe 1990: 26, Goddard 1993: 37-38, Glass 2006: 73); the resulting stem is fully inflecting as a verb indicating 'to become' (Bowe 1990: 26), a process and end result without any mention of an agent. Capell (1956: 70) refers to this as the 'inceptive' suffix which indicates something starting to change, and this is a common definition of inchoation. In PYN though, it is the actual change itself that is important. The class

of the derived verb depends on the number of vowels or syllables in the root after derivation (Goddard 1993: 39): odd numbers are *ng*; even numbers Ø.

Four *-ri* derivations were put through the predicate tests; the results are in Appendix C, and summarised in Table 5-2. The tests include *pulkaringanyi* 'become big', *ankuringanyi* 'become asleep', *tjinturinganyi* 'become day' and *palyaringanyi* 'become better'. Significantly *pulkara* 'strongly, really' does not occur with them, indicating they are not based on activities. *Purkara* 'slowly' appears with *palyaringanyi*, so it is an accomplishment, taking time and leading to a state. This depends on the nature of the derived verb: other inchoative derived verbs describe just the change rather than a process, making them achievements: punctual, non-dynamic and state-like.

Table 5-2: Inchoative derived predicate tests

	-ngi	*pulkara*	*purkara*	*hour kutjuku*	*four minutespangka*	*-ntja*
	pst cont.	strongly	slowly	for an hour	in four minutes/ four minutes ago	noml
pulkaringanyi	no	no	no	maybe	no	no
ankuringanyi	no	no	no	yes[19]	no	yes
tjinturinganyi	no	no	no	no	no	no
palyaringanyi	yes	no	yes	yes	no	yes

In (5.17), there is one argument in the logical structure and since it is not an activity, the macrorole assignment is an undergoer (Van Valin & LaPolla 1997: 152-153). Becoming big here is the result of a change so is not an attribute, identificational or natural state. This verb cannot occur with *purkara* 'slowly' so according to the predicate tests this makes it an achievement rather than an accomplishment.

P/Y (Goddard 1996: 142)

(5.17) *Waru panya=mpa   pulka-ri-ngu=lta*
fire   ANAPH=INT   big-INCH-PST=TURN
'The fire got really big'
INGR **big'** (waru panya)
*BECOME **big'** (waru panya)
*INGR **be'** (waru panya, [**big'**])

The inchoative has numerous applications. The suffix occurs with the adjective *paku* in (5.18) indicating a temporary change of state; there is no indication that anything caused this to happen.

Ngaanyatjarra (Glass & Hackett 2003: 273)

(5.18) *Paku-rri-ngku*
tired-INCH-FUT
'(He/she) will become tired'

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[19] Without *-ku*.

The state predicate in (5.19) is represented by an active adjective and a required posture verb; (5.20) with the derived verb is an accomplishment, and needs no posture verb. Because nominals predicate in PYN, and an inchoative derived verb is intransitive, there is no net change in the valence, which is one in both scenarios: 'lay asleep' and 'become asleep' are both semantically monovalent and S-intransitive.

Yankunytjatjara (Goddard 1996: 9)

(5.19) *anku ngari-nyi*
        asleep lie-PRES
        '(he/she) is asleep'
        asleep' (3SG)

(5.20) *anku-ri-nganyi*
        asleep-INCH-PRES
        '(he/she) is falling asleep'
        BECOME **asleep'** (3SG)
        PROC **tired'** (3SG) & INGR **asleep'** (3SG)[20]

The same morpheme indicates a change in identificational state with nouns in (5.21). Again there is no sign as to what caused the situation described. There is one argument, the undergoer, in the logical structure so it is not causative. However, in (5.21b) there is a connotation that the men willed the change to come about. The identificational **be'** is placed in the LS, though arguably because a change took place this could be deemed a result state.

Ngaanyatjarra (Kavanagh 1990: 58)

(5.21) (a) *Nyangka wati kutju yanumarra-rri-ngu.*
            and.DS   man   one   green.caterpillar-INCH-PST
            Nyangka kutjupa-nyalu ngalyakanti-rri-ngu.
            and.DS   other-then   white.caterpillar-INCH-PST
            'So one man_UND became a green caterpillar and the other one_UND became a white caterpillar.'
            BECOME **be'** (wati kutju, [**yanumarra'**])
                ∧ BECOME **be'** (kutjupa, [**ngalyakanti'**])

        (b) *Pitja-yirnu-pitja-yirnu   manta-kutu-rri-ngu=pula*
            come-PST.EXT (x2)   ground-ALL-INCH-PST=3DU
            Tjarungara-ngu marlaku   wati-rri-ngu   yarnangu-rri-ngu.
            sescend-PST   back   man-INCH-PST man-INCH-PST
            'The pair came slowly down and when they had finally reached the ground, they turned themselves back into men.'
            BECOME **be'** (3DU, [**yarnangu'**])

Inchoative derivations with the spatial adverb *kurranyu* in (5.22) and adjective *ila* 'close' in (5.23) are about changes of location. While (5.22) is in imperative mood and suggests active

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[20] Sometimes the result state itself rather than the process is described, e.g. *ka kunyu malanypa kuta panya kunkunaringi* 'and younger and older brother were sleeping' (P/Y Klapproth 2004: 222).

moving on the part of the group, this is not indicated in the verb; the speaker is only interested in the end result, that the group be in front.

Ngaanyatjarra (Glass & Hackett 2003: 96)

(5.22) *Marlangkatja pirninya=ya   kurranyu-rri*
        most.recent   all.ABS=3PL.NOM in.front-INCH.IMP
        'Can the last group come to the front?'
        BECOME **forward'** (marlangkatja pirninya)

Yankunytjatjara (Goddard 1983: 198)

(5.23) *Nyangatja maṯaṟi   winki   ila-ri-nganyi*
        DEM   overcast whole.ABS close-INCH-PRES
        'There's a big overcast cloud getting close'

Semantically in (5.24) and (5.25), there is no particular referent. These verbs usually occur as a background to other events: there is no implication of an agent but rather something developing over time. This makes sense, because the inchoative carries no suggestion of agent. The English translation uses the dummy subject 'it', corresponding to zero third person. The noun *wiltja* 'shade, shelter' has an inchoative derivation in (5.26), used for example when the sun moves and the shade from a tree changes as a result.

Ngaanyatjarra (Glass & Hackett 1979: 15)

(5.24) *tjirntu-rri-ngu*
        day-INCH-PST
        '(it) became day'

P/Y (Goddard 1996: 100)

(5.25) *ngula-ri-nganyi*
        late-INCH-PRES
        '(it) is becoming late'

Pitjantjatjara

(5.26) *Kuwari wiltja-ri-nganyi*
        now   shade-INCH-PRES
        'Soon (it) will become shade'

The non-polar question word *nyaa* 'what' derives the intransitive verb *nyaaringanyi/nyaarringku* 'what is happening'. If this lacks overt arguments as in (5.27), it is posited as third person singular and it would literally be translated '(he/she/it) is becoming what?'[21]. This is asking what happened in general, or 'what happened to him/her?'; both inanimate and animate interpretations are possible. The verb has an explicit argument *=n* in (5.28), so this is unambiguous.

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[21] This suggests the possibility of a dummy subject if *nyaaringanyi/nyaarringku* is interpreted as 'what happened?' with no particular referent in mind.

(5.27) *Nyaa-rri-ngkula?*
what-INCH-PRES
'(It) is becoming what = what's happening?'
'(He/she) is becoming what = what's happening to him/her?'

P/Y (Goddard 1996: 107)

(5.28) *Nyaa-ri-ngu=n?*
what-INCH-PST=2SG.NOM
'you became what = what happened to you?'
BECOME **what'** (2SG)

The *-ri/-rri* inchoative thus may indicate a change in reference, attribute, time and location. Although passives underplay the actor, inchoatives do away with the notion of causation completely and describe the event as occurring spontaneously: an agent cannot be optionally included. Blake (1987: 64) states that some languages have suffixes similar to the inchoative while allowing an ergative marked agent; this is not the case in PYN which only has an unmarked undergoer. The inchoative suffix is productive: in Klapproth (2004), *malu* 'kangaroo' derives *maluringanyi* 'he becomes a kangaroo'; *tjilpiringanyi* 'he is becoming an old man' is another derivation (D. Rose p.c.). This productivity extends to all types of nominal: while nouns generally are used for reference and categorisation and adjectives for attribution (Schachter & Shopen 2007: 6) both word classes can be suffixed *-ri/-rri*. This is not unexpected syntactically because both nouns and adjectives are part of the nominal class in PYN. Another productive example is in (5.29), with the borrowed word *married*.

Pitjantjatjara (Kavanagh 1990: 38-39)

(5.29) *Palu iritji   ngayu-ku   tjamu-ngku,*
but   long.ago 1SG-GEN   grandfather-ERG
katja-ngku wilurara-nguru kakarara-tja married-ari-ngu,   alti-ngu,
son-ERG   west-ABL   east-of   married-INCH-PST   marry-PST
'A long time ago my grandfather, a son of the West married (a woman) from the East.'

The inchoative verb is derived from a nominal, a tenseless state predicate. There is one semantic participant, and no additional semantic argument is introduced. The sole argument is a patient or theme, prototypically affected. There is one argument in the logical structure and it is not an activity, so it is M-intransitive with an undergoer (Van Valin & LaPolla 1997: 152-153). It has one syntactic core slot, making it S-intransitive: this argument is the PSA. The linkings with the plain adjectival predicate *puḻka* and derived inchoative *puḻkaringu* are given in Figures 5-4 and 5-5 respectively.

SENTENCE

CLAUSE

CORE

NUC   NP

PRED

ADJ

pu<u>l</u>ka   nyangatja

ABS:PSA

UNDERGOER

be' (nyangatja, [**big'**])
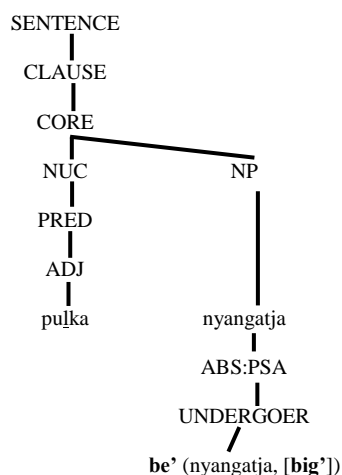
Figure 5-4: Linking algorithm for underived state

SENTENCE

CLAUSE

CORE

NP   NUC

PRED

V

wa<u>r</u>u panya=mpa   pu<u>l</u>karingu=lta

ABS:PSA

UNDERGOER

INGR **big'** (wa<u>r</u>u panya)
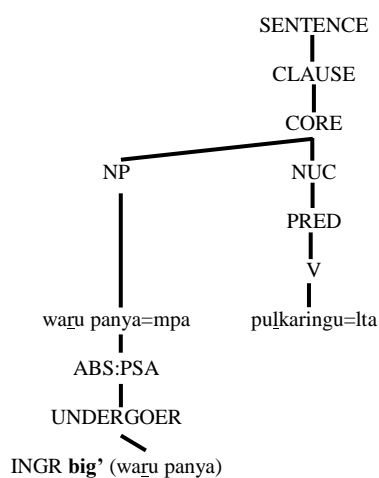
Figure 5-5: Linking algorithm for *-ri* derivation

This is summarised in the schema in Table 5-3. The inchoative is a lexical rather than syntactic operation: there are changes to the LS (INGR/BECOME) but not macrorole or PSA assignment.

Table 5-3: Constructional schema of *-ri/-rri*

Construction:	*-ri/-rri* inchoative
Syntax	Template: one core slot
	PSA: sole argument
	Linking: Undergoer=PSA
Morphology	N+ *-ri/-rri*. Forms verb of *ng* class
Semantics	PSA: patient
	Aktionsart: +static, +telic, ±punctual
Pragmatics	IF: unspecified
	Focus structure: unspecified

This is one of the most important and frequently found verbal derivations in PYN and there are many references to its nature. The distinction between an inflectional morpheme and a bleached verb is fuzzy in any event: McGregor (2002: 164) states that in Pama-Nyungan languages generally there is a productive inchoative inflecting verb, usually *(ja)rri-*. He claims that this is becoming grammaticalised in Western Desert as a derivational morpheme. This situation is not

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unique to these languages: Baker & Harvey (2003), in looking at the relationship between phonology and morphology in complex words, show that the non-Pama-Nyungan language Ngalakgan (Arnhem, Northern Territory) has an inchoative morpheme *me* that acts like a verb root, while phonologically behaving like a word level suffix. In PYN *ringanyi/rringku* has no independent existence as a verb, and we treat it as a derivational morpheme.

Some PYN verbs appear to be *-ri/-rri* derivations, but to have become lexicalised. Thus *mukuringanyi/mukurringku* 'like/want' is S-intransitive, with the experiencer being in absolute/ nominative case and the stimulus being dative. In Pitjantjatjara, *mukulya* means 'love' (D. Rose p.c.) and the reduplicated Ngaanyatjarra root *muku-muku* means 'gentle, kind' (Glass & Hackett 2003: 172). The verb *mukuringanyi/mukurringku* apparently derives from these nominals through the inchoative suffix *-ri/-rri* as 'become kind'. Similarly Ngaanyatjarra *kama-kama* 'gentle, passively' derives *kamarringku* 'like, want' (ibid.: 31). The intransitive Yankunytjatjara verb *unytjuringanyi* 'like, be fond of' derives from *unytju* 'inside of the throat, windpipe' (Goddard 1996: 201). The throat is a place in the body associated with anger and desire. With all these verbs the person or thing wanted or liked takes the purposive *-ku/-mpa* case ending; the verb is S-intransitive like any other inchoative derivation.

Two other common lexicalisations are *wiyaringanyi* 'finish', used as 'finish being tired' in (5.30). In (5.31) *nintiringangi* 'becoming knowledgeable = studying' was going on for a week. In both of these examples, the change was drawn out rather than instant.

P/Y (Goddard 1996: 119)

(5.30) *Munu   pula   tjukutjuku nyina-ra paku wiya-ri-nganyi*
and.SS 3DU.NOM little   sit-SER tired NEG-INCH-PRES
'Then the two of them sit for a little while, having a rest'

(5.31) *Munu=ya   pitja-la   Ernabella-la   nyina-ngi   wiki   kutju*
and.SS=3PL.NOM come-SER [place]-LOC sit-PST.CONT week one
munu=ya   ninti-ri-ngangi
and.SS=3PL.NOM know-INCH-PST.CONT
'They came and stayed at Ernabella for one week and were studying'

5.3.1.3 Decausative

Goddard (1983: 117) describes the Yankunytjatjara decausative *-ara* derivational suffix as differing in two respects from the inchoative *-ri/-rri*: it indicates a change of integrity rather than a change of substance; and unlike the inchoative, it implies the possibility of an outside cause. It is suffixed either to nominals or to the stems of causative verbs[22]. It occurs in all three dialects but is not particularly productive. As well as in P/Y (Goddard 1996), Ngaanyatjarra equivalents are found in Glass & Hackett (2003) with *-arra* and *-raa*.

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[22] These relate to nominals as we see later in this chapter.

The predicate test results for *tjilpirara̱ni* are in Appendix C, and summarised in Table 5-4. The derivation cannot occur with continuous aspect and *purka̱ra* 'slowly' is questionably grammatical. This suggests that it is an achievement, or quick change of state, describing the end result as in (5.32). The verb itself rather than a nominalisation indicates the terminal state.

Table 5-4: Decausative derived predicate tests

	-ngi	*pu̱lka̱ra*	*purka̱ra*	*hour kutjuku*	*four minutespangka*	*-ntja*
	pst cont.	strongly	slowly	for an hour	in four minutes/ four minutes ago	noml
tjilpirara̱ni	no	yes	yes ?	no	yes	no

<div align="right">Yankunytjatjara (Goddard 1983: 117)</div>

(5.32) *Ngayu-ku wiila   tjilpir-ara-ṉu*
        1SG-GEN tyre.ABS crack-DECAUS-PST
        'My tyre was cracked = my tyre's cracked.'
        cracked' (wiila)
        INGR **cracked'** (wiila)
        *BECOME **cracked'** (wiila)

A question here is 'the possibility of an outside cause'. With the core common ground knowledge that wheels are cracked by something, it might be suggested that an unknown third party argument should be present; the case marking of *wiila* would be the same – absolutive – and a zero third person could be posited as actor or causer. This would require a causative LS however, and the structure has been dubbed a 'decausative': we are talking about the current state of the wheel. Goddard (1996: 177) calls the verb (S-)intransitive; and the related transitive verb *tjilpirpunganyi* 'to split something' is available.

So there is one semantic argument; the state has been brought about by some unspecified cause. The noun *tjilpir(pa)* is a splinter or crack; there is semantic significance in that the wheel does not become a crack but becomes cracked, a change in integrity not substance. There is one argument in the logical structure and it is stative rather than an activity, so the macrorole assignment is an undergoer (Van Valin & LaPolla 1997: 152-153). With one macrorole, the undergoer, this is the same situation as obtains in an underived adjectival predicate. It is a one core slot predicate so the verb is S-intransitive. The sole core argument *ngayuku wiila* in (5.32) is case marked absolutive, with no cross-referencing on the verb: this argument is the PSA.

Figure 5-6 shows the syntax-semantic linking involving *tjilpiraranu*; showing it as semantically monovalent, S-intransitive and M-intransitive.
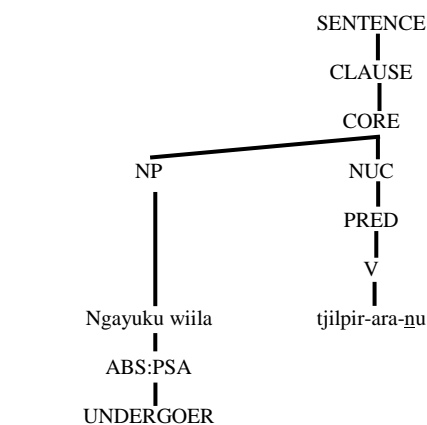
```
                    SENTENCE
                        |
                     CLAUSE
                        |
                      CORE
             _____/ |
            /             |
           NP            NUC
            |             |
            |           PRED
            |             |
            |             V
    Ngayuku wiila    tjilpir-ara-nu
            |
        ABS:PSA
            |
      UNDERGOER
             \
INGR cracked' (ngayuku wiila)
```
Figure 5-6: Linking algorithm for *-ara* derivation

The decausative constructional schema is given in Table 5-5. Because productive lexical operations involve changes to the LS and/or macrorole assignment and do not affect PSA assignment, the decausative is a lexical rather than syntactic operation.

Table 5-5: Constructional schema of *ara/-arra*

Construction:	*-ara/-arra* decausative
Syntax	Template: one core slot
	PSA: S argument
	Linking: Undergoer =PSA
Morphology	N+ *-ara/-arra.* Forms intransitive verb of 1 class
Semantics	PSA: patient
	Aktionsart: +static, +telic, +punctual
Pragmatics	IF: unspecified
	Focus structure: unspecified

5.3.1.4 Subject or A omission

There are alternatives that eliminate the subject (Keenan & Dryer 2007: 329) or A. By just not mentioning the controlling entity, subject omission downplays it. This is straightforward syntactically in ergative systems, because if the A argument is removed in a transitive clause, the clause is left with the verb and an absolutive argument. In this Tongan (Austronesian, Tonga) example, the authors ask whether the third person is understood, or whether it is a morphologically degenerate passive or truncated active. The only difference between the two sentences is that ergative *'e 'Tevita* is removed in the second; the sole remaining argument does not change and is absolutive in both. The patient is still affected but the agent is no longer mentioned. Significantly though in (5.34) *Koliate* is not the S argument of an intransitive verb, which would be the actor of an activity verb.

(5.33) *Na'e tamate'i 'e   'Tevita 'a   Koliate*
     killed   ERG   [name] ABS [name]
     'David$_{ACT}$ killed Goliath$_{UND}$'
     do' (Tevita, Ø) CAUSE BECOME **dead'** (Koliate)

(5.34) *Na'e tamate'i 'a   Koliate*
     killed   ABS [name]
     'Goliath$_{UND}$ was killed/(Someone) killed Goliath'
     *'Goliath$_{ACT}$ killed (someone)'
     do' (Ø, Ø) CAUSE BECOME **dead'** (Koliate)

The key difference of this to the passive is that there is no valence-changing morphological marking on the verb; the ergative argument or controlling participant is just omitted. The semantic valence is not altered.

In some Australian languages omitting the subject makes the statement generalised and impersonal; while it resembles a passive it is not one structurally (Capell 1956: 71). Since the default verb argument in PYN is the third person singular, if an argument is omitted it is interpreted as this (in the absence of other evidence) and it may be A, S or O. In (5.35) *wati mankurpa* is absolutive with the transitive verb *witunu*; so this suggests A is omitted, and the men were sent rather than them sending anyone. In isolation the agent of such a sentence may be unknown; it would normally be identified by context.

(5.35) *palulanguru wati mankurpa witu-nu.*
     afterwards   man three.ABS send-PST
     'afterwards (someone) sent three men$_{UND}$' = 'three men$_{UND}$ were sent.'
     do' (Ø, **send'** (Ø, wati mankurpa))

The verb is unchanged; rather than valence decreasing, the apparent difference is accounted for by the zero third person singular pronoun. The subject is omitted but identifiable and definite or general depending on context. Omission which is interpretable as definite is ellipsis, discussed in chapter 8.

5.3.1.5 *Impersonal passive*

In an impersonal passive there is no clear semantic referent for the PSA (Van Valin & LaPolla 1997: 298-299). This has been studied in a number of languages, such as Irish (Nolan 2012: 107). In these Latin examples with a base transitive verb, the passive form *dicitur* 'is said' has no agentive argument. In (5.36) the sole argument *Petrus* is in nominative case and in (5.37) *Petrum* is accusative, distinguishing 'Petrus is said…' and 'it is said…' respectively.

(5.36) *Petrus   dicitur   uenisse*
     [name].NOM say.PASS come
     'Petrus is said to have come'.

(5.37) *Dicitur   Petrum   uenisse*
     say.PASS [name].ACC come
     'It is said that Petrus came'.

This Latin passive morphology can further extend to some base intransitive verbs such as *curritur* 'it is run' (Keenan & Dryer 2007: 332). A one-place activity predicate becomes atransitive, which Keenan & Dryer (2007: 345) regard as a logical extension of their generalisation of passives, reducing valence by 1. This impersonal passive makes the agent vague; it removes the single argument S of an intransitive verb in (5.38). There are no macroroles or arguments.

(5.38) *Es wird hier ge-tanzt*
     it   be   here PASS-dance
     'Dancing takes place here.'

Also referred to as an 'agentless passive' or 'potential passive', this is often used to indicate habituality (Kulikov 2010: 375): specific instances are not being described.

     As with the general passive, there are no verbal morphemes for this in PYN; 'A' arguments may be freely omitted without verbal derivation, interpreted as 'one/you' where they are non-specific or unknown. This often works in conjunction with the verbal morphemes *-pai/-payi* that are used for habitual or characteristic actions.

5.3.2   Downplay an affected participant or O

The following sections involve downplaying the more patient-like participant: the undergoer where the argument is referential. The main division in the means employed is between those that demote the argument from the core and those that remove it completely. Semantically this may involve demoting or removing it as a participant in the scene itself or unassigning it as undergoer.

5.3.2.1   Object or O demotion: antipassive and deaccusative

The antipassive involves the downplaying of the O argument and is common in morphologically ergative languages (Dixon & Aikhenvald 2000: 10, Payne 1997: 219) as a counterpoint to the passive in accusative languages. The antipassive derives an S-intransitive verb from an underlying S-transitive: the underlying A NP becomes the antipassive S, with the underlying O NP going into the periphery and getting marked by a non-core case, adposition or other means (Dixon & Aikhenvald 2000: 9, Dixon 1994: 146). The non-core case can be dative

(Blake 1987: 57-58) or instrumental (Velázquez-Castillo 1995) for example. As with the passive, there is a special marker on the verb or elsewhere in an antipassive (Dixon & Aikhenvald 2000: 9, Payne 1997: 219). King (2010: 313ff) claims that antipassives lower M-transitivity by blocking macrorole assignment to the lower-ranking argument of the base predicate. In some languages if O is moved to a non-core case, it is no longer a macrorole. An antipassive thus demotes or downplays the undergoer (Van Valin & LaPolla 1997: 143): this may characterise the action as an activity without a referential object. An RRG treatment of the antipassive is given in Van Valin & LaPolla (ibid.: 268).

The antipassive derivation is found in a dozen Australian languages (Blake 1987: 57-58) which is a small minority. In the Dyirbal example (5.39), the unmarked sentence has the O argument *balan guda* in absolutive case. *Baŋgul yaraŋgu* is the A argument with ergative marking. The antipassive derivation is shown in (5.40) where O becomes marked in dative *bagun gudagu* and the remaining noun *bayi yara* becomes d-S, absolutive. The verb *bura* has an antipassive morpheme affixed. (5.41) shows the use of the antipassive in a pivot, the S argument *bayi yara* in the first clause remains S in the second.

Dyirbal (Dixon 2011: 462)

(5.39) *Balan   guda   baŋgul   yara-ŋgu bura-n*
        she.ABS   dog.ABS   he.ERG   man-ERG   see-PST
        'The man saw the dog'

(5.40) *Bayi   yara   bura-l-ŋa-nyu   bagun   guda-gu*
        he.ABS   man.ABS   see-ANTIPASS-PST   she.DAT   dog-DAT
        'The man saw the dog'

(5.41) *Bayi   yara   buŋa-n   bura-l-ŋa-nyu   bagun   guda-gu*
        He.ABS   man.ABS   descend-PST   see-ANTIPASS-PST   she.DAT   dog-DAT
        'The man went downhill and saw the dog'

The Dyirbal antipassive derivation is summed up in (5.42). A becomes S, O is demoted to dative and special marking is deployed on the verb. The derivation is schematised in Figure 5-7.

(5.42)   NP1 (O) NP2 (A) V + tense =====NP2 (S) V + ŋa-y + tense NP1 (dative)

X	Y		X	Y
A	O		S	Obl
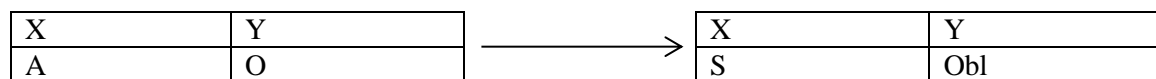
Figure 5-7: Antipassive derivation

Similarly in the deaccusative or antiapplicative the patient is not removed but put in an oblique case (Haspelmath & Müller-Bardey 2004: 1132), backgrounding it. Since it is based on accusative rather than ergative systems, when A becomes S its case marking does not change. This is not common cross-linguistically. These examples from Hungarian (Uralic, Hungary) feature the deaccusative suffix *akoz* added to the verb *szán* in (5.44). The superessive case prototypically refers to something being 'on' the referent.

(5.43) *Az   orvos szán-ja   a   beteg-et.*
        DET doctor pity-3SG DET patient-ACC
        'The doctor pities the patient.'

(5.44) *Az   orvos szán-akoz-ik   a   beteg-en.*
        DET doctor pity-DEACC-3SG DET patient-SUPERESS
        'The doctor feels pity for the patient.'

As noted, transitivity is a spectrum and some verbs of emotion behave syntactically like intransitives. In PYN, the suffix *-ku* is used on the stimulus of verbs of emotion (Platt 1976a: 427, Goddard 1983: 32, Glass 2006: 42); the experiencer or emoter is absolutive. Marking the target for an emotional state with purposive case is not an antipassive derivation in PYN as there is no basic syntactic two core argument alternative with target in absolutive, nor is there any change in the verb. This is perhaps unexpected in an ergative language where antipassives are frequently found rather than passives. However, most Australian languages lack an antipassive (Blake 1987: 175) so PYN is actually in line with the majority.

Nevertheless a few individual verbs have argument case marking alternations. If we take a two-argument prototypical verb, with ergative and absolutive arguments, then changes in O marking might be considered demotions. The PYN verb *nyanganyi/nyaku* in the sense of 'see/ watch' takes an accusative/absolutive marked stimulus as a two-argument core. If it has the sense of 'look for', the stimulus takes the purposive case *-ku* (Goddard 1996: 109). This seems surprising in the sense that the actor appears to be more agentive in the latter, but *-ku* is a general purpose marker for many verbs, explaining the reason for an action. It mirrors *kulini* which is 'hear' with accusative/absolutive case but 'listen to' with the locative case *-ngka* (Goddard 1996: 44). In (5.46), *wati katja* remains ergative, and has not become marked like the S of an intransitive verb. This is directed perception which is an activity rather than perception, which is a state (Van Valin 2005: 55). While the actor is more agentive in directed perception, there is no sense that the stimulus is any more affected.

(5.45) *Puu-ku=latju   nya-kula*
        bore-PURP=1PL.EX.NOM see-PRES
        'We are looking for a bore = We are waiting for a bore'

(5.46) *Wati katja-ngku mama-ngka kuli-ntja   wiya*
        man son-ERG   father-LOC listen-NOML   NEG
        'The son won't listen to his father'
        do' (wati katja, **hear'** (wati katja, mama))

As Dixon (2011: 103) notes, verbs for 'look' and 'see' are usually covered by the same verb in Australian languages. This is true in PYN, with the semantic difference between directed and

non-directed perception handled respectively by the purposive or absolutive case marking of the undergoer. Importantly the form of the verb itself does not change, so is not a valence-decreasing operation.

5.3.2.2 Deobjective

This is also known as indefinite object deletion (Haspelmath & Müller-Bardey 2004: 1131-1132). In the following examples from Ainu (isolate, Russia and Japan), the O argument *sake* is indefinite in (5.47) and absent in (5.48): both indicate types of activity. It is claimed this is more common in activities where the agent is affected too. This is a morphological process with a deobjective morpheme, and reduces both semantic and syntactic valence. The lack of referentiality means that in (5.47) *sake* is not an undergoer; this non-macrorole argument is then removed in (5.48): M-transitivity remains unchanged at 1. As these are activities, there is no sense of completion of the act; so they are not active accomplishments which have a definite undergoer.

Ainu (Shibatani 1990: 46)

(5.47) *Sake a-ku*
         sake 1SG.TR-drink
         'I$_{ACT}$ drink sake'
         do' (1SG, **drink'** (1SG, sake))

(5.48) *I-ku-an*
         DEOBJ-drink-1SG.INTR
         'I$_{ACT}$ drink'
         do' (1SG, **drink'** (1SG))

In English 'drinking beer' or 'drinking coffee', while 'beer' or 'coffee' are inherent arguments, they do not refer to any particular referent. As 'drinking' can characterise both of them, the inherent argument is freely dropped (Van Valin & LaPolla 1997: 123). By treating the object like a mass noun (beer/coffee), it is deobjectified and the verb becomes more activity-like. This distinguishes it from an active accomplishment.

There is no deobjective morpheme in PYN; and no dedicated definite or indefinite articles. Specificity is by context, or by demonstratives or pronouns such as *palu<u>r</u>u/palunya* within the NP. Arguments are frequently unexpressed, so context determines whether a specific object is in mind.

5.3.2.3 Potential deobjective

The potential deobjective refers to a disposition (Haspelmath & Müller-Bardey 2004: 1132) and thus relates to irrealis or generic situations. These examples are Udmurt (Uralic, Russia). In (5.50), the deobjective morpheme *-isk* means the direct object O *vanzes* 'everybody' is no longer required. Nominative case does not change here since the subject changes from A to S; the undergoer is removed.

(5.49)   *Puny   vanz-es kurtcyl-e*
       dog.NOM all-ACC bite-3SG
       'The dog bites everybody'
       do' (puny, **bite'** (puny, vanz))

(5.50)   *Puny   kurtcyl-isk-e*
       dog.NOM bite-DEOBJ-3SG
       'The dog bites' (in general)
       do' (puny, **bite'** (puny))

To express a disposition, PYN uses the *-pai/-payi* suffix, discussed in the nominalising section 5.3.5. This is not necessarily valence decreasing: it depends on whether it has a generic, impersonal interpretation in which it acts like a nominalisation, 'one who X'. As a verb it can still have an object (so it is not a deobjective): the S-transitivity is not changed.

5.3.2.4   *Object or O demotion without morphological changes*
There are several other types of object or O argument demotion. Payne (1997: 220) suggests that in object demotion, the patient-like participant is less involved or affected. In (5.51) it is understood the deer was shot. In (5.52), it was not necessarily shot, even though the action was directed at it. Saeed (2009: 266-267) calls these 'conative constructions'; these are discussed further in section 5.7.

(5.51)   The hunter shot the deer
(5.52)   The hunter shot at the deer

PYN has different means of expressing this. While a prototypical patient is impacted by the action it does not have to be. In (5.55) the verb *pauni* 'shoot' does not necessarily entail success, as here with the adverb *manytja* 'miss'. The argument *maḻu* was not impinged by the action: it was shot at but not actually shot. Nevertheless the case marking of the two arguments is still ergative and absolutive.

<div align="right">Pitjantjatjara</div>

(5.53)   *Wati-ngku malu   pau-nu*
       man-ERG roo.ABS shoot-PST
       'The man shot the kangaroo'

(5.54)   **Wati   malu-ngka pau-nu*
       Man.ABS   roo-LOC   shoot-PST
       'The man shot at the kangaroo'

<div align="right">P/Y (Goddard 1996: 71)</div>

(5.55)   *Wati-ngku maḻu   manytja pau-ṉu*
       man-ERG roo.ABS miss   shoot-PST
       'The man shot at the kangaroo but missed'

Bowe (1990: 25) shows that the indirect or second object can be demoted to locative (prototypically a non-core case) in this pair of ditransitive examples, leading to a decrease in syntactic but not semantic valence. Used ditransitively, *wangkanyi* 'speak, tell' can have a 'double object' construction with both the beneficiary and the patient in absolutive case. In this case the obligatory direct object or patient is closest to the verb, as in (5.56). Alternatively, the indirect object or addressee can be demoted to the locative case as in the example with addressee *tjitji* in (5.57). The remaining two core arguments maintain their ergative and absolutive markings. There is no indication though that the action was any less successful.

Pitjantjatjara (Bowe 1990: 25)

(5.56)   *Minyma-ngku tjitji   tjukurpa   wangka-ngu*
         woman-ERG   child.ABS   story.ABS   tell-PST
         'The woman$_{ACT}$ told the child$_{UND}$ a story$_{DCA}$.'
         [do' (minyma, [**express.**(α).**to.**(β).**in.language.**(γ)**'** (minyma, tjitji)])]
                 CAUSE [BECOME **know'** (tjitji, tjukurpa)],
                 where α = *tjukurpa*, β = *tjitji*

(5.57)   *Minyma-ngku tjitji-ngka tjukurpa   wangka-ngu*
         woman-ERG   child-LOC   story.ABS   tell-PST
         'The woman$_{ACT}$ told a story$_{UND}$ to the child$_{NMR}$.'
         [do' (minyma, [**express.**(α).**to.**(β).**in.language.**(γ)**'** (minyma, tjukurpa)])]
                 CAUSE [BECOME **know'** (tjitji, tjukurpa)],
                 where α = *tjukurpa*, β = *tjitji*

5.3.2.5   Object or O omission

In object omission the identity of the patient is irrelevant as in (5.58). The complication is that A, S and O are syntactic notions: O has been left unexpressed so theoretically the hunter could be A or S. Payne (1997: 220-221) states that object demotion and omission differ from the antipassive where the verb takes a marker of intransitivity.

(5.58)   The hunter shot

Objects as well as subjects are regularly omitted in PYN. In (5.59) with the transitive verb *puyiningi* the O argument is omitted but the A argument *mina puḻka* remains in ergative case indicating no change in the verb's S-transitivity. The transitive verb prototypically means 'to chill' but here there is no overt undergoer. There is no additional morpheme on the verb, so it is not a valence-decreasing operation. However since the third person singular zero may be subject or object, the non-overt O can be interpreted as a zero object. Generally, if an omitted argument is known it represents ellipsis; otherwise there is an impersonal, non-specific dropped argument as here. L. Brady (p.c.) makes the point that *puyini* is used for a feeling of chilling, so is not used for chilling inanimates such as a beer. Figure 5-8 shows the linking.

(5.59) *Mina puḻka-ngku puyi-ningi.*
       water big-ERG   chill-PST.CONT
       'Heavy rain was chilling (him/her) =Heavy rain was falling.'
       do' (mina pulka, Ø) CAUSE BECOME **feel'** (3SG, [**cold'**])


```
                                    SENTENCE
                                       |
                                    CLAUSE
                                       |
                                     CORE
            NP                NP          NUC
            |                 |            |
                                          PRED
                                           |
                                           V
       Mina pulkangku         Ø         puyiningi
            |
         PSA:ERG
          ACTOR           UNDERGOER
```

do' (mina pulka, Ø) CAUSE BECOME **feel'** (3SG, [**cold'**])
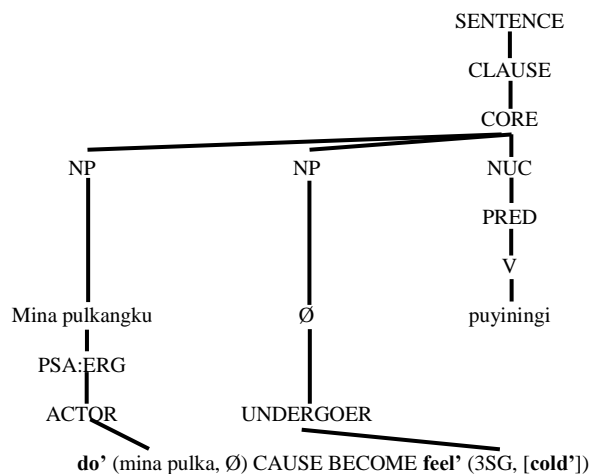
Figure 5-8: Linking algorithm with O omission

5.3.3   Combining controlling and affected participants

In a prototypical transitive, one entity acts on another. With a reflexive the two participants in a transitive clause refer to the same entity; in a reciprocal there is more than one entity involved, acting on each other. A third construction, middle, is also discussed here; this is regarded by some as a type of voice alongside active and passive, but it may have certain things in common with reflexives and reciprocals including the affectedness of the subject. Blake (1987: 57), in his study of Australian languages, describes reflexives, reciprocals and antipassives as 'detransitivised constructions' while McGregor (2002: 317) includes reflexives and reciprocals from most languages of Australia as intransitivising derivational categories.

5.3.3.1   Reflexive

In a reflexive construction the A and O arguments refer to the same entity (Payne 1997: 198); the first actant is the same person as the second (Tesnière 1966: 246). This decreases the semantic valence as there is only one entity involved. Reflexives are of different types: lexical and morphological reflexives also reduce the grammatical valence, while syntactic ones do not (Payne 1997: 198). Lexical reflexives have a single actor/undergoer macrorole, leading to an M-intransitive clause (King 2010: 282).

Van Valin & LaPolla (1997: 392) distinguish lexical, coreference and clitic reflexives. With reflexives, clitics are valence decreasing, while full pronouns are not (Van Valin & LaPolla 1997: 407-408). Geniušienė (1987: 26) finds a difference between languages with verbs containing reflexive affixes (like Latvian, Lithuanian and Russian) and those that have reflexive pronouns (like English).

King (2010: 50-51) puts forward two important considerations with respect to reflexives: the possible antecedents and the domain. There is a role hierarchy condition on the antecedents in reflexivisation: a reflexive pronoun must not be higher on the PSA hierarchy than its antecedent. Thus actors are antecedent for undergoers in accusative languages (Van Valin 2005: 162). Nolan (2012: 75) states that in reflexives two participants are coded, an undergoer coindexed with an antecedent actor; the participants are distinct while being coreferential. While reflexivisation is anaphoric in English, it is an argument structure operation in Slavic and Romance languages (Van Valin & LaPolla 1997: 319). The domain itself may be the predicate, clause or sentence. There is a domain of possible reflexivisation and a domain of obligatory reflexivisation (Van Valin & LaPolla 1997: 396, Nolan 2012: 73).

Reflexives in PYN take the form of clitic pronouns; =*tju* for first person, =*nku* for second and third. In (5.60) and (5.61), the reflexive clitic =*tju* attaches to the arguments *ngayuluna* and =*na* of transitive verb *wakanu*. Note the form is =*natju* 'I' rather than =*nitju* 'me', emphasising the agency over the entity which is simultaneously the patient; there is no accusative marking. This suggests =*tju* takes the place of the patient. The clitic is coreferential to the actor so the semantic valence is lowered as there is one entity; but as there remain two syntactic arguments, S-transitivity is not lowered.

<div align="right">Pitjantjatjara (Bowe 1990: 13)</div>

(5.60) *Ngayu-lu=na=tju*   *waka-nu*
        1SG-NOM=1SG.NOM=REFL spear-PST
        'I speared myself'
        do' (1SG, **spear'** (1SG, 1SG))

(5.61) *Waka-nu=na=tju*
        spear-PST=1SG.NOM=REFL
        'I speared myself'

Further evidence that the clause remains S-transitive is given in (5.62), where there is ergative marking on the adverb *watarku*.

<div align="right">Pitjantjatjara (Goddard 1996: 183)</div>

(5.62) *Ngayu-lu=na=tju*   *watarku-ngku*   *pu-ngu*
        1SG-NOM=1SG.NOM=REFL accidentally-ERG hit-PST
        'I inadvertently hit myself.'

Verbs of grooming cross-linguistically are often reflexive; inherently the actor and undergoer are the same person. English uses a reflexive pronoun such as in 'I wash myself'; a French example with the reflexive pronoun *me* is given in (5.63).

(5.63) *Je   me   lave*
       1SG REFL wash.PRES
       'I am washing myself'
       do' (1SG, **wash'** (1SG, 1SG))

With the transitive verb *paltjini* 'wash', a reflexive clitic *=nku* is used in (5.64). But this is not mandatory: in (5.65) there is no reflexive; a similar situation obtains in the English translation.

(5.64) *Nyaratja=ya=nku   paltji-ni*
       DEM=3PL.NOM=REFL   wash-PRES
       'They are washing themselves over there'
       do' (3PL$_i$, **wash'** (3PL$_i$, 3PL$_i$))

(5.65) *Munu=la   mina wari-ngka   paltji-lpai*
       and.SS=1PL.NOM   water cold-LOC/INSTR wash-CHAR
       'We used to wash in/with cold water'
       do' (1PL, **wash'** (1PL, 1PL))

Nouns receive reflexive clitics similarly to pronouns. In (5.66) the reflexive clitic *=nku* is treated like an accusative pronoun, 'her head', where the inalienable possessed item is marked like its owner. Significantly this example shows that the verb does not change its S-transitivity or form with reflexives: *minyma* is still ergative. The clitics *=tju/=nku* thus behave syntactically like an O argument but with coreference to A. While body parts get the same case marking as their 'owners' when used as instruments, *kata* is absolutive as it is the undergoer of the action. If it was part of the agent as in 'hitting someone with her head', *kata* would be marked ergative.

(5.66) *Minyma-lu=nku   yatu-ra   kata*
       woman-ERG=REFL   hit-PRES head.ABS
       'The woman is hitting herself on the head'
       do' (minyma, **hit'** (minyma, minyma [kata]))

That the reflexive takes the place of an argument is confirmed in (5.67). Here the clitic *=nku* takes the place of the addressee syntactically, in the sense of 'saying something to oneself'. It is not attached to its coreferential pronoun *nyuntu* but to the anaphor/pronoun *panya* which is the content of the message.

(5.67) *Palu   nyuntu   panya=nku   watja-nma, kuṯa*
       but.of.course 2SG.NOM ANAPH=REFL tell-IMP,   senior.brother
       'But of course you should say that to yourself, big brother'

The reciprocal pronoun discussed in the next section share the reflexive form: Table 5-6 summarises the reflexive/reciprocal forms, based on Bowe (1990: 14) and Glass (2006: 61). Again Ngaanyatjarra only has clitics.

Table 5-6: Reflexive/reciprocal pronouns and clitics in PYN

	P/Y		Ngaanyatjarra	
Singular	**Full**	**Clitic**	**Full**	**Clitic**
1ˢᵗ Person	*ngayulunatju*	*=natju*		*=rnatju*
2ⁿᵈ Person	*nyuntunku*	*=nkun*		*=nkun*
3ʳᵈ Person	*palunku*	*=nku*		*=nku*
Dual				
1ˢᵗ Person	*ngalinku*	*=linku*		*=litjunku/=linkun*
2ⁿᵈ Person	*nyupalinku*	*=pulankun*		*=pulankun*
3ʳᵈ Person	*pulanku*	*=pulanku*		*=pulanku*
Plural				
1ˢᵗ Person	*nganananku*	*=lanku*		*=latjunku/=lankun*
2ⁿᵈ Person	*nyuranku*			*=yankun*
3ʳᵈ Person	*tjananku*	*=yanku*		*=yanku*

In some Australian languages reflexives are expressed by derived intransitives (Blake 1987: 57) but this is not the case in PYN which uses reflexive clitics. The verb maintains its transitivity.

Semantically, the two entities in a reflexive refer to the same individual which is simultaneously actor and undergoer. Syntactically though, the actor and undergoer are not fused. With a prototypical reflexive involving a two slot (transitive) predicate, there is one ergative or nominative marked argument and a reflexive clitic. Ergative marking suggests that syntactically the situation is a syntactic agent and patient in a transitive clause. In accusative constructions, the PSA is the highest ranking direct core argument; so this is the agent with reflexives. The linking algorithm of a non-reflexive S-transitive (5.68) is shown in Figure 5-9.

P/Y (Goddard 1996: 58)

(5.68)   *Kuwari=na=nta   punga-nyi.*
          now=1SG.NOM=2SG.ACC hit-PRES
          'I'll hit you directly.'
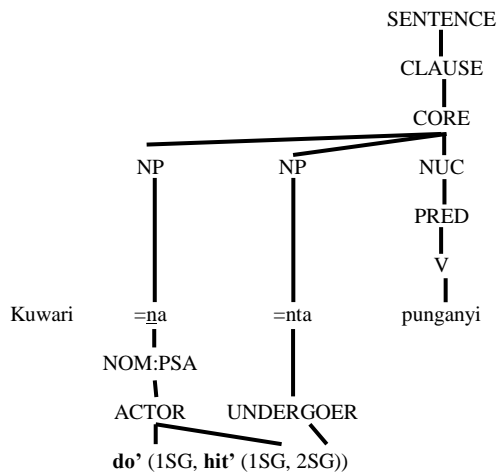
Figure 5-9: Non-reflexive linking algorithm

Figure 5-10 shows the form with the reflexive clitic *=tju*, taking the same position as the accusative clitic pronoun *=nta* in Figure 5-9:
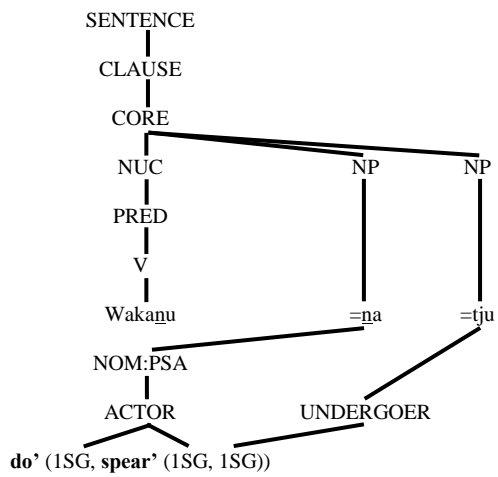
Figure 5-10: Reflexive linking algorithm

The constructional schema of the PYN reflexive is given in Table 5-7. These are syntactic reflexives as the syntactic valence is not reduced. They are clearly reflexives of the type that retains a transitive structure, as described by Dixon & Aikhenvald (2000: 11).

Table 5-7: Constructional schema of PYN reflexive

Construction:	Reflexive
Syntax	Template: number of core slots: 2
	PSA: A argument
	Linking: Actor=Undergoer
Morphology	*=tju/=nku* clitic to coreferential argument
Semantics	Actor and undergoer are coreferential
	Aktionsart: any
Pragmatics	IF: unspecified
	Focus structure: unspecified

5.3.3.2   Reciprocal

Reciprocals are related to reflexives but there are two different semantic participants, each of which is simultaneously agent and patient (Payne 1997: 200-201). The action is described as the participants acting on 'each other'. In some languages the reflexive and reciprocal forms are the same. Thus, for example, the plural antecedent can express the reciprocal as well as the reflexive in French (Jones 1996: 279) as with *ils* 'they' in (5.70). This is actually ambiguous: each person may be admiring himself or herself; or they may be admiring each other.

<div align="right">French (Jones 1996: 279)</div>

(5.69)   *Paul s'   admire*
        [name] REFL admire.3SG.PRES
        'Paul is admiring himself.'

(5.70)   *Ils   s'   admirent*
        3PL.NOM REFL/REC admire.3PL.PRES
        'They are admiring each other/themselves.'

This is similarly the case in PYN: the same set of pronoun suffixes is used for the reflexive and the reciprocal (Goddard 1996: 106, Glass 2006: 61-62). In (5.71), *pula* is the agent. In (5.72), *minyma kutjarra* is ergative. The reciprocal suffix with the nominal is =*nku*; but =*pula* 'both' is added first as a clitic. In (5.73) and (5.74), the reciprocal is augmented by the use of *ngaparrku/ngapartji-ngapartji*. These devices allow PYN to distinguish between the two interpretations.

<div align="right">P/Y (Goddard 1996: 106)</div>

(5.71)   *Pula=nku   pika-ngku pu-ngangi*
        3DU=REC fight-ERG hit-PST.CONT
        'The two of them were fighting each other'

<div align="right">Ngaanyatjarra (Obata & Kral 2005: 115)</div>

(5.72)   *Minyma kutjarra-lu=pula=nku   pika   pu-ngkula.*
        woman two-ERG=3DU=REC   fight   hit-PRES
        'Two women are fighting with each other.'

<div align="right">Ngaanyatjarra (Kavanagh 1990: 58)</div>

(5.73)   *Nyangka=pula=nku   kuru ngaparrku nya-ngu kuli-rnu=pula*
        and.DS=3DU=REC   eye   returning see-PST   think-PST=3DU.NOM
        'The two men exchanged glances and thought…'

<div align="right">P/Y (Goddard 1996: 94)</div>

(5.74)   *Paluṟu tjana=nku   ngapartji-ngapartji-ngku walkatju-nangi.*
        DEM 3PL.NOM=REC each.other-ERG   paint-PST.CONT
        'They were painting each other in turn.'

Semantically a reciprocal has more than one participant and the participants act on each other: each is simultaneously actor and undergoer. The number of participants remains the same as the

equivalent non-reciprocal, so this is not semantic valence decreasing and M-transitivity is two. There is a two or three core slot predicate, with one ergative or nominative marked argument, the clitic *=pulanku* and potentially a third argument. Since the clitic serves as an argument (the A argument is ergative), S-transitivity does not change. The highest ranking direct core argument is the PSA, which is the actor/agent. The linking of the reciprocal in (5.72) is given in Figure 5-11.

Figure 5-11: Reciprocal linking
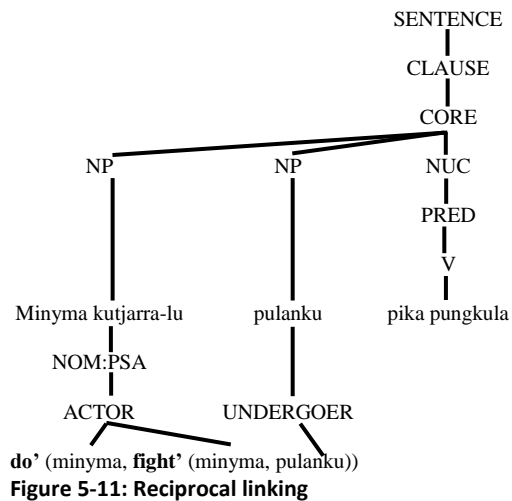
The constructional schema for reciprocals is given in Table 5-8.

Table 5-8: PYN reciprocal constructional schema

Construction:	Reciprocal
Syntax	Template: number of core slots: 2
	PSA: A argument
	Linking: Actor=PSA
Morphology	*=pula=nku*
Semantics	Actor and undergoer are not coreferential; but both arguments fill both roles simultaneously
	Aktionsart: any
Pragmatics	IF: unspecified
	Focus structure: unspecified

5.3.3.3   *Emphatic reflexives*

Anderson (1976: 7-8) claims reflexives are a part of grammar which validate the concept of 'subject'. With the transitive examples above, where an agent acts on itself, this appears reasonable.

A different use of the same clitics is in emphasis. The clitic *=nitju* 'me myself' (first person singular accusative *=ni* and *=tju* reflexive clitic) emphasises the personal effect of an action upon oneself (Goddard 1996: 105). This is not a semantic valence decreasing device because there are still two entities, first person and second person singular, involved. However, here the clitic is on the undergoer, rather than on the normal actor which would indicate a

reflexive action with a transitive verb. Example (5.75) shows this with the transitive use of ambitransitive verb *wangkanyi*.

(5.75) *Nyaaku=<u>ni</u>=tju=n*   *ngayu-nya   wangka-nyi?*
          why=1SG.ACC=1SG.REFL=2SG.NOM   1SG-ACC   speak-PRES
          'Why are you talking (so offensively) to me?'

While reflexives are semantically more natural with transitive clauses, they are used in emphasis with intransitives too. In (5.76), reflexive *=<u>na</u>=tju* appends to the intransitive verb *ilunyi* 'die' which is in irrealis, future tense. This is not a transitive verb such as 'kill' so the reflexive in this case is used for emphasis rather than turning the action of a transitive on oneself, a different use.

(5.76) *Ilu-ku=<u>na</u>=tju!*
          die-FUT=1SG.NOM=REFL
          'I_{UND} might die myself' = 'Better save myself while I can!'
          BECOME **dead'** (1SG)

5.3.3.4   Middles

Middles are neither active nor passive: in a middle construction an S-intransitive verb has the S argument as the patient. These may relate to inchoative structures, where there is a change in state without mention of an agent. Thus a patient undergoes a process, rather than an agent carrying out an action (Payne 1997: 216). The main consideration is the 'affectedness' of the subject. A middle can be expressed by a special verb form, or be a lexical middle verb (ibid.). Greek middle constructions are discussed by Lekakou (2002) and Sioupi (1999): an example is (5.77). While it shares the passive morpheme *-te*, Sioupi draws a distinction between middles, ergative unaccusatives and passives.

(5.77) *To   krasi   pine-te   efharista*
          DET wine.NOM drinks-PASS with.pleasure
          'The wine drinks with pleasure.'

Saeed (2009: 175-178) posits middle as a third distinction of voice in addition to active and passive. This emphasises that the subject is affected, which is the prototypical patient-like quality. Included in this consideration are neuter intransitives (subject undergoes a change of state), bodily activity and emotion, reflexives and autobenefactives (where the subject's action is done for its own benefit). Lakoff (1987: 66) calls these 'patient subject' sentences. Klaiman (1991: 3) claims that the middle is like a compromise between the active and passive. The action devolves from the point of view of the dynamic agent-like participant but it suffers the

effects of the action too, like a patient. Middles also lack the entailment of an agent that a passive has (Keenan & Dryer 2007: 352-353).

Some languages have similar middles and reflexives (Payne 1997: 218, Labelle 2008) but middles are processes; reflexives and passives indicate the scene as action. There may though be overlap in form with reflexives: the Italian middle construction in (5.78) uses the reflexive *sí*. The adverb *facilmente* is obligatory and is predicating as shown in the LS. The middle/reflexive suppresses the higher ranking argument (whatever opens the door) and *porta* is the sole macrorole, an undergoer.

(5.78) *La   porta sí   apre-Ø   facilmente*
      the.F.SG door   REFL   open-3SG.PRES   easily
      'The door$_{UND}$ opens easily'
      be' ([[**do'** (Ø, Ø)] CAUSE [BECOME **open'** (porta)]], [**easy'**])

A test of middles is co-existence with an appropriate adverb, such as 'cuts easily'; thus *efharista* in (5.77) and *facilmente* in (5.78). Sometimes morphological middle constructions are deemed anticausative (Payne 1997: 218) or inchoative. This starts with the inherently causative and results in a non-causative; removing the notion of cause from the meaning of the verb. There is a difference between promotion to subject and passives (Dixon 1991: 325). The former are more like the middles described in this section. Dixon & Aikhenvald (2000: 11-12) however claim the term 'middle' should be avoided as it has been used in numerous ways by different authors, so that 'middles' often cover reflexives, reciprocals, passives and anticausatives. In another usage, Blake (1976: 421-424) describes 'middle' verbs with an unmarked subject and obligatory complement in an oblique case other than accusative. This is in the context of a discussion of the bivalent *-ku* suffix in Australian languages and in PYN includes verbs such as *mukuringanyi* 'like', and is akin to Dixon's extended intransitives. This is quite different to the other middles discussed here.

We look for evidence of PYN middles of the 'cuts easily' type in section 5.7 in the context of grammatical rules based on semantics.

5.3.4 Noun incorporation and compounding

Valence may be decreased by a noun being incorporated into a verb, with one of the arguments being subsumed into the predicate. Incorporation may thus derive an intransitive verb from a transitive one (Van Valin & LaPolla 1997: 123). Incorporation is a form of compounding (Mithun 1999: 44), both sharing the features in (5.79) (Payne 1997: 92-93):

(5.79)   (a) The stress is like a single word
         (b) There is possibly an unusual word order
         (c) The morphophonemic pattern is like a single word
         (d) There is the possibility of special morphology
         (e) The meanings are more specific than the individual parts

Because noun incorporation involves lexical categories rather than functional morphemes it is distinguished from affixation (Modena & Muro 2009). As Bauer (2001) notes, the elements in a compound can function separately as lexemes in other contexts. The incorporated noun does not require case (Baker 1988: 106). Some noun-verb compounds in English represent a type of verbal sub-classification yielding sub-types of the event described by the verb such as 'hand-pick', 'test-drive' (McGregor 2002: 5). Noun-verb incorporation is discussed in terms of syntactic ergativity in English where the A argument is less easily incorporated to a verb than an S or P argument (Payne 1997: 162); of the arguments, object incorporation is the more common (ibid.: 221-222).

Certain PYN verbs form compounds by prefixing another word such as a nominal, stance/posture verb or active adjective (Goddard 1993: 12, Glass 2006: 76) to create a new verb. The nominal in such a compound is not case marked and the order is strictly NV. For example *punganyi* 'hit' combines with the noun *kuntjul(pa)* in (5.80) while *tjunanyi* 'put' combines with active adjective *tjakul(pa)* in (5.81). *Punganyi* and *tjunanyi* appear in numerous compounds, with over 60 each in Goddard's (1996) P/Y dictionary. Platt (1976b: 667) states the most common verbs involved in compounds are *punganyi, tjunanyi* and *ringanyi*. The first two are independent verbs; *-ringanyi* has no independent existence and is treated here as the valence-decreasing inchoative suffix.

P/Y (Goddard 1993: 12)

(5.80)   *kuntjul-pu-nganyi*
         cough-hit-PRES
         '(he/she) is coughing'

(5.81)   *tjakul-tju-nanyi*
         with.a.message-put-PRES
         '(he/she) is reporting'

Both *punganyi* and *tjunanyi* are S-transitive. Their compounds remain S-transitive verbs, with a few ambitransitive exceptions as in (5.80). This indicates that the compounded noun does not

function as an argument, in contrast with the situation described by Van Valin & LaPolla (1997: 65-67) who outline the case in noun incorporation where an argument becomes incorporated to the predicate as an affix. Therefore in PYN the formation of these compounds is generally not valence decreasing[23].

This is demonstrated in (5.82), where the nominal *uḻu* 'dust' and *punganyi* combine to form the verb *uḻupunganyi* 'grind to powder'. The compound is transitive like *punganyi*; *uḻu* is not an argument and *uḻupunganyi* requires two arguments. The demonstrative adverb *nyangatja* satisfies the second argument. *Uḻupunganyi* is in the same *ng* verb class as *punganyi* (Goddard 1993: 12).

P/Y (Goddard 1996: 198)

(5.82) *Wanyu=ṉa   nyangatja uḻupu-nganyi*
        let's.just=1SG.NOM   DEM   grind.to.powder-PRES
        'I'll just grind this into flour'
        do' (1SG, **grind'** (1SG, DEM)) CAUSE BECOME **ground'** (DEM)

Figure 5-12 shows the whole compound in the nucleus of the LSC; two arguments are still required in the core as the compounded noun *uḻu* does not function as an argument.

```
┌─────────────────────────────────────┬──────────────┐
│ CORE                                 │ PERIPHERY    │
│                     ┌──────────────┐ │              │
│                     │  NUCLEUS     │ │              │
│ =ṉa      nyangatja  │  ulupunganyi │ │              │
│                     └──────────────┘ │              │
└─────────────────────────────────────┴──────────────┘
```
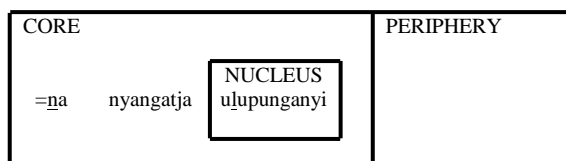
Figure 5-12: Arguments of N-V compound

This is part of a general pattern. The noun *tjilpir(pa)* 'splinter' compounds with the root *punganyi* (Goddard 1983: 117) in (5.83); an O argument (*anguṟa*) is still required.

P/Y (Goddard 1996: 177)

(5.83) *Anguṟa   atu-ṟa   tjilpirpu-nganyi, munu   unngutja uti-ni*
        bush.coconut.ABS hit-SER   crack-PRES   and.SS inside   reveal-PRES
        '(You) crack open the bush coconut and reveal (what's) inside'

We suggest that the lowest, indefinite reference of Aissen's (2003) hierarchy relates to a noun-verb compound like this: the noun is no longer an argument. Despite the fact that syntactic noun incorporation is not a feature of these PYN compounds, we argue that the compounded noun semantically enriches the N-V compound. This conclusion is not unexpected: Mithun (1984) shows that noun incorporated structures may have idiosyncratic meanings as they become lexicalised. They may then take on second arguments. Furthermore there is no indication in PYN that the noun is independent on first mention and then incorporated thereafter. This has

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[23] A possible exception is in (5.104) with a 'characteristic' marked verb.

been reported in other languages: in Chukchi (Chukotko-Kamchatkan, eastern Siberia) if the object is incorporated the result entails semantic enrichment (Carlson 2006).

Noun incorporation is used in some languages to control the flow of information across discourse by foregrounding or backgrounding the object. Where there are syntactic counterparts the independent noun is used on the first mention, with incorporation used thereafter to background established information (Mithun 1999: 45-47). For example noun incorporation makes the object least important in Guaraní (Tupi, Paraguay), while keeping VO order makes it the most important. The distinctness of the object is on a low transitive to high transitive spectrum (Velázquez-Castillo 1995). Dixon (2002: 426) distinguishes lexical incorporation (or compounding) of a noun with a verb from nominal incorporation as a syntactic process. Syntactic incorporation is productive and optional. This distinction is further analysed by Van Valin & LaPolla (1997: 66). Bisetto & Scalise (2005) classify compounds primarily on grammatical grounds, with regards to the relation between the constituents. While there is a spectrum of what incorporation looks like (Payne 1997: 231-233), two types have been distinguished by Rosen (1989): compound and classifier. In compound incorporation the incorporated noun satisfies an argument of the verb; while in classifier incorporation it does not.

Incorporation may manage valence by decreasing the number of nominals in the clause. Thus Van Valin & LaPolla (1997: 123) suggest that noun incorporation decreases the number of independent syntactic arguments in the core, which is Rosen's (1989) definition of compound incorporation. Van Valin & LaPolla (1997: 122-123) point out that the second argument in activity predicates may not be referential (as seen in chapter 4, section 5), in which case it is often incorporated into the verb giving an intransitive activity verb. The second argument then characterises the action rather than referring to a specific undergoer. Noun incorporated verbs may become lexicalised, with their own meaning, and in such cases may then take on second arguments. That is the case with the noun-verb compounds in PYN; noun-verb compounds do not characterise an activity with no specific undergoer, so they do not reduce M-transitivity either.

Semantic incorporation accounts for lack of specificity. So the incorporated noun is indefinite and non-referential; there is a syntactic counterpart in languages where this occurs (Carlson 2006, Mithun 1999: 45-47). That the incorporated noun is broadly non-specific means that the clause has lesser transitivity. The noun and the verb can exist separately; where they co-exist, new lexical items are created leading to semantic restriction. As an example, in Iroquoian (Iroquois, North America) incorporated nouns are not core arguments; Mithun (1999: 45-47) claims they just modify the verb, like the classifier noun incorporation described by Rosen (1989). To illustrate this, these alternatives in Lakhota (Siouan, North America) have different levels of definiteness. In (5.85) there is no patient referent and thus no undergoer, the

incorporated noun adds meaning to the verb. The erstwhile object of the verb becomes part of the predicate, rather than an argument.

<div align="right">Lakhota (Van Valin & LaPolla 1997: 123)</div>

(5.84) *Wičháša ki čhą ki kaksá-he*
man DET wood DET chop-CONT
'The man$_{ACT}$ is chopping the wood$_{UND}$'

(5.85) *Wičháša ki čhą-kaksá-he*
man DET wood-chop-CONT
'The man$_{ACT}$ is chopping wood'/'The man$_{ACT}$ is wood-chopping'

Cross-linguistically, it is common to use a body part in incorporation such as 'head aches' or 'mind test.' Affected humans are then the core arguments, for example 'I am throat dry' rather than 'my throat is dry' (Mithun 1999: 429).

In Australia, some Arnhem Land (non-Pama-Nyungan, Northern Territory) prefixing languages have noun incorporation (Dixon 2011: 436-437). Blake (1987: 55) claims the incorporation occurs between pronominal prefixes and the verb root, as in (5.86) and (5.87).

<div align="right">Gunwinggu (Blake 1987: 55)</div>

(5.86) *Bi-yaw-wukume-ng*
she.it-baby-swallow-PST
'She swallowed the baby'

(5.87) *Nga-karre-babang*
1SG-leg-be.sore
'My leg is sore'

As we have seen, PYN as part of the suffixing group does not share this mechanism; apparent noun-verb compounds turn out to be lexicalised verbs: so this is classifier noun incorporation.

5.3.5 Nominalising of verbs

Nominals as well as verbs can have predicative function in PYN, but without TAM. As we are interested in verb valence in this thesis, deverbal nominalising processes on transitive verbs can be considered valence decreasing too: nominals are one-place state predicates in PYN. Comrie & Thompson (1985: 350) claim that most languages create action and state nouns from action and state verbs respectively. This is referred to as a typology of nominalisation types (ibid., Bowe 1990: 71). Such lexical or deverbal nominalisation is exemplified by the English action/state nominalisations (5.88a) and (b). Other nominalisations include agentive (c) and instrumental (d) (Comrie & Thompson 1985: 349-354).

(5.88) (a) create/creation
(b) quiet/quietness
(c) sing/singer
(d) slice/slicer

Langacker (1987) describes deverbal nominalisations as single instances of the perfective process of the verb. 'Objective nominalisation' forms nouns that describe the result, or cognate/typical object of an action: thus the verb 'slice' and its result being a noun 'slices' (Comrie & Thompson 1985: 355). With respect to voice there is no overt morphological distinction corresponding to that between active and passive verbal forms, as in the examples in (5.89) (ibid.: 363).

(5.89)   (a) the enemy destroyed the city
         (b) the enemy's destruction of the city
         (c) the city was destroyed by the enemy
         (d) the city's destruction by the enemy

In (5.90), object-verb constructions (ibid.: 350) are derived from a verb and complement: a direct one in (a) and oblique in (b). The derivations are activities, with no specific undergoer.

(5.90)   (a) drive a truck/ truck-driving
         (b) hunt for a house/ house-hunting

This leads to object verb nominalisations, such as the English construction 'deer hunter'. In (5.91a) 'hunts' has a valence of two. In (b) it is an activity with a valence of one. In (c) the verb has become a nominal; 'deer hunter' is predicative with a copula 'is' and has a valence of one. Compare the related potential deobjective (5.92).

(5.91)   (a) He hunts deer
         (b) He deer-hunts
         (c) He is a deer hunter

(5.92)   He hunts

These are different to the derived adjectives that are one of the predicate tests that represent terminal states, such as 'fallen leaves'. Here we investigate forms of nominalising in PYN.

5.3.5.1   -nytja/-ntja

By suffixing *-nytja/-ntja* to a PYN verb stem, a nominal is derived (Goddard 1993: 27-28, Glass & Hackett 2003: 6); the realised form varies slightly depending on verb class. We used this as predicate test 6, a derived adjective representing a terminal state, in chapter 3, section 14. In (5.93), the nominalised verb refers to the patient or theme of the action of the transitive verb *tjunanyi* 'put'[24], and is predicative. Another typical example of a nominalised S-transitive verb is shown in (5.94) with absolutive case confirming it as a nominal. As these refer to patients of transitive verbs, the semantic valence and S-transitivity is reduced to 1. They are passive-like, but with no mention of an effector. The LS in (5.94) is clearly a result state, not intrinsic.

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[24] In Ngaanyatjarra, the alternative form *tjunkutja* 'the thing put' is available (Glass & Hackett 2003: 6).

(5.93) *Ka   kutjupa-kutjupa tju-nkunytja, nyara arali-arali ngara-nyi.*
       and.DS something   put-NOML,   DEM dangling   stand-PRES
       'There's something been put there, that's hanging down there.'

Ngaanyatjarra

(5.94) *Kartarnta-nkuntja-nya*
       break-NOML-ABS
       'the broken one'
       broken' (Ø)/ **do'** (Ø, Ø) CAUSE **broken'** (Ø)

This suffix has been described in different ways. Bowe (1990: 70) describes a verb with *-nytja* as a non-finite form of the verb, used for example in relative clauses. Goddard (1993: 29) states that *-nytja* packages the whole P/Y clause including the arguments, not just the verb. Douglas (1957: 64) claims that *-ntja* indicates a state of completed action. (5.95) exemplifies this, where it is used as a passive-like clause.

Pitjantjatjara

(5.95) *Pukul-ma-nkunytja*
       happy-ma-NOML
       '(He/she) was made happy (by someone)'

Verbs are negated by *-nytja wiya* (L. Brady p.c.). In (5.96), a nominalised verb *ungkunytja* 'giving' is made negative by *wiya*; both this and the second active adjective/adverb of manner *ngurtju* 'selfish' receive ergative marking. These thus refer to the agent and describe the manner in which the main event occurred. *Kuka* is an argument of both *ungkunytja* and tensed *ngalkunu* 'ate'.

(5.96) *Nyuntu   kuka u-ngkunytja   wiya-ngku ngurtju-ngku ngalku-nu.*
       2SG.NOM   meat give-NOML   NEG-ERG selfish-ERG eat-PST
       'You selfishly ate all the meat, without giving any (to anyone else).'

The intransitive verb *miranyi* 'shout' is nominalised as part of a negative imperative in (5.97). The negator *wiya* is marked with ergative case as this is the agentive action, with transitive *wantinyi*.

(5.97) *Wiya, mira-nytja   wiya-ngku wanti-ma*
       NEG shout-NOML NEG-ERG leave-IMP
       'No, don't shout at him'

We find nominalising with *-nytja/-ntja* occurs with both transitive and intransitive verbs, and is valence decreasing with transitives. In addition, such nominalised verbs receive a number of case endings (purposive and locative amongst others) to form sub-clauses that indicate purpose and circumstance. We will investigate the effects, if any, of this on valence in chapter 6.

5.3.5.2 -pai/-payi

Another means of nominalising verbs is by the characteristic or habituative verbal suffix *-pai/-payi* (Goddard 1983: 77, Glass 2006: 32, Douglas 1957: 66). The result of suffixing can be interpreted as a verb or a nominal; inflection, such as case marking (if present and overt), allows us to distinguish these uses. The nominalised verb means 'one who does X', as in (5.98). In (5.99), the nominal status of *witilpayi* 'one who habitually catches' is confirmed by the ergative suffix.

Yankunytjatjara (Goddard 1983: 77)

(5.98) *Inka-payi*
sing-CHAR
'singer'/'(he/she) sings'

(5.99) *Tjinguṟu witil-payi-ngku   nyuntu-nya nyaku-ku*
maybe   catch-CHAR-ERG   2SG-ACC   see-FUT
'Maybe the policeman will see you.'

Though primarily a verbal suffix, we find that *-pai/-payi* can be suffixed to nominals too. PYN verb endings appended to nominals generally derive causative verbs; in (5.100) the derivation is of a nominal, *manta walulpayi* 'a ground flattener': note this has the locative/instrumental case *-ngka* so is a nominal. *Walu* 'flat' is the base adjective.

Ngaanyatjarra (Glass & Hackett 2003: 307)

(5.100) *Tjinguru=ya   manta walu-lpayi-ngka   yiwarra ngaanya palyamunu*
should.have=3PL.NOM ground flat-CHAR-LOC   road   DEM   bad
ngara-lanyangka walu-ra   wanti-ma
stand-ANT.DS   make.firm-PRES leave-FUT.CONT
'They should've used the roller (ground flattener) to make this bad road firm.'

Appending the *-pai/-payi* suffix can lead to semantic extension. In (5.101) it is suffixed to the nominal *marlu* 'kangaroo'. Cultural knowledge provides the context for how this is interpreted; it does not have the causative nature of other verbalised nominals. The free translations suggest hunting or eating but this is not specified lexically. Because the argument is absolutive, the characteristic verb is being used predicatively as in the LS; there is no second argument *marlu*.

Ngaanyatjarra (Glass & Hackett 2003: 307)

(5.101) *Wati ngaanya   marlu-payi*
man DEM.ABS roo-CHAR
'This man is a kangaroo hunter/This man loves eating kangaroo'
be' (wati, [**kangaroo.hunter'**])
be' (wati, [**kangaroo.eater'**])
***like'** (wati, **do'** (wati, **eat'** (wati, marlu)))

In (5.102) with a nominal clause, the suffix *-lpayi* is used to indicate an activity characteristically performed. Because *kulpirpa* is absolutive, *papa patjalpayi* is a predicating

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object verb nominaliser describing *kulpirpa*. If this was ergative *kulpirlu*, the sentence would be translated 'the grey kangaroo characteristically bites dogs'. This resembles noun incorporation, as the object and verb form a complex, affecting the valence of the clause. There is only one argument in the clause, with 'dog biter' as the predicate. This reduces the valence of the clause from 2 to 1.

<div align="right">Ngaanyatjarra (Glass & Hackett 1970: 100)</div>

(5.102) *Kulpirpa*   *papa*   *patja-lpayi*
        grey.kangaroo.ABS dog   bite-CHAR
        'The grey kangaroo is a dog-biter'
        be' (kulpirpa, [**dog.biter'**])
        *****do'** (kulpirpa, **bite'** (kulpirpa, papa))

The situation in (5.103) is different; the S-transitivity is still 2 because *ngayunya* is accusative even though there is no overt subject. In (5.104) the nominalised form *patjalpai* is part of a relative clause introduced by *nyara*; it has inflection as stimulus, and a pronominal clitic as the first element.

<div align="right">P/Y (Goddard 1996: 129, 117)</div>

(5.103) *Tarka*   *ngayu-nya patja-lpai,* *wari-ri-ngkunyangka.*
        bone.ABS 1SG-ACC bite-CHAR cold-INCH-when
        '(It) bites my bones = my bones ache when it's cold.'

(5.104) *Papa nyara patja-lpai-ku=<u>na</u>*   *ngu<u>l</u>u-ri-nganyi.*
        dog DEM   bite-CHAR-PURP=1SG.NOM fear-INCH-PRES
        'I'm frightened of that dog over there that bites.'

5.4 Valence increasing

Payne (1997: 172) outlines several general means of valence increasing. These include adding a controlling participant (causative) or upgrading a peripheral participant (applicative). While these are both valence increasing, they are different (Dixon & Aikhenvald 2000: 12, Shibatani & Pardeshi 2002: 118) because in the latter the peripheral argument was already semantically present. Again the valence increased may be macrorole, syntactic or semantic. There may be limiting factors: when adding another argument there is a permissible number of core arguments or noun phrase density control (Song 1996: 179). Dixon (2000: 31) distinguishes two types of valence-increasing operation: causatives adding A, and applicatives adding a new O. Promotion may work in tandem with demotion. Craig & Hale (1988) question whether demotion occurs in Winnebago (Siouan, North America) in the context of only one object being allowed for transitive verbs. If another object is added, the initial object is demoted or put in chômage.

King's (2010) analysis of voice and valence altering operations in Falam Chin finds there are three types of valence-raising operations in the Zahau dialect: causatives, benefactives and comitatives (ibid.: 9); the latter two are sub-types of applicative.

5.4.1   Add a controlling participant: causative

Causatives are induced states of affairs (Van Valin & LaPolla 1997: 97) and a new argument, the causer, is introduced. This controlling participant is the more likely initiator of the action, an actor macrorole in RRG. Dixon (2000: 62-73, 78) has nine parameters of variation on causatives which are important in an analysis: state/action, transitivity, control, volition, affectedness, directness, intention, naturalness and involvement. RRG refers to 'agency' for intention. Shibatani & Pardeshi (2002) describe causation as a continuum with greater or lesser directness in bringing about the result. There is a spectrum with indirect causation, 'let' and 'allow' verbs being less strongly implicated. Prototypical causatives are on intransitives (Dixon & Aikhenvald 2000: 13). Haspelmath & Müller-Bardey (2004: 1137-1138) sum this up as in (5.105).

(5.105) (a) Direct causative with a bias on intransitive verbs
        (b) Indirect causative with a bias on transitive verbs

Kulikov (2010) says a defining feature of causatives is that the speaker believes there is a causal relationship between two events. While causatives encode two events, a precipitating event and a result (Dixon & Aikhenvald 2000: 30), these authors prefer a definition simply involving the addition of a causer to a basic clause. This means that causatives result in the fusion of two LSs (King 2010: 200). Unlike other valence-adjusting structures which are discourse based, causatives are semantic and unlikely to be used just for discourse purposes (Dixon & Aikhenvald 2000: 32).

There are three types of construction by which languages express causatives: lexical, inherently causative verbs such as 'kill'; morphosyntactic processes which add a causative affix to the verb; and syntactic or analytical constructions where an extra verb is added (Payne 1997: 176-178, Dixon 2000: 30ff). Meisterernst (2006: 433) draws a basic distinction between lexical and productive causatives, the latter two of which may be morphological or periphrastic. These have different cross-linguistic occurrence: for example Sahaptin (Plateau Penutian, American North-West) has morphological rather than periphrastic causatives (Rude 2009) while Irish has mainly lexical, with some morphological causatives (Nolan 2012: 33). Double causatives also occur where two of them interact in a clause (Dixon 2000: 59).

Where the clause is already transitive, the addition of a causer changes the status of the existing arguments. The previous agent is now the causee, an object, and can have several different fates (Kulikov 2010). Causation may also be grouped into coercive (direct), non-coercive (indirect) or permissive. There is a semantic distinction: the first two are semantically

CAUSE; permissive may be LET or ALLOW (Nolan 2012: 33-34). Where the causee maintains some agentivity, causation is indirect (Reed 1999: 289). Indirect causation with a loose connection between cause and event tends to use syntactic and analytical constructions. Direct causation with direct manipulation by the agent, where cause and effect are perceived as a single event tends to use lexical items (Nolan 2012: 34, Jones 1996: 443).

As an example, 'frighten' variously means 'cause to be afraid' (5.106) or 'cause to fear' (5.107) (King 2010: 222, Van Valin 2005: 47), reflected in the LS.

(5.106) [**do'** (y, Ø)] CAUSE [BECOME **feel'** (x, [**afraid'**])]
(5.107) [**do'** (y, Ø)] CAUSE [BECOME **fear'** (x, Ø/y)]

Verbs of cause and effect (V_{cause}, V_{effect}) may relate through coordinate clauses, matrix and sub-clauses and verbal nouns. Causation may be direct or indirect through allowing, making, suggesting and light causation using a semantically bleached or 'light verb' (Blake 1987: 119). These latter are exemplified in French, where verbs such as *faire* 'to make' are semantically bleached in their capacity as V_{cause}. Their original meaning is lost and they are present only to indicate causation (Song 1996: 81). At the nuclear level, sentences with two nuclei are often used to express causative events (Van Valin & LaPolla 1997: 442-443). For example if there are two predicates, one may be V_{cause} and the other V_{effect}. Cause and effect when expressed by two serialised verbs may combine to form one meaning. We discuss these complex clauses in chapter 6.

Song (1996: 9-10) has another schema of causatives, with three types: COMPACT, AND and PURP. COMPACT causatives contain the lexical and morphological categories where the expressions of cause and effect are both contained in the same word ('kill') or are physically contiguous in the sentence. AND is syntactic, with two clauses, that of cause [V_{cause}] preceding that of effect [V_{effect}]. The clauses are coordinated by an element that is represented by AND (Song 1996: 35). This characterisation is shown in (5.108). The word order is fixed and not reversible. Thus a sequence of clauses brings about a causative construction.

(5.108) S1(S2(…[V_{cause}]…)S2 + AND + S2(…[V_{effect}]…)S2)S1

PURP denotes goal or purpose, with $event_x$ taking place for the purpose of $event_y$ (Song 1996: 49). Three types of PURP construction are described by Song (1996: 50ff), summarised in (5.109).

(5.109) (a) Case marking on nouns, where the dative shows an abstract benefit to the
    beneficiary or
        recipient. This is seen in French with *à* as the dative marker.
        (b) Marking on verbs denoting irrealis, such as the future, subjunctive, or other
        incompletive aspect. These relate to future projecting, with a sense of goal or purpose.
        (c) The use of particles or independent words to express goal or purpose.

Of these three, PYN has -*ku* purposive case marking, and this has been considered 'dative' where it marks the recipient of a causative verb of giving. The PYN future tense -*ku* is also used for conditional and other irrealis aspects. There are also purposive verb endings which we discuss in chapter 6, section 5. Particles or independent words for PURP are not typical of PYN.

AND and PURP constructions may have evolved to become the derivational affixes that define morphosyntactic constructions (Song 1996: 81-82). RRG uses 'PURP' (Van Valin & LaPolla 1997: 581) but '&' in lieu of 'AND' in its semantic representations. PURP is a shorthand for **want'** and the DO agentive as we saw in chapter 2, section 3.6.

5.4.1.1   *Lexical causatives*

Lexical causatives may have one lexeme used as an ambitransitive verb (such as 'burn'), or consist of a pair of different lexemes (such as 'die' and 'kill') (Dixon & Aikhenvald 2000: 38-39). Since these verbs are part of the lexicon, they are not valence-adjusting operations in the manner of morphological or syntactic processes on a base verb. Nevertheless it is instructive to compare the logical structures of lexical causatives with those resulting from productive processes. A common feature is by definition the causer argument, which is the most agent-like participant semantically. The related state of affairs in a causative/non-causative pair is clear in their respective LSs.

5.4.1.1.1   Causing an event or state to occur or come about

Transitive verbs such as 'break' or 'kill' express a causative meaning through an agent causing a change of state (Shibatani & Pardeshi 2002: 87). This is reflected in the logical structure including CAUSE. Tesnière (1966: 259) demonstrates this in the following two sentences where only the number of actants is different; the net result is the same. In (5.111) there is a causer, an additional controlling argument or agent that is shown in the LS. In both examples, *Alfred* is the patient which has the undergoer macrorole. This is a lexical causative: the verb used in each clause is entirely different. The clause changes from being intransitive to transitive with *renverse* requiring two arguments. The PSA switches from *Alfred* to *Bernard*.

<div style="text-align: right">French (Tesnière 1966: 259)</div>

(5.110) *Alfred   tombe*
       [name] fall.PRES
       'Alfred$_{UND}$ falls'
       ?**do'** (Alfred, [**fall'** (Alfred)])
       BECOME **fallen'** (Alfred)

(5.111) *Bernard renverse   Alfred*
       [name]   knock.over.PRES [name]
       'Bernard$_{ACT}$ knocks over Alfred$_{UND}$'
       ?[**do'** (Bernard, Ø)] CAUSE [**do'** (Alfred, [**fall'** (Alfred)])]
       [**do'** (Bernard, Ø)] CAUSE [BECOME **fallen'** (Alfred)]

Pure lexical causative verbs are rare in PYN; most are apparently derived or formed from compounds, but they may have become lexicalised. For example, suffixing *tjunanyi/tjunku* 'put' to posture verbs makes them transitive (Goddard & Harkins 2002, Glass & Hackett 2003: 223, 256) and causative.

5.4.1.1.2 Ditransitive

Unlike in most Australian languages (Dixon 2011: 106) there does not appear to be a rich set of lexical, non-derived items for verbs of giving in PYN. There are some though: an example is the S-ditransitive verb (*y*)*unganyi/yungku* 'give'. This is the lexical causative counterpoint of another lexeme, *kanyini/kanyilku* 'to have', as shown in the LSs in (5.112) and (5.113). In P/Y the recipient can be absolutive, or accusative for pronouns as in (5.114). In chapter 4, section 7, we saw the recipient can also be marked with purposive/dative *-ku*.

P/Y (Goddard 1996: 4)

(5.112) *Kuka=la   alatjiṯu kanyi-ni*
meat.ABS=1PL.NOM plenty   have-PRES
'We've got plenty of meat'
have' (1PL, kuka)

Pitjantjatjara (Bowe 1990: 24)

(5.113) *Minyma-ngku tjitji   mai   u-ngu*
woman-ERG   child.ABS bread.ABS give-PST
'The woman$_{ACT}$ gave the child$_{UND}$ some bread$_{NMR}$'
[**do'** (minyma, Ø)] CAUSE [BECOME **have'** (tjitji, mai)]

Pitjantjatjara (Kavanagh 1990: 60)

(5.114) *munu   nganana-nya mala u-ngkupai.*
and.SS 1PL-ACC   later give-CHAR
'and (he) would give us (a piece) later.'
[**do'** (3SG, Ø)] CAUSE [BECOME **have'** (1PL, Ø)]

Rather than a double object construction as in (5.113), the Ngaanyatjarra verb *yungku* 'give' has the purposive/dative *-ku* on the recipient. In practice, Ngaanyatjarra prefers the verb *nintilku* 'give'; with this the recipient is also marked with *-ku* as in (5.115).

Ngaanyatjarra (Glass & Hackett 1979: 123-124)

(5.115) *kutjupatjarra-ku mingkurlpa   ninti-lku*
others-PURP   tobacco.ABS   give-FUT
'(he/she)$_{ACT}$ would give tobacco$_{UND}$ to the others$_{NMR}$'
[**do'** (3SG, Ø)] CAUSE [BECOME **have'** (kutjupatjarra, mingkurl)]

The PYN ditransitive has three semantic participants, a giver, theme and recipient. The assignment of macroroles is actor, undergoer and non-macrorole, making the verb M-transitive. The template is a single predicate with three syntactic core slots: there is ergative case marking on the giver and absolutive on the theme, with the recipient dative/purposive, or absolutive in

P/Y. The highest ranking direct core argument is the PSA: this is the actor or giver. The linking is shown in Figure 5-13: Since the recipient can optionally be marked dative/purposive but here is marked absolutive, it is the undergoer in this instance.
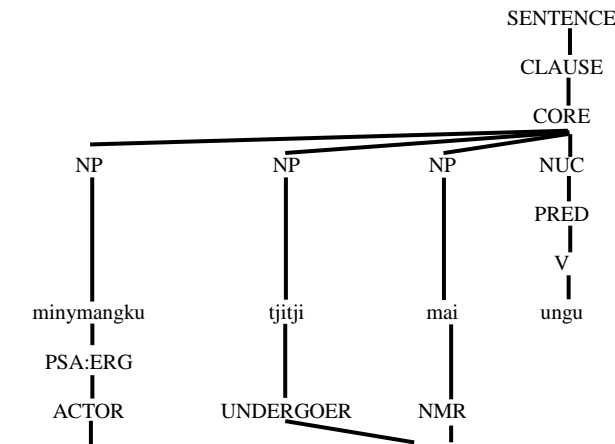
do' (minyma, Ø) CAUSE BECOME **have'** (tjitji, mai)
Figure 5-13: Linking of lexical ditransitive *ungu*

In relation to their stative 'have' counterparts, these verbs involve changes to the LS, and PSA assignment follows. They are thus lexical rather than syntactic. The constructional schema is in Table 5-9.

Table 5-9: Constructional schema for ditransitives

Construction:	Ditransitive
Syntax	Template: three core arguments, A, S and E
	PSA: A argument
	Linking: Actor=PSA, Undergoer=Theme, NMR=Recipient Actor=PSA, Undergoer=Recipient, NMR=Theme
Morphology	Lexical
Semantics	PSA: instigator
	Aktionsart: -static, +telic, +punctual
Pragmatics	IF: unspecified
	Focus structure: unspecified

5.4.1.1.3   Non-ditransitive three-argument verbs

Straighforward location in PYN uses a posture verb, alongside a locative case marked location, as in (5.116). Three-argument causative equivalents have a goal or location as the third argument alongside a causer and theme. The goal of *tjunanyi/tjunku* 'put' has the locative case in (5.117) and (5.118); this distinguishes it from ditransitives which use the purposive or absolutive cases for their third argument, the recipient (the difference between putting something and giving it).

(5.116) *Ka=linku   wari-ngka nyina=ma*
and.DS=1DU.NOM=REFL cold-LOC sit-IMP
'And let's sit in the cold'
be-in' (wari, 1DU)

Pitjantjatjara

(5.117) *Wari-ngka   tju-ra*
cold-LOC   put-IMP
'Put (it) in the cold$_{NMR}$'
[**do'** (2SG, Ø)] CAUSE [BECOME **be-in'** (wari, 3SG)]

Ngaanyatjarra (Obata & Kral 2005: 105)

(5.118) *Ngaturn-pa=ya   tili-ngka tju-nku*
pod-ABS=3PL.NOM fire-LOC put-FUT
'They$_{ACT}$ put the pods$_{UND}$ (from prickly wattle trees) in the fire$_{NMR}$'
[**do'** (3PL, Ø)] CAUSE [BECOME **be-in'** (tili, yurninypa)]

The macrorole assignment is actor, undergoer and non-macrorole, making the verb M-transitive. The syntactic template is a predicate with three core slots. Case marking is ergative/nominative for the causer, absolutive/accusative for the theme and locative for the goal. The highest ranking direct core argument, the actor or causer, is the PSA. Figure 5-14 has the syntax-semantics linking of (5.118).

[**do'** (3PL, Ø)] CAUSE [BECOME **be-in'** (tili, ngaturnpa)]
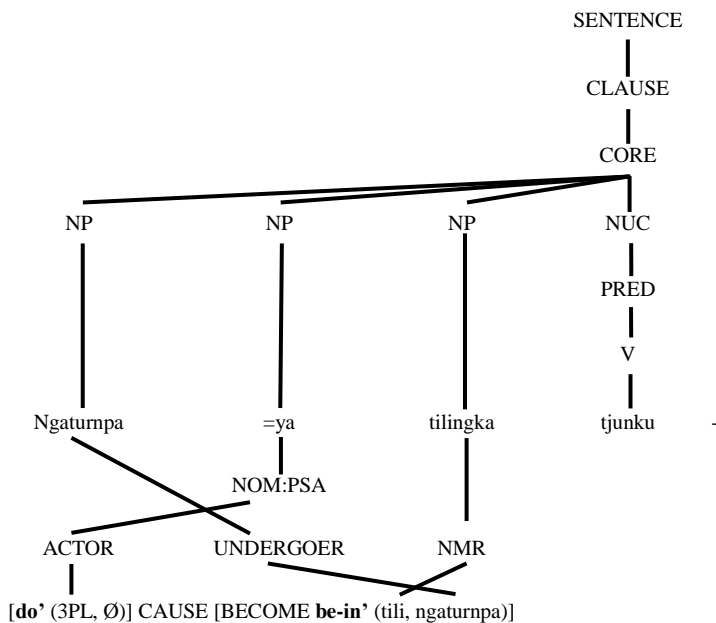
Figure 5-14: Linking in non-ditransitive three-argument predicate *tjunku*

Van Valin & LaPolla (1997: 161-162) describe argument adjuncts which are not in the periphery but are part of the core. The argument adjuncts are predicative in their own right: examples are English prepositional phrases such as 'Yolanda put the book in the box'. Rather than prepositions, PYN uses the locative case on the goal.

We present the constructional schema in Table 5-10. Compared to corresponding locational predicates (which use verbs of posture), these verbs involve changes to the LS with PSA assignment following suit, so are lexical rather than syntactic operations.

Table 5-10: Constructional schema for non-ditransitive three-argument predicates

Construction:	Non-ditransitive
Syntax	Template: three core arguments
	PSA: A argument
	Linking: Actor=PSA, Undergoer=Theme, DCA=Goal
Morphology	Lexical
Semantics	PSA: instigator
	Aktionsart: -static, +telic, +punctual
Pragmatics	IF: unspecified
	Focus structure: unspecified

5.4.1.2 Morphological causatives

Blake (1987: 67) calls the causative an object creating derivation, and claims that in Australian languages this nearly always involves intransitive verbs. In this Yidin[y] (Pama-Nyungan, Queensland) example, S argument *ngayu* 'I' in (5.119) becomes O *nganyan[y]* 'me' in (5.120). Wind as the causing factor has the ergative case and a causative morpheme *ngal* is suffixed to the verb, prior to the tense.

Yidin[y] (Dixon 1977: 312, rescripted by Blake 1987: 68)

(5.119) *ŋayu   warŋgi:ɲ*
　　　　 ngayu   warnggi:n[y]
　　　　 1SG.NOM turn.PST
　　　　 'I turned around.'
　　　　 do' (1SG, **turn'** (1SG))

(5.120) *ŋaɲaɲ   guḍunuŋgu   warŋgiŋalɲu*
　　　　 nganyan[y] gudyununggu   warnggi-ngal-nyu
　　　　 1SG.ACC wind.ERG   turn-CAUS-PST
　　　　 'The wind spun me around.'
　　　　 do' (gudyununggu, Ø) CAUSE **do'** (1SG, **turn'** (1SG))

This generalisation extends to PYN where morphological causatives of transitive verbs do not exist; causatives only occur where the end result is a state (Bowe 1990: 27, Goddard 1983: 116), which indicates an original intransitive predicate. Glass & Hackett (1970: 6-8) describe the morphemes involved as verbalisers that derive transitives.

5.4.1.2.1 Suffixing -*ma*/-*Ø* and verb endings to nominals

A PYN causative transitive verb is derived from a nominal by adding a verb tense suffix if the nominal ends in a vowel (Goddard 1983: 113, Goddard 1993: 39-40, Glass 2006: 71-72). The nominal is treated as a verb stem of the *l* class. If the root ends in a consonant, -*ma* is added first,

followed by the verb suffix leading to an *n* class verb. This increases the semantic valence with the addition of a causer.

Verbal derivations of the Pitjantjatjara adjective *palya* 'good' and the active adjective *pukulpa* 'happy' were given predicate tests; the results are in Appendix C and summarised in Table 5-11. The results suggest they are built on activity verbs. The only difference between the two is the test involving *purkara* 'slowly'; a physical change can be done slowly, but an emotion apparently not. This distinguishes an accomplishment, taking time, from an achievement.

Table 5-11: Verb ending derived causative tests

	-ngi	*pulkara*	*purkara*	*hour kutjuku*	*four minutespangka*	*-ntja*
	pst cont.	strongly	slowly	for an hour	in four minutes/ four minutes ago	noml
palyani	yes	yes	yes	yes	yes	yes
pukulmananyi	yes	yes	no	yes	yes	yes

With an adjective, a stative predicate, the causative connotation is of a state being brought about. These examples are therefore not inherent attributes so are not represented by **be'** in (5.121). Internal sensations have **feel'** (Van Valin & LaPolla 1997: 103) in the logical structure, which we use to distinguish a general disposition (5.124) from an emotion (5.123).

P/Y (Goddard 1993: 40)

(5.121) *ila*
　　　'(be) close' (predicate/adjective)
　　　close' (x)
　　　***be'** (x, [**close'**])

(5.122) *ila-nu*
　　　close-PST
　　　'(he/she) made (it) come close = pulled (it)'
　　　[**do'** (3SG, Ø)] CAUSE [BECOME **close'** (3SG)]

Pitjantjatjara (Kavanagh 1990: 60)

(5.123) *Nganana　pukulpa　nyina-pai*
　　　1PL.NOM happy　　sit-CHAR
　　　'We$_{UND}$ are happy (in general)'
　　　be' (1PL, [**happy'**])

(5.124) *Ngayulu   kuwari pukulpa*[25]
  1SG.NOM now   happy
  'I$_{UND}$ am happy now'
  feel' (1SG, [**happy'**]

(5.125) *Ngayinya=n   pukul-ma-nu*
  1SG.ACC=2SG.NOM happy-*ma*-PST
  'You've made me happy'
  [**do'** (2SG, Ø)] CAUSE [**feel'** (1SG, [**happy'**])]
  *[**do'** (2SG, Ø)] CAUSE [**be'** (1SG, [**happy'**])]

(5.126) *Kurluny-ma-nku*
  small-*ma*-FUT
  '(He/she) will make (it) small'
  [**do'** (3SG, Ø)] CAUSE [BECOME **small'** (3SG)]

(5.127) *Wanka-rnu*
  alive-PST
  '(He) revived (it) lit. (he) made (it) alive'
  [**do'** (3SG$_i$, Ø)] CAUSE [BECOME **alive'** (3SG$_j$)]

From a noun root, the derived verb may describe creating an object; the LS includes BECOME **exist'** (Van Valin & LaPolla 1997: 109). This sense is of creating the bounded individuated object, bringing about its existence as in (5.128). *Wiltjani/wiltjalku* is S-transitive, though the object can be elided as the meaning is clearly inherent in the verb. This is significant for mapping as the object argument is not specified: the semantic entity is implied by the verb itself.

(5.128) *Wiltja-nu*
  shelter-PST
  '(He/she) built a shelter'
  [**do'** (3SG, Ø)] CAUSE [BECOME **exist'** (wiltja)]

The nature of the arguments has a bearing on an analysis of the predicate. As discussed in chapter 2, section 7, the semantic representation of nominals in RRG is based on an analysis of qualia, the manner in which the lexical system defines the essential attributes of an object (Pustejovsky 1991, Nolan 2012: 19-20). The roles assist in resolving ambiguity in interpreting the sense of a derived verb. The adjectival nominal *palya* 'good' derives the causative verb *palyani/palyalku* 'make good' which means to create, to repair, prepare food, cause or do (Goddard 1996: 122-123, Glass & Hackett 2003: 283). So in context, (5.129) has an agentive

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[25] The *-pa* suffix of Pitjantjatjara and Ngaanyatjarra is not part of the stem for derivation.

role of creating the shelter and (5.130) has a telic role of how one goes about preparing, or creating food. Valence and transitivity are unaffected.

(5.129) *Ka   ngayu-ku ngunytju-ngku wiltja pulka   palya-nu*
and.DS 1SG-GEN mother-ERG   shelter big.ABS   make-PST
'So my mother made a big shelter.'
[**do'** (**have.as.kin'** (1SG, ngunytju), Ø)] CAUSE [BECOME **exist'** (wiltja)]

(5.130) *Wati tjilpi-ngku kuka malu   palya-ningi*
man old-ERG   meat roo.ABS   butcher-PST.CONT
'The old man was butchering a kangaroo.'
[**do'** (wati tjilpi, Ø)] CAUSE [BECOME **good'** (kuka malu)]

As another example, *palyani* in (5.131) has a constitutive role of repairing the car or an agentive one of creating it. Context resolves the ambiguity.

(5.131) *Wati nyanga pukulpa mulapa-ngku mutuka   palya-nu*
man DEM   happy   very-ERG   car.ABS   good-PST
'This very happy man fixed/made the car.'
[**do'** (wati, Ø)] CAUSE [BECOME **good'** (mutuka)]
[**do'** (wati, Ø)] CAUSE [BECOME **exist'** (mutuka)]

Because the causative involves a state being brought about by an agent, using it in conjunction with nominalisation indicates a completed action and is translated as passive in (5.132): this differs from the inchoative *pukularingu* 'became happy' because it clearly implies someone else caused the situation.

(5.132) *Pukul-ma-nkunytja*
happy-*ma*-NOML
'(He/she) was made happy (by someone)'

Certain items may exist in the lexicon as both nouns and adjectives: the adjective *yirrala* 'moist' is also the noun 'pool'. In (5.133), the transitive derived verb *yirralanku* is 'moisten' rather than 'create a pool'.

(5.133) *Palunyalu kapi   wilyarrpu-ngku purli-ngka rulyupu-ngku yirrala-nku*
and.SS   water.ABS sprinkle-FUT   stone-LOC grind-FUT   moist-FUT
'Then (she) would sprinkle water (on the quandong kernels), grind (them) with a stone (and) moisten (them)'

Verb endings derive an activity from a state. There are two semantic arguments in the LS of the derived verb in (5.134), with the actor macrorole being added to the scene as causer. This

changes the clause from being M-intransitive to M-transitive. The verb is S-transitive with two syntactic core slots. The PSA is the A argument, the causer. The linking algorithm of the adjectival predicate *pukulpa* is shown in Figure 5-15.

(5.134) *Ngayi-nya=n   pukul-ma-nu   alatjika!*
　　　　1SG-ACC=2SG.NOM happy-*ma*-PST really
　　　　'You_ACT've made me_UND very happy!'
　　　　[**do'** (2SG, Ø)] CAUSE [BECOME **happy'** (1SG)]
　　　　[**do'** (2SG, Ø)] CAUSE [**feel'** (1SG, [**happy'**])]
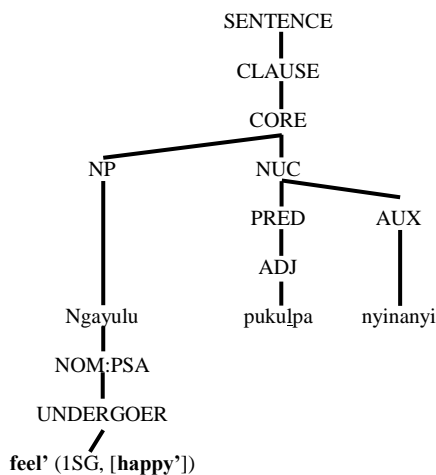
Figure 5-15: Linking algorithm for adjectival predicate *pukulpa*

Figure 5-16 shows the form with the addition of a causer to the derived verb. As these are pronouns, the original S undergoer becomes accusative as the O argument.
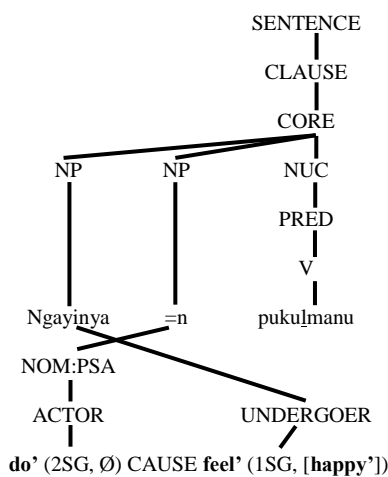
Figure 5-16: Linking algorithm for causation through affixing of *-ma* and verb ending

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The constructional schema is given in Table 5-12. This derivation involves changes to the LS, indicating a lexical operation.

Table 5-12: Constructional schema of appending verb endings to nominals

Construction:	Causative verbalisation of nominals
Syntax	Template: two core slots
	PSA: A argument
	Linking: Actor=PSA, Undergoer=DCA
Morphology	N + verb endings forms verb of l class
	N + -*ma* + verb endings forms verb of n class
Semantics	PSA: instigator
	Aktionsart: -static, +telic, +punctual
Pragmatics	IF: unspecified
	Focus structure: unspecified

This is direct causation: there is direct manipulation by the agent, with cause and effect being perceived as a single event (Nolan 2012: 34, Jones 1996: 443) and it is lexical. It exists on a continuum with morphological and syntactic causation which are typically looser.

An apparent exception is *ilu* 'dead' (Bowe 1990: 26-28) which derives *ilunyi* in Ø class. This means 'die' rather than 'kill', so it is intransitive and not causative. While bucking the trend of causative derivation, it is in line with the general S-intransitivity of the Ø class, and has the appropriate -*nyi* rather than -*ni* ending.

5.4.1.2.2 Suffixing -*tjinga* to intransitive verbs

An S-transitive verb (*l* class) may be derived from an S-intransitive one (usually Ø class) in PYN by suffixing -*tjinga* (Bowe 1990: 27, Goddard 1983: 116, Glass 2006: 75). The semantic valence is increased with the addition of a causer. Bowe claims the intransitive verbs involved are state-like ones that do not involve deliberate action, and that this is why there are no causatives of transitive verbs in the language, because base transitive verbs typically involve activity rather than a state. This latter point is not fully supported in RRG, which posits state-like transitive verbs ('like', 'see') and activity intransitives ('cry', 'fall', 'run'). However, base intransitivity does appear to be one of the criteria.

We tested four -*tjinga* derivations: the results are in Appendix C and summarised in Table 5-13. The tests involve *ngulutjingani* 'frighten', *punkaltjingani* 'drop something', *ikaritjingani* 'make laugh' and *wangkatjingani* 'make talk'. *Punkaltjingani* is the only one that cannot have past continuous, indicating it is bounded.

Table 5-13:- tjinga derived causative tests

	-ngi	*pulkara*	*purkara*	*hour kutjuku*	*four minutespangka*	*-ntja*
	pst cont.	strongly	slowly	for an hour	in four minutes/ four minutes ago	noml
ngulutjingani	yes	yes	no	no	no	yes
punkaltjingani	no	maybe	maybe	no	no	yes
ikaritjingani	yes	yes	no	no	no	no
wangkatjingani	yes	yes	no	no	no	yes

The *-tjinga* suffix is not particularly common, and certainly not as productive as the inchoative *-ri/-rri* or adding verb endings to nominals. Goddard (1983: 116) claims that its application is restricted to verbs of bodily action such as falling or crying. Intransitive *punkani* 'fall' becomes a transitive causative verb *punkatjingani* in (5.135), freely translated as 'drop'. Notice that Bowe has explained this as accidental, in the absence of any adverb: this is usually one of the tests for agency. Examples (5.136) to (5.138) shows the transitive causatives derived from the intransitive verbs *ulanyi*, *kukurraalku* and *pakalku*.

Pitjantjatjara (Bowe 1990: 27)

(5.135) *Kami-lu   punka-tjinga-nu waru*
grandmother-ERG fall-CAUS-PST firestick.ABS
'Grandmother dropped her firestick (accidentally)'
[**do'** (kami, Ø)] CAUSE [**do'** (waru, **fall'** (waru))]

(5.136) *Papa-ngku tjitji   ula-tjinga-nyi*
dog-ERG child.ABS cry-CAUS-PRES
'The dog made the child cry'
[**do'** (papa, Ø)] CAUSE [**do'** (tjitji, **cry'** (tjitji))]

Ngaanyatjarra (Butler 2012: 13)

(5.137) *Kukurr-tjinga-ra*
run-CAUS-PRES
'(He/she) makes (it) run = chases'
[**do'** (3SG$_i$, Ø)] CAUSE [**do'** (3SG$_j$, **run'** (3SG$_j$))]

Ngaanyatjarra (Glass & Hackett 1979: 6)

(5.138) *Ka=ya   pakal-tjinga-rnu*
and.DS=3PL.NOM   arise-CAUS-PST
'And they made (him) get up'
[**do'** (3PL, Ø)] CAUSE [**do'** (3SG, **rise'** (3SG))]

While it is only used on intransitive verbs, the suffix works with ambitransitive *wangkanyi* 'speak' in its intransitive use. The derivation *wangkatjingani* means bringing about the situation that someone must talk, as in (5.139).

(5.139) *Nyuntu=n*   *ngayi-nya*   *wangka-tjinga-<u>nu</u>*
      2SG.NOM=2SG.NOM   1SG-ACC   speak-CAUS-PST
      'You've made me speak up'
      [**do'** (2SG, Ø)] CAUSE [**do'** (1SG, **speak'** (1SG))]

The *-tjinga* suffix can also suffix to nominals which on their own act as stative predicates in PYN. For example, *ngulu/ngurlu* 'afraid' is an S-intransitive state predicate in PYN; the feared entity is in dative/purposive case. With the addition of *-tjinga*, a causative activity verb is derived, 'to frighten'. An actor is added to the LS.

(5.140) *Ngayu-lu*   *kalaya ngunytju*   *mannɡu-ngu<u>r</u>u*   *ngu<u>l</u>u-tjinga-nu*
      1SG-NOM   emu   mother.ABS   nest-ABL   afraid-CAUS-PST
      'I$_{ACT}$ frightened the mother emu$_{UND}$ away from the nest'
      [**do'** (1SG, Ø)] CAUSE [**feel'** (kalaya ngunytju, [**afraid'**])]

(5.141) *Palunyalu marlu*   *ngurlu-tjinga-la*
      and.SS   roo.ABS   afraid-CAUS-IMP
      'Then (you) scare the kangaroos$_{UND}$ (towards us)'
      [**do'** (2SG, Ø)] CAUSE [**feel'** (marlu, [**afraid'**])]

There is overlap with causatives derived by suffixing verb endings to nouns in some cases: *ngulu<u>ni</u>/ ngurlulku* and *ngu<u>l</u>utjinga<u>ni</u>* both translate as 'frighten': causing a state to come about. The latter however implies a stronger reaction (Goddard 1983: 116). The Ngaanyatjarra stories in Glass & Hackett (1979) only have *ngurlulku*, without a *-tjinga* form.

     In predicate class terms, this suffix derives a causative from a state or one-argument activity. The original argument can be the undergoer of a state predicate or the actor of an intransitive activity verb. In (5.142), there are two semantic participants, with the addition of a causer to the existing argument. The derived verb is M-transitive; the added argument is an actor according to the AUH. With two arguments, the macrorole assignment is *palu<u>r</u>u* as actor, *=lanya* as undergoer. *Ikaritjinga<u>nu</u>* has two core slots, so is S-transitive. The new argument *palu<u>r</u>u* has nominative case; the other core argument, formerly S, switches from nominative to accusative *=lanya* as O.

(5.142) *Palu<u>r</u>u=lanya*   *pu<u>lka</u>ra*   *ikari-tjinga-<u>nu</u>.*
      3SG.NOM=1PL.ACC   really   laugh-CAUS-PST
      'He/she$_{ACT}$ really made us$_{UND}$ laugh.'
      [**do'** (3SG, Ø)] CAUSE [**do'** (1PL, **laugh'** (1PL))]

The linking of P/Y *palumpa katja ikaringu* 'his son laughed' (Goddard 1996: 16) is shown in Figure 5-17. The causative derivation *ikaritjinga<u>n</u>u* 'make laugh' with *-tjinga* is shown in Figure 5-18. An actor *palu<u>r</u>u* is added; =*lanya* is undergoer.
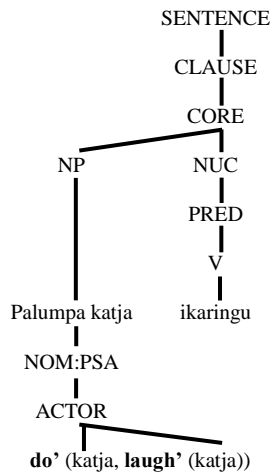
Figure 5-17: Linking algorithm for intransitive verb *ikaringu*
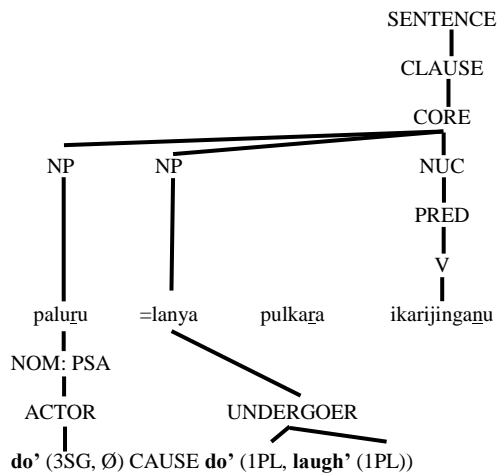
Figure 5-18: Linking algorithm for *-tjinga* derivation

We summarise this in the constructional schema in Table 5-14. This is a lexical rather than syntactic operation.

Table 5-14: Constructional schema of *-tjinga* causatives

Construction:	*-tjinga*
Syntax	Template: two core slots
	PSA: A argument
	Linking: Actor=PSA, Undergoer=DCA
Morphology	V or N + *-tjinga* forms verb of *l* class
Semantics	PSA: causer of undergoer's intransitive activity or state
	Aktionsart: -static, +telic, +punctual
Pragmatics	IF: unspecified
	Focus structure: unspecified

5.4.1.2.3 Suffixing *-nta/-rnta* to nominals

The previous two sections discussed the most common means of deriving causative verbs in PYN, but there are some minor processes too. The suffix *-nta/-rnta* produces *n* class causative verbs; this is a small group that may be lexicalised. When added to a stative verb stem or nominal, a transitive verb is created with a connotation of harming, thus having negative consequences for the undergoer. Such causatives are internally complex: both the (unspecified) action and the end result are combined in the semantic representation.

We tested *pikantananyi* 'hurt'; the results are in Appendix C and summarised in Table 5-15. The past continuous is grammatical; *pulkara* is allowed, suggesting this is a causative activity verb.

Table 5-15: -nta derived causative tests

	-ngi	*puḻkaṟa*	*purkaṟa*	*hour kutjuku*	*four minutespangka*	*-ntja*
	pst cont.	strongly	slowly	for an hour	in four minutes/ four minutes ago	noml
pikantananyi	yes	yes	yes	yes	no	yes

Pikantananyi/pikarntanku derives from the nominal *pika* 'pain, sick, anger' in (5.143) and (5.144).

<div align="right">Pitjantjatjara</div>

(5.143) *Pika-nta-nanyi   pulkara*
      hurt-HARM-PRES strongly
      '(It's) hurting (me) so hard'
      [**do'** (3SG, Ø)] CAUSE [**feel'** (1SG, [**hurt'**])]

<div align="right">Ngaanyatjarra (Glass & Hackett 2003: 310)</div>

(5.144) *Mara=rni=n   pika-rnta-nu*
      hand.ABS=1SG.ACC_{UND}=2SG.NOM_{ACT} sore-HARM-PST
      'You've hurt my hand!'
      [**do'** (2SG, Ø)] CAUSE [**feel'** (1SG [mara], [**hurt'**])]

Ilu/yuli in PYN is the adjective 'dead' (Bowe 1990: 26-28, Glass & Hackett 2003: 586); this derives *iluntananyi/yulirntanku* 'kill'[26]. This may be metaphorical: the undergoer does not have to be sentient as with *waṟu* 'fire' in (5.146).

<div align="right">Pitjantjatjara (Kavanagh 1990: 39)</div>

(5.145) *munu=ya   anangu tjuta   ilu-nta-nanyi*
      and.SS=3PL.NOM person PL.ABS   dead-HARM-PRES
      'and they killed people'
      [**do'** (3PL, Ø)] CAUSE [BECOME **dead'** (anangu tjuta)]

---

[26] Compare *ilunyi/yulirrilku* 'die', the latter with the inchoative suffix.

(5.146) *Waru   ma-ilu-nta-ra!*
       fire.ABS away-dead-HARM-IMP
       'Put out the fire!'
       [**do'** (2SG, Ø)] CAUSE [BECOME **extinguished'** (waru)]

The suffixing to a noun may imply a deliberate action, with *liri/lirri* 'throat' forming transitive *lirintanyi/lirrirntanku* (Goddard 1996: 62, Glass 2006: 73). Harm is done to the entity referred to: the specific harm may be understood in context, as reflected in the free translations in (5.147)[27].

(5.147) *Lirri-rnta-nku*
       throat-HARM-FUT
       '(He/she) choked (someone) to death, cut someone's throat'
       [**do'** ($3SG_i$, Ø)] CAUSE [BECOME **choked'** ($3SG_j$)]

Suffixing *-nta/-rnta* derives an activity verb from a nominal, a state. There are two semantic participants, effector and patient. This is M-transitive: there is a gain of one macrorole, an actor. The existing argument is an undergoer. The verb is S-transitive with two core slots, the PSA is the causer. Figure 5-19 shows the linking algorithm with *pika* 'pain' as nominal predicate. The sentence is *watju-rni ngaanya pika* 'my calf muscle is sore here' (Glass & Hackett 2003: 309).
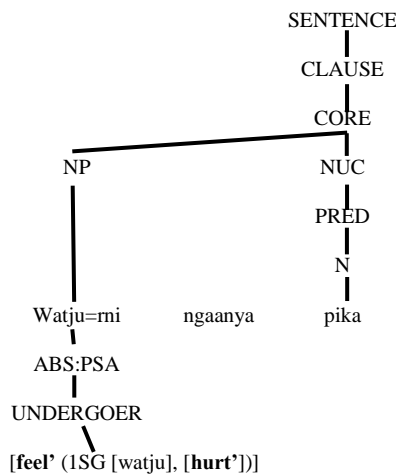
Figure 5-19: Linking algorithm with adjectival predicate *pika*

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[27] Another example is P/Y *ngunti* 'neck' forming transitive *nguntintananyi* 'break neck' (Bowe 1990: 28).

Figure 5-20 shows the derived transitive verb with *-rnta* in (5.144). With the addition of an actor, the undergoer remains the same.

[**do'** (2SG, Ø)] CAUSE [**feel'** (1SG [mara], [**hurt'**])]

Figure 5-20: Linking algorithm for *-rnta* causative derivation
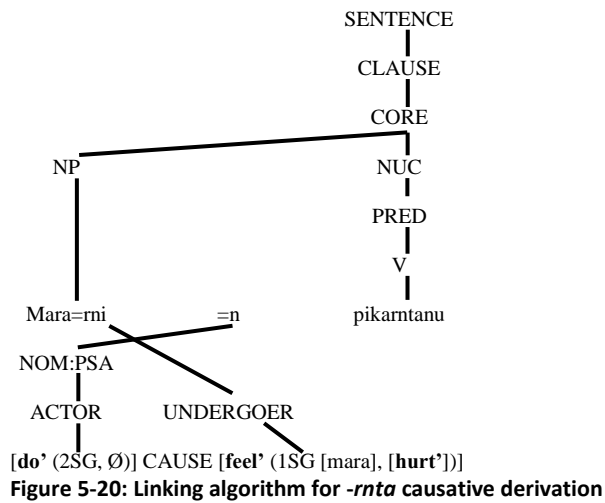
The constructional schema is shown in Table 5-16. We conclude that this is a lexical operation, but with limited applicability.

Table 5-16: Constructional schema of *-nta/-rnta*

Construction:	*-nta/-rnta*
Syntax	Template: two core slots
	PSA: A argument
	Linking: Actor=PSA, Undergoer=DCA
Morphology	V or N + *-nta/-rnta* forms verb of n class
Semantics	PSA: instigator of state of undergoer
	Aktionsart: -static, ±telic, +punctual
Pragmatics	IF: unspecified
	Focus structure: unspecified

5.4.1.2.4 Suffixing *-lyi* to intransitive verbs

Capell (1956: 70) claims that the suffix *-lyi* is causative in Pitjantjatjara, for example deriving transitive *ngaṟalyinanyi* 'make someone stand' (Goddard 1996: 95) from intransitive *ngaṟanyi* 'stand'. This is not productive however: the few other examples include *ngarilyinanyi* 'make lie (sleep) with one' (ibid.: 96), *kulpalyinanyi* 'take back to camp' (Yankunytjatjara) (ibid.: 45) from *kulpanyi* 'return to camp' and *waruly-warulyinanyi* 'make steaming hot' (ibid.: 226). These verbs do not appear to have Ngaanyatjarra counterpoints using *-lyi*.

5.4.2 Upgrade a peripheral participant

A participant on the margin of an idealised scene or 'discourse stage' may be upgraded onto centre-stage (Payne 1997: 172). Syntactically a participant becomes marked with a core case rather than a peripheral one. This upgrading may have grammatical implications for the existing core arguments, if there is a maximum number for example. Pylkkänen (2002) considers the introduction of non-core arguments into verb structures: some of these indicate valence-

changing constructions or variable valence. The upgraded argument may further be assigned a macrorole.

5.4.2.1   *Applicative*

Applicatives increase valence by adding a semantic and syntactic argument. A participant is advanced or promoted from the periphery to being a direct object (Payne 1997: 186-187). This argument can have a number of semantic roles, leading to sub-types of applicative such as the benefactive, malefactive, comitative, relinquitive (King 2010: 228-229), instrumental (Dixon 1977: 302-304) and associative (Rude 2009). In this section we investigate whether applicatives are found in PYN.

In RRG terms, applicatives are another group of variable undergoer assignment constructions. In the applicative, a non-argument of the verb becomes linked to the undergoer (Van Valin & LaPolla 1997: 337-338); this is usually indicated morphologically on the verb (though this is not the case in English). This new linking displaces the default choice for undergoer if the verb is transitive. Applicatives take different forms: they may be lexical or morphological as in Falam Chin (King 2010: 227); or be affixes promoting oblique NPs to arguments as in certain Peruvian Amazonian languages (Wise 2002). In a study of valence-increasing strategies in Urim (Torricelli, Papua New Guinea) syntax it is found there are very few underived ditransitive verbs (Wood 2012). Aside from *uk* 'give' most verbs require the applicative suffix *-n* to form ditransitive clauses. The applicative suffix provides an additional object position, allowing ditransitive clauses that have one clitic NP object and one free NP object (ibid.).

5.4.2.1.1   Benefactive

A basic two core argument predicate 'baked' is shown in (5.148) from Van Valin & LaPolla (1997: 162). This can be augmented by the addition of a benefactor or recipient. In this benefactive example, the non-argument 'Sue' in (5.149) becomes undergoer in (5.150) (ibid.: 337-338). The clause becomes semantically trivalent (it is still the cake that was baked) and syntactically ditransitive. M-transitivity remains at 2; the third argument is labelled DCA, a direct core argument but not a macrorole.

(5.148) Sam$_{ACT}$ baked a cake$_{UND}$ yesterday
(5.149) Larry$_{ACT}$ baked a cake$_{UND}$ for Sue
(5.150) Larry$_{ACT}$ baked Sue$_{UND}$ a cake$_{DCA}$

The PYN benefactive (Goddard 1996: 42, Glass & Hackett 1970: 79-80, 97) is the morpheme *-ku* on the beneficiary or goal. (5.151) has *tjunu* 'put, made' with a specified object *yuu*; *tjamu* is the beneficiary. (5.152) has a lexicalised verb, so no undergoer. However there is no alternative form with the beneficiary brought into the core as undergoer ('make grandfather a windbreak') so these are not syntactic valence increasing. They do introduce a semantic argument to the LS.

(5.151) *Ngayu-lu   yuu   tju-nu,   tjamu-ku*
1SG-NOM windbreak.ABS   make-PST grandfather-PURP
'I_{ACT} made a windbreak_{UND} for grandfather'
[**do'** (1SG, Ø) CAUSE BECOME **exist'** (yuu)] PURP **have'** (tjamu, yuu)

Ngaanyatjarra (Glass & Hackett 1970: 79-80)

(5.152) *Wiltja-<u>n</u>u   tjamu-ku*
shade-PST   grandfather-PURP
'(He/she)_{ACT} made a shade for grandfather'
[**do'** (3SG, Ø) CAUSE BECOME **exist'** (wiltja)] PURP **have'** (tjamu, wiltja)

The French example (5.153) shows 'ethical' *se* which is a benefactive object (Labelle 2008), sharing the form of the reflexive. Similarly the Irish example with reflexive in (5.154) indicates an autobenefactive.

French (Labelle 2008)

(5.153) *Luc   s'est   bu   un petit café*
[name] se AUX drink.PSTP a   small coffee
'Luc had himself a small cup of coffee'

Irish (Nolan 2012: 80)

(5.154) *Cheannaigh Aisling brontanais di   féin*
Buy.PST   [name] present   for.3SG.F self
'Aisling bought a present for herself'

The PYN reflexive/reciprocal clitics may be used where the self is the beneficiary. In (5.155), =*nku* is marking beneficiary *wati kutju*, which is also the actor. The undergoer is *yurltu walykumunu*.

Ngaanyatjarra (Glass 2006: 93)

(5.155) *Wati kutju-lu=nku   yurltu walykumunu payipu-ngu*
man one-ERG=REFL   car   good.ABS   buy-PST
'One man bought himself a good car'
do' (wati, **buy'** (wati, mutuka)) CAUSE/PURP **have'** (wati, mutuka)

In (5.156) the beneficiary is ego =*tju*. The benefactive is illustrated with the order of clitics reversed as in (5.157). The non-first person clitic =*nku* is used here. With =*tju* it would be 'spearing me kangaroos'.

P/Y Goddard (1996: 31)

(5.156) *Ngayu-lu=<u>n</u>a=tju   palatja   kalku-<u>n</u>u*
1SG-NOM=1SG.NOM=REFL DEM.ABS   claim-PST
'I_{ACT} claimed that one_{UND} for myself'

(5.157) *Maḻu   wakal-payi=nku=na*
    roo.ABS spear-CHAR=REFL=1SG.NOM
    'I$_{ACT}$ am always spearing us kangaroos$_{UND}$'

5.4.2.1.2 Locative/instrumental/comitative/associative

Instrumental or comitative applicatives are found in Australian languages such as Yidin^y (Dixon 1977: 302-304) and others (Haspelmath & Müller-Bardey 2004: 1137). In the instrumental example (5.158) from Grebo (Kru, West Africa), the instrumental applicative morpheme *di* attaches to the verb. *Su* 'pestle', the instrument, has been promoted.

Grebo (Innes 1966: 57)

(5.158) *O   du-di-da   bla su*
    3PL pound-APPL.INSTR-REMPRT rice pestle
    'They pounded rice with a pestle'

The comitative is also valence increasing (Dixon & Aikhenvald 2000: 15). In the Dyirbal example (5.159), *yaṟa* 'man' is absolutive, as it is the sole core argument. In (5.160), a comitative suffix *-ma* is added to the verb *ḍanay* 'stand' which makes it transitive. Now *yaṟa* is ergative; *yugu* 'wood' is absolutive as a core argument, and also the undergoer.

Dyirbal (Van Valin & LaPolla 1997: 338)

(5.159) *Ba-yi   yaṟa-Ø   yugu-ŋga   ḍana-ɲu*
    DEIC-ABS.I man-ABS   wood-LOC   stand-TNS
    'The man$_{ACT}$ is standing in/at/on some wood'

(5.160) *Ba-la-Ø   yugu-Ø   ba-ŋgu-l   yaṟa-ŋgu   ḍanay-ma-n*
    DEIC-ABS-IV wood-ABS DEIC-ERG-I   man-ERG   stand-COM-TNS
    'The man$_{ACT}$ is standing on/with some wood$_{UND}$'

Associatives are another subset of applicatives, with a morpheme shared with the comitative in Chin languages (King 2010: 19). In these Sahaptin Columbia River dialect examples, (5.162) has the associative verbal affix *-twana* which licenses the object of *łqíwi* 'play' to be in core accusative rather than instrumental case.

Sahaptin Columbia River (Rude 2009)

(5.161) *a=pam   imáy   łqíwi-šan-a   inmí-ki   wišaníkt-ki*
    REL=2PL 2NOM.PL play-IPFV-PST mine-INSTR treasure-INSTR
    'you who were playing with my treasure'

(5.162) *á łqíwi-twana-šan-a   inmí-na   miyánaš-na*
    OBV-play-ASSOC-IPFV-PST mine-ACC child-ACC
    'I was playing with my child'

PYN does not have these alternatives using verb affixes. Instead it uses *-ngka*, the locative/ instrumental case for location and association. This case extends to comitative 'with' in (5.165).

(5.163) *Tali-ngka   parranyinati-ngu*
   Sand.hill-LOC sit.down-PST
   '(He) sat down by a sandhill'

(5.164) *Mungartji ngayulu   liru   atu-nu   apu-ngka.*
   Yesterday 1SG-NOM snake.ABS hit-PST stone-LOC
   'Yesterday I killed a snake with a stone'

(5.165) *Ku<u>nt</u>ili-ngka a-nkupai*
   Aunt-LOC   go-CHAR
   '(He/she) goes with auntie'

Certain PYN verbs have the locative as an alternative to the absolutive, for example in verbs of saying like *wangkanyi/wangkaku* for the one spoken to.

5.4.2.2   Dative shift and dative of interest

Dative shift brings a participant with a peripheral semantic role into the core in addition to the existing participants (Payne 1997: 192). The dative shift may occur in a ditransitive formation, for example where the recipient is promoted to a central role in the clause. The dative shift reverses the prominence relation between a theme and a goal (Baker 2004: 81). 'Give' is an example of a dative shift verb (Baker 2004: 323). However this verb is inherently semantically trivalent, unlike 'bake' in the English benefactive examples earlier; so the original recipient was not peripheral, but syntactically oblique with an adposition. This example alters the macrorole assignment.

(5.166) I_{ACT} gave a gift$_{UND}$ to Chris$_{DCA}$.
(5.167) I_{ACT} gave Chris$_{UND}$ a gift$_{DCA}$.

Dative shift in Sahaptin involves a demotion of the P argument. It is optional where P is human, but obligatory when P is non-human (Rude 2009). Van Valin & LaPolla (1997: 336-337, 667-673) discuss dative shift in detail. The maximum number of arguments is a consideration if peripheral constituents are brought into the core. Van Valin (2001: 218) gives examples of dative shift leading to variable undergoer assignment and the passive to a variable PSA.

We repeat these examples from chapter 4, section 7, to illustrate dative shift in Pitjantjatjara, showing that the argument marked absolutive as in (5.168) can alternatively be marked-*ku* in (5.169); the recipient must be so marked if it is beside the verb or the result is ungrammatical as in (5.170). There is no corresponding demotion of other arguments. This dative shift only occurs in P/Y, not Nganyatjarra which uses -*ku* only for the recipient. So we take -*ku* as default, *mai* as the furthest right argument being undergoer, Principle A. This makes (5.168) the marked alternative, *wati* as undergoer, following Principle B.

(5.168) *Ngayu-lu   wati   mai   u-ngu*
        1SG-NOM man.ABS food.ABS give-PST
        'I$_{ACT}$ gave the man$_{UND}$ food$_{NMR}$'
        [**do'** (1SG, Ø)] CAUSE [BECOME **have'** (wati, mai)]

(5.169) *Ngayu-lu   mai   wati-ku   u-ngu*
        1SG-NOM food.ABS man-PURP give-PST
        'I$_{ACT}$ gave food$_{UND}$ to the man'

(5.170) **Ngayu-lu   mai   wati   u-ngu*
        1SG-NOM food.ABS man.ABS give-PST

The P/Y (but not Ngaanyatjarra) situation mirrors English verbs of giving, which can have a double object or oblique core recipient argument marked by 'to'.

An issue here is that the P/Y 'marked' double object construction is actually the standard and more common. So is this a valence-increasing or valence-decreasing operation? Van Valin & LaPolla (1997: 271-272) refer to the 'antidative' where a form with the recipient as a core argument is actually the basic trivalent situation; when the recipient is marked with a preposition, the valence has been reduced. We will however refer to the P/Y alternation as 'dative shift' for several reasons: beneficiaries and purpose generally in PYN are marked *-ku*; the recipient in Ngaanyatjarra is marked *-ku*; and the word order is constrained with the P/Y absolutive marked recipient which flouts the usual word order flexibility of PYN.

The dative of interest or ethical dative adds expressive force to a statement. The dative marked constituent is involved in the situation described in the clause (Strozer 1978). This argument is then the third argument of a syntactically trivalent construction with two objects (Payne 1997: 193) as in (5.171). *Comió* 'eat' is intrinsically semantically divalent, but here has had its syntactic valence increased.

Spanish (Strozer 1978)

(5.171) *Pepe   me   comió la   manzana*
        [name] 1SG.DAT eat.PST DET apple
        'Pepe ate the/my apple on/for me'

The PYN benefactive *-ku* brings in a participant as a beneficiary, but not to the core; it is thus omissible with no sense of incompleteness and no need to interpret its absence.

5.4.2.3 Advancement

Advancement brings in a constituent from the periphery and introduces it to the core. By locative advancement (Blake 1987: 69), intransitive verbs are changed to transitives. Alternatively if there is already an O argument, it becomes marked dative to make way for the advanced argument. In this example from Kalkatungu (Pama-Nyungan, Queensland), *kalapuru* is advanced from non-core locative in (5.172) to core absolutive case in (5.173). A morpheme -

nti is attached to the verb to mark advancement in (5.173), with an increase of syntactic valence. The verb is now transitive so *thuku* becomes ergative. The semantic valence is two in both cases but *kalapuru* is not a macrorole: the verb is M-intransitive. In the LS, the first argument is the location and second the theme.

<div align="right">Kalkatungu (Blake 1987: 69)</div>

(5.172) *Thuku   nuu-mi   kalapuru-thi*
       dog.ABS   lie-FUT   blanket-LOC
       'The dog$_{UND}$ will lie on the blanket'
       lie-on' (kalapuru, thuku)

(5.173) *Thuku-yu   nuu-nti-mi   kalapuru*
       dog-ERG   lie-ADVAN-FUT   blanket.ABS
       'The dog will lie on the blanket'

Other marked cases such as instrumental, indirect object, allative, aversive and causal advancement (Blake 1987: 70-73) are reported in the Pama-Nyungan languages Kalkatungu and Yidin[y].

Advancement, where a verb's valence is increased to take in a non-core argument, is not a feature of PYN (apart from the limited dative shift discussed in 5.4.2.2, where there is no change in the verb). The semantics of the verb itself needs to change for this to happen.

5.4.2.4   *Possessor ascension/external possession*

Possessor ascension is the promotion of a possessor to argumenthood in the clause (LaPolla 1990: 143, Karimi 2013). This allows one to perspectivise the possessor of one of the clausal arguments by making it a core argument of the verb (Payne 1997: 193). Possessors of subjects (Camacho 2010) and objects (Payne 1997: 194) can be raised and marked accordingly. Wood (2012) asserts that with external possession in the Papua New Guinea language Urim, the possessor and its body part are both expressed as grammatical objects, leading to a ditransitive. In RRG terms we would consider whether this increases the semantic valence, or whether the possessor and its possessed entity represent one participant.

In PYN, an alienable possessor occurs in the noun phrase before the head noun and is not promoted or raised: it is in genitive case, for example in (5.32). For inalienable possession like body parts, the genitive is not used: instead the case matches that of the 'owner' (Goddard 1993: 17) as in (5.174). The two constituents may be separated in the same way that adverbs and NPs can be, suggesting they are in separate NPs.

(5.174) *Wati-ngka ma<u>r</u>a-ngka*
       man-LOC hand-LOC
       'on the man's hand'

(5.175) **Wati-ku ma<u>r</u>a-ngka*
       man-GEN hand-LOC

In these examples with intransitive verbs *kaarrngaraku* and *kartakatiku*, body part is absolutive, but here the 'owner' has the object pronoun *=rni* (Glass & Hackett 2003: 202) rather than the nominative as expected with an intransitive. This suggests it is affectedness that is the criterion. As these are all core cases there is no possessor ascension.

(5.176) *Tjarlpa=rni   kaarrngara-la pika*
       leg.ABS=1SG.ACC hurt-PRES   sore
       'My leg_{UND} is hurting and sore'
       feel' (**have.as.part'** (1SG, tjarlpa), [**sore'**])

(5.177) *Yamirri=rni   kartakati-ngu*
       arm.ABS=1SG.ACC break-PST
       'My arm_{UND} broke'
       INGR **broken'** (**have.as.part'** (1SG, yamirri))

Not all 'body parts' are inalienable. In example (5.178) with transitive *kata<u>n</u>i*, the possessor is genitive, indicating *miri* 'nail' is not inalienably possessed.

(5.178) *Ngayu-ku miri   kata-nu   mapalku*
       1SG-GEN nail.ABS broke-PST quickly
       '(It) broke my nail_{UND} quickly = my nail_{UND} broke quickly'

Instruments may be core or non-core but again this is determined by being a body part rather than possessor ascension. In the transitive (5.179) and intransitive (5.180), the actor uses a body part as an 'instrument'. Marking is the same as that of the 'owner', nominative/ergative, rather than locative/instrumental.

(5.179) *Ma<u>r</u>a-ngku=<u>n</u>a   pu-ngu*
       hand-ERG=1SG.NOM hit-PST
       'I_{ACT} hit (it) with my hand'
       do' (**hit'** (1SG, 3SG)) ∧ **use'** (1SG, **have.as.part'** (1SG, mara))

(5.180) *Wati palu<u>r</u>u   tjina   kul<u>p</u>a-ngu*
      man DEF.ABS   foot.ABS return-PST
      'The man$_{ACT}$ returned on foot'
      [**do'** (wati, [**move.to.ref.point'** (wati)]) & INGR **be-at'** (Ø, wati)]
            ∧ **use'** (wati, **have.as.part'** (wati, tjina))

Capell (1956: 63-64) prefers the term 'operative' case in Australian languages to cover agentive and instrumental. However (5.180) shows both *wati paluru* and *tjina* case marked absolutive with intransitive *kul<u>p</u>anyi* 'return', so Blake's analysis[28] is more general. Body parts share the case of their owners, but this is not possessor ascension as there is no non-core case alternative. Furthermore, there is no effect on the other core elements.

      The instrumental relation for non-body parts is marked by the locative/instrumental case in PYN (Blake 1987: 42, 95). This case is used both for inanimate instruments like *pu<u>n</u>u* in (5.181), and animates such as *papa* in (5.182).

(5.181) *Munu pu<u>n</u>u i<u>t</u>unypa   alatjinga-<u>r</u>a   pu<u>n</u>u-ngka waka-<u>n</u>ingi.*
      and.SS plant tomato.ABS do.like.this-SER wood-LOC   pierce-PST.CONT
      '(You) pierce the bush tomato fruit with a stick, like this (to drain bitter juice).'

(5.182) *Inyika-lu   marlu   papa-ngka yirityu-nu.*
      [name]-ERG roo.ABS dog-LOC   set.on-PST
      'Inyika caught a kangaroo with a dog.'

Dixon (1976: 10) states that the instrumental function in most languages coincides with either ergative or locative. In PYN, this is broadly true, and it is conditioned by whether the instrument is inalienably possessed or not.

5.5 Valence rearranging: inverses

Payne (1997: 209-210) describes inverses as being valence rearranging devices, because rather than changing the number of arguments, they reduce the centrality of the agent with respect to the patient. One of the traditional understandings of 'subject' is a pairing of topic with agent so an inverse weakens this notion: the topic in such cases is the patient. Inverse languages are described by Van Valin & LaPolla (1997: 373-4):

> In an inverse language, case marking only indirectly indicates the actor, undergoer or PSA; what it directly signals is related to either the person of the core arguments or their discourse status.

There is an extended person hierarchy for Plains Cree (Algonquian, United States), shown in (5.183). Obviative is distinct from the 'already mentioned' third person (ibid.).

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[28] 'Owner' and body part being marked similarly but in separate phrases (Blake 1987: 94-95).

(5.183) $2^{nd} > 1^{st} > 1^{st}$ dual inclusive $> 3^{rd}$ proximate $> 3^{rd}$ obviative

Direct or inverse markers are then needed to indicate whether the actor or the undergoer is higher on the hierarchy (Van Valin & LaPolla 1997: 374). Klaiman (1992) claims that in inverse constructions, verbs of transitive, non-reflexive predication are morpheme-marked in case a speech act participant (first or second person) corresponds to a non-subject core argument or logical role.

Clendon (2006: 43) says there are inverse and accusative markers in non-Pama-Nyungan Australian languages. This accompanies a suite of other features such as prefixing, head marking and noun incorporation which distinguish them from the Pama-Nyungan group. As it is Pama-Nyungan, PYN lacks inverse markers. According to Payne (1997: 210), inverses are like passives, but the verb remains in transitive form and the actor is not normally omitted. Word order changes topicalise the patient in PYN, so this feature has properties in common with inverses.

5.6 Causative/inchoative alternation

We have found that syntactic mechanisms such as passives, antipassives and applicatives are not typical in PYN, which prefers lexical operations that affect the semantics of the proposition. The main dichotomy in semantic valence adjusting is the causative/inchoative pairing. This alternation describes verbs used transitively as causatives or intransitively as processes respectively. Both describe similar situations, but because the inchoative excludes the agent it appears spontaneous.

In a causative/inchoative pair, one may be basic and the other derived. For example in French *fondre* 'melt' (intransitive) is the basic inchoative while the derived causative alternation *faire fondre* 'melt' (transitive) uses the causative auxiliary *faire* with the infinitive (Haspelmath 1993: 90-91). In an anticausative alternation, the causative is basic and the inchoative is derived (Rościńska-Frankowska 2012). Where there is no suggestion of basic or derived the verbs are 'equipollent' (Haspelmath 1993: 90-91, Rościńska-Frankowska 2012). Instructions for the elicitation of causative/non-causative verb pairs are given in the Lexical Valence Typology project (Nichols 2005). Idiatov (2007) distinguishes intransitive anticausatives from transitive causatives but adds that it is not always possible to determine which is basic and which derived.

Semantic concepts with a common core and phonologically identical (such as 'break', being both causative and inchoative) are very common in English (Ellison 2005) and to varying degrees cross-linguistically. Further examples of such labile verbs include the English 'open' (Shibatani & Pardeshi 2002: 107) as well as French *changer* 'to change', *finir* 'to finish' and *rouler* 'to roll' (Haspelmath 1993: 113). Another term for this is ambitransitivity, the ability of a verb to be transitive or intransitive (Letuchiy 2015). The intransitive use of verbs is found to have encroached over time on formerly strictly transitive verbs. Ambitransitives such as PYN

inkanyi or its English equivalent 'play' are not necessarily labile though, in that they do not denote causation or inchoation.

PYN derived verbs involve states, either through bringing a state about or a process leading to a state without mention of a causer; these verbs are widespread in the corpus. As well as intransitive verbs, other categories such as predicating adjectives, active adjectives and nouns can be the base for the derivation. However there is no morphological causative creating process involving transitive verbs in PYN; periphrastic means are required.

Verbs vary on a continuum depending on the likelihood of their spontaneous occurrence and this determines whether they have causative/inchoative alternations (Haspelmath 1993: 105, Nolan 2012: 38). The semantic condition for this is a change of state; the more likely an action is to be spontaneous, the more likely the inchoative will be present because no causer is required. Nolan (2012: 37-38) states that there is a scale of likelihood of spontaneous occurrence, shown in (5.184):

(5.184) Wash > close > melt > laugh (only allow causative derivations)

Their P/Y equivalents are in (5.185). In relation to the spectrum for the likelihood of spontaneous occurrence, of these verbs, only *paltjini* as a transitive verb cannot be involved in causative/ inchoative alternations through *-ringanyi*, verb endings and *-tjingani*. States and derived inchoative structures have one argument (absolutive in PYN); causatives have the addition of a second argument (ergative). Equipollent verbs are not a feature of PYN: these processes clearly have one member of the alternation as basic.

(5.185) *Paltjini* 'wash'> *ila̱ni* 'close'> *ururinganyi* 'melt'> *ikaringanyi* 'laugh'

Of the verbs, the first is a lexical transitive, the second derived from *ila* 'close' and verb ending (Goddard 1993: 40), and the others have the inchoative *-ri* suffix. This parallels the induced versus spontaneous actions described by Van Valin & LaPolla (1997: 84).

The most common PYN derivations involve *-ri/-rri* inchoatives and verb ending/**-tjinga** causatives. A given root rarely has both *-ri/-rri* and *-tjinga* derivations: *-ri/-rri* more commonly pairs with verb endings; *-tjinga* usually acts on non-nominal verb roots rather than nominals. An example is *uritjinga̱ni* 'cause to shake', sometimes used for the effect of wind on trees; the latter derived from intransitive *urinyi* 'shake'. Thus derivation with *-tjinga* is not attested with *palya*. In (5.186) and (5.187), the state and inchoative are basic; the causative is periphrastic.

(5.186) *Candle uru-ri-ngu*
      candle fluid-INCH-PST
      'The candle melted.'

(5.187) *Ngayu-lu   candle   uru-ri-ngkunytjaku palya-nu*
      1SG-NOM candle.ABS fluid-INCH-PURP make-PST
      'I melted the candle.'

Table 5-17 shows some of the possibilities of inchoative (valence 1) and causative (valence 2) derivation for different nominal word class members in P/Y. The causatives are effected by both verb endings and compounding (*kunkuntjunanyi*), with gaps being due to semantic implausibility.

Table 5-17: Inchoative and causative possibilities in P/Y

Word class				Inchoative (1)	Causative (2)
Noun	*malu*	kangaroo		*maluringanyi*	**maluni*
	wiltja	shelter/shade		*wiltjaringanyi*	*wiltjani*
Adjective	*palya*	good		*palyaringanyi*	*palyani*
Active adjective/adverb of manner	*anku* (Y)	asleep		*ankuringanyi*	**ankuni*
	kunkun (P)	asleep		*kunkunarinyi*	*kunkuntjunanyi*
	pukul	happy		*pukularinyi*	*pukulmananyi*
Spatial adverb	*patu*	far		*paturinganyi*	*patuni*
Time adverb	*ngula*	later		*ngularinganyi*	**ngulani*
Interrogative pronoun	*ngananya*	who			
	nyaa	what		*nyaaringanyi*	*nyaani*
Demonstrative pronoun	*nyanga*	this			
Personal pronoun	*ngayulu*	I			

The suffix *-ringanyi* is the most productive and occurs with many word class roots, for example *ankuringanyi* 'become tired', *ngularinganyi* 'become late' and *maluringanyi* 'become a kangaroo'. However one cannot have the putative verb ending causatives **ankuni*, **ngulani* or **maluni*. The difference between *palyaringanyi* and *palyani* is the distinction between where something gets better and an actor makes something better. These are M-intransitive and M-transitive respectively.

5.7 Grammatical rules and semantics

A full discussion of the syntactic possibilities available to verbs needs to take into account the idea that the particular grammatical constructions that a verb enters into are dependent on its semantics. Levin (1993: 5-8) uses four English verbs to illustrate the middle, conative and body part owner ascension constructions. The constructions that these verbs can enter into are in Table 5-18. Examples (5.188) to (5.190) exemplify the middle, conative and body part ascension respectively.

Table 5-18: English grammatical rules and semantics

	Middle	Conative	Body part owner ascension
cut	yes	yes	yes
break	yes	no	no
touch	no	no	yes
hit	no	yes	yes

(5.188) 'The bread cuts easily.'
(5.189) 'Margaret cut at the bread.'
(5.190) 'Margaret cut Bill on the arm.'

The verbs take part in different combinations of constructions. Change of state verbs ('cut' and 'break') can take middles, relating them to the inchoative: the prime consideration is subject affectedness. Since 'cut' and 'hit' involve motion, the conative is permissible with them. 'Cut', 'touch' and 'hit' involve contact, so body part owner ascension is allowed: if you make contact with the body part, you make contact with the owner. In the conative and body part owner ascension, case is oblique in English as they are not direct referential arguments of the transitive verb 'cut'; in the former because the action is not direct; in the latter because the main entity, 'owner', is the patient due to ascension. Van Valin & LaPolla (1997: 124) distinguish conatives as activities from active accomplishments: in activities the second argument is treated as an oblique core argument. Dixon & Aikhenvald (2000: 2) note that some peripheral NPs are restricted by the verb and core arguments; (5.190) is an example of this. Thus 'bit on the finger' is acceptable while 'saw on the finger' is not. Testing verbs assists in determining its place on a transitivity spectrum as well as the nature of potential arguments.

We examined these Pitjantjatjara transitive verbs to ascertain which can enter middle, conative and body part ascension constructions: *kaṯani* 'cut', *kaṯantananyi* 'break', *pampuṉi* 'touch' and *punganyi* 'hit'. There is evidence from the lexicon (Goddard 1996: 38) that the first two are derived from the adjective *kaṯaly* 'broken' through verb endings and the 'harmful' *-nta* suffix respectively. We tested the constructed sentences (5.191) to (5.206) for acceptability with consultants.

5.7.1   Middle

We find that there are no middles in Pitjantjatjara, which ties into the lack of an active/passive voice option. In these examples, the actor is left implicit, and this is true regardless of whether or not there is a change of state.

Pitjantjatjara

(5.191) *Purita   kaṯa-ṉi   witu-witu wiya*
bread ABS   cut-PRES   difficulty NEG
≠ 'The bread cuts easily.'
'He/she cuts the bread easily.'

(5.192) *Kalatji   kaṯanta-nanyi witu-witu wiya* [29]
glass ABS   break-PRES   difficulty NEG
≠ 'The glass breaks easily.'
'He/she breaks the glass easily.'

(5.193) *Puṉu   pampu-ṉi   witu-witu wiya*
wood ABS   touch-PRES difficulty NEG
≠ 'The wood touches easily.'
'He/she touches the wood easily.'

(5.194) *Tuwa   pu-nganyi   witu-witu wiya*
door.ABS   hit-PRES   difficulty NEG
≠ 'The door hits easily.'
'He/she hits the door easily.'

5.7.2   Conative

There are no conatives either; in SFL terms, an effective process cannot be made non-effective just by adding a locative suffix to the Goal (D. Rose p.c.). In our RRG analysis the transitivity cannot be reduced by putting the undergoer in a non-core case, locative here.

Pitjantjatjara

(5.195) **Margaret-alu purita-ngka kaṯa-ṉi*
[name]-ERG   bread-LOC   cut-PRES
≠ 'Margaret cuts at the bread.'

(5.196) **Margaret-alu kalatji-ngka kaṯanta-nanyi*
[name]-ERG   glass-LOC   break-PRES
≠ 'Margaret breaks at the glass.'

(5.197) *Margaret-alu puṉu-ngka pampu-ṉi*
[name]-ERG wood-LOC touch-PRES
≠ 'Margaret touches at the wood.'
'Margaret touches (it) with the wood.'

---

[29] There is a related intransitive verb *kaṯakatinyi* 'break' (Goddard 1996: 38).

(5.198) *Margaret-alu tuwa-ngka pu-nganyi*
      [name]-ERG   door-LOC hit-PRES
      ≠ 'Margaret hits at the door.'

5.7.3   Body part owner ascension

Body part owner ascension does not occur in PYN as owner and body part share the same core case. Raising the owner to absolutive while the body part is locative does not yield a grammatical clause, as shown here.

<div align="right">Pitjantjatjara</div>

(5.199) *Margaret-alu   Bill-nga   amirri   kata-nu*
      [name]-ERG   [name]-ABS   arm.ABS   cut-PST
      'Margaret cut Bill's arm.'

(5.200) *Margaret-alu Bill-nga   amirri-ngka kata-nu*
      [name]-ERG [name]-ABS   arm-LOC   cut-PST
      'Margaret cut Bill on the arm.'

(5.201) *Margaret-alu   Bill-nga   amirri   katanta-nu*
      [name]-ERG   [name]-ABS   arm.ABS   break-PST
      'Margaret broke Bill's arm.'

(5.202) *Margaret-alu Bill-nga   amirri-ngka katanta-nu*
      [name]-ERG [name]-ABS arm-LOC   break-PST
      'Margaret broke Bill on the arm.'

(5.203) *Margaret-alu   Bill-nga   amirri   pampu-nu*
      [name]-ERG   [name]-ABS   arm.ABS   touch-PST
      'Margaret touched Bill's arm.'

(5.204) *Margaret-alu Bill-nga   amirri-ngka pampu-nu*
      [name]-ERG [name]-ABS   arm-LOC   touch-PST
      'Margaret touched Bill on the arm.'

(5.205) *Margaret-alu   Bill-nga   amirri   pu-ngu*
      [name]-ERG   [name]-ABS   arm.ABS   hit-PST
      'Margaret hit Bill's arm.'

(5.206) *Margaret-alu Bill-nga   amirri-ngka pu-ngu*
      [name]-ERG   [name]-ABS arm-LOC   hit-PST
      'Margaret hit Bill on the arm.'

5.7.4   Summary of findings

We find that unlike the case in English, change of state, motion or contact are not criteria licensing middle, conative or body part ascension in PYN. We summarise the findings in Table 5-19.

Table 5-19: Pitjantjatjara verbs and semantics

		Middle	**Conative**	**Body part owner ascension**
kat̲a̲ni	cut	no	no	no
kat̲antananyi	break	no	no	no
pampun̲i	touch	no	no	no
punganyi	hit	no	no	no

5.8   Head marking in PYN valence adjusting

In some languages the removal of an independent argument may be facilitated by arguments showing agreement or being marked on the head of the clause or predicate. This does not happen in PYN; there is no gender, number or person marked; the nature of the arguments is not important as far as the predicate is concerned so long as they fill its valence requirements, subject to semantic plausibility.

King (2010: 136-138) has an analysis of Falam Chin where RP arguments in head marking languages are outside the core but in the clause while the head marking morphemes are the core arguments. Since PYN clitic pronouns bind to the first constituent in the clause (Blake 1987: 103), and PYN is not head marking, this rules this analysis out.

Other types of head marking have been described. Nichols (1986: 58) discusses internal head marking such as aspect on verbs. Marking on predicates to form the passive for example can be considered a form of head marking (Blake 2001: 14), the predicate being the head of the clause. Hence changing the valence of a verb is achieved through head marking with morphemes. In this view the morphemes (such as *-ri/-rri*, verb endings and *-tjinga*) suffixed to a verb in PYN valence adjusting represent head marking, but importantly they do not represent arguments; they change the number of arguments that the derived predicate is licensed to control.

5.9   Derivational morphemes and the layered structure of the word

The layered structure of the word involves the root, optional derivational morphemes and verbal inflection for TAM which is shown in the RRG operator projection (Nolan 2011). We may exemplify derived valence-adjusted forms in PYN though the nominal *palya* 'good'. As an adjective, *palya* can act as a tenseless one-place predicate and does not require a posture verb. Adding the present tense verb inflection derives the verb *palyan̲i* which has TAM but also increases semantic valence, S- and M-transitivity to two by adding an actor causer; the original undergoer remains as is. Derived *palyaringanyi* comprises *palya*, the inchoative suffix *-ri*, and verb inflection. The predicate is back to a valence of one with no actor causer, but the LS now

includes BECOME. The lexeme construction templates of the derivations are given in (5.207) and (5.208); the layered structure is in Figure 5-21.

(5.207) [[**α palya**] ⊕ [**β (Ø)**]] φ **type (l class)**
(5.208) [[**α palya**] ⊕ [**β ri**]] φ **type (ng class)**
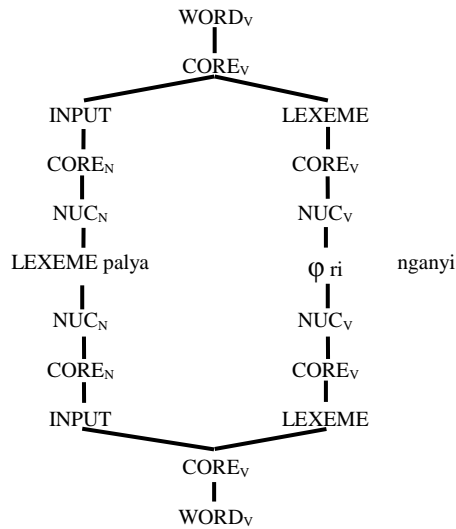
Figure 5-21: Layered structure of *palyaringanyi*

These productive processes apparently often derive items which become lexicalised and available for semantic extension.

5.10 Lexical rules for morphological valence adjusting

Following Van Valin & LaPolla (1997: 178-181) and King (2010), and based on our Pitjantjatjara predicate tests, we put forward these lexical rules for morphological valence adjusting in PYN. There is a basic split between inchoatives (BECOME/INGR) in (5.209) and causatives (CAUSE) in (5.210), indicating lexical-semantic scene-changing rather than syntactic valence adjusting.

(5.209) (a) α + *-ri/-rri* →   {BECOME/INGR α}
　　　　(b) α + *-ara/-rra* →   {INGR α}

(5.210) (a) α (+ *-ma*) + verb endings → {[**do'** (x, Ø)] CAUSE BECOME/INGR α}
　　　　(b) α + *-tjinga* →   {[**do'** (x, Ø)] CAUSE **feel'** α}
　　　　　　　　or   {[**do'** (x, Ø)] CAUSE [**do'** (y, Ø)]}
　　　　(c) α + *-nta/-rnta*   {[**do'** (x, Ø)] CAUSE BECOME/INGR α}
　　　　　　　　or   {[**do'** (x, Ø)] CAUSE **feel'** α }

The forms *-ara/-rra* and *-nta/-rnta* are not productive; items involving them are lexicalised. There is frequently a pattern of one lexical entry having derivations involving some of the other three (*-ri/-rri*, *-tjinga*, verb endings) in Goddard (1996) and Glass & Hackett (2003).

5.11 Aktionsarten of derived verbs

A summary of the tests and results is given in Table 5-20. While generally the derivation determines whether a test passes or fails, the root has an influence in some cases with certain tests.

Table 5-20: Pitjantjatjara predicate class test results

	-ngi	*pulkaṟa*	*purkaṟa*	*hour kutjuku*	*four minutespangka*	*-ntja*
	pst cont.	strongly	slowly	for an hour	in four minutes/ four minutes ago	noml
Valence -						
waru pulkaringanyi	no	no	no	maybe	no	no
ankuringanyi	no	no	no	no	no	yes
tjinturinganyi	no	no	no	no	no	no
palyaringanyi	yes	no	yes	yes	no	yes
tjilpiraraṉi	no	yes	yes ?	yes	yes	no
Valence +						
palyani	yes	yes	yes	yes	yes	yes
pukulmananyi	yes	yes	no	yes	yes	yes
ngulutjingaṉi	yes	yes	no	no	no	yes
punu punkaltjingaṉi	no	maybe	maybe	no	no	yes
palurulanya ikaritjingaṉi	yes	yes	no	no	no	no
wangkatjingaṉi	yes	yes	no	no	no	yes
pikantananyi	yes	yes	yes	yes	no	yes

We summarise the results of testing Pitjantjatjara morphological valence-adjusting operations in Table 5-21 and *Aktionsarten* in Table 5-22. The tests were in Pitjantjatjara, but we propose predicate classes for PYN generally in Table 5-23.

Table 5-21: Tests for Pitjantjatjara valence adjusting

Criterion	*-ri*	*-ra*	*-tjinga*	**verb endings**	*-nta*
1. Occurs with progressive aspect	depends	no	depends	yes	yes
2. Occurs with dynamic adverbs like *vigorously* (*pulkaṟa*)	no	yes	yes	yes	yes
3. Occurs with slow adverbs like *gradually* (*purkaṟa*)	depends	yes	no	depends	yes
4. Occurs with *for an hour* (*-ku*)	yes	yes	no	yes	yes
5. Occurs with *in four minutes* (*-ngka*)	no	yes	no	yes	no
6. Has derived adjective representing terminal state (*-nytja*)	no	no	yes	yes	yes
7. Has causative meaning	no	no	yes	yes	yes

Table 5-22: Aktionsarten of common Pitjantjatjara derivational processes

Criterion	*-ri*	*-ra*	*-tjinga*	**verb endings**	*-nta*
Static	no	no	no	no	no
Change of state	yes	yes	no	yes	yes
Dynamic	no	no	yes	yes	yes
Telic (inherent endpoint)	yes	yes	maybe	maybe	maybe
Punctual (instantaneous)	maybe	maybe	maybe	maybe	maybe

Table 5-23: Proposed predicate class for derived PYN verbs

Criterion	*-ri/-rri*	*-ra/-rra*	*-tjinga*	verb endings	*-nta/-rnta*
State	yes	yes	no	no	no
Activity	no	no	yes	yes	yes
Achievement	yes	yes	maybe	maybe	maybe
Semelfactive	no	no	maybe	maybe	maybe
Accomplishment	maybe	no	maybe	maybe	maybe
Active Accomplishment	yes	yes	no	no	no
Causative	no	no	yes	yes	yes

It is claimed that there is no need for a lexical test for agentivity in Pitjantjatjara, which is not concerned with agency but with effect. In SFL terms, the important consideration is whether the process has an effect on an entity or not. In effective clauses, the process is extended to an entity that is affected by it and the actor is inflected with the ergative suffix on nouns. The derived verbs discussed here thus fall into effective or non-effective divisions (D. Rose p.c.). These are transitive causatives and intransitive inchoatives respectively and examples are given in Table 5-24. The derivations involving *-ringanyi* and *-arini* are about things and qualities becoming or happening.

Table 5-24: Effective and non-effective processes in Pitjantjatjara

Effective	Non-effective
ngul̲utjinga̲ni 'frighten'	*pulkaringanyi* 'become bigger'
ikaritjinga̲ni 'make laugh'	*ankuringanyi/kunkunarinyi* 'fall asleep'
wangkatjinganyi 'make talk'	*tjinturinganyi* 'become day'
palya̲ni 'fix'	*palyaringanyi* 'become better'
pukulmananyi 'make happy'	*wankaringanyi* 'wake'
pikantananyi 'hurt'	*tjipirarini* 'become split'

5.12 Summary and discussion

This chapter builds on the previous ones in characterising the means PYN uses for valence adjusting. We have conducted a broad cross-linguistic survey, involving other theories as well as RRG. The purpose was to carry out a typological study of PYN, describe the means through RRG, and find gaps that we can explain through alternative approaches. We found RRG is generally well-suited to characterising this. One potential issue is the E argument which is suitable for verbs of emotion: it is not outside the core as it cannot be omitted, but the verb behaves like an S-intransitive, with absolute case on the emoter.

Two basic operation types were described and we investigated which are predominant in PYN. Productive lexical operations involve changes to the LS and/or macrorole assignment but do not affect PSA assignment. Syntactic operations affect the assignment of the PSA (the only grammatical relation in RRG), which occurs later in the linking (King 2010: 181, 193). Valence-changing operations may be considered marked constructions deviating from the norm. They are motivated by the participants we choose to express as arguments, and how we choose to represent them. The main division drawn here is between valence decreasing and valence increasing; we also discussed valence rearranging where the valence number remains the same

but the participants swap roles. We distinguish valence changing where there is a morphological change to the verb; omission of an argument to make the action indefinite; and ellipsis where the dropped argument is known.

To summarise the situation in PYN, valence adjusting alters the underlying semantics of the predicate, as well as in some cases macrorole assignment. The syntactic template and syntactic realisation follow suit. With the small number of PYN ambitransitive verbs, valence is dependent on use.

There are lexical and morphological means of valence adjusting. Derivation impacts the semantic valence of the clause, typically adding a controlling argument or obviating the need for one. We find that derivational suffixing morphemes in PYN have relatively transparent agglutinative semantics. With derivation both valence and word class may be altered and as expected the derivational morphemes append to roots prior to the suffixing of inflections. Dixon & Aikhenvald (2000: 27) discuss combinations of derivational processes, but this is not typical of PYN. Valence adjusting in PYN is exercised by the presence, absence or roles of the semantic participants in a clause rather than syntactic mechanisms. The situation is complicated by the fact that in Western Desert, as well as single morphemes and words, lexical items can be formed by complexes and groups (D. Rose p.c). Such groups have their own internal constituents, while the whole may act as a semantic or syntactic argument for example. We discuss this further in chapter 6. In chapter 3, section 14, we conducted predicate tests on bare verbs; it was noted that some of the characteristics tested may not be innate to the verb: we have now seen that there is a range of verbal affixes that can add these meanings to a base item of any class.

Cross-linguistically, derivational affixes are examples of bound morphemes as they cannot occur on their own (Booij 2005: 5). Such functional morphemes are distinguished from lexical categories by Modena & Muro (2009). On the other hand, they argue that some derivational affixes have developed from verbs implying there is no dividing line between compounding and affixation. PYN has the independent verbs *punganyi/pungku* and *tjunanyi/tjunku* that appear in many compounds; *-ringanyi/-rringku* and *-tjingani/-tjingalku*, while being productive derivational affixes, do not have status as independent verbs.

A lexical item or lexeme may have different forms, for example 'give', 'gave', 'given', 'giving' and 'gift' in English (Dixon 2011: 97-98). This is paralleled in PYN by both inflectional and derivational suffixes, but without suppletion or changes in the root. Derivation in PYN involves the creation of new forms through suffixing; the new form may belong to a different word class. While derivation is generally transparent, Glass & Hackett (1970: 3) use the term 'unknown root' where a stem is not used in a dialect but derived forms are; the presumed stem may or may not occur in other dialects. Nominalisation of verbs involves *-nytja/-ntja* where the sole argument is patient and *-pai/-payi* where it is agent.

Furthermore, these semantic valence adjusting processes are basically concerned with the absence or presence of a controlling or A argument. This involves a causer bringing about a state, or the state coming about without a causer. What they have in common is the state of the undergoer. In PYN, semantic valence adjusting is reflected in the distinction between CAUSE and BECOME/INGR in the LS, where the latter has no implication of an agent. In semantic terms, inchoatives inherently require one argument and causatives two. Syntactically in PYN there are respectively one or two syntactic core slots available. Whether these are overtly filled depends on pragmatic factors and the zero third person singular.

PYN stative nominals derive transitive causative verbs by the addition of verb endings. These causatives only operate on intransitive states, not intransitive activities. Rose (2001: 304) states that induced mental reactions and caused relations are agentive in Pitjantjatjara. Apart from that, agency is weaker than in English. External agency is recursive in English but less so in Pitjantjatjara. Thus *-tjinga* is used for induced states, on base intransitive predicates, while those with base transitive predicates require periphrastic forms. So causatives bring about states but do not cause others to act. The difference between *-tjinga* and suffixing verb endings is that *-tjinga* derives activity transitive verbs, typically of bodily action, while adding verb endings derives verbs that bring about a changed state or bring an object into existence. The inchoative morpheme *-ri/-rri* is also added to nominals but not to underived transitive verbs, so it is not a detransitivising morpheme. Inchoatives are not comparable to passives because an agent cannot be included, and they always indicate a change of state.

Blake (1987: 55) describes many of the valence-adjusting mechanisms in Australian languages as 'minority constructions' that are restricted in their distribution, that may be formally derived and paired with more basic constructions, and that may be restricted in the verbs they occur with. This is the case in PYN where the productivity of derivational affixing varies greatly, with the supposed derivations involving *-ara/-rra*, *-nta/-rnta* and *-lyi* being basically lexicalised. Other PYN suffixes such as *-ri/-rri* and *-tjinga* are more productive. Anderson (1985: 4-6) states that there are generalities that can be made about word formation, but that idiosyncratic gaps exist in the lexicon where potential items do not exist. Anderson refers to such matters as being 'partially motivated.'

Reflexive and reciprocal constructions in PYN maintain the clause's S-transitivity, with the reflexive pronoun clitic going in the O slot. This latter is confirmed by the ergative marked A argument. In a reflexive the action is done to oneself; in a reciprocal it is to each other: more than one semantic participant is involved in the scene. These are therefore not the reflexive and reciprocal verbs that Dixon (2011: 433) claims are intransitive with S function arguments. In some Australian languages, reflexive forms are developing into passives (Capell 1956: 71) but there is no evidence of this in PYN: the actor remains ergative. The reflexive/reciprocal clitics behave like normal pronoun clitics.

A number of cross-linguistically common syntactic valence adjusting constructions are not found in PYN, such as a passive, antipassive or applicative. Generally, phenomena such as the demotion of arguments to non-core cases are uncommon in the dialects. The limited types of controlled argument modulation involve alternate choices of case marking, but not changes to the predicate itself. Blake (1987: 64) states that passives have been reported in two accusative Australian languages where the pre-tense passive suffix is homophonous with the inchoative suffix that derives intransitive verbs from nouns. This is not the case in PYN: the inchoative is never used with an agent. In languages which do have a passive, it does not necessarily indicate a change of state (for example in 'was seen' or 'was heard'), but an agentive participant is implied. Instead of this, there are other means of upgrading or downplaying participants in PYN; strategies are used to topicalise the undergoer or downgrade the actor such as word order changes and the ellipsis or dropping of arguments. Changing word order with the ergative A argument placed last might be freely translated as 'passive', but there is no morphological change in the verb.

Rather than the antipassive, the beneficiary or stimulus for a verb of emotion in PYN is suffixed *-ku*, with the verb being S-intransitive. We do not regard this as valence adjusting as there is no S-transitive alternative. Rather it is a reflection of the low transitivity of the predicate. Where applicatives may be found in other languages, PYN generally keeps the beneficiary, location, associations and instrument in the *-ngka* or *-ku* cases; they do not get promoted to a core case such as absolutive or ergative. Certain verbs such as (*y*)*unganyi/yungku* 'give' and *wangkanyi/wangkaku* 'talk' do allow variations in core/non-core case marking. Importantly there is no change to the verb here; it is just used with different case marked arguments.

Verbs in Australian languages fall into either a S-transitive or S-intransitive division; each root has a fixed transitivity value and any change in transitivity must be effected by a non-zero derivational affix (Dixon 2011: 278). This is mostly true for PYN; the S-transitive/intransitive division allows us to identify an approach to characterising valence adjusting. While arguments may be dropped or elided with an unchanged verb, the remaining arguments do not change case marking, indicating that the S-transitivity of the verb does not change; the default assumption is that the gaps are anaphoric with third person singular. S, A and O arguments are freely omitted without the form of the verb changing.

The specific valence-adjusted forms involved can overlap. Thus in some languages, such as Korean (Yeon 1991), the causative and passive share the same morphology (Knott 1995). This 'lability' (Kulikov 2010) by definition means that there is no morpheme or structural change implementing the valence adjusting. Again, this is not a feature of PYN.

There are certain key things to take into account here. While valence decreasing may remove an argument, items may also be non-overtly expressed through ellipsis or switch-reference. There is a distinction between the omission of a verbal argument and a zero pronoun;

omitted arguments do not refer to anything in particular so are non-anaphoric and valence decreasing. Zero pronominalisation is not valence adjusting because the argument is known (Payne 1997: 170) and thus an anaphor.

In Table 5-25, we summarise the valence-adjusting operations discussed cross-linguistically, and the negative or positive effects on the three types of valence number considered. We indicate whether they are found in PYN; where absent, we suggest the alternative means used.

Table 5-25: Summary of PYN valence adjusting and alternatives

Operation	Syntactic	Semantic	Macrorole	Found in PYN	Means	Alternative
Passive	-1	0	-1	No		Word order change
Subject omission	-1 or 0	-1 or 0	0	No		Ellipsis/3rd person
Impersonal passive	-1	-1	-1	No		
Anticausative/ inchoative	-1 or 0	-1 or 0	-1 or 0	Yes	*-ringanyi/ -rrinku*	
Antipassive	-1	0	0	No		Case alternatives
Object demotion	-1	0	0	Yes	*-ngka, -ku*	
Deaccusative/ antiapplicative	-1	0	0	No		
Object omission	-1 or 0	-1 or 0	-1	No		Ellipsis/3rd person
Deobjective	-1	-1	-1	No		
Potential deobjective	-1	0	0	Yes	*-pai/-payi*	
Reflexive	-1 or 0	-1	-1	Yes	*=tju, =nku*	
Reciprocal	-1 or 0	-1	-1	Yes	*=tju, =nku*	
Middle	-1	-1	-1	No		*-ringanyi/-rrinku*
Nominalising	-1	-1	-1	Yes	*-nytja/-ntja -pai/-payi*	
Noun incorporation	-1	-1	-1	No		
Causative	+1	+1	+1	Yes	*(-ma)* +verb endings, *-tjinga*	
Applicative	+1	+1	0	No		
Dative shift	+1	0	0	Yes (P/Y)	Absolutive/ *-ku* P/Y	
Dative of interest	+1	0	0	No		*-ku* beneficiary
Advancement	+1	0	0	No		
Possessor ascension	+1	0	0	No		Possessor, possessed same case
Inverse	0	0	0	No		Topicalising patient

In Table 5-26 we summarise means of derivation with regards to semantic valence adjusting. Predicating nominals with a valence of 1 can become inchoative (valence 1) or causative (valence 2).

Table 5-26: Semantic valence adjusting through derivation in PYN

From	To	Means	Original	Derived	Net
Nominal	Intransitive verb	*-ri/-rri*	1	1	0
Nominal	Intransitive verb	[†]*-ara/-rra*	1	1	0
Nominal	Transitive verb	verb endings	1	2	+1
Nominal Intransitive verb	Transitive verb	*-tjinga*	1	2	+1
Nominal	Transitive verb	[†]*-nta/-rnta*	1	2	+1
Intransitive verb	Transitive verb	[†]*-lyi*	1	2	+1
Verb	Noun	*-nytja/-ntja*	1 or 2	1	0 or -1
Nominal	Nominalised object verb	*-pai/-payi*	1	1	0

([†] not productive)

We propose to summarise the transitivity of PYN valence-adjusting processes in Table 5-27, according to the Hopper & Thompson (1980) hierarchy. While *-ri/-rri* and *-ara/-rra* are S-intransitive, on the transitivity spectrum, aspect (telicity), and mode (realis/irrealis) are high: an event of change took place.

Table 5-27: Transitivity of PYN adjusting processes

	-ri/-rri	*-ara/-rra*	reflexive	verb endings	*-tjinga*	*-nta/-rnta*
participants	1	1	1 or 2	2	2	2
kinesis	low	low	high-low	high	high	high
aspect	high	high		high	high	high
punctuality	medium	high		medium	medium	medium
volitionality	low	low	high-low	high	high	high
affirmation	medium	medium	medium	medium	medium	medium
mode	high	high	high	high	high	high
agency	low	low	high-low	high	high	high
affectedness of O			medium	high	high	high
individuation of O			low	high	high	high
transitivity	medium	medium	medium	high	high	high

Some languages have alternatives indicating partial affectedness (Hopper & Thompson 1980). An example is the antipassive, with different case markings. A few PYN verbs have case alternations allowed, such as choosing between the absolutive or purposive.

Word order alternatives to the passive were also discussed in this chapter. We outline an approach to analysing this in chapter 7, involving topic and focus. When an argument is known, there is no need to state it. This is ellipsis and we discuss this in chapter 8, examining ways of representing non-overt arguments in RRG, and how to interpret them.

In the next chapter, we investigate PYN complex clauses and ask how the valences of the constituent verbs in such clauses relate.

6 Complex clauses and how they affect valence

Here we extend the analysis by considering complex clauses, which in practice are the more common in PYN. We have found that simple predicates in PYN have valences that may be adjusted through morphology, deriving inchoatives and causatives. Aside from this, a simple predicate may in itself be semantically complex: for example a lexically causative verb such as (*y*)*unganyi*/*yungku* 'give' has a complex LS.

The structures discussed in this chapter contain more than one lexical verb so are syntactically as well as semantically complex. We investigate how valence is impacted in sentences containing these structures. This might present challenges to RRG, and we identify cases where the structures can best be represented by extensions to the theory.

In the first part of the chapter, we hypothesise that the valence of serial verb structures and that of their constituent verbs depend on the distribution of arguments in the core and clause. Cross-linguistically, some serial verbs form complex predicates, which consist of more than one predicate tightly bound, sharing arguments and describing one event (Van Valin & LaPolla 1997: 468). This phenomenon has been studied in other Australian languages: for example Reid (2000: 333-334, 357) analyses valence with complex verbs in Ngan'gityemerri (Southern Daly, Northern Territory), formed by combining a verb stem with an inflecting finite verb: valence in this language is manipulated by the interaction between the elements and only rarely by morphological means. Such non-derivational complex verb collocations stand in contrast to the morphologically derived verbs investigated in chapter 5.

In the second part we investigate whether the presence of dependent sub-clauses affects the valence of the predicate in the main clause. We distinguish between different types of sub-clause: those that take the place of semantic arguments and those that modify the main clause. In both instances, we investigate the relations between the main and sub-clauses.

In all of these constructions the possibility of non-overt expression of arguments occurs, so we characterise how such referents are interpreted.

6.1 Nexus and juncture

We will use RRG's concepts of nexus and juncture to study valence in complex constructions. Complex sentences may have a core with more than one nucleus, a clause with more than one core or a sentence with more than one clause. In a sentence with more than one clause, core and/or nucleus, the level at which the connection between them occurs is termed 'juncture' in RRG (Van Valin 2005: 188). The nuclei in nuclear juncture share one set of arguments. In core juncture, each core has its own nucleus and at least some of its own arguments, though others may be shared. With clausal juncture, there are independent clauses with their own arguments. Juncture can be summarised as follows (Van Valin 2005: 188-192). The unmarked linkage paradigm has units of the same level being linked. Marked, asymmetric linkages may occur for

example between a clause and a core (Van Valin 2005: 199); this occurs where a sub-clause is an argument of the main verb.

- $[_{CORE}\ldots[_{NUC}\ PRED]\ldots + \ldots[_{NUC}\ PRED]\ldots]$ nuclear juncture
- $[_{CLAUSE}\ldots[_{CORE}\ldots]\ldots + \ldots[_{CORE}\ldots]\ldots]$ core juncture
- $[_{SENTENCE}\ldots[_{CLAUSE}\ldots]\ldots + \ldots[_{CLAUSE}\ldots]\ldots]$ clausal juncture
- $[_{SENTENCE}\ldots] + [_{SENTENCE}\ldots]$ sentential juncture

The syntactic joining of the units is 'nexus', with three different types (Van Valin 2005: 183-187):

- Coordination: two or more units of the same type joined symmetrically.
- Subordination: one unit embedded in another.
- Cosubordination: two or more units joined symmetrically, but one dependent on another through an operator.

In coordinated clauses, none are dependent and they are in sequence, with or without coordinating conjunctions. With subordination, the main clause is modified by one or more subordinate clauses (which may be nominal, adjectival, adverbial, temporal, conditional or relative) (Van Valin & LaPolla 1997: 441). Cosubordinated clauses are symmetrical like coordinated ones, but one unit is dependent on the other through a shared operator which is syntactically in one unit but has scope over both. As an example in English, clausal coordination with core and nuclear junctures is shown in Figure 6-1 from Van Valin & LaPolla (1997: 464).
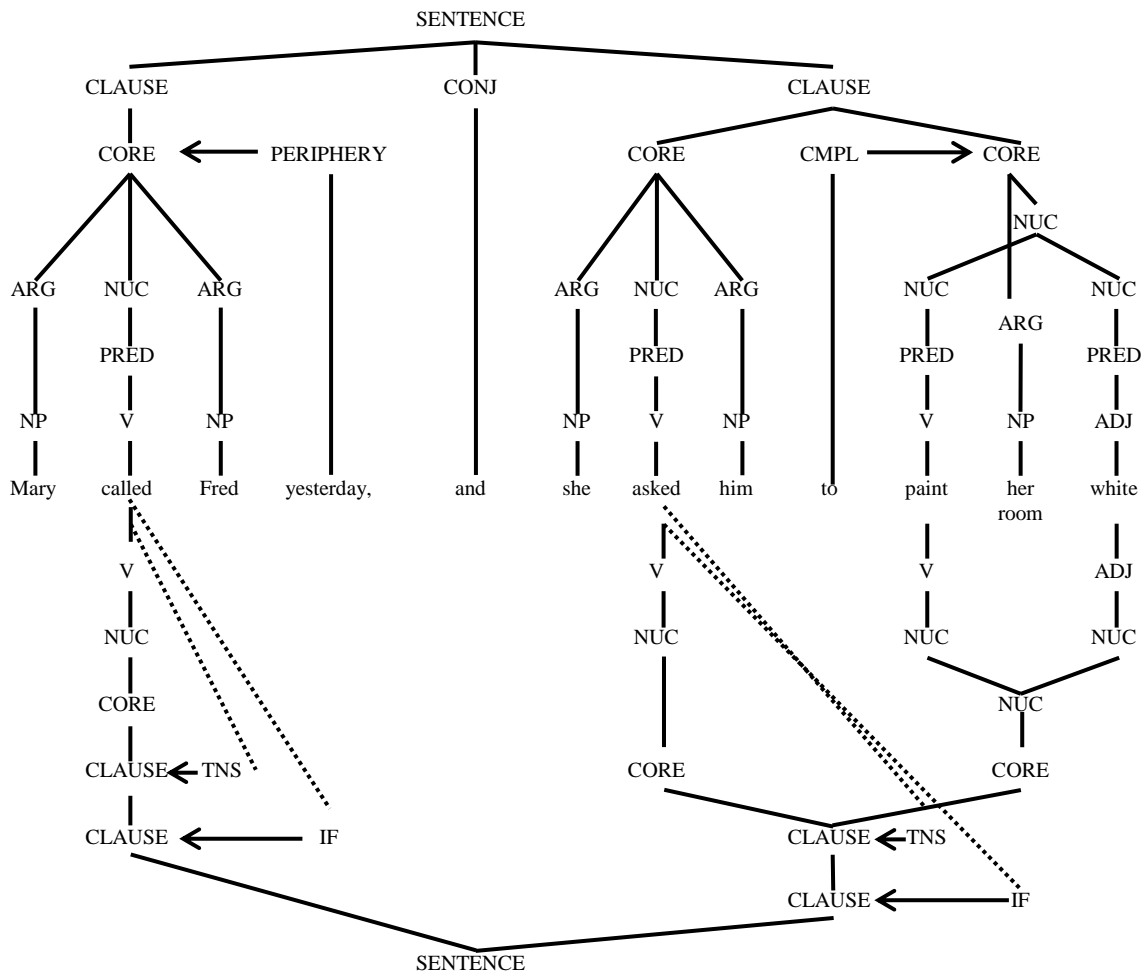
Figure 6-1: Clausal, core and nuclear juncture

The sentence is represented as two clauses, joined by the conjunction 'and'. In English, the subject 'she' in the second clause could be elided, with the resultant gap referring to the PSA of the first clause in a pivot.

Because we are concerned with predicate valence, we examine complex predicates in PYN where there are two nuclei in a core, sharing arguments. We include core and clause juncture constructions which are looser and may represent topic chains rather than complex predicates. Van Valin & LaPolla (1997: 480-481) discuss the relations of nexus-juncture with tight causation and looser unspecified temporal orders and we contribute to that here.

6.2 PYN coordinated clauses

This is the loosest connection: there are several ways in which clauses can be coordinated in PYN. In (6.1), two transitive clauses with tensed verbs are linked by the switch-reference, different subject conjunction *ka*. While new subject *paluṟu* is specified in the second clause, this is not strictly necessary as *ka* has already done the switching and third person singular is the default. The patient *waṟu* is not overtly expressed in the second clause but the zero anaphor means it is understood by context. Figure 6-2 shows the constituent and operator projections. We will discuss switch-reference particles in more detail in chapter 8, with respect to their

relation to ellipsis. Bowe (1990: 96) discusses coordination and switch-reference, but not within the RRG framework.

<div align="right">Pitjantjatjara (Goddard 1993: 26)</div>

(6.1)   *Ngayu-lu   waru   atu-nu   ka   paluru   mantji-nu*
        1SG-NOM wood.ABS   chop-PST   and.DS   3SG.NOM pick.up-PST
        'I chopped wood and he picked (it) up.'
        do' (1SG, **chop'** (1SG, waru)) & **do'** (3SG, **pick.up'** (3SG, waru))
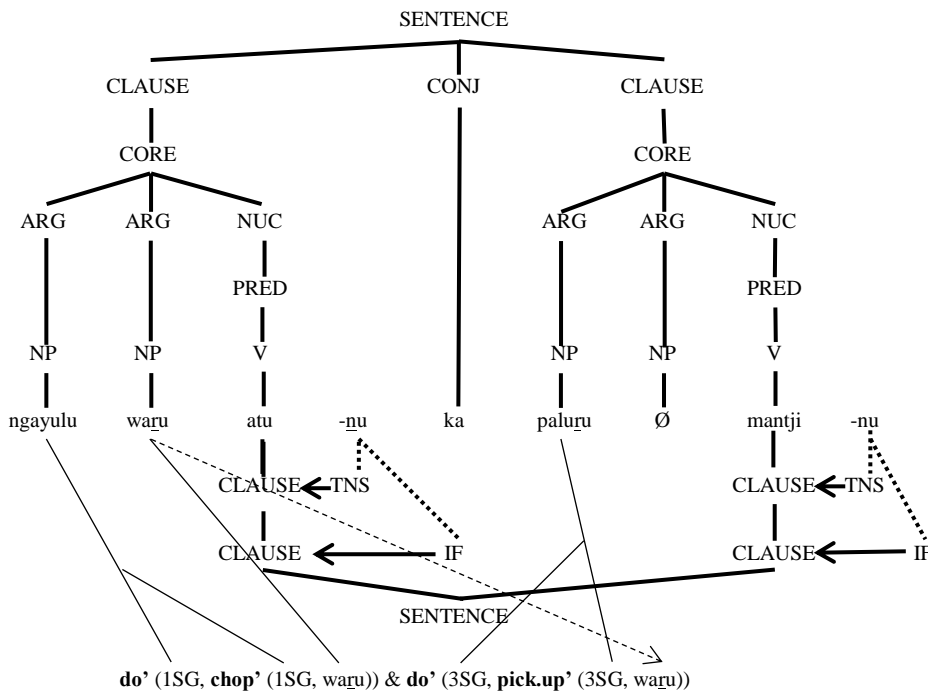
Figure 6-2: Pitjantjatjara clausal coordination

The constructional schema for such coordinated clauses is given in Table 6-1.

Table 6-1: Constructional schema for PYN conjunction coordinated clauses

Construction:	Conjunction coordinated clauses
Syntax	Juncture: clause
	Nexus: coordination
	Construction type: conjunction
	Template: two or more verbs of any type
	PSA: default; identity in non-initial clause informed by conjunction
	Linking: Actor PSA
Morphology	Nothing specific
Semantics	PSA: S or A; switch-reference
	Aktionsart: unspecified
Pragmatics	IF: unspecified
	Focus structure: unspecified

In (6.2a), there is the apposition of two tensed verbs which share 'subject' S and A respectively, without a conjunction. This looks like coordinated clauses but in (6.2b), *pitjangu* is intransitive

and the subject *wati nga:* is ergative. This suggests that the two verbs are thought of as one action.

Ngaanyatjarra (Glass & Hackett 2003: 505, Douglas 1957: 115)

(6.2)   (a) *Ma-pitja-ngu   nya-ngu*
        away-come-PST see-PST
        '(He/she)ᵢ went (and) _ᵢ saw (it).'
        do' (3SG, [**move.away.from.ref.point'** (3SG)]) & INGR **be-at'** (Ø, 3SG)
            & **see'** (3SG, Ø)

    (b) *Wati nga:-lu   pitja-ngu   nya-ngu   kalaya pupa-rantja*
        man DEM-ERG   come-PST   see-PST   emu   bend.down-PST.CONT
        'This man came and saw an emu while it was bending down.'

In the next sections we see examine the nature of such related actions, with the serial structure.

6.3   PYN serial verbs

PYN has a commonly used serial verb form that describes actions occuring simultaneously or sequentially (Goddard 1993: 26-27, Glass 2006: 91). Simultaneous actions done by one entity may essentially be one event and therefore form a complex predicate, sharing all arguments. Sequential actions follow closely in time with the actions frequently having entailment, one being a necessary consequence of another.

The structure is of a series of verbs, all but one of which carry a non-finite ending termed the 'serial participle' (Goddard 1993: 26), 'anterior merged' (Bowe 1990: 89), 'secondary' (Eckert & Hudson 1988: 307-309) or 'prior action' (Glass 2006: 91-92). The exception is one verb that is inflected as finite and typically appears at the end of the series. The verbs in the series share at least the 'subject' (S or A), but the potential exists for other words, including O, to intervene. If O is not shared the verbs are necessarily in different cores and not complex predicates. These structures are similar to the topic chains discussed by Van Valin (2005: 103), where a subject is followed by a series of verbs, describing a sequence of actions undertaken.

The serial forms for the four verb classes are shown in Table 6-2 (Goddard 1996: xii, Glass & Hackett 2003: 6). The serial forms in the dialects are similar, but the present tense shares this form in Ngaanyatjarra while P/Y has the separate *-nyi/-ni* present tense.

Table 6-2: Serial verb form in PYN

(0)	(l)	(ng)	(n)
('zero' class)	(la-class)	(wa-class)	(ra-class)
'talk'	'bite'	'hit'	'put'
wangka-ra/-rra	*patja-ra/-ra*	*pu-ngkula*	*tju-nkula*

The serial form occurs with a finite verb of any tense: it relates the action to that described by the tensed verb. In practice there is no confusion in Ngaanyatjarra between present and serial; an examination of the corpus shows that if the serial form is part of a chain of verbs it can appear

with a finite verb of any tense just like P/Y; if it is the finite verb it translates as present tense. The main question with the serial verbs is whether they represent one event or a series: this determines the nexus and juncture.

6.3.1 Serial verb constructions and co-verbs

Is the serial structure in PYN a kind of serial verb construction (SVC)? While SVCs are not frequently found in Australian languages (Dixon 2006: 338), we will examine the PYN serial structures to establish whether they fulfil some of the criteria that Aikhenvald (2006: 1-10) and Dixon (2006: 339-344) give. SVCs may be defined as a series of verbs acting as a single predicate (Dixon 2000: 34), without coordination, subordination or dependency. This leaves cosubordination, as the third nexus type in RRG. Each verb must be capable of independent occurrence, and may have different transitivity (Aikhenvald 2006: 1). Prototypically SVCs share all arguments, but this may not be the case in looser constructions (ibid.: 55). In RRG terms, SVCs have core or nuclear juncture (Van Valin & LaPolla 1997: 456-459) and Goddard (1983: 98ff) uses the RRG nexus-juncture model in analysing Yankunytjatjara serial verbs, with evidence including directional operators. Serial verbs occupy the 'tight grammatical integration' end of a spectrum of integration involving multi-verb and multi-clause sentences (Payne 1997: 307). While in serial verbs the verb roots are not compounded – each has its own serial or finite ending – intonation shows that they are in the same clause. The roots share subject as well as aspect and tense (ibid.: 308), respectively a syntactic argument and operators. SVCs are often used in valence increasing (Aikhenvald 2006: 25) and decreasing: for example they are associated with the dropping of nominals in Lao (N. Enfield p.c.). They are however not a unified phenomenon: they have different structures and realise different types of events (Foley 2010: 79). As they are not a natural category (Lutz-Hughes 2016: 6), there are difficulties in defining clauses in the context of SVCs (ibid.: 53).

SVCs in English are not common; a series of verbs in for example 'run go get' may represent one event; all three verbs are imperative, refer to the same entity and represent one overarching event[30]. In other languages they are more frequent and typical. In the Mandarin Chinese example (6.3), *qiāo pò* 'hit break' describes a complex causative event; the action of the first verb leads to the state described by the second. The A and O arguments (*tā* and *fànwǎn* respectively) are shared by the complex predicate.

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[30] The idea of a serial verb construction informs wordplay in this example from the novel *Ulysses* where three simultaneous actions are explicitly combined in one orthographic word (Joyce 1922 [1998]: 169): 'Davy Byrne smiledyawnednodded all in one'.

(6.3) *Tā qiāo pò le yī ge fànwǎn*
      3SG hit break PFV one CL bowl
      'She broke (by hitting) a ricebowl.'
      [**do'** (3SG, [**hit'** (3SG, fànwǎn)])] CAUSE [BECOME **broken'** (fànwǎn)]

Figures 6-3 and 6-4 illustrate the levels of juncture that occur in SVCs. The core in Figure 6-3 has two nuclei. As the arguments reside outside the nucleus but in the core, they are shared by the nuclei that are in nuclear juncture. With a two core clause as in Figure 6-4, each predicate keeps its own arguments and they are joined in core juncture. An argument can be carried through from one core to the next.

Core			Periphery
Nucleus	Nucleus		
Predicate	Predicate	Arguments	Non-arguments
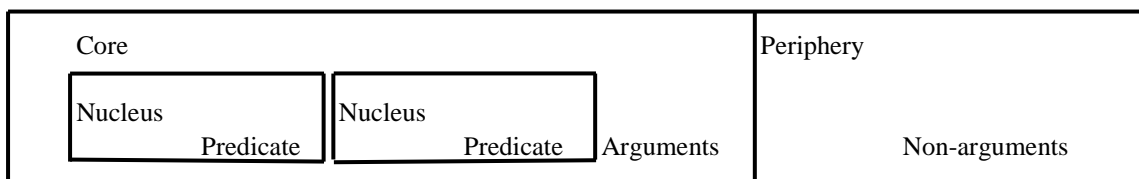
Figure 6-3: Two nucleus core

Core		Core		Periphery
Nucleus		Nucleus		
Predicate	Arguments	Predicate	Arguments	Non-arguments
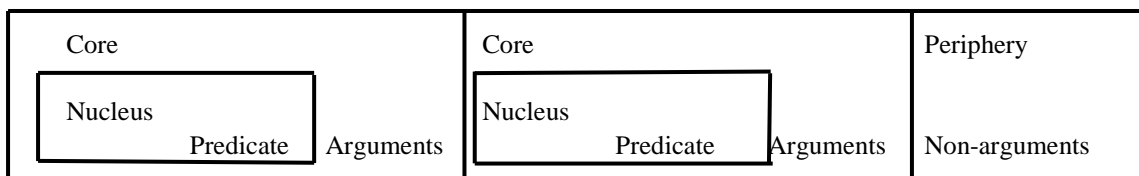
Figure 6-4: Two core clause

Ozanne-Rivierre & Rivierre (2004) distinguish switch subject and same subject causative serial verbs in Papua New Guinea languages. These are SV_tOV_i and SV_tOV_t[31]. Respective examples are 'they hit pig die' and 'they hit pig kill/cause die.' In the first construction, the object of the first verb is the subject of the second verb. In the second construction, both verbs share subject and object. This kind of switch-reference is not a feature of serial constructions in PYN: the subject of the verbs involved is the same.

      A related concept is that of co-verbs. Amberber, Baker & Harvey (2010) examine co-verbs where one of the verbs in a complex is a predicate but not finite. This may be accompanied by the lightening or bleaching of verbs where they become part of a complex and lose their semantic richness. For example the French verb *faire* 'do, make' is semantically bleached where its presence is an indication of causation [V_{cause}] (Song 1996: 81). Such a construction has implications for argument sharing between the constituent members of the construction. With complex predicates, a light verb and lexical verb together contribute to the valence of the predicate (Schultze-Berndt 2006); in PYN, a posture verb may be the light verb.

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[31] The subscript *t* and *i* are transitive and intransitive respectively.

There are distinctions between the two. Foley (2010: 79) discusses co-verbs and serial verb constructions as both being monoclausal; but while co-verbs express a single event (semantic bleaching), SVCs express multiple events. This is not however in accord with other definitions of serial verbs which stress that they represent a single event (Aikhenvald 2006: 1)[32].

6.3.2 Simultaneous events: complex predicates

Where the verbs describe one event with shared arguments, they are part of a complex predicate and arguments are pooled. In (6.4) and (6.5), the verb *wangkanyi/wangkaku* 'talk' is in its serial form *wangkara/wangkarra*; the two actions take place simultaneously. Semantically, the non-overt participants in (6.5) are assumed to be plural.

P/Y (Goddard 1996: 217)

(6.4) *Wangka-ra   ikari-nganyi*
       talk-SER   laugh-PRES
       '(he/she) is joking around'

Ngaanyatjarra (Glass & Hackett 2003: 493)

(6.5) *Wangka-rra kuli-lku*
       talk-SER   consider-FUT
       '(they) will discuss'

In (6.6), the serial *ngulura wananu* shares two arguments: the agent/actor *papa* and the patient/undergoer *malu tjuta*. Both predicates in the complex are S-transitive. This is nuclear juncture with the sharing of arguments; the complex has its own valence. Because the tense of the finite verb governs both, nexus is cosubordinate. This is shown in Figure 6-5.

P/Y (Goddard 1996: 101)

(6.6) *Papa-ngku malu tjuta   ngulu-ra   wana-nu.*
       dog-ERG   roo PL.ABS   scare-SER follow-PST
       'The dog chased the kangaroos off.'
       do' (papa, **chase.off'** (papa, malu tjuta))

---

[32] Semantically even tighter are preverbs, morphemes that occur in front of a verb: this leads to a distinction between complex verbs (words) and complex predicates (Booij & van Kemenade 2003).
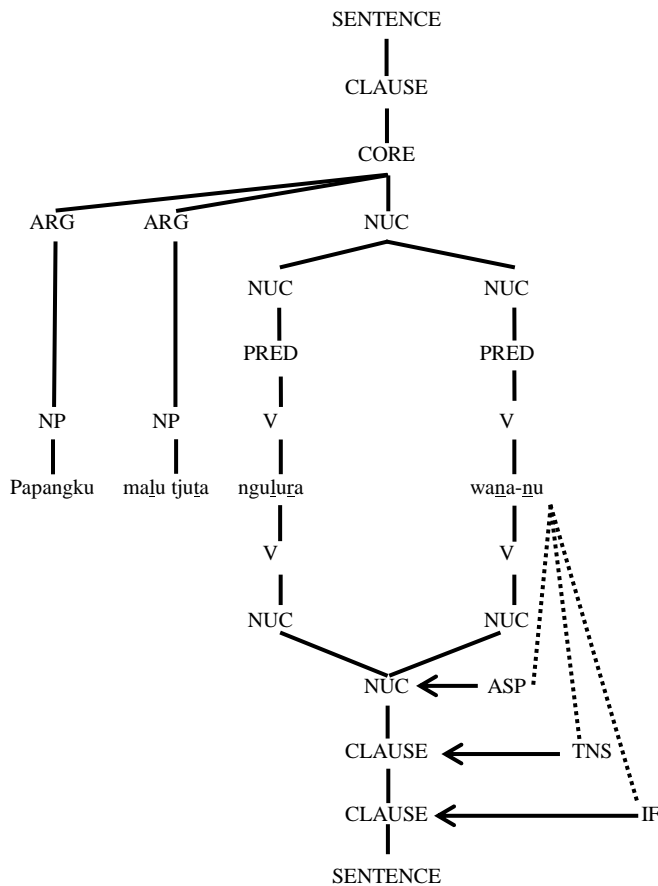
Figure 6-5: Nuclear cosubordination

In (6.7), *rungkara* 'grind' is followed by *ul̪upunganyi* 'grind to powder' with the undergoer *mai palunya* 'the food (from plants)' intervening and shared; both verbs are S-transitive.

<div align="right">Yankunytjatjara (Kalotas et al. 2002: 86)</div>

(6.7)   *Munu   palulanguru rungka-ra mai palu-nya   ul̪upu-nganyi*
         and.SS after.that   grind-SER food DEM-ABS grind.to.powder-PRES
         'After that (one) grinds the food$_{UND}$ up into flour'
         [**do'** (Ø, **grind'** (Ø, mai palunya))] CAUSE [BECOME **flour'** (mai palunya)]

Where the verbs in the structure have different transitivities, the overall transitivity of the structure is determined by the finite verb unless this is a posture verb (Goddard 1983). In (6.8), *tjaatarira* is intransitive and *puyiningi* transitive: the complex as a whole is transitive so *minangku* is ergative. Similarly, *ananyi* is intransitive and *uran̪i* transitive in (6.9): the absolutive argument *nyiinyii* precedes the two verbs as O, indicating a transitive complex. This indicates valence pooling in the forming of a complex predicate.

<div align="right">P/Y (Goddard 1996: 151)</div>

(6.8)   *Saturday-ngka mina-ngku   tjaatari-ra puyi-ningi*
         Saturday-LOC water-ERG start-SER   chill-PST.CONT
         'Water started chilling (us) on Saturday = it started raining on Saturday'

(6.9)   *Palu<u>r</u>u   nyiinyii   a-nkula ura-lpayi, manngu-ngka*
       3SG.NOM   zebra-finch.ABS go-SER get-CHAR nest-LOC
       'He/she goes and gets zebra-finch (droppings) from a nest'

The constructional schema of the PYN serial complex predicate is given in Table 6-3.

Table 6-3: Constructional schema for complex predicate serial verbs

Construction:	Serial complex predicate
Syntax	Juncture: nuclear
	Nexus: cosubordination
	Construction type: serial verb
	Template: two or more verbs of any type
	PSA: determined by finite verb
	Linking: as with simple
Morphology	Non-finite verbs with serial ending
Semantics	PSA: determined by predicate class
	Aktionsart: unspecified
Pragmatics	IF: unspecified
	Focus structure: unspecified

Of particular interest is that the finite verb with serial verbs commonly indicates aspect on innately unbounded verbs. For example, completed action is indicated in (6.10). Syntactically these are simultaneous events, semantically it is an active accomplishment.

(6.10) *Nyuntu   mai   ngalku-la wiya-lku*
       2SG.NOM food.ABS eat-SER   finish-FUT
       'You$_{ACT}$'ll eat up all the food$_{UND}$'
       do' (2SG, **eat'** (2SG, mai)) $\wedge$ BECOME **consumed'** (mai)

6.3.3   Serial form with posture verbs

With these, the posture verb acts as a backdrop to the main action. The case marking of core arguments is determined by the S-transitivity of the main verb. Sitting and digging or eating are simultaneous in (6.11) and (6.12). While the O argument intervenes between the verbs, *minymalu/ minyma kutjutjangku* are both ergative showing the verbs act as a unit because the closest verb *nyinarra/nyinara* is intransitive. This suggests these are complex predicates. In (6.13), the serial posture verb *nyinarra* is followed by two transitive verbs *paara ngalangu*.

(6.11) *Minyma-lu   nyina-rra nani   tjawa-ranytja*
       woman-ERG sit-SER   rabbit.ABS dig-PST.CONT
       'The woman was sitting digging rabbits'

(6.12)　*Minyma kutjutja-ngku nyina-ra mai　　ngalku-ningi*
　　　　woman　alone-ERG　　sit-SER　food.ABS eat-PST.CONT
　　　　'The woman was sitting alone eating food'

(6.13)　*Warupuyu-la=latju　　　　　nyina-rra mirrka　paa-ra　　ngala-ngu*
　　　　[place name]-LOC=1PL.EX.NOM sit-SER　　food.ABS cook-SER eat-PST
　　　　'At Warupuyu we sat cooking and eating food'

In (6.14), the serial posture verb is bleached with an inchoative finite verb, echoing the situation where tensed posture verbs are required for bare active adjectives. In (6.15), the posture verb is a necessary precursor to the second while going on at the same time. Both are intransitive: the subject covers both.

(6.14)　*Pika u<u>n</u>a　　　　ngari-ra　rituwana-ri-nganyi*
　　　　sore　infected.ABS　lie-SER　red-INCH-PRES
　　　　'The infected sore is turning red'
　　　　BECOME **red'** (pika)

(6.15)　*Ka　　　　ngari-ra　　　anku-ri-ngu　　　nguwan*
　　　　and.DS　　lie.down-SER　asleep-INCH-PST　almost
　　　　'And (we'd) almost fallen asleep'
　　　　BECOME **asleep'** (1PL)

In (6.16), the serial posture verb is more literal and physical. *Pangkalangu* is ergative, indicating *nyina-nyinara nyangu* is a complex: he saw while sitting, and then went over.

(6.16)　*Pangkalangu-ngku nyina-nyina-ra nya-ngu waru tili　　　nya-kula pitja-ngu*
　　　　　　　　　　　IV　　　　TV　　　　　　　TV　　IV
　　　　giant-ERG　　　　sit-sit-SER　　　see-PST fire　flame.ABS　see-SER go-PST
　　　　'A giant, who had been sitting about, saw the flame and went over'

6.3.4　Sequence of events

Other sentences with the serial form are looser. Unlike the situation with complex predicates, the verbs are in different clauses and valence is not shared or adjusted. As before, tense, aspect and illocutionary force are only in the finite verb, so here it is clauses that are cosubordinate. Typically these indicate a series or chain of events, with subject S/A shared amongst the members of the chain. An example is (6.17). The valences are not pooled: *minyma* is absolutive as the next verb *kulpangu* is intransitive; the last verb in the sequence, *kutjara* 'light (a fire)', is transitive.

(6.17) *Minyma   ngura-ku   kulpa-ngu, kulpa-ra, ngari-ngu,   waru   kutja-ra*[33]
woman.ABS camp-PURP return-PST return-SER lie.down-PST fire.ABS light-SER
'A woman, on returning to camp, lit a fire and lay down'

These are syntactic rather than semantic constructions: in (6.18) with serial *maluringkula mapitjangu*, undergoer S of the first is actor A of the second, indicating semantic neutralisation.

P/Y (Klapproth 2004: 222-223)

(6.18) *munu   kunyu malu-ri-ngkula ma-pitja-ngu*
and.SS REP   roo-INCH-SER away-go-PST
'and (he$_i$) turned into a kangaroo and $_i$ went off'

While 'subject' is shared across the predicates, other arguments may or may not be. In the series of actions[34] in (6.19), the verbs share subject (mandated by the serial structure) but have their own objects, which intervene between the verbs.

Ngaanyatjarra (Glass & Hackett 2003: 353)

(6.19) *Purturru   mantji-ralpi   tjarlpa kutjarra-nya   karrpi-rnu*
rope.ABS get-SER   leg   two-ABS   tie.up-PST
'(He$_i$) got a rope (and) $_i$ tied up both legs'

Similarly, in (6.20) *kami* is the shared subject; *wangkara* and *ngulutjingani* have their own objects. In (6.21), the recipient *nganananya* is an argument of *yungkupayi* only; the balls have to be made before being given.

P/Y (Goddard 1996: 101)

(6.20) *Kami-ngku   tjukurpa mamu-tjara   wangka-ra*
grandmother-ERG story.ABS   monster-having tell-SER
ngulu-tjinga-ni   palu-mpa puliri
fear-CAUS-PRES 3SG-GEN granddaughters.ABS
'Grandmothers frighten their granddaughters by telling (them) stories of monsters'
[[**do'** (kami, [**express.**(α).**to**.(β).**in.language**.(γ)**'** (kami, tjukur)])]
   CAUSE [BECOME **aware.of'** (tjukur, puliri)]]
   CAUSE [**feel'** (puliri, [**afraid'**])], where α = *tjukur*

Yankunytjatjara (Goddard 1983: 181)

(6.21) *Munu paluru   kaputu-ra   nganana-nya yu-ngku-payi=lta*
and.SS 3SG.NOM   make.ball-SER 1PL-ACC   give-CHAR=TURN
kaputu   tjuta
ball   PL.ABS
'And after making (it) into balls she'd give (them) to us, the balls'

---

[33] Having a serial form after the finite verb is sometimes glossed by other authors as 'PA' or past action. The principle is the same, a chain of events with the finite verb depicting the last event. We use SER throughout for consistency.

[34] With Ngaanyatjarra non-motion verbs such as *mantji* 'get', *-lpi* is added to the serial participle (Glass 2006: 91-92, Glass & Hackett 2003: 127).

Objects do not need to be overt; we have seen that the third person singular pronoun is zero. In (6.22), the objects of both are elided but shared by context. The second predicate *ungu* 'gave' is trivalent with receiver argument *tjananya*. Only the subject *tjitji* appears in (6.23); the other arguments are elided. So, we have a distinction in non-overt arguments: non-initial subjects in a serial structure are non-overt through the nature of the structure itself. Other arguments may be non-overt through the third person singular, or ellipsis: this is discussed in chapter 8. Nevertheless the potential exists to have overt objects; they are not blocked by being involved in a series.

Pitjantjatjara (Goddard 1996: 199)

(6.22) *Munu pau-ra   tjana-nya u-ngu*
   and.SS roast-SER 3PL-ACC give-PST
   'And (he$_i$) roasted (it) (and) _$_i$ gave them (some)'

Yankunytjatjara (Goddard 1983: 191)

(6.23) *tjitji-ngku kati-ra   tjuti-ra   yu-nganyi*
   child-ERG take SER pour-SER give-PRES
   'A child$_i$ gets (some) _$_i$ pours (it) (and) _$_i$ gives (it) (to him/her)'

It might be argued that the non-overt subjects in a serial structure are third person Ø pronouns. This is not necessarily the case: in the series in (6.24), =*latju* is the shared subject.

Ngaanyatjarra (Glass & Hackett 1979: 30)

(6.24) *Mantji-ra=latju   kukurraa-rnu*
   get-SER=1PL.EX.NOM   run-PST
   'We $_i$ got (it) (and) _$_i$ sped away'
   [**do'** (1PL, Ø) CAUSE BECOME **have'** (1PL, 3SG)] ∧ **do'** (1PL, [**run'** (1PL)])

Serial verbs can be followed by a verb with any ending; imperative in (6.25) and characteristic in (6.26). Illocutionary force is a clause operator, these are further evidence of clause cosubordination.

Ngaanyatjarra (Glass 2006: 91)

(6.25) *Mapitja=ya   puluka karnpi purlkanya pu-ngkula kati*
   go.IMP=2PL.IMP bullock fat   big.ABS   kill-SER   bring.IMP
   'Go (and) kill a very fat bullock (and) bring (it)'

Ngaanyatjarra (Glass & Hackett 1979: 49)

(6.26) *kapi kutjupa-ngka=ya   katurri-ngkula matju-nkupayi*
   water another-LOC=3PL.NOM get.up-SER   put-CHAR
   'They would get up (and) pitch camp at another water-hole'

In (6.27), past tense from the finite verb operates on both, again showing the clauses are joined in cosubordination. This is represented in Figure 6-6.

(6.27) *Paluṟu   pu-ngkula   ngalya-kati-ngu*
     3SG.NOM hit-SER   towards-bring-PST
     'He/she$_i$ killed (it) (and) _$_i$ brought (it) here'
     [**do'** (3SG$_i$, **hit'** (3SG$_i$, 3SG$_j$)) CAUSE BECOME **dead'** (3SG$_j$)] & **bring'** (3SG$_i$, 3SG$_j$)
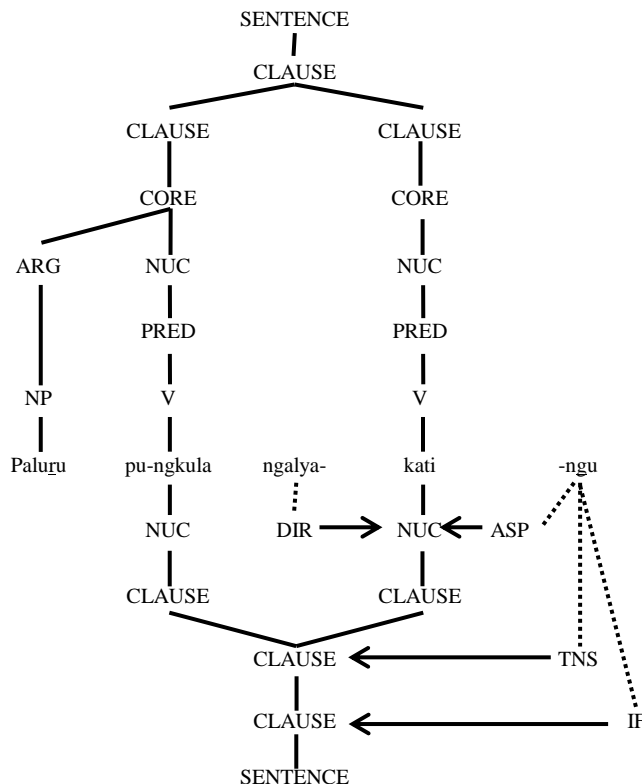
Figure 6-6: Serial verbs, clausal cosubordination

The constructional schema for sequential serial verbs is given in Table 6-4.

Table 6-4: Constructional schema for serial event sequence

Construction:	Serial verb, sequence
Syntax	Juncture: clause
	Nexus: cosubordination
	Construction type: serial verb
	Template: two or more verbs of any type
	PSA: shared S or A
	Linking: Actor PSA
Morphology	All but last verb have serial ending; last verb is finite
Semantics	PSA: in series of actions, without switch-reference
	Aktionsart: any
Pragmatics	IF: unspecified
	Focus structure: unspecified

The members of the series usually share subject, but with certain predicates of time, the situation is slightly different. The serial verb *tjirnturringkula* 'having become day' does not share a subject with the verbs that bracket it in (6.28). Similarly, in (6.29) with *tjinturinganyi* 'it became day', the person sleeping was not transformed. These interpretations are semantically determined, and block the default interpretation of a shared subject and sequence of events.

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 70)</div>

(6.28) *Ngarri-ngu=latju*   *tjirntu-rri-ngkula*   *kuti-pitja-ngu*
lie.down-PST=1PL.EX.NOM   day-INCH-SER   out-go-PST
'We lay down, (it) having become day, (we) went'

<div align="right">P/Y (Goddard 1996: 96)</div>

(6.29) *Ngari-ra*   *tjintu-ri-nganyi*
sleep-SER   day-INCH-PRES
'(He/she) sleeps (till it) becomes day'

6.4 Sub-clauses, dependency and valence

While the verbs in an SVC exist at the same level, clauses can also contain dependent sub-clauses. One main verb takes over the dependents of any other verb in the union (Blake 1987: 123). Sub-clauses generally omit a NP: in English the missing NP is interpreted as the subject (Van Valin & LaPolla 1997: 264) in these circumstantial sub-clauses, regardless of whether it is an actor (6.30) or undergoer (6.31). This indicates semantic neutralisation. The sub-clauses are peripheral adverbials rather than arguments so they are not involved in the valence requirements of the main clause.

(6.30)   The student$_{ACT}$ watched TV while _$_{ACT}$ eating pizza.
(6.31)   The student$_{ACT}$ looked out the window while _$_{UND}$ being questioned by the police.

Dyirbal also allows either macrorole argument of transitive verbs to be the subject and to be omitted in a dependent clause (Van Valin & LaPolla 1997: 268-269).

As well as being adverbials, sub-clauses may also serve as the arguments of certain verbs, taking the place of a NP (Payne 1997: 313, Dixon 2006b). Valence is reduced by one core argument when there is a complement taking a predicate in core juncture (Van Valin & LaPolla 1997: 568-569); in such a situation the S-transitivity is reduced by 1 as in (6.34).

(6.32)   Phil told Dana a story (valence 3): 'a story' is a NP syntactic argument
(6.33)   Phil told Dana that x (valence 3): x is a clausal syntactic argument
(6.34)   Phil told Dana to go (valence 2): core juncture complement taking predicate

Foley & Van Valin (1984: 290ff) give Jacaltec (Mayan, Mexico) examples where a second junct has the function of a core argument of the first, as third person absolutive. Van Valin & LaPolla (1997: 505-506) determine nexus-juncture relations for sub-clauses that are arguments

or adverbials. King (2010: 110-122) discusses sub-clauses in Falam Chin through a RRG analysis. We will characterise examples of this in PYN.

6.5 Dependent verb forms in PYN

PYN has a number of non-finite, dependent verb forms that indicate the purpose or circumstance of the main clause. These forms are shown in Tables 6-5 and 6-6 (Bowe 1990: 169, Goddard 1996: xii, Glass & Hackett 2003: 7, Glass 2006: 82-83); there are some orthographical variations in their realised versions in the corpus. These are switch-reference forms indicating DS (different subject) and SS (same subject) with reference to the main clause; 'subject' is valid, because the A and S functions are treated similarly (Bowe 1990: 119). Overt subjects are however not required with the dependent verb. The forms are apparently based on the nominalised verb with *-nytja/-ntja* and different endings: *-ku* for purposive (DS); *-kitja* for intent (SS); locative *-ngka/-la* for anterior DS and *-tjanu* for anterior SS. The inclusion of 'anterior SS' is based on Bowe's (1990) Pitjantjatjara analysis: published work on Ngaanyatjarra usually regards the *-tjanu* suffix as appending to noun-like constituents and meaning 'after' (Glass 2006: 82-83, Glass & Hackett 2003: 421). This is clearly compatible with *-tjanu* appending to a nominalised *-nytja/-ntja* verb: the suffix *-tjanu* is added to nominals such as *kuka* 'meat' in PYN to show 'after' (Glass 2006: 82, 113, Glass & Hackett 1979: 2, Goddard 1996: 172). The anterior endings have wider scope in Ngaanyatjarra, being attached to conjunctions as well (Bowe 1990: 88); *-kitja* can attach to nouns too in the dialect (Glass 2006: 82).

Table 6-5: Dependent verb forms in Pitjantjatjara and Yankunytjatjara

	(0)	(l)	(ng)	(n)
	('zero' class)	(la-class)	(wa-class)	(ra-class)
	'talk'	'bite'	'hit'	'put'
Purposive DS	*wangka-ntjaku*	*patja-ntjaku*	*pu-ngkuntjaku*	*tju-nkuntjaku*
Purposive SS	*wangka-ntjikitja*	*patja-ntjikitja*	*pu-ngkunttjikitja*	*tju-nkunttjikitja*
Anterior DS	*wangka-nyangka* *wangka-nytjala*	*patja-nnyangka* *patja-ntjala*	*pu-ngkunyangka* *pu-ngkunytjala*	*tju-nkunyangka* *tju-nkunytjala*
Anterior SS	*wangka-ntjatjanu*	*patja-ntjatjanu*	*pu-ngkuntjatjanu*	*tju-nkuntjatjanu*

Table 6-6: Dependent verb forms in Ngaanyatjarra

	(0)	(l)	(ng)	(n)
	('zero' class)	(la-class)	(wa-class)	(rra-class)
	'leave'	'give'	'hit'	'put'
Purposive DS	*wanti-tjaku*	*ninti-ltjaku*	*pu-ngkutjaku*	*tju-nkutjaku*
Purposive SS	*wanti-kitja*	*ninti-lkitja*	*pu-ngkukitja*	*tju-nkukitja*
Circumstantial	*wanti-nyangka*	*ninti-nnyangka*	*pu-ngkunyangka*	*tju-nkunyangka*
Anterior SS[35]	*wanti-tjanu*	*ninti-ntjatjanu*	*pu-ngkutjatjanu*	*tju-nkutjatjanu*

---

[35] Constructed from Glass & Hackett (1979: 25), Glass & Hackett (2003: 421), Glass (2006: 82-83).

Bowe (1990: 71) suggests that the dependent forms are subordinate as they are embedded in the main clause rather than adjoined: they can move around. The subordinate verb forms are usually post-verb, though with some main verbs the position is more likely to be pre-verb. Sub-clauses have been a means of analysing sentence predication in these traditionally oral dialects: Glass (1979) uses them as one of several criteria in identifying sentence boundaries in Ngaanyatjarra[36]. Missing covert elements in the dependent clause are controlled by the subject in the main clause, with switch-reference controlling the pivot.

While there is a constraint on the use of tensed sentences as complements of tensed verbs in Pitjantjatjara (Bowe 1990: 69), these non-tensed dependent forms can act as complements. This means we distinguish argument-like forms from adverbial-like ones that are peripheral modifiers. Often described as 'sub-clauses', our analysis suggests the purpose form verbs frequently occur in core juncture with the main verb; as control constructions. We will call them 'dependent' as they are not tensed, and do not occur on their own without a tensed main verb; furthermore they are sometimes semantic but not syntactic arguments of the main verb.

The switch-reference endings help in interpreting the subject of the dependent clause: the RRG representation of this could, with advantage, be extended. We propose the inclusion of attribute value matrices (AVMs) in the LS, following Nolan (2012: 108-109) working on Irish impersonal passives. AVMs are a feature in Head-driven phrase structure grammar (Pollard & Sag 1994: 20). As an index feature block, the AVM will show how core arguments are interpreted if non-overt; the relevant features are included in Figure 6-7. 'Main SU' refers to the subject of the main clause where a dependent clause has a non-overt argument, implying there is horizontal interaction between the elements of a LS (Nolan 2012: 109). In the absence of arguments, default third person singular is assumed in PYN, so we include features relating to this in the AVM. The AVMs show how the dependent verbs inform some of the semantics of the subject.

x	Main SU +/-
	3rd person +/-
	Singular +/-
	Animate +/-
	Human +/-
	Specific +/-
	Definite +/-

Figure 6-7: Attribute value matrix

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[36] These criteria also include a pronoun enclitic rule, free form subject opening rule, and several others.

6.5.1 Purpose

The 'purpose' dependent form (Eckert & Hudson 1988: 307-309, Glass 2006: 90) indicates that an intended activity is to be done by someone other than the subject of the main verb (Goddard 1993: 32). In (6.35), the protagonist makes the artefact, for the purpose of someone else giving her money. Neither 'she' nor 'they' are overtly expressed, but the understanding is that they are different entities.

<div align="right">Pitjantjatjara (Goddard 1993: 33)</div>

(6.35) *Punu   palya-ni   mani   u-ngkunytjaku.*
        Artefact.ABS   make-PRES money.ABS   give-PURP
        '(She) is making an artefact, so (they) will give (her) money.'
        [**do'** (3SG, Ø) CAUSE [BECOME **exist'** (punu)]]
                PURP [**do'** (Ø, Ø) CAUSE [BECOME **have'** (3SG, mani)]]

This exemplifies the verb marking described by Song (1996: 50ff) as indicating purpose or goal. Similarly in (6.36), the action is done for a purpose; but the subject *tjitji tjuta* of the dependent verb here is overt.

<div align="right">P/Y (Eickelkamp 1999: 4)</div>

(6.36) *Munu   witapi angkalpa tju-nkupai   tjirpika- ngka*
        and.SS back   hip.ABS put-CHAR branch.plate-LOC
        tjitji   tjuta-ngku ngalku-ntjaku.
        child   PL-ERG   eat-PURP
        'And (he) puts the back section of the kangaroo on a branch plate for the children to eat.'

The purpose dependent verb can be used in telling someone to do something. In some languages an example like (6.37) is syntactic valence decreasing, with a sub-clause taking the place of a syntactic argument. Here the argument *ngayulu* is nominative and not undergoer of the main verb, that it is the subject of the second core is indicated by the DS switch and its case. In this instance, *tjilpi* said something for the purpose of my going. Figure 6-8 shows the linking. This is neither a semantic nor syntactic argument. The figure has an abbreviated LS with **go'** and **tell'**, for space and clarity. 'Main SU -' indicates that the subject of the second predicate is necessarily different to that of the first predicate.

<div align="right">P/Y (Goddard 1996: 177)</div>

(6.37) *Tjilpi-ngku   watja-nu ngayu-lu   ya-nkunytjaku.*
        old.man-ERG tell-PST 1SG-NOM go-PURP
        'The old man told (me) that I should go.'
        [**do'** (tjilpi, [**express.**(α).**to.**(β).**in.language**.(γ)**'** (tjilpi, 1SG)])]
                CAUSE [BECOME **aware.of'** (Ø, 1SG)], where β = 1SG
                PURP [**do'** (1SG, [**move.away.from.ref.point'** (1SG)])
                        & INGR **be**-**at'** (Ø, 1SG)]

As we saw in chapter 4, section 10.2, *watjani/watjalku* is S-transitive, not ambitransitive like P/Y *wangkanyi*. So we posit a non-overt argument for the listener.
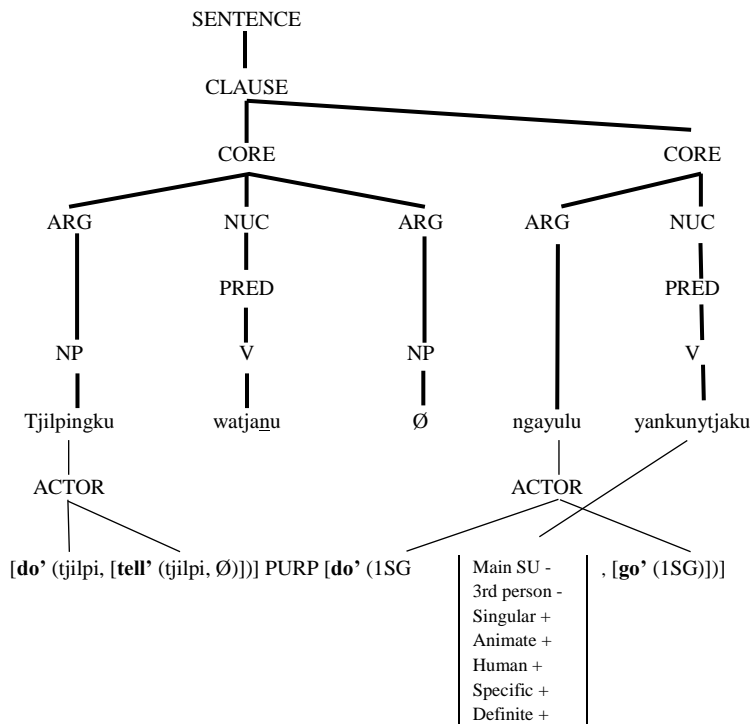
Figure 6-8: Purposive different subject core coordination, actor

In (6.38) by contrast, the argument *ngayinya* 'me' is undergoer of *watjawatjaṉu*, and understood as actor of *tjikintjaku* which has no undergoer specified. Figure 6-9 shows the linking.

P/Y (Goddard 1996: 229)

(6.38)   *Ngayu-ku   kuṯa-ngku   ngayi-nya watja-watja-ṉu, tjiki-ntjaku.*
        1SG-GEN   big.brother-ERG 1SG-ACC press-PST   drink-PURP
        'My big brother badgered me into drinking.'
        [**do'** (kuta, [**press'** (kuta, 1SG)])] PURP [**do'** (1SG, [**drink'** (1SG, Ø)])]
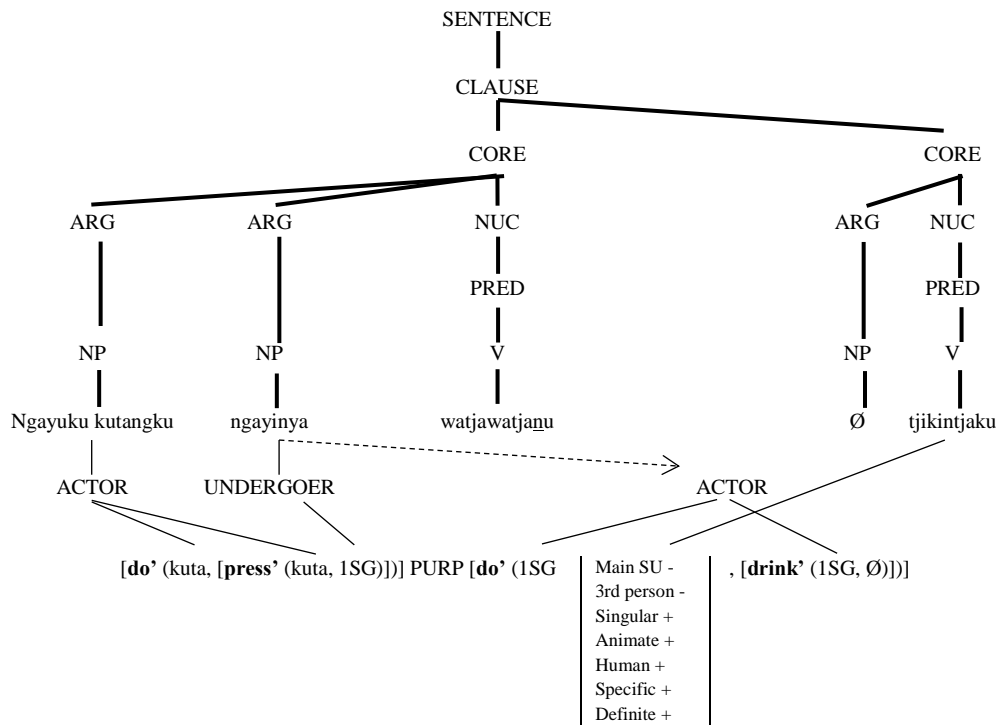
Figure 6-9: Purposive different subject core coordination; actor and undergoer

In (6.39), someone else is told to bring the water; the core (marked) takes the place of a semantic argument of the first verb *watjalku* 'tell'.

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 102)</div>

(6.39) *Ka=ya   watja-lku=ya   tjaalyma-nku   watja-lku*
        and.DS=3PL.NOM say-COND=3PL.NOM   whisper-COND   say-COND

   kapi=ya   kati-tjaku   tjuti-ra[37] *kurli tjuku-munu-ngka.*
   [water=3PL.NOM bring-PURP pour-SER heat   small-NEG-LOC]CORE

   'And they would whisper and say <u>to pour water and take it because of the great heat</u>.'

The purpose verb can occur before the finite verb, which Bowe (1990: 71) regards as evidence that the dependent forms in PYN are embedded rather than adjoined. In (6.40), the dependent form *wariringkunytjaku* 'to become cool' sits in the middle of a serial structure *mantjira tjunu* 'get and put'. In the RRG analysis, *wariringkunytjaku tjunu* is two cores, with freedom of order. *Mantjira* is in a preceding clause.

<div align="right">Pitjantjatjara (Goddard 1996: 126)</div>

(6.40) *Kal   minyma-ngku panya   mantji-ra wari-ri-ngkunytjaku   tju-nu.*
        and.DS   woman-ERG ANAPH   get-SER   cool-INCH-PURP   put-PST
        'The wife took it (out of the fire) and put (it) to cool.'

---

[37] Note the flexible but unusual word order of *katitjaku* and the serial *tjutira* in this core.

The purposive form has several common uses: for example as a control construct, such as with transitive *arkani* 'try' in (6.41). The actor of the first clause is different to the undergoer of the second.

(6.41) *Arka<u>ni</u>=<u>na</u>   a<u>l</u>a-ri-ngkunytjaku*
        try-PRES=1PL.NOM open-INCH-PURP
        'I$_{ACT}$ will try to see if (it)$_{UND}$ opens'
        do' (1SG, **try'** (1SG, Ø)) PURP BECOME **open'** (3SG)

Another usage is in someone wanting something, rather than doing an action for a purpose. Example (6.42) indicates wanting someone else to do something. The purpose verb occurs with the S-intransitive *mukuringanyi* as the main verb. The second core is a semantic argument but not a syntactic one. Because there is a subject switch, the one doing the selling is anyone but *tjana* from the first clause: by context here it is understood as second person plural.

(6.42) *Tjana   mukuri-nganyi tjalamila-nytjaku market-angka.*
        3PL.NOM want-PRES   sell-PURP   market.place-LOC
        'They want (you) to sell (it) in a marketplace.'
        They$_i$ want _$_{*i/j}$ to sell it
        want' (3PL, [**do'** (2PL, [**sell'** (2PL, 3SG)])])])

The constructional schema for the purposive verb form is given in Table 6-7.

Table 6-7: Constructional schema for purpose

Construction:	Purpose, different subject
Syntax	Juncture: core
	Nexus: coordination
	Construction type: two cores
	Template: main verb and purpose
	PSA: different to main verb
	Linking: PSA actor or undergoer
Morphology	Verb root + *-nytjaku*
Semantics	Semantic controller: actor
	Aktionsart: any
Pragmatics	IF: unspecified
	Focus structure: unspecified

6.5.2 Intention

By contrast, 'intention' (Eckert & Hudson 1988: 307-309, Glass 2006: 82) indicates that the activity in the dependent verb is intended to be done by the subject of the main verb. So in (6.43), there is no need for an overt subject with the dependent verb. Juncture is again core to core; the core operator modality expressed by the imperative extends to both, indicating cosubordination.

P/Y (Goddard 1996: 109)

(6.43) *Wanyu=li   malaku a-ra   nya-kunytjikitja.*
        EXCLM=1DU.NOM back   go-IMP see-INTEN
        'Let's just go back to check.'
        [**do'** (1DU, [**move.away.from.ref.point'** (1DU)]) & INGR **be-at'** (Ø, 1DU)]
                PURP **see'** (1DU, Ø)

If the main verb is transitive, the dependent verb itself has ergative marking (Goddard 1993: 31), as the verbs share the same actor. So there is ergative marking on the dependent verb associated with the transitive verbs *kartarntara* in (6.44), *witinu* in (6.45) and *palyani* in (6.46). We include the DO agentive in the LSs as the actions are deliberate.

Ngaanyatjarra (Obata & Kral 2005: 60)

(6.44) *Minyma ngaa-lu   nyuma   kartarnta-ra ngalku-kitja-lu*
        woman   DEM-ERG damper.ABS break-PRES   eat-INTEN-ERG
        'This woman is breaking damper to eat (it)'
        DO [**do'** (minyma, Ø) CAUSE BECOME **broken'** (nyuma)]
            PURP [**do'** (minyma, (**eat'** (minyma, nyuma)))]

Pitjantjatjara

(6.45) *Margaret-alu Bill-nga   amirri   witi-nu   katanta-nkunytjikitja-ngku*
        [name]-ERG [name]-ABS arm.ABS grab-PST break-INTEN-ERG
        'Margaret grabbed Bill's arm to break (it)'
        DO [**do'** (Margaret, **grab'** (Margaret, **have.as.part'** (Bill, amirri)))]
            PURP [**do'** (Margaret, **break'** (Margaret, **have.as.part'** (Bill, amirri)))]

P/Y (Kavanagh 1990: 28)

(6.46) *Nganana   minyma tjuta-ngku mai   palya-ni   anangu pikatjara tjuta-ku*
        1PL.NOM woman PL-ERG   food.ABS prepare-PRES people sick   PL-PURP
        alpamila-ntjikitja-ngku, mai palya.
        help-INTEN-ERG   food good.ABS
        'All of us women cook food to help all the sick people, good food.'
        DO [**do'** (minyma, **cook'** (minyma, mai))]
            PURP [**do'** (minyma, **help'** (minyma, anangu))]

The previous examples are of an action performed with an intention. With verbs of saying and wanting, the dependent verb takes the place of a semantic argument, as in (6.47). Here as it is core juncture, S-transitivity of *watjarnu* is reduced by one.

(6.47)   *Ka*   *watja-rnu=lanyatju*   *Sunday*   *kutikati-kitja-lu.*
       and.DS say-PST=1PL.EX.ACC   Sunday   take-INTEN-ERG
       'And (he) said that on Sunday (he) would take us.'
       do' (3SG, **say'** (3SG, [**do'** (3SG, [**take'** (3SG, 1PL)])])])

The semantic PSA determines coreference with 'want' (Van Valin & LaPolla 1997: 252) and this is reflected in the logical structure in (6.48). *Mukuringanyi* is S-intransitive in PYN, with the stimulus outside the core; the second core is thus not a syntactic argument but is a semantic one. *Mukuringanyi* is semantically ditransitive as it does not occur without a stimulus or want. Its S-intransitivity means the intent verb *pitjanytjikitja* is not marked ergative. The linking is shown in Figure 6-10. 'Main SU' refers to the subject of the main, tensed verb. Here the S-transitivity is not reduced.

(6.48)   *Ngayu-lu*   *pitja-nytjikitja*   *mukuri-nganyi*
       1SG-NOM   come-INTEN   want-PRES
       'I want to come'
       want' (1SG, [**do'** (1SG, [**move.to.ref.point'** (1SG)])])
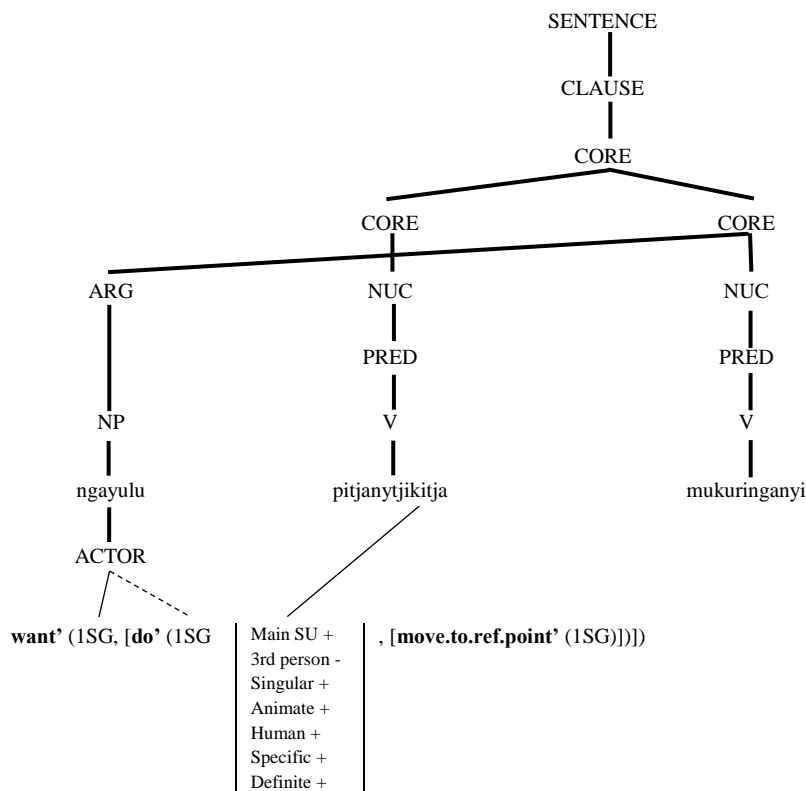
Figure 6-10: Purposive same subject core cosubordination

The pronominal clitic =*na* in (6.49) appends to the intent verb showing it to be a full member of the clause. The particle *palu* 'but of course' does not take clitics (Goddard 1996: 121), so =*na* attaches to the first available element of the clause.

<div align="right">Pitjantjatjara (Sheppard 1975: 51)</div>

(6.49) *Palu nya-kuntjikitja=na   mukuri-nganyi*
        but   see-INTEN=1SG.NOM   want-PRES
        'But of course I should like to see (inside)'
        want' (1SG, [**see'** (1SG, Ø)])

A similar situation holds in (6.50) with *papa*; *ngarriku* 'lie' is intransitive while *marlarrku* is an adverb.

<div align="right">Ngaanyatjarra (Glass & Hackett 2003: 172)</div>

(6.50) *Papa=ya   mukurri-ngkupayi   marlarrku   ngarri-kitja*
        dog=3PL.NOM   want-CHAR   at.someone's.feet   lie-INTEN
        'Dogs$_i$ like _$_i$ to lie at someone's feet'
        like' (papa, [**lie'** (papa)])

The constructional schema for the intention verb form is given in Table 6-8.

Table 6-8: Constructional schema for intention

Construction:	Intention, same subject
Syntax	Juncture: core
	Nexus: cosubordination
	Construction type: two cores
	Template: main verb and intent
	PSA: same as that of main verb
	Linking: PSA actor
Morphology	Verb root + *-kitja*
Semantics	Semantic controller: actor
	Aktionsart: any
Pragmatics	IF: unspecified
	Focus structure: unspecified

6.5.3   Distinction between purpose and intention forms

The distinction between purpose and intent forms is however more subtle than simply switch-reference. Goddard (1983: 34) claims that the purposive *-ku* is used for acting as people do to achieve an aim, while *-kitja* refers to one's personal wishes or desires. This requires a qualification. As well as indicating different subject, *-nytjaku* can be used with same subject involving negation or questions. In (6.51) and (6.52), the purpose form is used with negative intent. In this construction the subject of the dependent verb is understood as that of the main verb.

(6.51) *Ngayu-lu   mukuri-ngkunytja wiya, nyina-ra kutju iritiri-nytjaku.*
    1SG-NOM want-NOML   NEG   sit-SER   alone wait.around-PURP
    'I_i don't want __i to have to just sit forever.'
    $<_{NEG}$+ **want'** (1SG, [**sit'** (1SG)])

(6.52) *munu=na   ulkaruri-nyi,   wangka-nytjaku.*
    and.SS=1SG.NOM reluctant-PRES, speak-PURP
    'and I_i am reluctant __i to speak.'
    not.**want'** (1SG, [**do'** (1SG, [**speak'** (1SG)])])

A similar situation obtains in the polar question in (6.53) with *wangkanytjaku* '(do you promise) to say'. However, the content question in (6.54) has the intent form.

(6.53) *Nyuntu   mula-mula-ngku kututu-nguru kalku-ni   Mama-ku   Bible-angka*
    2SG.NOM true-true-ERG   heart-ABL   promise-PRES father-GEN Bible-LOC
    ara panya   wangka-nytjaku court-angka wangka kutjuli kutu mulapa
    story ANAPH   say-PURP   court-LOC   word   all   really truly
    wangka-nytjaku?
    say-PURP
    'Do you truthfully promise from the heart on the Lord's Bible to tell the story in court, telling every word truthfully?'

(6.54) *Tjitji nganananya mukuri-nganyi ngayu-ku   malpa   pitja-nytjikitja?*
    child who.ABS want-PRES   me-PURP company come-INTEN
    '(My grandmother said), "Which child wants to come along as company for me?"'

Why does the purposive form 'encroach' on what is prototypically 'same subject' intention? We suggest that a clue is given by Laka (1995), who describes the negative, interrogative and conditional in Basque as downward entailing environments. This distinguishes them as a group from declarative clauses. In PYN this would mean negative and interrogative are not declarative statements of intent, and the general *-ku* purposive may be used instead.

6.5.4   Subject and object control

Lexical differences control the complement in these English examples: undergoer control in (6.55) and actor control in (6.56). This topic is covered further in Van Valin & LaPolla (1997: 455, 540, 571). These are DS and SS respectively.

(6.55) John persuaded Mary [Mary] to go
(6.56) John promised Mary [John] to go

In PYN as well as the use of different lexemes, the purpose and intention forms indicate this difference. This is illustrated in (6.57) with *muku-mukuni* 'persuade' and DS purpose and in (6.58) with *kalkuni* 'promise' and SS intent. The core takes the place of an argument.

(6.57) *Ka   kutju-ngku   a̲nangu palunya   muku-muku-ni̲,*
and.DS another-ERG person DEM.ABS   persuade-PRES,
palula tjana-la   a-nkunytjaku.
DEM   3PL-LOC go-PURP
'Someone'll persuade that person to go with the others.'

(6.58) *Wati nyara-ngku kalku-n̲ingi   mutuka   u-ngkunytjikitja-ngku.*
man DEM-ERG promise-PST.CONT car.ABS give-INTEN-ERG
'That man promised to give (you) the car.'

As control constructions, the purpose and intention forms allow us to use a neutral word instead, such as *wangkanyi* 'say' in (6.59) and (6.60). This clearly illustrates undergoer and actor control respectively.

<div align="right">Pitjantjatjara</div>

(6.59) *Ngayu-lu   wangka-ngu a-nkunytjaku*
1SG-NOM say-PST   go-PURP
'I$_i$ persuaded (him/her)$_j$ _$_j$ to go'

(6.60) *Ngayu-lu   wangka-ngu a-nkunytjikitja-ngku*
1SG-NOM say-PST   go-INTEN-ERG
'I$_i$ promised _$_i$ to go'

6.5.5   Anterior different subject: circumstance

The 'anterior different subject' (Bowe 1990: 82) indicates 'circumstance' (Eckert & Hudson 1988: 307-309, Glass 2006: 90), 'when', 'where' or 'why' (Goddard 1993: 29). Thus an entity does something while another entity is doing something else or else after it. This is illustrated in examples (6.61) to (6.63). Yankunytjatjara uses *-la* rather than *-ngka*, found in the other two.

<div align="right">Pitjantjatjara (Goddard 1996: 5)</div>

(6.61) *Munu=ya   ngari-ra kuli-ningi,*
and.SS=3PL.NOM   lie-SER listen-PST.CONT
al̲piri-ngku   pai-nnyangka.
public.speaking-ERG criticise-ANT.DS
'They lay there listening, as (people) criticised (them) in the morning speeches.'

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 50)</div>

(6.62) *Katu-rri-ku=ya   kapi   paalyukati-nyangka=ya*
up-INCH-COND=3PL.NOM water.ABS fall-ANT.DS=3PL.NOM
pirrkili-ku   kutitja-ku
clay.pan-PURP go-COND
'They got up and when it had rained, they would go to a clay pan'

<div align="right">Yankunytjatjara (Goddard 1996: 9)</div>

(6.63) *Ngayu-lu   an̲ta-an̲ta-ningi,   nyuntu   ya-nkunytjala*
1SG-NOM protect-PST.CONT 2SG.NOM go-ANT.DS
'I was minding it, while you were gone'

The anterior different subject sub-clause may indicate the cause or reason for the situation depicted in the main clause. In (6.64), *ngaṟanytjala* 'stand' is used in an attributive sense with the adjective *arkai*. Posture verbs are not usually required with adjectives [38] but this one provides a basis for the anterior sub-clause as adjectives do not get inflected.

(6.64) *Puṯu   nya-nganyi, tjina   arkai ngaṟa-nytjala.*
      unable see-PRES   foot.ABS   faint   stand-ANT.DS
      '(One) can't see (them), if the tracks are faint.'

In (6.65), the circumstances and occurrence remove the mention of agents, making it impersonal: *pungkunytja* is the nominalised verb describing the action and is being used as a terminal state, freely translated as passive.

(6.65) *Ka   nganaṉa   taṟapula tjuṯa   ma-paka-nnyangka=lta*
      and.DS 1PL.NOM trouble   PL   COMPL-start-ANT.DS=TURN
      ma-tjituṟu-tjituṟu-ri-ngu,   witi-ṟa   kati-nyangka,   mama kuṯa
      COMPL-unhappy-INCH-PST, grab-SER take-ANT.DS father brother.ABS
      pu-ngkunytja
      hit-NOML
      'Once the various troubles had started, we were so unhappy, because our brothers and fathers were being arrested and taken away, were being beaten'

The sub-clause in (6.66) may be thought of as the anterior different subject as the talking is going on by other people in the background; since the form is the nominalised verb and locative, transitive *kulini* 'hear' may also be translated as 'listen to' with the locative (Goddard 1996: 44). Thus here the sub-clause is a semantic argument of the main verb.

(6.66) *Ngayu-lu   anangu-ngku wangka-nytjala   kuli-nu.*
      1SG-NOM person-ERG   talk-ANT.DS   hear-PST
      'I heard a person talking.'

In (6.67), the dependent form is part of a serial structure. *Katinyi* 'bring/take' and *tjunanyi* 'put' are both transitive; the serial structure requires two arguments (*kuka* and *tjamu*), rather than four. This is nuclear cosubordination; the marking on the dependent form verb governs the entire SVC. The constituent projection is in Figure 6-11; the sub-clause provides the reason, modifying the main clause (Van Valin 2005: 207, 229).

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[38] They are with active adjectives.

(6.67) *Ka=ya   kunyu pukulpa mulapa nyina-ngi,*
and.DS=3PL.NOM REP   happy   real   sit-PST,
kuka   tjamu-ngku   kati-ra   tju-nkunyangka
meat.ABS granddad-ERG bring-SER   put-ANT.DS
'They were all really pleased, since granddad had brought in some meat.'
feel' (3PL, [**happy'**]) **BECAUSE' do'** (tjamu, **bring'** (tjamu, kuka))
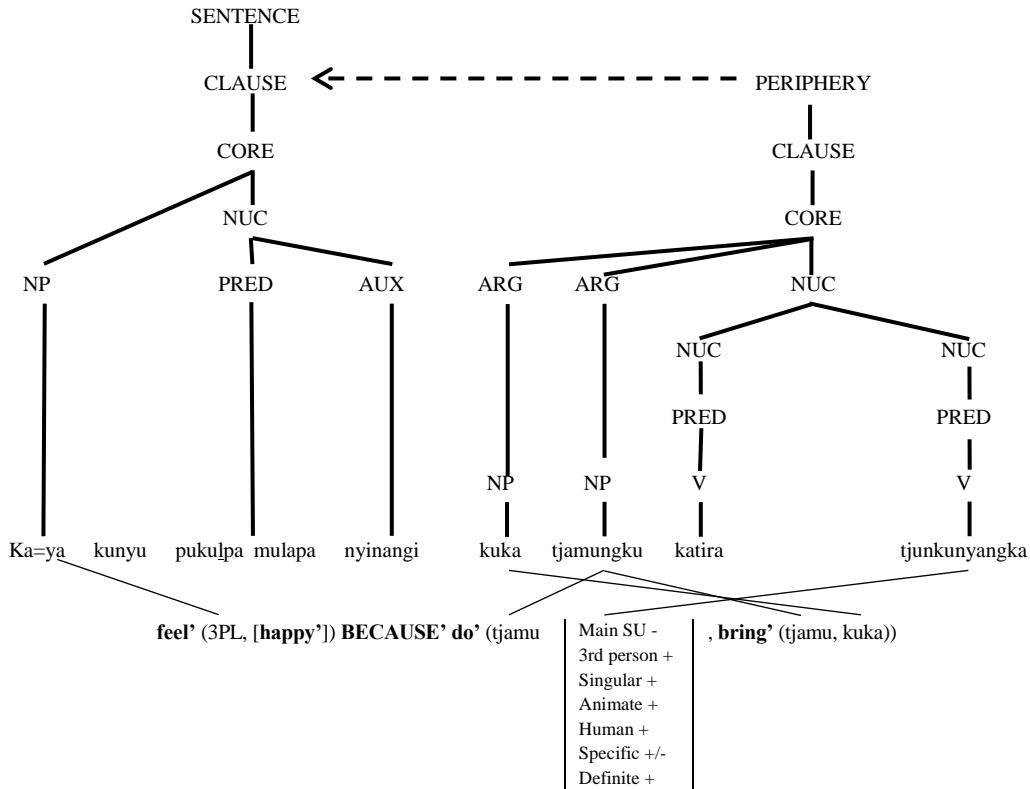
Figure 6-11: Circumstance: clause periphery

The constructional schema for the anterior DS sub-clause is given in Table 6-9.

Table 6-9: Constructional schema for circumstance

Construction:	Circumstance: anterior DS
Syntax	Juncture: clause-clause
	Nexus: subordination
	Construction type: sub-clause
	Template: main clause and sub-clause
	PSA: S/A different to that of main clause
	Linking: PSA actor
Morphology	Verb root + *-nyangka/-nytjala*
Semantics	Semantic controller: any
	Aktionsart: any
Pragmatics	IF: unspecified
	Focus structure: unspecified

6.5.6 Anterior same subject: background

The 'anterior same subject' (Bowe 1990: 85) indicates that the action done by the subject in the main clause occurs after that done by them in the sub-clause (Eckert & Hudson 1988: 307-309, Glass 2006: 82). An example is given in (6.68), where the existential argument *ngayulu* of the main clause is also the A argument of the sub-clause. The constituent projection is shown in Figure 6-12; the sub-clause indicates the circumstances of the main clause, modifying its core (Van Valin 2005: 207, 229).

<div align="right">P/Y (Goddard 1996: 135)</div>

(6.68)　*Ngayu-lu　kuṯa　　　puḻka, tjiti　palu-nya　pula-nya　pini-ntjatjanu.*
　　　　1SG-NOM　senior.brother big,　　child DEM-ACC　3DU-ACC　look.after-ANT.SS
　　　　'I'm the big brother, after having looked after those two as children.'
　　　　after' (**do'** (1SG, **mind'** (1SG, 3DU))), (**be'** (1SG, [**kuṯa'**])))
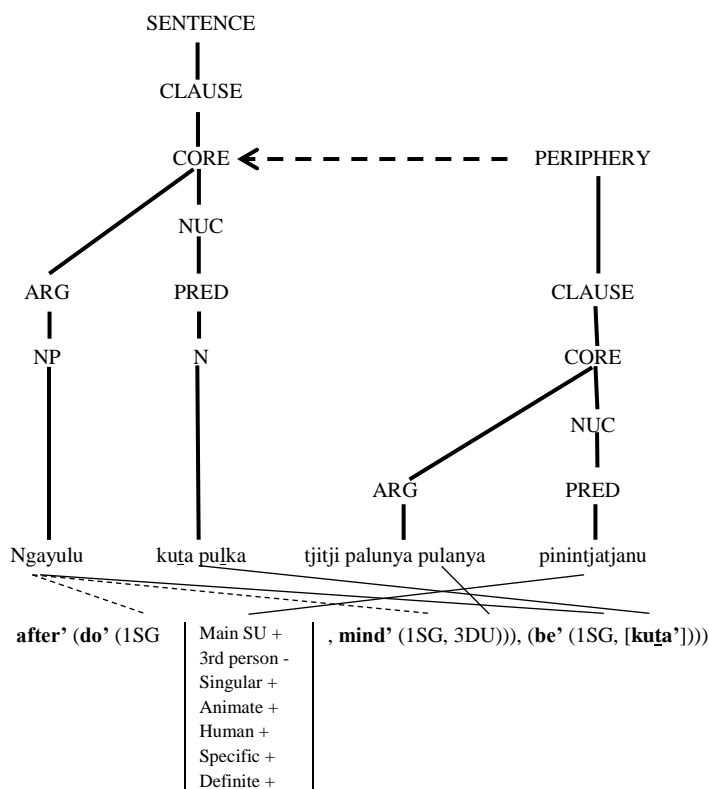
Figure 6-12: Anterior same subject subordinate clause

In (6.69), there are two interpretations; one sequential and the other with an additional causal element. The important thing is that one occurred after the other.

<div align="right">Ngaanyatjarra (Glass & Hackett 2003: 421)</div>

(6.69)　*Mirrka　　nya-kunytjanu　kuti-pitja-ngu*
　　　　food.ABS　see-ANT.SS　　out-go-PST
　　　　'After seeing the food (he) went' / 'Because (he) saw the food (he) went'

The constructional schema for anterior SS background constructions is given in Table 6-10.

Table 6-10: Constructional schema for background

Construction:	Background: anterior SS
Syntax	Juncture: core - clause
	Nexus: subordination
	Construction type: sub-clause
	Template: main clause + sub-clause
	PSA: S/A same as that of main clause
	Linking: PSA actor
Morphology	Verb root + *-nytjanu*
Semantics	Semantic controller: any
	Aktionsart: any
Pragmatics	IF: unspecified
	Focus structure: unspecified

While anterior SS clauses are often circumstantial, they can also be arguments. In (6.70), the dependent clause is an argument of the main verb *watjanu*, whose S-transitivity is not reduced: *Trevor* is ergative. Unlike the case in the English translation (though there is a strong probability that 'he' is Trevor), there is no ambiguity; the actor in the second clause is *Trevor*, who did the seeing.

<div align="right">Pitjantjatjara (Bowe 1990: 69)</div>

(6.70) *Trevor-lu   watja-ṉu Mary-nya   nya-kuntjatjanu-ngku*
       [name]-ERG say-PST [name]-ABS see-ANT.SS-ERG
       'Trevor$_i$ said that (he$_i$) had seen Mary.'
       do' (Trevor, **say'** (Trevor, **see'** (Trevor, Mary)))

6.6 Indirect causation through dependent verbs

Having examined multi-verb clauses in PYN, we can ask whether they are involved in causation, which increases valence. Dixon (2000: 74) describes less compact periphrastic causatives with two verbs, causative and lexical, in separate clauses. Such causatives are distinguished from complex two-verb predicates (Dixon 2000: 35-36, 78). For example, SVCs may be causative (Dixon & Aikhenvald 2000: 23) and as we saw in PYN, these may be complex predicates or cosubordinated clauses. In chapter 5, section 4.1.1, we noted that with lexical verbs PURP is a kind of agentive causative. With less compact forms, causation is typically weaker and indirect.

In causation generally, the understanding is that the event would not have occurred in the absence of the causer. Where there are two events α and β, Western Desert does not distinguish grammatically between the means by which α follows β, and the reason for it (Rose 2001: 392). English by contrast has a large set of conjunctions for distinguishing types of consequential relations. We may expect therefore that if periphrastic causation occurs in PYN,

it will be indirect and weak. Specifying agency over others is not a major feature of the dialects in any event; indirect methods are preferred.

As we saw in this chapter, dependent verbs show the purpose or intent of the subject of the main clause. If someone does something, intending for something else to happen and it does, this can clearly suggest causation. The following examples are of intransitive *wirtjapaka<u>ni</u>* 'run' and transitive *palya<u>ni</u>* 'cook', with 'make' and 'allow' allowing gradations of directness. In all cases the purposive verb is used, indicating the agency of the causer *ngayulu*, and someone else *palunya* was caused to act; here indicating undergoer control. The linking for (6.71) is in Figure 6-13, showing the juncture is core to core, so these are not periphrastic in the strict sense. We note that these indirect causatives can involve transitive verbs in PYN; the morphological causatives in chapter 5, section 4.1.2 only involve nominals and intransitives.

Pitjantjatjara

(6.71) *Ngayu-lu   palu-nya wirtjapaka-ntjaku palya-nu*
 1SG-NOM   3SG-ACC run-PURP   make-PST
 'I made him run'
 do' (1SG, Ø)) PURP **do'** (3SG, **run'** (3SG))

(6.72) *Ngayu-lu   palu-nya   wirtjapaka-ntjaku   wangka-ngu*
 1SG-NOM 3SG-ACC   run-PURP   say-PST
 'I allowed him to run'
 [do' (1SG, **say'** (1SG, Ø)) CAUSE **hear'** (3SG, Ø)] PURP **do'** (3SG, **run'** (3SG))

(6.73) *Ngayu-lu   palu-nya   wituwitu-nu mai   palya-ntjaku*
 1SG-NOM 3SG-ACC   urge-PST   food.ABS   cook-PURP
 'I made him cook dinner'
 do' (1SG, Ø)) PURP **do'** (3SG, **cook'** (3SG, mai))

(6.74) *Ngayu-lu   palu-nya   wangka-ngu mai   palya-ntjaku*
 1SG-NOM 3SG-ACC   say-PST   food.ABS   cook-PURP
 'I allowed him to cook dinner'
 [do' (1SG, **say'** (1SG, Ø)) CAUSE **hear'** (3SG, Ø)] PURP **do'** (3SG, **cook'** (3SG, mai))
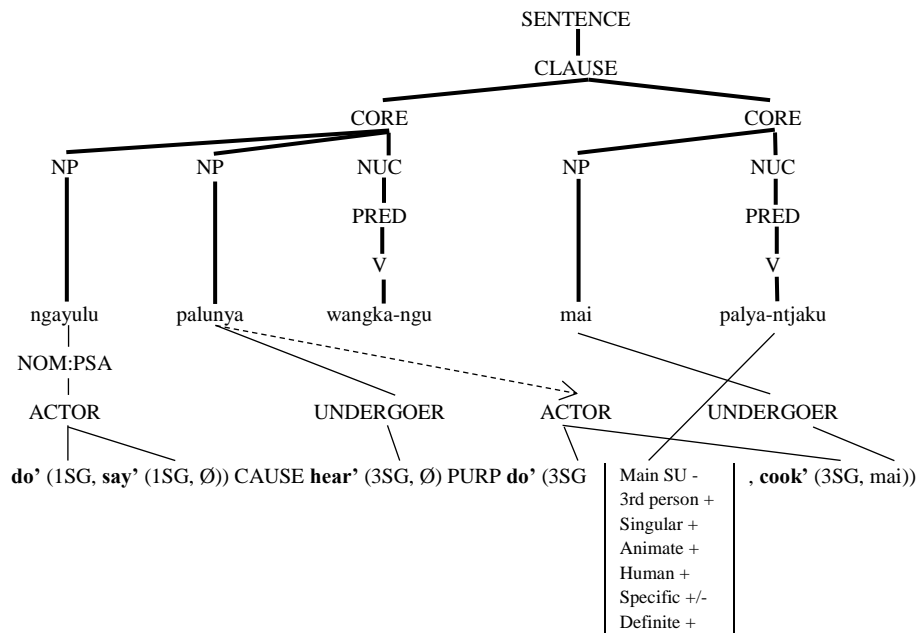
Figure 6-13: Indirect causation with purposive

We can compare this with French where an additional verb, *faire* 'make, do', occurs with direct causation, with the following verb in the infinitive (Tallerman 2011: 230). This is illustrated in (6.76) with infinitive *lire* 'read'; there is the addition of the causer *nous* which has stronger agency than *Jean*. This is nuclear juncture (Van Valin & LaPolla 1997: 533) and therefore a complex predicate rather than periphrastic where verbs are in separate clauses.

French (Tallerman 2011: 230)

(6.75) *Jean   a   lu   ce   livre*
     [name] has read DEM book
     'Jean has read this book'
     do' (Jean, **read'** (Jean, livre))

(6.76) *Nous avons fait   lire   ce   livre à   Jean*
     1PL   have made read.INF DEM book IO [name]
     'We have made Jean read this book'
     do' (1PL, Ø) CAUSE **do'** (Jean, **read'** (Jean, livre))

Faire also occurs in indirect causation (Jones 1996: 441-444). This depends on whether a verb can only be used intransitively as a change of state (ibid.). With an intransitive change of state verb and *faire*, the syntactic causative construction as a whole becomes transitive. With a transitive change of state verb and *faire*, an intermediate agent is implied. Permissive verbs such as *laisser* 'let' are also used to express causation syntactically. Irish 'allow' verbs are discussed by Nolan (2015: 17).

6.7 Summary and discussion

In this chapter we asked whether and how the verbs in a multi-verb clause pool their valences or fulfil their valence requirements. This required us to extend RRG's analysis to explain the particular characteristics of PYN switch-reference dependent verbs: the LS now includes an Attribute Value Matrix to show the semantic interpretation of the subject argument.

Valence effects in multi-predicate clauses depend on whether adjoining predicates are in the same or different cores. Lutz-Hughes (2016) lists three types of multi-verb construction: complement taking, clause chaining and serial verb constructions. The first of these occur with certain sub-clauses in PYN and the latter two with serial structures of varying tightness. The central question is at what level nexus-juncture relations operate.

The PYN serial and dependent structures contain both non-finite and finite verbs. Serial structures describe sequential or simultaneous events: two or more predicates act together and share subject and sometimes other arguments depending on juncture. The elements of a serial structure in PYN may have nuclear or clause juncture, reflecting tightly or loosely connected events. In nuclear juncture, two predicates form a single complex predicate. Intransitive posture verbs frequently occur in complex predicates: the valence of the complex is determined by the non-posture verb, typically the finite one. Looser serial verbs form topic chains; the referent is constant up to the finite verb. This differs from a chain of finite verbs which may change the subject, based on semantic considerations, even in the absence of formal switch-reference markers.

All the PYN verbs in a serial structure share the same subject, be it A or S. While the loose structures usually drop the A or S in the non-initial verbs, the fact that a subject NP can be expressed in both or all clauses leads Bowe (1990: 95) to claim they are not typical SVCs. The O arguments may occur between constituent verbs and the semantic valence of an individual verb does not change. So while complex predicates pool valence, loose serial structures are not valence decreasing. Topic chaining which has no coordinating markers is described by Lutz-Hughes (2016: 20) and this resembles the loose serial structures in PYN, with the topic as subject. As Van Valin (2005: 229) says, only highly topical elements receive zero coding. Serial verbs with their obligatorily coindexed subject thus differ from coordinated apposed clauses where subject switches depend on context.

Blake (1987: 140) discusses subordinate clauses generally as indicating the circumstance or time of the event in the main clause. Alternatively, a sub-clause may be a complement of the main verb. This turns out to be true in PYN where we can distinguish dependent verbs that take the place of arguments of the main clause predicate through core juncture, and hence its reducing S-transitivity, from those which are not. Purposive and intent dependent verbs acting as control constructs of verbs (such as those of wanting or saying) are

semantic arguments of the main verb. It is apparent that the goal-directed actions are the vectorial configurations described by McGregor (2002: 29-32) rather than valence directed.

Those sub-clauses not relevant to valence are purposive clauses giving the reason or goal of an action, adverbial peripheral adjuncts, or anterior sub-clauses that place the events of the main clause in time with respect to the events in the sub-clause. The anterior different subject sub-clause indicates the cause or something going on while the main event is happening. The anterior same subject depicts an event interpreted as having been done prior to the main one. While the anterior sub-clauses can be the argument of verbs of saying, unlike the purpose and intent sub-clauses they do not reduce S-transitivity of the main verb as they are syntactic arguments rather than core junctures.

For all types of dependent verb, the switch-reference clause ending refers to the identity of the A or S argument. In this way reference is established, rather than by pronouns or discourse which are common means in simple sentences: there is consequently no need for an overt subject in the sub-clause though these can optionally be included. Bowe (1990: 66-67) states that the lack of overt subject arguments in Pitjantjatjara sub-clauses has a different status to the omission of arguments in main clauses. Pronoun clitic arguments cannot be used in sub-clauses, only on tensed clauses. Arguments may be missing with respect to first, second and/or third persons so this is not the third person singular zero clitic.

Thus the 'subject' is the relevant item tracked with dependent verbs, regardless of whether it is A or S. This situation is not unique to PYN, nor is it unexpected. It obtains in unrelated languages: Basque for example is morphologically ergative in nominal and verbal inflection (Oyharçabal 1992). However, it has nominative-accusative syntax where subjects of intransitive and transitive verbs pattern together with respect to control (ibid., Levin 1983, Spreng 2000). Intra-clausal (morphological) ergativity is distinguished from inter-clausal (syntactic) ergativity (Dixon 1994: 207).

Austin (1981) describes purpose as 'implicated' clauses and anterior as 'relative' clauses in Diyari; the difference being whether the events in the sub-clause occur after or simultaneously/prior to the events in the main clause. This mirrors the situation in PYN. Wilkins (1988) states that purposive clauses in Mparntwe Arrernte (Pama-Nyungan, Northern Territory) are embedded rather than adjoined; and sub-clauses can be arguments of the core. He suggests that referents are tracked by zero anaphora; as we have seen switch-reference has an important role in tracking PYN arguments. Sub-clauses, switch-reference and zero anaphora are discussed by Van Valin & LaPolla (1997: 520-521). The question of switch-reference marking in coordinated clauses is investigated by Weisser (2012). Hale (1976: 79) contrasts NP relative versus T-relative adjoined clauses; these respectively give more information about an argument or specify the temporal setting of the event in the main clause. This latter represents the circumstantial sub-clauses in PYN. A limitation in the study of purposive and intent forms is in

considering whether they are adverbials in certain cases. This would benefit from further research.

In RRG, the controller supplies interpretation for the pivot (Nolan 2012: 16). The pivot in PYN is not automatically the PSA of the first clause; the dependent form may indicate a different referent. An elided argument in a sub-clause is identified by switch-reference, as well as context. We therefore extend RRG to represent fully switch-reference as manifest in PYN sub-clauses.

The structures and their relations to valence are summarised in Table 6-11.

Table 6-11: Multi-verb clause summary

Structure	Nexus-juncture	Can be main verb semantic argument	Can be main verb syntactic argument	Valence decreasing
Tight serial	Nuclear cosubordination	n/a	n/a	Some
Loose serial	Clause cosubordination	n/a	n/a	No
Purpose DS	Core coordination	Yes	No	Yes
Intention SS	Core cosubordination	Yes	No	Yes
Circumstance DS	Clause subordination	Yes	Yes	No
Background SS	Core subordination	Yes	Yes	No

In the next chapter, we analyse the function of word order changes in PYN clauses, and ask whether and how this is used instead of valence adjusting in certain scenarios.

7 Factors influencing PYN word order

We now broaden the study to question the significance behind choices of PYN word order. We have investigated PYN valence adjusting from morphosyntactic and semantic perspectives. Here we focus on the pragmatic use of language, with respect to information structure. We will suggest how RRG's model can help explain PYN word order variations. Part of this involves discussing and comparing previous analyses, particularly those of Bowe (1990) and Rose (2001).

We saw in chapter 5 that there is no morphological passive in PYN. A change in word order rather than a change in verb form is a strategy used to highlight or topicalise the patient instead of the agent, which is one of the functions of the passive. We look more deeply at this to characterise how word order may be used instead of syntactic valence changing for topicalising, focusing, highlighting or downplaying participants.

Word order is one of the means of marking topic and focus discussed by Van Valin & LaPolla (1997: 201, 213-214); the others involve intonation and morphological marking. Topicalisation, which is at sentence level, is distinguished from syntactic valence adjusting constructions such as the passive where a morpheme is localised in the predicate (Keenan & Dryer 2007: 327). This clearly distinguishes changing word order from morphological changes in a verb.

R. Defina (p.c.) cautions that testing Pitjantjatjara word order and topic/focus with elicitation questions outside of context would not be scientifically sound. This is because her initial investigations have shown that word order is highly variable and constrained by information structure, animacy, case marking and numerous other factors.

7.1 Word order in Australian languages

Australian languages are among a group whose members are sensitive to pragmatic ordering: for example, focused NPs are placed early in the clause in Ngandi (Arnhem, Northern Territory) (Heath 1978: 122). Simpson & Mushin (2008) describe clause-initial position in four Australian languages that are dependent-marked, like PYN. Syntactic free word order means that word order does not indicate grammatical function in these languages. Because of the interaction between syntax and pragmatics, the authors determine what must occur in clause-initial position and find that constituents in this position are associated with prominence, either intrinsic or discourse based. Blake (1983) discusses word order in 'free word order' languages, as represented by Kalkatungu (Pama-Nyungan, Queensland) and finds this language is at the extreme end, with no word order rules at all.

Despite theoretical freedom, by the 1950s there was an increasing 'crystallisation' of word order in Australian languages, with fixed positions developing (Capell 1956: 10-12). This

process was least developed in Western Desert where Capell claimed there was still great flexibility.

Importantly, transitivity is entirely realised by case endings in Pitjantjatjara (Rose 2001: 301) and not by word order and intonation. However while it has syntactically free word order, the effect of changing a word from its usual position has pragmatic significance (D. Rose p.c.). Because the elements of a NP are contiguous in PYN, it is actually phrase (rather than word) order that is free and changing it can be a function to topicalise and focus (J. Hobson p.c.).

Changing word orders may complement the adjusting of phonological stress within a clause. While word initial syllables are prominent in connected Pitjantjatjara speech (Tabain, Fletcher & Butcher 2014), sentence stress is heavier or louder and is used on words that are to be emphasised (Douglas 1957: 8). Prosody has syntactic resonance, but the current study is based on written sources so word stress is generally not available in the analysis. Nevertheless, in section 7.11 we will see it has some importance.

7.2   PYN unmarked word order

Australian languages potentially have free word order with NP function determined by case (Dixon 2011: 286), but there is a tendency in PYN for SOV word order with nouns (Bowe 1990: viii, Goddard 1983: 20-21, Glass 2006: 28) and full pronouns (Bowe 1990: 127)[39]. Goddard (1981) more generally says that in Yankunytjatjara the verb is usually at the end of the sentence; Goddard & Harkins (2002: 214) say P/Y core NPs usually precede the verb with other NPs after. So adverbs such as locations tend to come at the end of the clause (D. Rose p.c.), giving AOVX word order[40]. In intransitive clauses, SV is the order; the complications mentioned by Dixon (2010: 73)[41] in some languages are not a factor in PYN.

There are nevertheless certain challenges in determining word order in PYN, due to ellipsis: Baker & Mushin (2008: 13) claim that the large number of verb only clauses in Bowe's (1990) Pitjantjatjara corpus adds difficulty to the characterisation of word order. Furthermore, there is a restricted order of pronominal clitics (Glass 2006: 60), and Bowe (1990: 119) states that we cannot include pronominal clitics in discussions on Pitjantjatjara word order as they are constrained by always occurring in sentence second position. The particles *munu/palyunyalu* or *ka* 'and' must be first in a clause if present, indicating the reference of the subject of the following predicate. These are topics and act as loci for pronominal clitics. Importantly they are clausal: they are not one of Glass's (1979) criteria for marking sentence boundaries in Ngaanyatjarra. Since they represent S or A ('subject'), they fit into the unmarked S(O)V word order.

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[39] This head-final order contrasts with the head-initial order in NPs. We also refer to AOV order, in transitive clauses.

[40] X being other constituents.

[41] Such as languages with SV and OVA, or VS and AVO.

7.3 PYN marked word order

Despite the trend to SOV, freedom of word order in PYN allows pragmatic choices to be made. This flexibility extends to adverbs as well as arguments. The starting point in stories is the characters: if not this is marked, such as with the location being expressed first. With flexible word order, argument role tracking is facilitated by the case marking of dependents. In (7.1) with S-transitive verb *patjani*, *tjitji* has the ergative case if it is the actor, or A argument. In (7.2) *tjitji* is the undergoer, or O argument, with absolutive case. This has OSV order which is grammatical but marked (Bowe 1990: 114).

P/Y (Goddard 1993: 7)

(7.1) *Tjitji-ngku papa   patja-nu*
       child-ERG dog.ABS bite-PST
       'The child$_{ACT}$ bit the dog$_{UND}$'

(7.2) *Tjitji   papa-ngku patja-nu*
       child.ABS dog-ERG   bite-PST
       'The dog$_{ACT}$ bit the child$_{UND}$'

The SOV word order in (7.3a) is preferred, but all of these are grammatical. (7.3c) has the common afterthought form, where a constituent occurs separated from the main clause by a pause.

Ngaanyatjarra (Glass 2006: 28)

(7.3) (a) *Wati-lu   minyma   pu-ngu*
           man-ERG woman.ABS hit-PST
           'The man hit the woman'
       (b) *Watilu pungu minyma*
       (c) *Minyma pungu, watilu*

As noted, pronoun clitics generally occur in sentence second position. By using a full form pronoun such as *nyuntunya* in (7.4), flexibility of pronoun word order is facilitated. This allows the undergoer to be highlighted, and as first constituent to be the recipient of a clitic. In (7.5), the location *ngurra* comes first in the clause and receives the clitic.

Ngaanyatjarra (Douglas 1957: 48)

(7.4) *Nyuntu-nya=na   kuli-nu*
       2SG-ACC=1SG.NOM hear-PST
       'It was you I heard'

Ngaanyatjarra (Kral 2012: 195-196)

(7.5) *ngurra-ngka=latju   nyina-kitja   mukurri-ngkula*
       place-LOC=1PL.EX.NOM   sit-INTEN   want-PRES
       'we want to stay in our own country'

If all these word orders are grammatical, what pragmatic motivations lie behind them? We claim this is largely to do with topic and focus.

7.4   Sentence focus

Presentational sentences, introducing the characters, usually have full NPs in SV order as in (7.6). All the information is new. This is the characteristic introduction of S rather than A participants (N. Enfield p.c.). The constituent projection is in Figure 7-1.

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 20)</div>

(7.6)   *Wati=pula kurrirarra   nyina-rranytja*
      man=3DU man.and.wife.ABS sit-PST.CONT
      'There was a man and his wife'
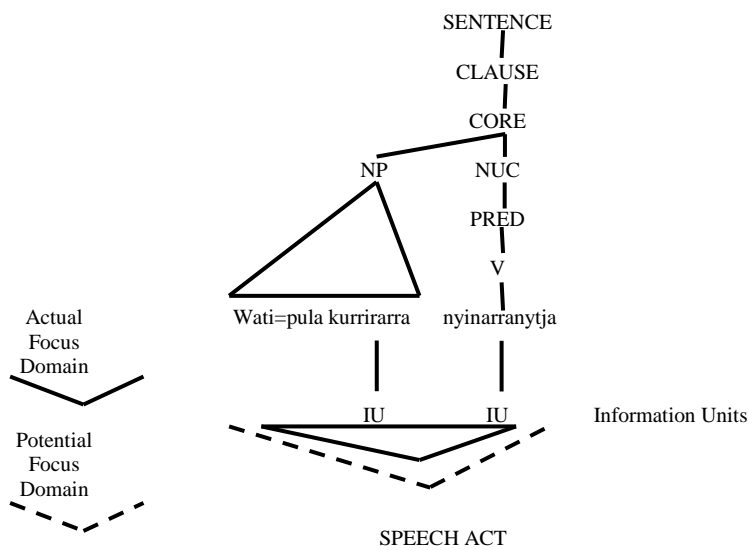
Figure 7-1: Sentence focus

Figure 7-1 shows that potential and actual focus coincide: nothing is being singled out for prominence or newness.

7.5 Predicate focus

This has a topic and focused predicate. (7.7b) shows the topicalising of undergoer *kuka* 'meat', in response to a question about it in (7.7a); *ngayulu ngurpa* is the focus. The order is marked OSV. The constituent projection is in Figure 7-2.

<div align="right">Pitjantjatjara (Douglas 1955)</div>

(7.7)   (a) *Pangkalangu mankur-tu   nyina-ra tjapi-nu,   kuka   panya   wai ?*
          giant   three-ERG   sit-SER   ask-PST   meat ANAPH   where ?
          'The third giant, having sat down, asked, "Where is the meat?"'

   (b) *"kuka   ngayu-lu   ngurpa"*
       meat.ABS   1SG-NOM   not.know
       '(The other answered) "I don't know anything about meat."'
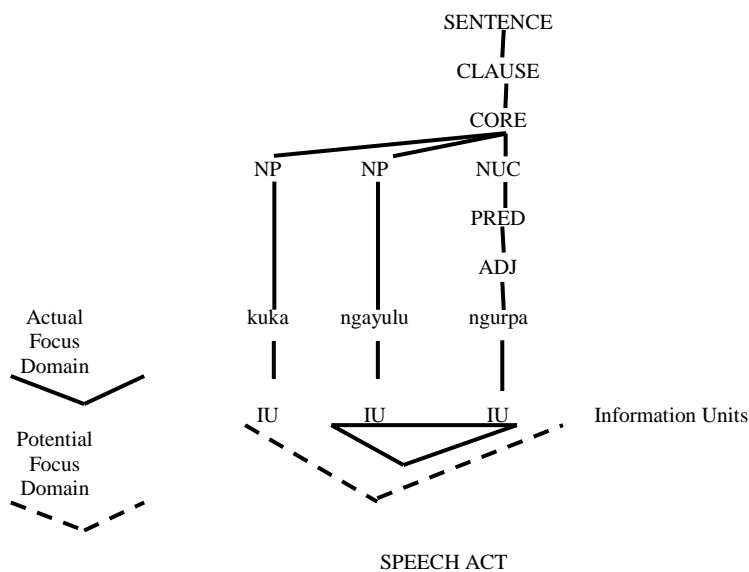
Figure 7-2: Predicate focus

In a string of finite verbs in PYN, the actor topic is frequently elided after its initial introduction: the predicates are in focus. With the serial verb topic chain discussed in chapter 6, the structure itself constrains the interpretation of the non-overt topic rather than just ellipsis.

7.6 Narrow focus

In the following examples the question word *nyaa* 'what' appears clause-initially. (7.8) has *nyaa* in normal position for the A argument. (7.9) and (7.10) are in marked word order, with narrow focus on *nyaa*. In both, *nyaa* is in a non-core case[42]. The projection of (7.10) is shown in Figure 7-3.

<div align="right">P/Y (Goddard 1996: 107, 102)</div>

(7.8) *Nyaa-ngku wiila   waka-nu?*
       what-ERG tyre.ABS   pierce-PST
       'What pierced the tyre?'
       [**do'** (nyaa, Ø)] CAUSE [BECOME **pierced'** (wiila)]

(7.9) *Nyaa-ku=n   nguri-ni?*
       what-PURP=2SG.NOM   look-PRES
       'What are you looking for?'
       [**do'** (2SG, [**search'** (2SG, nyaa)])]

(7.10) *Nyaa-ngka   nyuntu   palya-nu?*
       what-LOC   2SG.NOM make-PST
       'What did you make (it) with?'
       [**do'** (nyuntu, Ø) ∧ **use'** (nyuntu, nyaa)] CAUSE [BECOME **exist'** (3SG)]
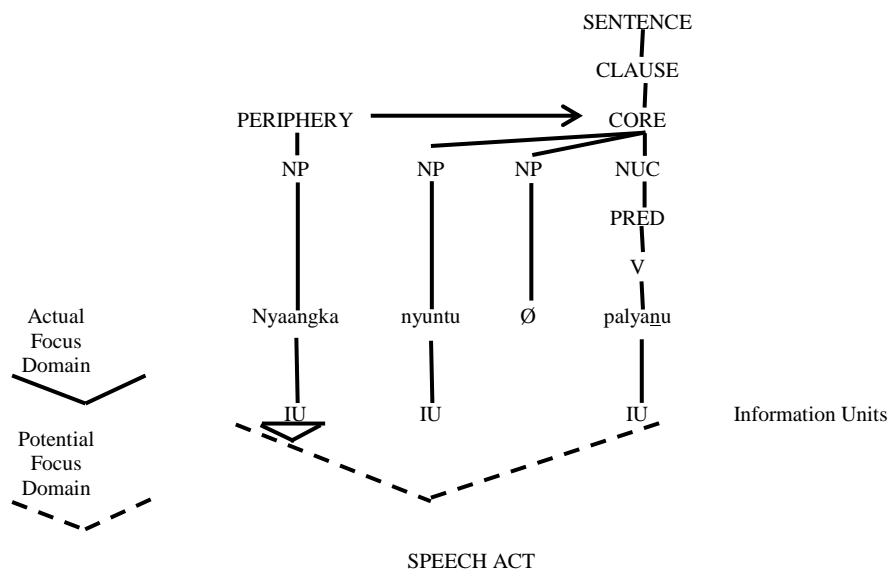
Figure 7-3: Narrow focus on question word

In contrast to Figure 7-1, Figures 7-2 and 7-3 show the actual focus occupies only part of the potential focus domain: clause-final and clause-initial respectively.

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[42] The transitive verb *ngurini* may impose purposive case on the item searched for (Goddard 1996: 102).

7.7 Topic and focus in lieu of valence adjusting

As discussed in chapter 5, section 3.1.1, a change of word order is used in the absence of an overt passive form in PYN and we repeat example (5.14) in (7.11), comparing it to another example (7.12). By changing the word order, attention is focused either on the actor *liru* 'snake' or 'being bitten by a snake'. The verb form and S-transitivity do not change as in a true passive, and a verb on its own has default third person singular arguments (Bowe 1990: 24), both for nominative and accusative. So in this case, the identity of the bitten entity must be recoverable by antecedent or context. Such word order changes are similar to the situation described by Halliday (2006: 349), who says that in English passives the 'by' construction puts the actor at the end of the sentence, focusing it[43]. This means that in the passive, the agent is not the primary clausal topic (Van Valin & LaPolla 1997: 247-248).

The intransitive question in (7.11) topicalises the patient. The presupposition is that something happened to the third person singular referent[44]. In the reply *patjanu lirungku*, this is the focus and the agent is new. This is in marked (O)VA word order presenting the agent as new information at the end.

With the S-transitive question (7.12), the presupposition is that something bit the patient, and the question asks about the identity of the agent that did the biting. Here the word order is the unmarked A(O)V, with the question word *nyaa* occupying the same position as the agent. In the reply *lirungku* is in completive narrow focus. The LS is the same: the actor bit the undergoer, but the focus is different.

Pitjantjatjara (Trudinger 1943: 207)

(7.11) *Nja-ri-ŋu=lta?*   *Patja-nu   li:ru-ŋku*
       Nyaa-ri-ngu=lta   *patja-nu   liru-ngku*
       what-INCH-PST=TURN   bite-PST   snake-ERG
       'What happened (to him)? (He) <u>was bitten by a snake</u>.'
       do' (liru, **bite'** (liru, 3SG))

(7.12) *Nja-ŋku   patja-nu?   Li:ru-ŋku   patja-nu.*
       Nyaa-ngku patja-nu   liru-ngku   patja-nu
       what-ERG bite-PST   snake-ERG bite-PST
       'What bit (him)? <u>A snake</u> bit (him).'
       do' (liru, **bite'** (liru, 3SG))

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[43] The passive defocuses the agent of the action (McShane 2005: 209), if it is not overt.

[44] The clitic *=lta* is a turning point for a significant development.

The focus projections are in Figures 7-2 and 7-3 respectively. Borrowing from DRT and Van Valin (2014), we now include two boxes: the presupposition and the assertion.
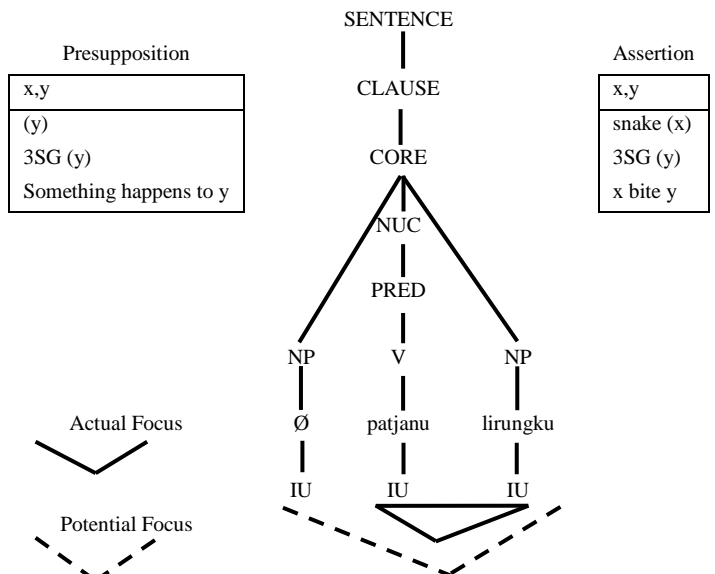
Figure 7-4: Predicate focus projection with general presupposition
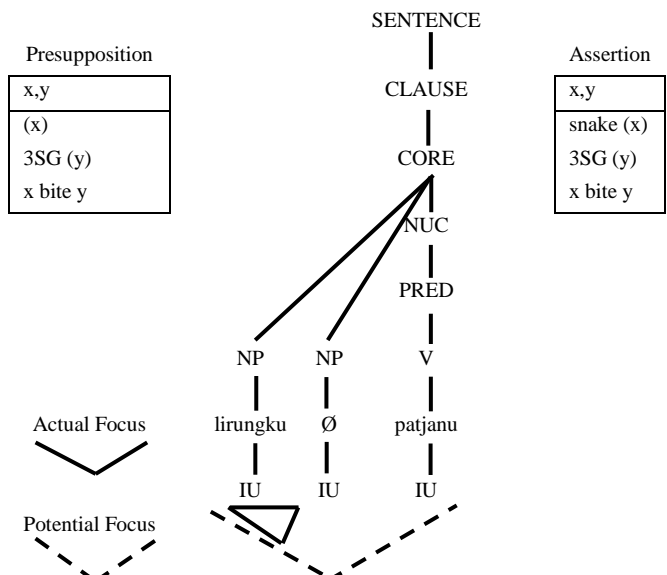
Figure 7-5: Narrow focus projection with specific presupposition

The ergative marked noun does not change marking and the form of the verb does not change either. It is clear from this that topicalisation and focusing are achieved by word order changes rather than valence adjusting (in the English passive the undergoer goes first as well). We represent information structure in (7.13) and (7.14), based on Van Valin (2005: 70).

(7.13) Sentence: *Patjanu lirungku*
        Presupposition: Something happened to him
        Assertion: He was bitten by a snake
        Focus: 'was bitten by a snake'
        Focus domain: Predicate

(7.14) Sentence: *Lirungku patjanu*
        Presupposition: Something bit him
        Assertion: A snake bit him
        Focus: 'A snake'
        Focus domain: NP

The morphological change in verb form that is a necessary defining feature of passives (Keenan & Dryer 2007: 327, 332, Haspelmath 1990) is contrasted to topicalisation and dislocation which are at sentence level (Keenan & Dryer 2007: 327). In fact, passives are claimed to be a weaker means of foregrounding than either topicalisation or left dislocation (Keenan & Dryer 2007: 326, Allan 2009).

In the song in (7.15), each line starts with *yangupala* or its anaphoric pronoun *paluru*. The word order is changed to marked OAV with S-transitive *wantingu*. The topic is the 'youngfella' introduced in the first line, and this remains as topic all the way through. This referent is variously realised as absolutive S *yangupala*, nominative S *paluru*, and accusative O *palunya* depending on its role. Full nominative A arguments are unlikely to be the first argument expressed in a text: S or O is more likely (N. Enfield p.c.) and so it is here with S.

<div align="right">Pitjantjatjara (Kral 2012: 256)</div>

(7.15) *Yangupala kutju nyina-ngi   palu-nya walytja tjuta-ngku wanti-ngu.*
      youngfella alone sit-PST.CONT 3SG-ACC relation PL-ERG   leave-PST
      Paluru   kutju nyina-ngi   palu-nya walytja tjuta-ngku wanti-ngu.
      3SG.NOM alone sit-PST.CONT 3SG-ACC relation PL-ERG   leave-PST
      Paluru   nyina-ra putu kuli-ningi,   putu mulapa kuli-ningi.
      3SG.NOM sit-SER unable think-PST.CONT unable real   think-PST.CONT
      Palu-nya   walytja tjuta-ngku wanti-ngu.
      3SG-ACC relation PL-ERG   leave-PST
      'One youngfella was sitting alone, because his family had left him.
      He was sitting alone, because his family had left him.
      He didn't know what to think, still didn't know what to think.
      All his family had left him.'

In (7.16b), *tjitji kutju* is the topic and is in accusative case. *Ka* introduces the line and the subject is switched, from child and brother in (7.16a) to just brother in (7.16b).

(7.16) (a) *tjitji kutju wati kuṯarara   pula   kunyu a-nangi.*
              child one   man person.and.brother 3DU.NOM   REP   go-PST.CONT
              'a child and his adult brother, together were travelling along.'
        (b) *ka   kunyu palu-nya   kuta-ngku   kati-ngi.*
            and.DS REP   3SG-ACC   older.brother-ERG bring-PST.CONT
            'and the brother was leading him.'

(7.16b) is OAV order, differing from Trudinger's (1943: 207) ablative of agent (O)VA word order example. Because there is an overt O, the A can precede V. With Trudinger's example, since O is zero, it appears that A is on the other side of V in order to avoid ambiguity (would AV be the overt expression of A(O)V or (O)AV?).

The constructional schema for OAV topic and focus is given in Table 7-1.

Table 7-1: Constructional schema for marked OAV word order clauses

Construction:	Marked OAV word order clauses
Syntax	Template: two syntactic slots
	PSA: S or A
	Linking: Actor =PSA
Morphology	n/a
Semantics	PSA: agent
	Aktionsart: any
Pragmatics	IF: unspecified
	Focus structure: V and agent

In (7.17), the patient *kutjupa iti* is fronted with actor *kuṯa* post-predicate (two causatives in a serial structure). The author translates this as passive. The verb order is finite verb and serial, which is marked: finite verbs in these structures are usually last.

(7.17) *Ka   kutjupa   iṯi   inka-tjinga-lpai   nguḻu-tjinga-ṟa   kuṯa-ngku,*
        and.DS some   baby.ABS play-CAUS-CHAR afraid-CAUS-SER   brother-ERG
        'Iṯji, palatja! Kuku   pala   pitja-nyi.'
        baby EXCLM   monster DEM.ABS come-PRES
        'Also, sometimes babies get teased and scared by their big brothers (like this), "Baby, look out! There's a monster coming."'

Narrative has been studied in other Australian languages. An analysis of macro- and microstructure in Umpithamu (Pama-Nyungan, Queensland) narrative is described by Verstraete & De Cock (2008). This includes participant tracking: with an absence of perspective-changing devices like the passive, participants' lack of control is shown though

case marking. In PYN, there is no passive and the arguments maintain case marking; changing word order allows the switching of perspective.

7.8 Bowe on topic and focus

Bowe (1990) gives an elaborate analysis of the pragmatic motivations behind changed word orders in Pitjantjatjara, and here we investigate whether this can be remodelled through RRG. In marked word order, Bowe says an object topic is 'pre-sentence' with the 'sentence initial position' being the focus (ibid.: viii); post-verbal NPs are an afterthought or anti-topic, perhaps clarifying a referent that has been taken for granted in the previous part of the sentence. This is summarised in (7.18) by Bowe (ibid.).

(7.18)   TOPIC [S FOCUS [...VERB] ANTI-TOPIC]

Clitic pronouns are central to Bowe's analysis of topic and focus. The placement of these clitics has been described as being on the first phrase of the sentence (Goddard 1996: xii, Bowe 1990: 114, Glass 2006: 50) or first constituent of the clause (Blake 1987: 103). In practice both of these apply; with clitics on the first of a sequence of serial verbs, as well as frequently on each conjunction starting a clause.

While an unmarked subject is typically the topic and in the core, an object topic is outside the core sentence (Bowe 1990: viii). A focused object is still in the sentence. This is reflected in the placement of pronoun clitics. Thus in (7.19) with topicalisation of the O argument *punu*, it is outside the core sentence domain for clitic placement (ibid.: 114), as shown by the dubious grammaticality of (7.20).

<div align="right">Pitjantjatjara (Bowe 1990: 114)</div>

(7.19)   *Punu   wati-ngku=ni   u-ngu*
         wood.ABS man-ERG=1SG.ACC   give-PST
         'The man gave me some wood.'

(7.20)   ?*Punu=ni   wati-ngku u-ngu*
         wood.ABS=1SG.ACC man-ERG give-PST
         'The man gave me some wood.'

Similarly, the topic object *punu* in (7.21) is old and not available for the clitic. Focused *punu* in (7.22) is new and available for clitic placement.

<div align="right">Pitjantjatjara (Bowe 1990: 115)</div>

(7.21)   *Punu   ngayu-lu=na   mantji-nu*
         wood.ABS   1SG-NOM=1SG.NOM get-PST
         'As for the wood, I got (it) myself.'

(7.22)   *Punu=ni   paluru   u-ngu*
         wood.ABS=1SG.ACC 3SG.NOM   give-PST
         'Wood is what he gave me.'

This means that a fronted object could be topic or focus, depending on context. How would this be represented in RRG? And what might it mean for a constituent to be outside the sentence anyway? A LDP might be a candidate for a topic 'outside the sentence'. A topicalised element would go into the LDP, which is the closest equivalent, as it is outside the clause in RRG – but still in the sentence. This semantic argument is then no longer in the core, but there needs to be a coreferring 'resumptive' pronoun in the core. Bowe's English translation of (7.21) has a pause and resumptive pronoun 'it', putting *pu<u>n</u>u* 'wood' in the LDP. The Pitjantjatjara text though has no pause, and we would have to posit a (zero) pronoun in the core. In contrast to a topic, narrow focused elements can go in the precore slot in RRG, so the focused object *pu<u>n</u>u* in (7.22) could go there without issue.

This is all plausible: the semantic to syntax linking principles (Van Valin 2005: 136) give scope for semantic arguments to be in the periphery (default), extra-core slot or detached position.

Figure 7-6 (a) shows an LDP analysis of (7.21), with the resumptive pronoun being the zero form. Semantic valence and S-transitivity of *ungu* have not been adjusted but word order is being used for the topicalisation of *pu<u>n</u>u*. The rest of the sentence is the focus. The problem is there is no indication of a pause, and the resumptive pronoun is zero. A more certain proof would be an example with an overt resumptive pronoun. An economical solution in Figure 7-6 (b) has all members in the core, but still with focus being the criterion for clitic placement, rather than simply membership of the core.
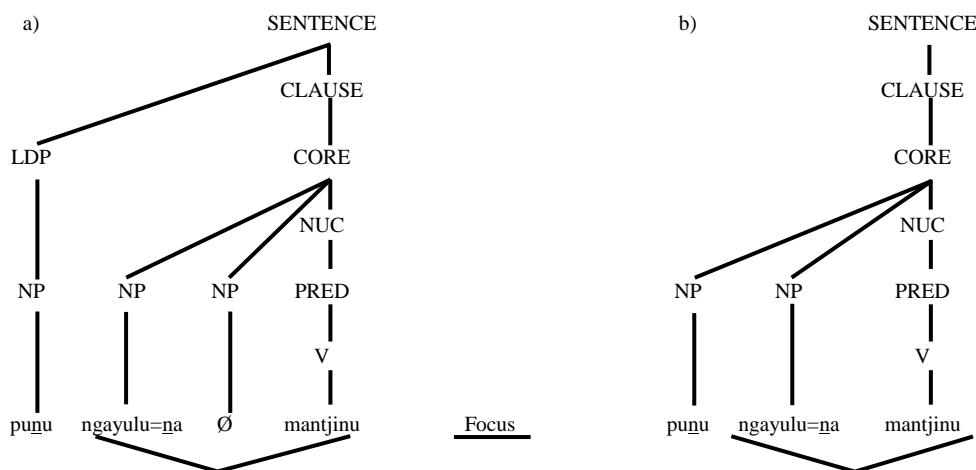
Figure 7-6: Topicalisation of O to LDP

Both choices in Figure 7-6 would work, so we will investigate which one is more likely.

7.9 Left-detached position

Is there evidence for preferring one alternative over the other in Figure 7-6? Direct evidence for a LDP in PYN is somewhat scarce in the corpus. A problem with an LDP analysis of Bowe's data is that, as well as a pause, we have to posit a zero resumptive third person singular pronoun in the core, because the fronted element is a singular noun (*punu*). If this is tested using fronted non-singular objects, we do not find resumptive pronouns or pauses (represented in writing by commas). *Ngayunya* is fronted in (7.23) and (7.24), but there are no resumptive pronouns later in the clause. In fact, with both of these, there is an RDP rather than LDP.

Pitjantjatjara

(7.23) *Ngayu-nya punu   u-ngu,   wati paluru*
        1SG-ACC wood.ABS give-PST man 3SG.NOM
        'I was given some wood by the man'

P/Y (Goddard 1996: 9)

(7.24) *Ka   ngayu-nya wipu panya ankala   u-ngu,   ngayu-ku mama-ngku.*
        and.DS 1SG-ACC tail   DEM tip.ABS   give-PST 1SG-GEN father-ERG
        'And he, my father, gave me the end of the (kangaroo's) tail.'

In (7.25), the addressee *Kutjukuru* is outside the clause for clitic placement: but vocatives do not receive clitics anyway.

Pitjantjatjara (Rose 2001: 294)

(7.25) *Kutjukuru   mayi-ni   u-wa*
        [name].VOC food.ABS=1SG.ACC give-IMP
        'Kutjukuru, (you) give me food!'

(7.26) shows a more likely candidate for LDP with a referent *likara nyangatja* being introduced, then a pause, followed by two S-transitive verbs that refer to it as object. However this object is third person singular zero, so again there is no overt evidence for a resumptive pronoun.

Yankunytjatjara (Kalotas et al. 2002: 39)

(7.26) *Likara nyangatja, kutja-ra   maru-ra=mpa,   ulupu-ngkula=mpa*
        bark   DEM   burn-SER blacken-SER=INT   grind.to.powder-SER=INT
        'This bark, (you) burn (it), blackening (it), (and) make (it) into a powder.'

Given the paucity of direct evidence in the corpus, we constructed some examples, given in (7.27) to (7.31), and tested them for acceptability with a consultant. The proposed 'LDP' topic in each is not a singular noun phrase; so, as intended, the resumptive pronoun is not zero.

(7.27) *Wati tjuta,   ngayulu   tjananya   nya-ngu*
man PL.ABS   1SG.NOM 3PL.ACC see-PST
'the men, I saw them'

(7.28) *Ngayunya, paluru=ni   nya-ngu*
1SG.ACC 3SG.NOM=1SG.ACC see-PST
'(as for) me, he saw me'

(7.29) *Nyuntunya, ngayulu=nta   nya-ngu*
2SG.ACC   1SG.NOM=2SG.ACC see-PST
'(as for) you, I saw you'

(7.30) *Ngayulu,   nyuntunya=na   nya-ngu*
1SG.NOM 2SG.ACC=1SG.NOM see-PST
'(as for) me, I saw you'

(7.31) *Nyuntu,   palunya=n   nya-ngu*
2SG.NOM 3SG.ACC=2SG.NOM see-PST
'(as for) you, you saw him'

These turn out to be theoretically possible in Pitjantjatjara but there are no actual examples of this kind of structure in either my corpus or Rose's data (p.c.), so it does not appear to be significant. An advantage of text analysis is finding the relative frequencies of structures (Rose 2001: 305), and these constructed sentences are not typical. Certainly, this kind of 'topic reprise' is a way of focusing the topic in some languages: it can be marked in English as a topic or circumstance, as the translations show with 'the men, (as for) me' and so on. Pitjantjatjara has other ways of focusing the topic, discussed in section 7.11.

7.10 Right-detached position

Evidence for an RDP in PYN is more compelling. In PYN afterthoughts are common, adding more information to what has already been stated in the clause. These are separated by a pause from the rest of the clause, suggesting they are indeed in a RDP. We saw examples in (7.23) and (7.24) where an assumed identity is restated at the end of the clause.

In the afterthought in (7.32), the actor is last and there is a pause before it, suggesting it is in the RDP. This would require a zero third person singular in the clause, coreferenced by the overt argument in the RDP. Ngaanyatjarra only has zero third person singular, but P/Y example (7.33) demonstrates this clearly, with the third person pronoun *palu<u>r</u>u* in the clause.

Ngaanyatjarra (Glass 2006: 28)

(7.32) *Minyma   pu-ngu, wati-lu*
woman.ABS hit-PST man-ERG
'(He) hit the woman, the man = the man hit the woman'

(7.33) *ka*   *paluṟu=lta*   *ngalku-ni, wati panya*   *umaṟi-ngku=lta.*
         and.DS   3SG.NOM=TURN   eat-PRES   man ANAPH   son.in.law-ERG=TURN
         'then he eats (some), the son-in-law. '

Further evidence is provided in (7.34), where the people spoken to are referred to by the pronoun *tjana*, and then specified as *piranpa tjuta* in the RDP.

(7.34) *pulkara tjana-la*   *wangka-ngi,*   *piranpa tjuta-ngka, nganampa manta-ku*
         strongly 3PL-LOC talk-PST.CONT white   PL-LOC   1PL.GEN land-PURP
         '(We) were talking strongly to them, to the whites for our land.'

We suggest this means zero pronouns can be posited in the clause in the following examples. In (7.35) with *tjapini* 'ask', the item talked about *tamiyaka* is in the RDP as an afterthought. The person spoken to is named, so there is no need to clarify its identity in the RDP. In (7.36), there is an afterthought clarifying the identity of the listener in the main clause.

(7.35) *Tjiḻpi-lu*   *Kunmaṉara-la*   *tjapi-nu, tamiyaka*
         old.man-ERG   [name]-LOC   ask-PST tomahawk.ABS
         'The old man asked Kunmaṉara about (it), a tornahawk'
         [**do'** (tjiḻpi, [**express.**(α).**to**.(β).**in.language**.(γ)**'** (tjiḻpi, Kunmaṉara)])]
                CAUSE [BECOME **aware.of'** (tjiḻpi, tamiyaka)], where β = *Kunmaṉara*

(7.36) *Nyiṯayiṟa-ngku panya*   *watja-ning,*   *akuṟi*   *panya*
         male-ERG   ANAPH   say-PST.CONT female.ABS ANAPH
         'The male was saying (to her), the female'
         [**do'** (nyitayira, [**express.**(α).**to**.(β).**in.language**.(γ)**'** (nyitayira, akuri)])],
             where β = *akuri*

7.11 Alternative analyses of topic, focus and word order

Bowe's word order theory is examined in Rose's Systemic Functional Linguistics (SFL) work on Pitjantjatjara (Rose 2001: 520-523), in a manner that may be useful for an RRG model. In SFL, topic and focus are not alternatives, but independent choices. 'Topical Theme' is realised by first position in a PYN clause, while information focus is realised by major pitch movement in a tone group. Any element (apart from a vocative) can be Theme. Clitic pronouns are appended to it or to conjunctions (such as *munu* or *ka*). This can be explained through the function of topicalisation and information focus in a clause and how they relate to participant identification (D. Rose p.c.). It renders unnecessary Bowe's claim that a clause participant could be 'outside the sentence'.

In SFL terms, the function of the Theme is to present elements as the starting point for the clause[45], akin to the forward-looking centres in Centering Theory. While SFL has 'Topical Theme' and tonic focus, RRG has a slightly different concept of 'topic' and 'focus'. In RRG the topic is generally old and identifiable (backward-looking centre), with the predicate in focus; if it is unidentifiable then the whole sentence is in focus. So here we refer to the Theme rather than topic as the starting point, the thing that is going to be talked about whether old or new.

The subject or agent ('core participant' in SFL) is typically included in the Theme as an NP or full pronoun. Otherwise it can be a clitic pronoun (Rose 2001: 187) or implicitly understood through third person singular zero or ellipsis. Non-subjects can also be Themes: this means that in marked sentences, objects, peripheral non-arguments and predicates can be moved to the front of the sentence. Focus typically falls on the last element of the clause, marking new information. Significantly, it can fall on a Theme element by intonation, marking the Theme as both topic and new.

The following are some examples. (7.37) starts with a vocative, which does not receive pronoun clitics in PYN. The predicate *watjalku* is the Theme, and speaker and listener are included as the clitics *=na=nta*. In (7.38), *nyaa* is the Theme, and the speaker is included as clitic *=n*; there is no listener.

Pitjantjatjara (Rose 2001: 170)

(7.37) *kangkuru   watja-lku=na=nta*
        older.sister.VOC tell-FUT=1SG.NOM=2SG.ACC
        'sister, will I tell you?'

(7.38) *nyaa=n   wangka-nyi*
        what.ABS=2SG.NOM say-PRES
        'what are you saying?'

In (7.39), the actor *kuniya pulka alatjitu* is the Theme, but it is also marked as new by tonic focus on the first syllable of *pulka*; an entity is introduced that will be significant in discourse. *Tjarpangu* is S-intransitive, so there is one argument. In (7.40), the location *pitingka* is the Theme, and the undergoer is included as the clitic *=ni*. In (7.41), the predicating adjective *pulka mulapa* is both Theme and new. In (7.40) and (7.41), the actor is understood from the previous text, (7.39)[46].

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[45] Goddard (1983: 21) calls the first position 'the location for prominence'.
[46] We examine topic continuity and ellipsis in chapter 8.

(7.39) *kuniya PULka   alatjitu tjarpa-ngu*
        python big.ABS   really   enter-PST
        'an utterly huge python did enter (a burrow)'

(7.40) *piti-ngka=ni   nguwanpa tjarpa-tju-nu*
        burrow-LOC=1SG.ACC nearly   enter-put-PST
        'into a burrow (it) nearly dragged me'

(7.41) *pulka mulapa*
        big   really
        '(It was) really big'

(7.42) has the location *manta nyanga* in unmarked position (SVX) after the verb. In (7.43), the location *manta wingki* is moved to the beginning as Theme; *anangu tjuta* is now post-verb (XVS).

(7.42) *anangu tjuta   nyina-ngi   manta nyanga-ngka*
        people PL.ABS   sit-PST.CONT land   DEM-LOC
        'People were living in this land.'

(7.43) *manta wingki-ngka   kunyu nyina-ngi   anangu   tjuta*
        land   all-LOC   REP   sit-PST.CONT people   PL.ABS
        'In all the land, it's said, the people were living.'

English also uses intonation and grammar to mark information focus. The structures in (7.44) create separate tone groups where tonic focus falls on 'us'. These are marked topics in English, introducing the starting point for the clause that follows. Grammatically, (7.44a) is in the LDP; (7.44b) creates a cleft sentence.

(7.44) (a) As for us, we don't like coffee.
        (b) It was us who drank the tea.

So, returning to Bowe's (1990) examples, because Theme is realised in Pitjantjatjara by first position, if *punu* comes first it is the Theme, or at least part of it. Other participants are cliticised to this as backgrounded elements, or understood by context. However, there can be only one Theme, as a full pronoun or NP. So without separate tonic focus, *punu* in (7.45) must be part of the Theme NP along with *watingku*, and the whole NP receives the pronoun clitic: we have given the sentence a new translation. (7.46) is dubious because neither *punu* nor *wati* 'man' are identified as previously known (or else they would be pronouns) so together should be Theme.

(7.45)   *Punu wati-ngku=ni   u-ngu*
          wood man-ERG=1SG.ACC give-PST
          '(a/the) wooden man gave (it) to me'

(7.46)   ?*Punu=ni   wati-ngku u-ngu*
          wood.ABS=1SG.ACC man-ERG give-PST
          Intended meaning: 'Wood is what the man gave me.'

In (7.47), *punu* comes first as the only element of a focused Theme: intonation is on the first syllable of *punu*. The giver's identity is understood by a (zero) third person pronoun in the main clause, but restated as *wati paluru* in a separate tone group as new for clarification. This is a common pattern in Pitjantjatjara, and is often referred to as an 'afterthought'. With the pause, this places it in the RDP in RRG terms.

(7.47)   *PUnu=ni   u-ngu,   wati paluru*
          wood.ABS=1SG.ACC give-PST, man 3SG.NOM
          'Wood is what (he) gave me, the man'

How then could we have two full NPs in non-canonical order at the start of a PYN sentence, and how could this be represented in RRG? One way is given in (7.48), by splitting into two clauses or tone groups. The first clause establishes focused Theme *punu*, marked by intonation. Because *punu panyatja* is not in the second clause, it does not receive the pronoun clitic. The projection is in Figure 7-7: each clause has 'sentence focus'.

(7.48)   *ka   punu panyatja*
          and.DS wood DEM
          wati paluru=ni   tjukutjuku   u-ngu
          man DET=1SG.ACC some.ABS give-PST
          'And then there's the wood. The man gave me some.'
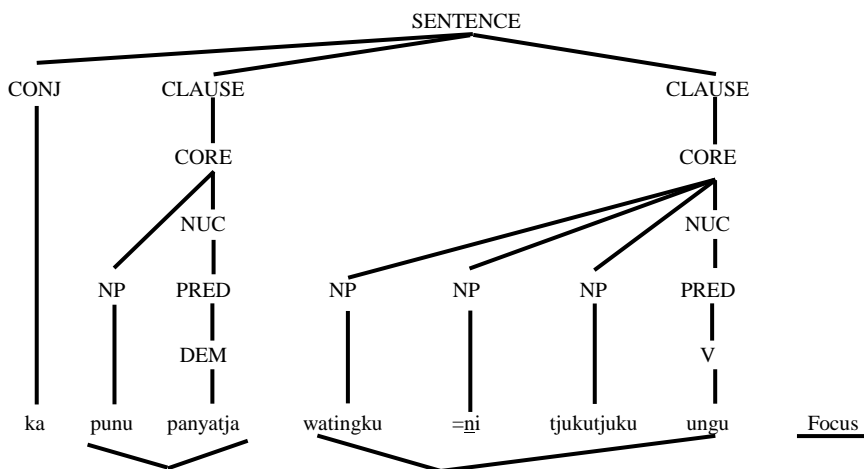
Figure 7-7: Two clause linkage

This is like a cleft sentence in English, splitting a sentence into two clauses in order to raise the topic in the first clause, and to have a comment about it in the second. It differs from Bowe's (1990: 114) example in (7.19) by the addition of the demonstrative *panyatja* with predicative function.

The motivations behind such word order changes can be related to the motivations behind the changing of voice. While English uses the passive to topicalise objects, PYN cannot as it lacks voice. Instead, word order and clitic pronouns are used to vary topics and Themes, as in (7.49) and (7.50). In (7.51), the full pronoun *ngayunya* is used so can be first.

<div align="right">Pitjantjatjara</div>

(7.49)   *wati paluru=ni   punu   u-ngu*
         man DET.NOM=1SG.ACC wood.ABS give-PST
         'The man gave me some wood.'

(7.50)   *punu=ni   u-ngu,   wati paluru*
         wood.ABS=1SG.ACC give-PST man DET.NOM
         'Some wood was given me by the man'

(7.51)   *Ngayu-nya punu   u-ngu,   wati paluru*
         1SG-ACC   wood.ABS give-PST man DET.NOM
         'I was given some wood by the man'

While this discussion helps to explain word order variations as devices for topicalising and focus, it also exposes a problem in interpreting spoken language from the perspective of written sources. Speech unfolds in time, so what comes first often has a different meaning to what comes last (D. Rose p.c.). It also varies in pitch and rhythm, which are not visible in written material. Sequence, pitch and rhythm are all used to vary the meaning of a message (SFL 'textual significance') in spoken language. Obligatory core and optional periphery elements are associated with content (SFL 'experiential structures') rather than message meaning. Martin (1996) emphasises the need to take into account more than just the text and constituents. Using written sources, the present study is more biased towards content as it generally lacks prosodic elements. The sequence of elements can be studied however and provides useful insights.

7.12 Flexibility of pronominal clitic placement

While the pronominal clitic is generally described as appending to the first constituent, the topic and focus conditions we have described show that there is flexibility. This is confirmed to be the case, in examples (7.52) to (7.54). Even in the absence of intonation in these written sources, it is evident that the clitic can be on non-initial constituents.

(7.52) *Wiltja*   *warta-ngka=ya*   *palya-rnu*
        shelter.ABS wood-LOC=3PL.NOM   make-PST
        'They made a shelter out of wood'

(7.53) *Tjinytjulu=ya*   *mangka-ngka* *tju-nkupayi*
        small.gumnut.ABS=3PL.NOM   hair-LOC   put-CHAR
        'They used to put small gumnuts in their hair'

Pitjantjatjara (Kavanagh 1990: 39)

(7.54) *Munu*   *palula malangka=ya*   *kuli-nu*
        and.SS DEM afterwards=3PL.NOM think-PST
        'And afterwards they thought'

7.13 Marked word order within PYN noun phrases

Word order is relevant to noun phrases too. Unlike in some Australian languages, such as Dyirbal (Van Valin 2005: 29), the elements of a PYN NP are contiguous. Word order in the PYN sentence is flexible, but in the NP it is generally not. Thus, as Dixon (2010: 71) outlines, it is more accurate to say phrase order is flexible.

Deviations of the strict order within NPs, involving demonstratives and genitives – determiners – can however be used in stress and contrast (Bowe 1990: 111-113). So the typical PYN order of genitive preceding head noun (ibid.: 148, Glass & Hackett 1970: 60) is flouted in (7.55) and (7.56) with genitive last in the NP.

P/Y (Lester et al. 2013: 8)

(7.55) *culture ngana-mpa, manta ngana-mpa, Tjukurpa ngana-mpa.*
        culture 2SG-GEN   land 2SG-GEN   story   2SG-GEN
        'Our culture, our land, our story'

Pitjantjatjara (Trudinger 1943: 209)

(7.56) *Njaŋanpa   kulata wati mirpanpa tjuṯa-ku*
        Nyanganpa kulata wati mirpanpa tjuta-ku
        DEM   spear man angry   PL-GEN
        'These are the spears of the angry men.'

An unmarked NP has the head noun first (apart from genitive constituents). In Pitjantjatjara, pronoun-head, demonstrative-head and demonstrative-pronoun-head NPs occur, that have a contrastive focus on the head (Bowe 1990: 143). Bowe has provided slightly different translations to reflect these in (7.57) to (7.59).

(7.57) *Paluṟu   minyma-ngku=<u>ni</u>   nya-ngu*
     3SG.NOM woman-ERG=1SG.ACC see-PST
     'It was the woman who saw me'

(7.58) *Panya   minyma-ngku=<u>ni</u>   nya-ngu*
     DEM   woman-ERG=1SG.ACC see-PST
     'It was the woman who saw me'

(7.59) *Panya   paluṟu   minyma-ngku=<u>ni</u>   nya-ngu*
     DEM   3SG.NOM woman-ERG=1SG.ACC see-PST
     'It was that woman who saw me'

The constituent is thus picked out both by word order and demonstratives. This latter is similar to the case in cleft sentences where a simple sentence becomes complex with two clauses; but there is no second predicate here as found in the English 'it-cleft'. This also distinguishes them from the earlier two-clause example in (7.48).

7.14 Foregrounded prominence

If there is only one argument, as in an S-intransitive clause, how might it be foregrounded in the absence of marked word order? *Wati kutju* is marked ergative in (7.60) with the S-intransitive verb *nyinangi*. This seems to run counter to the case marking discussed up to now. However, it can occur with emphasis, to make identities prominent, or to mark the character's agency; here it marks the significance of the story's main character or 'foregrounded prominence' (D. Rose p.c.). As before, a character is introduced as the starting point for a narrative. It should be pointed out this is not frequent in the corpus.

(7.60) *Ka   kunyu wati kutju-ngku tili   wiru-tjara-ngka   nyina-ngi*
     and.DS REP   man one-ERG   brands fire-having-LOC   sit-PST.CONT
     'And apparently there was only one man who had good firebrands'
     have' (wati kutju, tili)

7.15 Summary and discussion

We have extended the analysis in this chapter by taking into consideration pragmatic factors, looking at word order strategies in PYN for topicalising and focusing participants. PYN sentences are not truly 'free word order'; pragmatic choices are indicated by the word orders used. In dialects such as these which lack a morphological passive, fronting the undergoer allows it to be the topic of the clause which is one of the functions of the passive. However, unlike voice, word order changes are not valence changing. Both the semantic representation and S-transitivity remain the same. So word order assumes only some of the functions of the passive.

We find that AOV order is preferred in neutral clauses. By changing this to OAV, O has either been topicalised with the rest of the clause in focus, or is itself narrow-focused. Where O is not overt, A has to move to a post verbal position to indicate focus. Afterthoughts are shown to be in the RDP, separated by a pause or comma and with a coreferring argument (potentially third person singular zero) in the core. Verb first clauses are not typically found in PYN; it is arguments or adjuncts that are highlighted by fronting. We show that in practice if not theory, LDPs are not a feature of PYN; topicalised elements are in the clause and other rules determine the placement of pronoun clitics. The main motivation for having an element at the start of a clause is to present it as the starting point of discourse: this may be old or new information. This sets up a topic; existing topics are typically represented by pronouns, which if the topic is a noun phrase of singular number, is the zero third person. We showed how this is driven by the interplay between word order and intonation, and how RRG's information structure can successfully represent this. We need to distinguish these topics carefully as presentational and forward looking.

If information is old and known by speaker and listener there may be no need to express it. This forms the subject of the next chapter.

8 Ellipsis and switch-reference in PYN

In this chapter, we will propose extensions to the RRG theory to fully cater for the particular kinds of ellipsis and switch-reference found in PYN.

We investigated valence decreasing in chapter 5, where the number of syntactic, semantic or macrorole arguments expressed is lowered. We found syntactic detransitivisation, where arguments are moved from the core to the periphery, is not a feature of PYN. Inchoatives and decausatives are formed through morphological suffixing and this is semantic rather than syntactic. Other languages do have syntactic valence decreasing, where the semantic valence remains the same but an agent or patient is put in the periphery or omitted; there is an accompanying change in the verb.

In other situations however there is no change in the verb, but controlling or affected arguments are simply unexpressed. The S-transitivity apparently remains intact, as evidenced by unchanged case marking in remaining overt arguments. If the unexpressed argument has definite reference, this is ellipsis as noted in chapter 2, section 13. We saw in chapter 6 that subjects are only expressed once with serial verbs and are optional with dependent clauses; but in these situations the structures dictate or at least help in the interpretation of missing arguments. In the serial verb structure the S/A argument is shared; in a dependent clause, the identity of its S/A argument is informed by switch-reference endings.

We will examine the different forms that ellipsis takes in PYN, and distinguish these from both valence decreasing and construction-based non-expression of arguments. The problem then addressed is that of an RRG account of ellipsis as manifest in PYN. RRG is monostratal, so how should it account for semantic entities that are 'there' but not expressed? This question has been left till last, because while up to now the structures discussed form part of syntax, ellipsis can be pragmatic, reflecting how language is actually used and perhaps not constrained by morpho-syntactic rules. Furthermore, it follows logically from word order discussions in its relation to the given-new distinction in an utterance or consciousness.

Switch-reference is one way by which non-expressed arguments can be interpreted. Switch-reference endings were discussed in chapter 6, section 5, and here other PYN switch-reference means are investigated. Van Valin & LaPolla (1997: 287, 450) give a general RRG analysis of switch-reference. Their examples from other languages include verb morphology that indicates whether an argument fulfilling a syntactic function is the same as that of the following clause. In PYN, dependent verb subject reference looks back to the main not the previous clause. Switch-reference is distinguished from switch function where a given participant changes role. We look for evidence of these in PYN.

8.1 Ellipsis in Australian languages

In Australian languages generally ellipsis is widespread (Dixon 2002: 79), and at the time of the book's writing Dixon claimed that it had not been studied fully. All types of constituents may be elided, including A, S or O arguments as well as verbs. For instance if the clause consists solely of a particle or single nominal, it is elliptical with a predicate removed (Blake 1987: 3). The elided constituent may be inferred by context, the previous clause, or left unspecified (Dixon 2011: 497).

In the literature on Australian languages, there is some difference of opinion over what exactly 'argument ellipsis' is. With respect to arguments, the default third person is widespread on the continent: a verb on its own is a complete sentence as zero is the normal third person singular argument in Australian languages (Blake 1987: 3). For example in Warlpiri, ellipsis is unmarked (Baker & Mushin 2008: 13-14) and missing arguments have third person definite reference (Austin 2001). This allows thematic continuity which is normal in discourse (Baker & Mushin 2008: 13-14) and narrative following the actions of a third person protagonist. We should consider too the kinds of texts analysed. As Baker & Mushin (ibid.) point out, narratives typically describe a sequence of events which is the primary context for ellipsis. There is also evidence for high rates of ellipsis in Australian languages in conversation (D. Rose p.c.). Blake (1987: 12) though considers verb-only sentences to actually be non-elliptical, which would be the case if the third person pronoun is considered a zero morpheme. So for true ellipsis in such cases, we need to identify areas where a non-expressed argument is not third person, where context trumps the default interpretation of zero as third person.

While non-verbal sentences are rare in Ngaanyatjarra narratives (Glass 1979: 32), ellipsis may extend to the clause in Pitjantjatjara (Rose 2001: 371, 380, 405). It may extend even further: stories themselves may be incomplete (Klapproth 2004: 75), and listeners can fill in the gaps if they are acquainted with a story. This stretches presupposition, by including the knowledge the listener is assumed to have. Brevity of expression is generally preferred where the speakers are familiar with the context or setting of the discussion (Douglas 1957: 75). In the following sections discourse representation is included in the analysis.

8.2 Distinguishing ellipsis from valence decreasing in PYN

PYN is heavily elliptical and arguments are frequently dropped especially in discourse (Goddard 1983: 138, Douglas 1957: 21). Because PYN has no argument marking on the verb, if arguments are missing, there is a need for other means of referent tracking.

With ellipsis, by definition the non-overt argument is still understood; it is not the same as semantic valence decreasing where a participant is removed from the scene. In PYN, changes to a verb's S-transitivity are identifiable by case marking. If the sole overt argument of a S-transitive verb has ergative marking, this indicates that the O argument that would have

absolutive marking has been elided and that the verb has maintained its S-transitivity. However, if the sole argument has absolutive marking it is ambiguous as to whether the verb is still S-transitive with an elided A argument and overt O, or if the sole argument is now S with a valence-decreased verb. Here we have to rely on the presence or absence of morphological valence-changing marking on the verb.

How is a missing argument understood? All arguments must be represented in PYN simple sentences; the absence of overt arguments is interpreted as third person singular (Bowe 1990: 24, Glass & Hackett 2003: 9) and the particular referent is recovered by context. This is not functionally different to pronoun clitics such as =_na_ and =_ya_, and is so common that it is regarded as a zero morpheme clitic, =Ø. Thus the first assumption is based on the gap in the pronoun clitic paradigm, third person singular subject or object.

The dialogue fragment (8.1) is an example of common exchanges that are highly elliptical and condensed. The referent is not recoverable from the words in the absence of context, and third person is presumed. *Punka<u>n</u>i* 'fall' is an S-intransitive verb, so only one argument is unexpressed.

<div align="right">Pitjantjatjara</div>

(8.1) *Nyaaring'?*
   Nyaa-ri-ngku
   what-INCH-PST
   'what happened (to him)?'

   Wiya, punka-nu
   NEG fall-PST
   'nothing, (he) fell.'

This third person singular default in PYN distinguishes it from other heavily elliptical languages: for example, it cannot be assumed that third person is the default in Mandarin Chinese where arguments are non-overt (R. Jiang p.c.); context is always required.

If an argument is not expressed, the overt arguments in the clause maintain their expected case marking. In (8.2), the person asked, *mama*, is in the non-core locative case; the item asked about has been elided. The latter would be absolutive if present: the sole overt argument *katjangku* maintains its ergativity.

<div align="right">P/Y (Goddard 1993: 16)</div>

(8.2) *Katja-ngku mama-ngka   tjapi-lku.*
   son-ERG   father-LOC   ask-FUT
   'The son might ask his father (about it).'
   [**do'** (katja, [**express.**(α).**to.**(β).**in.language**.(γ)**'** (katja, mama)])]
        CAUSE [BECOME **aware.of'** (katja, Ø)], where β = *mama*

As an anaphor, the (zero) third person generally refers to an item that is active in discourse. Other factors may be involved however. Blake (1987: 61) describes cognate object constructions, for example 'speak a language' or 'wear clothing' where the object is predicted by the verb. This licenses ellipsis: Douglas (1957: 53) claims that certain Ngaanyatjarra verbs have expected arguments which may not need to be specified, such as the imperative *tjikila* 'drink (water)'. Interpretation of the referent is through the greater context and culture rather than through antecedents within the sentence or immediate text. This relates to ontological salience as described by Schmid (2007: 120). Thus in its minimal form, the verb can occur alone in Ngaanyatjarra (Douglas 1957: 21) with both subject and object non-overt. For example in the imperative of the S-transitive verb *kultulku* 'spear' in (8.3), the unexpressed cognate object with this verb is probably a kangaroo (ibid.).

Ngaanyatjarra (Douglas 1957: 21)

(8.3)   *Kultu-la*
        spear-IMP
        '(you) spear (it)

Such ellipsis appears constrained though. So while a Pitjantjatjara sentence with ellipsis is acceptable, sentences like (8.4) are deemed incomplete out of context by Bowe's informants (Bowe 1990: 66). Bowe suggests that zero NPs and ellipsis in Pitjantjatjara may be a marked phenomenon (ibid.: 65-67), which is a different interpretation to that of other authors. The difference may reflect the fact that P/Y has the full third person singular full forms *palu<u>ru</u>*/*palunya* available, which Ngaanyatjarra lacks.

Pitjantjatjara (Bowe 1990: 66)

(8.4)   *Wati-ngku waka-<u>nu</u>*
        man-ERG spear-PST
        'The man speared (it/something)'

Specific constructions may dictate this. Using the active adjective *walytja* 'by oneself' in (8.5) changes the sense from a regular reflexive with S-transitive *wakanu*. This means that an unexpressed object has to be retrieved (as third person singular) as it is not first person singular.

Pitjantjatjara

(8.5)   *Walytja-ngku=<u>na</u>=tju*   *waka-nu*
        oneself-ERG=1SG.NOM=REFL spear-PST
        'I speared (it) myself'
        *'I speared myself'

8.3 Omission: anaphoric device or non-specific argument

Valence decreasing is syntactic or lexical which changes the verb and its requirement for arguments. Ellipsis is rather pragmatic; it does not change verb morphology or the structure of the clause. We should consider also whether an elided argument is anaphoric or general and non-specific. To understand the former, arguments must be salient or accessible. A saliency hierarchy is discussed by Chvany (1990) and Fillmore (1977: 101-102). In the absence of overt nouns, referents of pronouns whether overt or not must be active or accessible in some way. Chafe (1974) discusses the presence of information in a person's consciousness during a conversation; this allows gaps to be filled in.

As mentioned, in PYN a zero is usually anaphoric. In (8.6), *ngalku* 'eat' and *mantjilku* 'get' occur without any overt O argument; both verbs are semantically divalent and S-transitive. In the sub-clause, the ergative case marker *-lu* on *mama ngunytju* indicates the S-transitivity of *mantjilku* and *nintilku* 'give'; the zero O argument is still manipulated. In this case a cake was being prepared and is referred to in each succeeding clause. Despite the lack of overt reference, there is thematic continuity of the cake being cooked, got, given and eaten.

Ngaanyatjarra (Glass & Hackett 1979: 54)

(8.6)   *ngara-ku   ngula   tangka-rri-ngkunyangka*
         stay-COND later   firm-INCH-ANT.DS
         pitja-ku   mantji-lku   nga-lku
         come-COND get-COND eat-COND
         mama ngunytju-lu=pula   mantji-lku   ninti-nnyangka
         father mother-ERG=3DU.NOM get-COND   give-ANT.DS
         '(They) would stay (and) later when (the cake) had become cooked, (they) would come (and) get (it) (and) eat (it), mother and father having got and given (it).'

PYN object ellipsis, as in (8.6), stands in contrast to the situation in English. The PYN verb *ngalku<u>ni</u>/ngalku* 'eat' is always S-transitive and semantically divalent. Payne (1997: 48, 171) uses the English example with 'ate' in (8.7), but here the Ø indicates object omission, rather than being an anaphoric device: it does not refer to anything specific. It is claimed that in this case 'ate' has a semantic valence of two but a grammatical valence of one. This is distinguished from ellipsis, where a referent is left unexpressed because it is known through context.

(8.7)   George already ate Ø

This claim can be tested as follows. Because unrealised arguments cannot be interpreted as discourse referents in English (Van Valin & LaPolla 1997: 122), in (8.8) the reply is not acceptable if it does not have a referent, in this case the sandwich referred to as 'it'.

(8.8)   'Where is my sandwich?'
         ?'Bill is eating.'
         'Bill is eating it.'

This confirms that 'Bill is eating' refers to nothing in particular being eaten so is not an appropriate response to the question. O is dropped in (8.7), but this zero is not interpreted as an anaphor.

Zero-realised anaphors in PYN are interpreted with no animacy hierarchy. So in a situation where a man and a dog are at a camp and the man leaves and then the dog follows (8.9) or the dog leaves and the man follows (8.10), both could be expressed with just the verb as in (8.11).

<div align="right">Pitjantjatjara</div>

(8.9)   *Papa-ngku wana-nu   wati*
        dog-ERG   follow-PST   man.ABS
        'The dog followed the man'

(8.10) *Wati-ngku wana-nu   papa*
        man-ERG   follow-PST   dog.ABS
        'The man followed the dog'

(8.11) *Wana-nu*
        follow-PST
        '(He/it) followed (him/it)'

While usually a non-overt argument in PYN is interpreted as anaphoric third person singular, a non-overt argument can be non-specific and generalised. The PYN verb with characteristic ending *-pai/-payi* could be translated as 'you' or 'one' with no need for an overt argument, as in (8.12). This is how something is done, with no specific third person in mind.

<div align="right">Yankunytjatjara (Kalotas et al. 2002: 41)</div>

(8.12) *Puyu-tju-ra   manara-nkupai, wiya-lpai.*
        smoke-put-SER go.numb-CHAR, NEG-CHAR
        '(You) give a smoke treatment to make (it) go numb, to kill (the pain).'

A possible motivating factor is that direct reference to people is avoided: a lot of discourse in Pitjantjatjara has an anonymous character and is spoken in an impersonal manner, with personal interests being de-emphasised (Liberman 1982). The term *alatji/yalatjirtu* 'that's it' is a PYN verbal affirmation referring more directly to the content of the previous discussion. In a similar vein, *paluru* (P/Y) and *palunya* (PYN) are marks of approval, indicating 'that one' (ibid., Glass & Hackett 2003: 277, 543).

8.4   PYN tracking non-overt referents

Characters in PYN narratives are usually presented at the outset (Klapproth 2004: 246-247, Glass & Hackett 1979). After an introductory passage their referring expressions may be elided for a certain period, while being active or accessible. If the story is told in the third person singular, there is no requirement for overt arguments, because of the zero clitic; if told in first or

second person, non-zero pronominal clitics represent the arguments. Independent pronouns may be used for emphasis, especially in P/Y which has a full set.

Narrative sentences are long in Ngaanyatjarra, with an initial subject followed by a series of verbs or object-verb expressions (Douglas 1957: 103). Similarly, in Pitjantjatjara there are numerous verb only clauses in the corpus (Bowe 1990: 122). The following are the first two lines in a story. The text in (8.13a) introduces the characters of two brothers; (8.13b) only contains a series of overt verbs. The subject of these intransitive verbs is interpreted as third person singular: one stayed and the other got up and left.

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 1)</div>

(8.13) (a) *Wati=pula   kutjarra kurtararra   nyina-rranytja   waru-maalpa*
              man=3DU.NOM two   two.brothers sit-PST.CONT   fire-without
              'Two men who were brothers had no fire.'
        (b) *Nyina-ngu-nyina-ngu   wanti-rra   kuti-pitja-ngu*
              stay-PST (x2)   leave-SER   out-go-PST
              'And (one) got up and went away.'

There are two clauses in (8.14), indicated by the comma (pause) and the position of the clitic *=lanya* which goes on the first element of the second clause. *Warritjunku* 'make cold' is S-transitive and *=lanya* is the undergoer: sole expressed argument but still accusative. *Pirriya* is carried through as the actor into the second clause.

<div align="right">Ngaanyatjarra (Glass & Hackett 2003: 500)</div>

(8.14) *Pirriya-lu   nyaa-ra,   warri-tju-ra=lanya*
         wind-ERG do-PRES cold-put-PRES=1PL.INC.ACC
         'The wind$_{ACT}$ is doing (it), (it) is making us$_{UND}$ feel cold.'
         [**do'** (pirriya, Ø)] CAUSE [BECOME **feel'** (1PL, [**cold'**])]

Less frequently a non-third person singular can be understood. The chain of verbs in (8.15) has the shared subject *ngankulu* 'I', introduced at the start. There is no serial form here guiding the interpretation of non-overt arguments of each verb, but it is not third person so this is true ellipsis[47].

<div align="right">Ngaanyatjarra (Douglas 1957: 112-113)</div>

(8.15) *nganku-lu   kuti-pitja-ngu,   ki<u>t</u>i   palya-<u>n</u>u,*
         1SG-NOM out-go-PST   gum.ABS prepare-PST
         warpu-<u>n</u>u,   warpu-<u>n</u>u   yapu-ngka   tju-nu.
         pull.up-PST,   pull.up-PST rock-LOC   put-PST
         'I went out (and) prepared kiti. (I) pulled up (the spinifex), pulled (it) up and placed (it) on a rock.'

---

[47] Knowledge of how to make *ki<u>t</u>i* informs knowing that spinifex is gathered; so O is not specified.

8.5 Semantic interpretation

While apposed clauses usually share subject, this is not always the case. In (8.16) with two S-transitive verbs, the effector (one who shooes) and experiencer (one who sees) are not the same entity. O from the first is A in the second, indicating a semantic rather than syntactic pivot. The English translation uses a passive, undergoer S from the first coreferences A from the second. In this way, the passive satisfies S/A pivot constraints on clause linking (Dixon 2000: 32). In the Pitjantjatjara text there is no structural reason to presume a passive in the first verb; since zero third person pronoun can be A, S or O this sentence is interpreted by context. The background is of a mother who becomes frightened upon seeing a dingo.

Pitjantjatjara (Eickelkamp 2014)

(8.16) *Munu   pai-nu   nya-ngu kuku-nya*
and.SS shoo-PST see-PST monster-ABS
'And (she) was shooed off, having seen a monster'
          Lit. '(It) shooed (her) off, (she) saw a monster'
[**do'** (3SG$_i$, **shoo'** (3SG$_i$, 3SG$_j$))] ∧ [**see'** (3SG$_j$, kuku)]

A similar situation obtains in example (8.17), with missing overt arguments. The two verbs are separated by *puru* 'again'; the first verb is S-transitive and the second S-intransitive. The interpretation of the missing pronouns is determined from the previous sentence where a man is chasing a kangaroo, and it falls and gets up. These two are thus active and accessible, and fill syntactic slots based on a semantic interpretation. While there is a switch of subject, *puru* is not a switch-reference particle and there are no overt pronouns, so similarly to (8.16), interpretation is through context and semantic plausibility rather than syntactic control. Here, O from the first clause is S in the second. There is no gender coded; any of the arguments could be 'he', 'she' or 'it'. Some languages such as English have gendered pronouns which assist in distinguishing and tracking participants (Van Valin & LaPolla 1997: 289); but this option does not exist in languages such as PYN, where pronouns lack gender. So here again we must rely on a semantic interpretation, with the projection in Figure 8-1.

(8.17) *Wana-rnu   puru   paalyukati-ngu*
      follow-PST again   fall.down-PST
      '(He) followed (it) (and) (it) again fell'

```
                          SENTENCE
              CLAUSE                      CLAUSE
                |                           |
              CORE                        CORE
         NP    NP    NUC              NP        NUC
         |     |      |               |          |
         Ø     Ø   wanarnu  puru      Ø      paalyukatingu

              ACTOR      UNDERGOER   UNDERGOER

       [do' (3SGi, follow' (3SGi, 3SGi))] ∧ [fall' (3SGi)]
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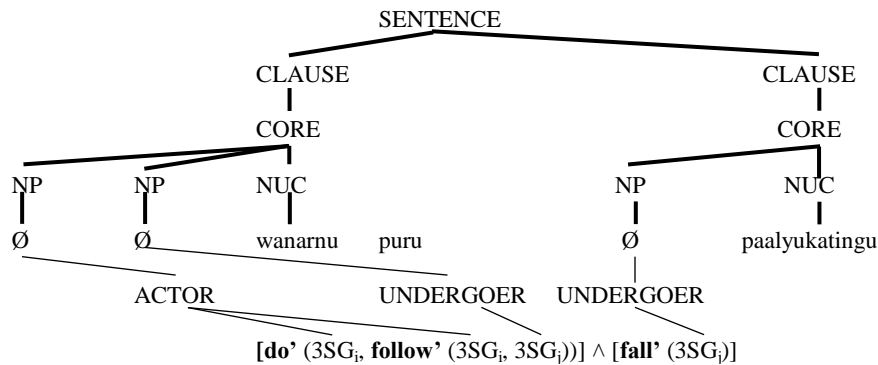
Figure 8-1: Semantic interpretation of 3rd person singular zero

Figure 8-1 has no overt arguments at all, and third person singular is understood throughout.

8.6 Switch-reference through particles

Rather than relying on semantic interpretations, syntax can guide referent identification. A common means of distinguishing protagonists is through the switch-reference particles (mentioned in chapter 3, section 17 and chapter 6, section 2) which are conjunctions that conflate with participants (Rose 2001). Such inter-clause switch-reference allows the omission of a subject: the connecting particles *munu/palyunyalu* and *ka* bring in a non-overt subject (A or S), which is recoverable as the same or different subject to that of the previous clause. This is a syntactic pivot, with loose, clause coordination[48].

Switch-reference thus facilitates ellipsis (Dixon 2011: 465-466). Where switch-reference morphemes indicate same subject, they track valence (Weisser 2012) and there is no need to overtly specify the thematically continuing argument. If the subject is switched, both protagonists need to be known to the interlocutors through context or else specified overtly: we will refer to active and accessible participants in our analysis where the active one is the 'go to' subject, while the accessible is available with a switch of subject.

The transcribed oral stories in Glass & Hackett (1979) exemplify this, typically commencing with an introductory setting of the scene and providing information about the characters. As an example, the opening passage of a narrative is shown in (8.18a), with the characters of the story (*wati* and *kurrirarra*) being introduced. In (8.18b), both are elided. This sentence begins with the different subject conjunctive particle *ka*, so only one of the two characters is now subject. There is no separate overt subject in (8.18b); one of the two original characters (the wife in the free translation) is an elided object of the S-transitive verbs

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[48] Glass (1979) has a number of rules for determining sentence boundaries but these conjunctions are not among the criteria.

nyinatjura 'tell someone to stay' and *wantirra* 'leave'. The new object *marlu* is introduced and thereafter elided too.

(8.18) (a) *Wati=pula   kurrirarra nyina-rranytja*
        man=3DU.NOM man.wife   live-PST.CONT
        'There was a man and his wife'
      (b) *Ka   nyina-tju-ra wanti-rra   wana-rnu   marlu*
        and.DS stay-put-SER leave-SER   follow-PST kangaroo.ABS
        wana-rnu-wana-rnu   parrawana-rnu-parrawana-rnu parrawana-rnu
        follow-PST (x2)   follow.around-PST (x3)
        'And telling (his wife) to stay (and) leaving, (the man) followed a kangaroo (and)
        followed (it) around and around'

The 'subject' argument in a clause is identified by whether the clause begins with *munu/palunyalu* or *ka*[49]. These conjunctions are used with both S-intransitive and S-transitive verbs to refer to the identity of the 'subject' of a succeeding clause; which can be either S or A. As with the switch-reference dependent clauses, this indicates syntactic accusativity in PYN.

This means that in many cases a PYN sentence has no need for any overt nominal arguments, as in (8.19). The sentence is introduced by *munu* which carries the same subject referent through from the previous clause. The adverb *tjukaruru* is in ergative case with the S-transitive verb *katinyi*: the participant being led is interpreted as third person singular.

(8.19) *munu   kunyu tjukaruru-ngku kati-ngi*
        and.SS REP   straight-ERG   lead-PST.CONT
        'and (he) was leading (it) straight'

In (8.20b), the clause has no overt arguments: the referents are interpreted by the switch subject: the one going across in (8.20a) is not the one doing the scaring in (8.20b).

(8.20) (a) *Ka   palunya-nya ngantjarrpa wati-pitja-yintja nganurti palunya-nya*
        and.DS DEM-ABS at.the.edge across-go-EXT   turkey   DEM-ABS
        wati-pitja-ngu
        across-go-PST
      (b) *ka   ngurlu-rnu*
        and.DS frighten-PST
        'And he, the turkey, was going across on the edge of the group and (they) scared (the
        animal)'

---

[49] *Ka* may also indicate a switch in episode rather than identity (Goddard 1996: 28).

The passage in (8.21) is composed of verbs and particles, with switch-reference between third person singular referents through *ka*. In (8.21b), the subject remains 'he' as there is no further switch. The passage *nyangu paalyukatingu* 'he saw it had fallen down' does not change the subject.

(8.21) (a) *Ka   katurri-ngkula*
     and.DS   get.up-SER
     'And (it) was getting up.'

    (b) *ka   pitja-yintja   wana-rnu   nya-ngu   paalyukati-ngu*
     and.DS come-EXT   follow-PST see-PST   fall.down-PST
     'And (he) came, followed (it) (and) saw (it) had fallen down.'

     ngarri-rranyangka pitja-ngu pu-ngkukitja-lu
     lie-ANT.DS   come-PST hit-INTEN-ERG
     'while (it) was lying (he) came to kill (it),'

     maparntju-rayirnu   puru wanka-ra   wana-rnu
     work.sorcery.on-PST.EXT again make.alive-SER follow-PST
     'worked sorcery on (it), revived (it), (and) followed (it).'

Other particles are used too: Ngaanyatjarra does not have *munu* but uses *palunyalu* in (8.22)[50].

(8.22) *palunyalu yapu-ngka yatu-lku*
     and.SS   stone-LOC hit-COND
     palunyalu mara-lu   nyaa-lku   tjila-lku
     and.SS   hand-ERG do-COND do.like.this-COND
     'And (they) would pound (it) with a stone, and (with their) hands (they) would do like this.'

Switch-reference particles are used in reported speech to track the referents in a dialogue. In (8.23), the particle *ka* refers to each brother in turn as the conversation switches between the speakers. The verb *wangkangu* 'said' and its arguments are elided as they are understood: there are only two brothers, so in the switch it is clear who is being referenced.

(8.23) *ka   kunyu*
     'and.DS REP
     'and reportedly'
     'and (the younger brother said)' / 'and (the older brother said)'

Munu/palunyalu and *ka* remove the need for an overt argument; the switch-reference particles are pronoun-like without being specific as to number or person. Nevertheless, the particles

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[50] Others include *palunyatjanu*(-*lu*) (SS) as well as (*palu*)*nyangka* (DS) (Glass 2006: 109), often translated as 'after that'.

frequently have non-zero clitic pronouns if the referent is not third person singular. We might expect that *ka* more often requires a referent as it is different subject. In Glass & Hackett (1979), *kaya* is very common; *palunyalu* only occurs twice with clitic *=pula* 'they two'; usually it is just *palunyalu* or occurs with *=ya* on first mention in a clause. *Ka=ya* 'and they' is a form of backgrounding; restating the arguments in full is foregrounding, giving prominence. The Pitjantjatjara translated Bible (Anon 2007) frequently has an overt subject even with *munu*; possibly this is written in a more formal manner.

Accusative clitics may be thought to be more likely to occur since *munu* and *ka* refer to the S or A (nominative) argument. However, accusative clitics are relatively rare in PYN compared to nominative ones. This appears to be because O arguments are introduced as nouns, and thereafter more likely to be third person, transient or general in a story than the A or S.

As noted, the particles frequently have pronominal clitics even if arguments are active or accessible. (8.24) to (8.26) are the opening lines in a passage. In (8.24), the clitic *=latju* is the subject. With the *ka* switch in (8.25) and (8.26), *=ya* and *=latju* are introduced respectively. The clitic provides the subject until the finite verb, after which it is either refreshed or switched.

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 15)</div>

(8.24) *May holidaytime=latju   ya-nu   well-ku*
        May holidaytime=1PL.EX.NOM go-PST well-PURP
        'In the May holidays we went to the well.'

        mapitja-yirnu=latju
        go-PST.EXT=1PL.EX.NOM
        Warupuyu-la=latju   nyina-rra mirrka   paa-ra   ngala-ngu
        [place name]-LOC=1PL.EX.NOM sit-SER   food.ABS cook-SER eat-PST
        'We went away (and) at Warupuyu we sat cooking (and) eating food.'

        ngarri-ngu=latju   tjirntu-rri-ngu   katu-rri-ngu=latju
        lie.down-PST=1PL.EX.NOM   day-INCH-PST up-INCH-PST=1PL.EX.NOM
        mapitja-ngu Winpuly-tja   tju-nu   nyina-ngu=latju
        go-PST   [place name]-LOC put-PST stay-PST=1PL.EX.NOM
        'We lay down (and) next day got up, went (and) set down (our things) at Winpuly (and) stayed.'

(8.25) *Ka=ya   kutitja-ngu minyma pirni-lu=ya*
        and.DS=3PL.NOM go-PST   woman   many-ERG=3PL.NOM
        raapita=ya   tjulya-rnu kati-nytja   kati-ngu
        rabbit.ABS=3PL.NOM catch-PST bring.back-NOML bring.back-PST
        'And many women went (and) they caught rabbits (and) brought (them) back.'

(8.26) *Ka=latju*   *paa-rnu*   *ngala-ngu nyina-ngu ngarri-ngu=latju*
        and.DS=1PL.EX.NOM cook-PST   eat-PST   sit-PST   lie-PST=1PL.EX.NOM
        tjirntu-rri-ngu katu-rri-ngu=latju   *kapi kutjupa-kutu pitja-nytja*
        day-INCH-PST up-INCH-PST=1PL.EX.NOM   water another-ALL come-NOML
        creek-ngka ngarri-rranytja
        creek-LOC lie-PST.CONT
        'And we cooked (and) ate (them) (and) lay down (and) next day got up, came to
        another water-hole (and) were camping at the creek.'

In (8.27a), *=latju* is the subject. *Ka* switches subject in (8.27b), though second person singular nominative *=n* is a clitic specifying the new subject. The purposive clauses in both passages indicate a subject switch only for the dependent clause.

<div align="right">Ngaanyatjarra (Kral 2012: 195-6)</div>

(8.27) (a) *Mukurri-nganyi=latju*   *mutuka purlkanya wiya-ltjaku*
            Like-PRES=1PL.EX.NOM car   big.ABS   send-PURP
            pensioner pirni-ku mirrka   kati-tjaku Warburton-tanguru Partininytjarra-ku.
            pensioner PL-GEN food. ABS take-PURP [name]-ABL   [name]-PURP
            'We would like you to send a big truck to take the pensioners' food from Warburton
            to Blackstone.'
        (b) *Ka=n*   *caravanpa   ngalyawiya-lku sister-kamu*
            and.DS=2SG.NOM   caravan.ABS send-COND   sister-also
            tjitji   miranykanyi-ltjaku Blackstone-tanguru.
            child.ABS   look.after-PURP   [name]-ABL
            'And you will send a caravan and a sister to look after the children at Blackstone.'

(8.28) has the switch conjunctions *munu* and *ka*, but the referents *wati* in (8.28a) and *tjitji* in (8.28b) are overt so the clauses do not rely on switch-reference alone.

<div align="right">Pitjantjatjara (Eickelkamp 1999: 4)</div>

(8.28) (a) *Munu   wati-ngku miru   mantji-ra kuka   palya-lpai   miru-ngka*
            and.SS man-ERG miru.ABS take-SER meat.ABS prepare-CHAR miru-LOC
            'And the man taking his *miru* (knife) prepares the meat with the *miru* (to release the
            blood)'
        (b) *ka   tjitji-ngku milkali   tjiki-lpai   kunpu nyina-nytjikitja-ngku.*
            and.DS child-ERG blood.ABS drink-CHAR strong sit-INTEN-ERG
            'and the children drink the blood to become strong.'

8.7 RRG representation of particle switch-reference

In the previous section, we discussed switch-reference through particles. How does ellipsis overlap with switch-reference? We claim that RRG's handling of switch-reference should be improved, in order to represent switch-reference conjunctions as found in PYN. We will put forward a model that uses DRT and AVMs in the RRG syntactic and semantic representations. This model will have applicability to characteristics of both ellipsis and switch-reference. In

representing ellipsis in the structures, we will augment the constituent projection with presupposition and assertion boxes as discussed in chapter 2, section 13.

In (8.29), the test cases are the conjunctions *munu* and *ka*. In this instance they do not have pronoun clitics or full arguments; the first assumption is that two third person singular protagonists are involved. The conjunctions specify identity of subject with respect to the previous subject, either the same or different. The projection is in Figure 8-2. As part of the presupposition, we include an 'active SU' which is then the base against which the new SU is compared. This is the default, understood argument currently most active in discourse. There is also an 'accessible SU' which is the first assumption of new subject if the subject is switched. The LS is provided; in Figure 8-2, we have used shorthand **go'** and **ask'** for space and clarity. In chapter 6, section 5, our AVMs had 'Main SU' as a criterion. With particle switch reference we replace this with 'Active': this refers to the currently most active referent in discourse, thus extending the remit of its expression beyond the clause.

P/Y (Goddard 1996: 28)

(8.29) *Munu a-nkula tjapi-nu*
and.SS go=SER ask-PST
ka   watja-nu
and.DS say-PST
'And he$_i$ went (and) asked (him$_j$) and he$_j$ said…'
[**do'** (3SG$_i$, [**move.away.from.ref.point'** (3SG$_i$)]) & INGR **be-at'** (Ø, 3SG$_i$)]
   & [**do'** (3SG$_i$, [**express**.(α).**to**.(β).**in.language**.(γ)**'** (3SG$_i$, 3SG$_j$)])], where β = 3SG$_j$
      CAUSE [BECOME **aware.of'** (Ø, 3SG$_j$)], where β = 3SG$_j$
   & [**do'** (3SG$_j$, [**express**.(α).**to**.(β)**' in.language**.(γ)**'** (3SG$_j$, 3SG$_i$)])], where β = 3SG$_i$

Figure 8-2: Switch-reference particles *munu* and *ka*
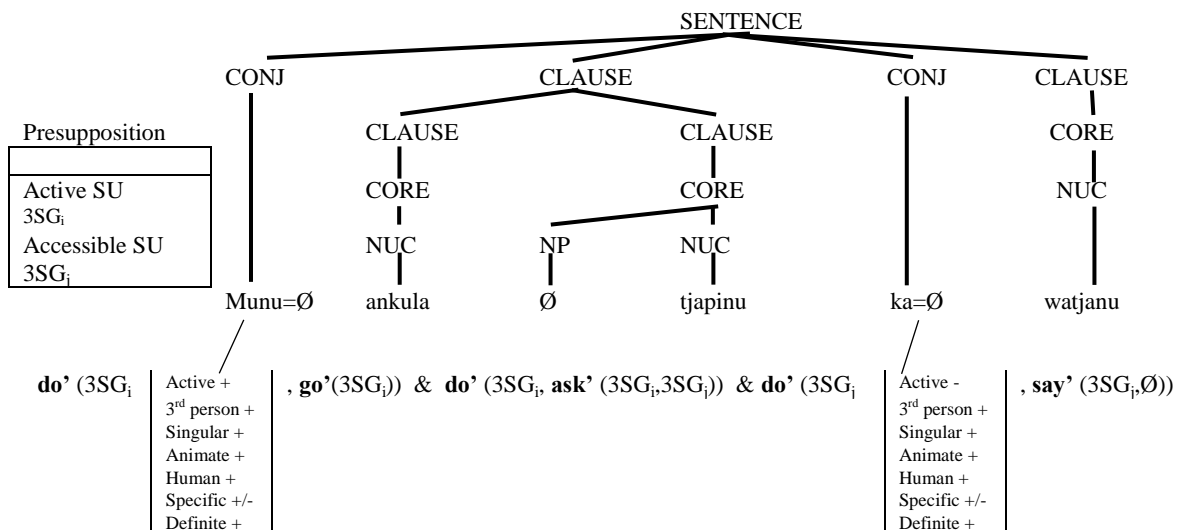
While in practice, the conjunctions usually have pronoun clitics if non-third person singular, this is not always the case or strictly required. Thus =*la* 'we' from (8.30a) is carried through by *munu* in (8.30b) without being reiterated. The projection of (8.30b) is in Figure 8-3. There is no

accessible SU, so the default third person is triggered for object: its identity is clarified later in the text.

(8.30) (a) *Tali-ngka=la*   *ya-nkupai,*
        sand.hill-LOC=1PL.NOM   go-CHAR
        'We would be travelling in sand-hill country'
        (b) *munu   nya-kupai   tali-wanu-ngku*
        and.SS see-CHAR sand.hill-PERL-ERG
        'and (we) would see (some) across a sandhill'
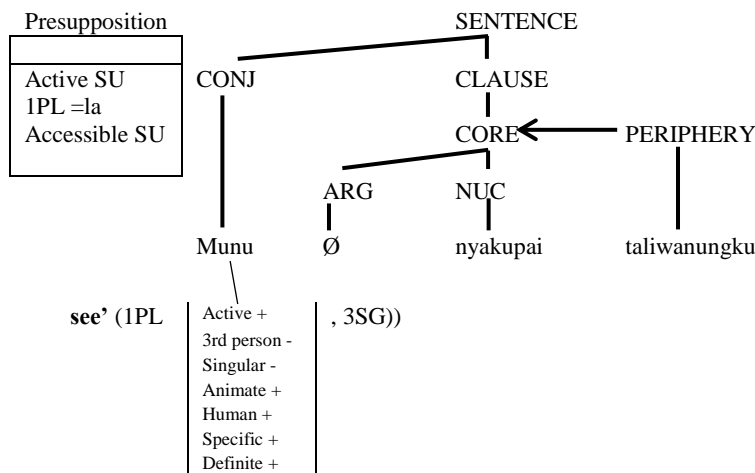
Figure 8-3: Switch-reference *munu* non-3^rd person

In (8.31b), the object is elided. Because *ka* has switched subject to the accessible SU *mama* (and it is overt in this case too), the elided object is interpreted as active SU *tjitji* from (8.31a) by context and availability. The projection of (8.31b) is in Figure 8-4.

(8.31) (a) *Tjitji=ya*   *mama-ngka   yula-rantja,*
        child=3PL.NOM   father-LOC   cry-PST.CONT
        'All the children were crying at their father,'
        (b) *ka   mama-lu   payi-nu*
        and.DS father-ERG drive.away-PST.
        'and father drove (them) away'
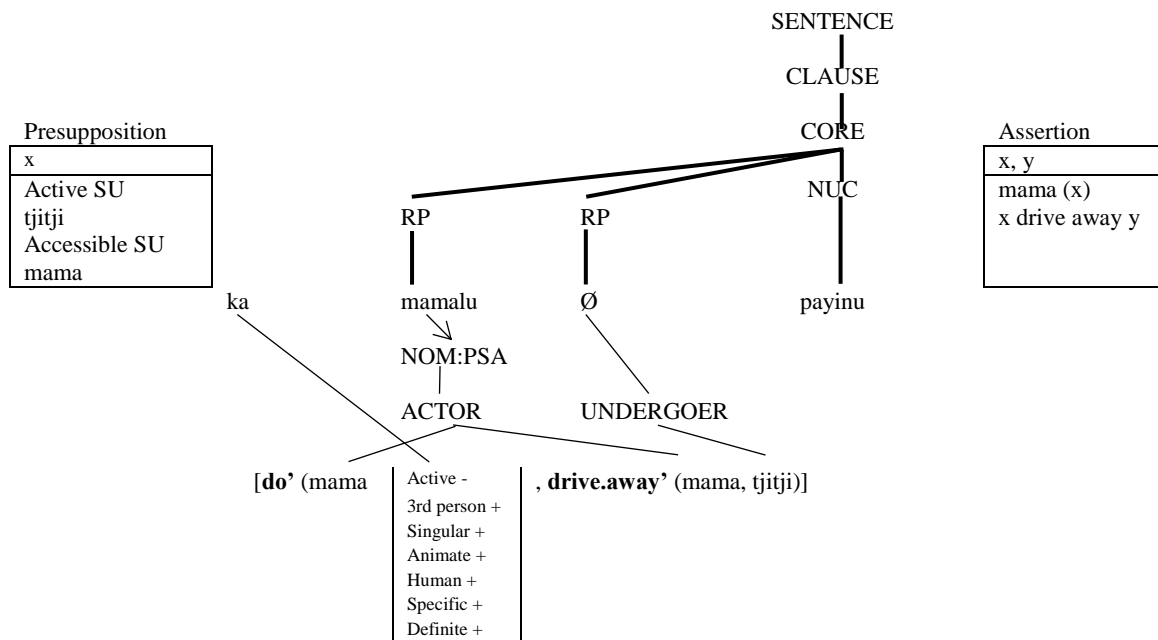
Figure 8-4: Switch-reference with *ka*

These particles are at clause level, and often occur in periphrastic causation which has verbs in separate clauses (Dixon 2000: 35-36). English has recursive agency, for example 'I made him make her'. This cannot be done in PYN. In order to tell someone to tell someone else, a double imperative is needed (D. Rose p.c.), as in (8.32). This is a two clause causative involving clauses linked by a conjunction. Switch-reference means that the second clause imperative verb is actually hortative, with a person other than second, i.e. 'let him'. While Dixon (2000: 78) rules out this kind of loose construction as causative because it is not direct, we claim this is part of a spectrum, from strong causation through looser forms, with allowing and facilitating at the other extreme. There are two predicates, each with two syntactic core slots. These have complex linking (Van Valin & LaPolla 1997: 517), illustrated in Figure 8-5. We use the short LS **say'** from Van Valin (2005: 249).

Pitjantjatjara

(8.32) *Palu-la   watja-la   ka   ngayu-la   wangka*
        3SG-LOC tell-IMP and.DS 1SG-LOC   speak.IMP
        '(You) tell him and (he) talk to me = Tell him to talk to me'
        do' (2SG, **say'** (2SG, Ø)) CAUSE **hear'** (3SG, Ø)
            & **do'** (3SG, **say'** (3SG, Ø)) CAUSE **hear'** (1SG, Ø)
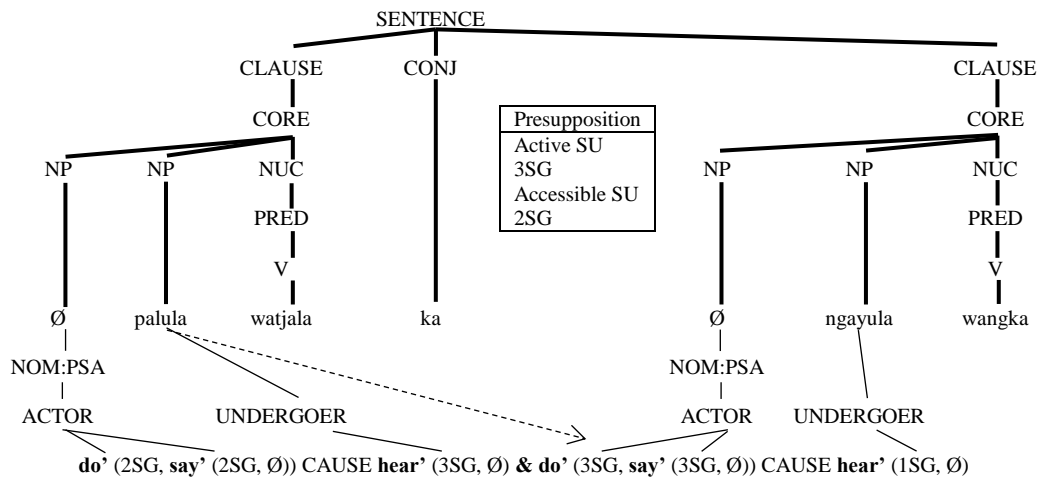
Figure 8-5: Periphrastic causative with coordinated clauses

The presupposition changes after the switch with *ka*: active SU is now 3rd person singular.

8.8 Subject ellipsis

The default third person singular cannot be regarded as straightforward ellipsis; this has different rules and reflects the zero clitic in the pronominal clitic paradigm. However other person subjects actually may be elided; and are not interpreted as third person. In (8.33a), the characters are referred to by the =*pula* pronoun clitic. In the absence of any switch-reference conjunctions or other information, this is interpreted as the same with the two verbs in (8.33b), in other words the referent =*pula* is active. The projection of (8.33b) is in Figure 8-6. This is true ellipsis, overriding the third person singular default and with no same subject particle.

Ngaanyatjarra (Kavanagh 1990: 58-59)

(8.33) (a) *Wati=pula   kutjarra-nya tjawarnu   kuti-pitja-ngu.*
          man=3DU.NOM two-ABS   quickly   out-go-PST
          'The two men went off quickly.'
        (b) *Pitja-yirnu   yapu-ngka   tati-rnu.*
          come-PST.EXT   mountain-LOC climb-PST
          '(The two) came along (and) climbed up the mountain.'
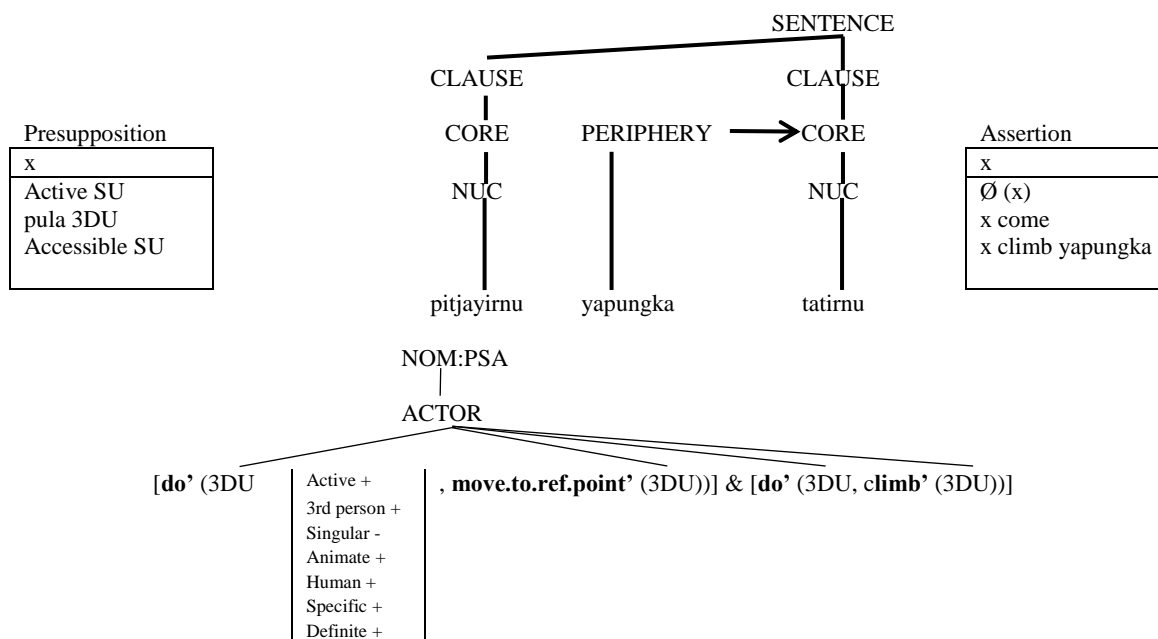
Figure 8-6: Subject ellipsis

Figure 8-6 again shows presupposition and assertion boxes, borrowed from DRT, the former augmented by active and accessible subject.

8.9 Object ellipsis

While typically a subject is third person default or elided as the topic with a chain of verbs, objects can be non-overt too. In (8.34), the object *yirliltu* 'honey-ant' is elided after its introduction, until the new object *wiltja* 'shadow' is uttered. An object will not be involved directly in switch-reference, but as we have seen may be the accessible referent to take over as subject in a switch. Non-overt third person singular subject remains constant throughout the passage, whether S or A.

<div align="right">Ngaanyatjarra (Glass & Hackett 1979: 12)</div>

(8.34) *mapitja-rnu puru nya-ngu yirliltu yirliltu*
     go-PST   again see-PST honey-ant   honey-ant
     tjawa-rnu ngala-ngu yurra-ra ngala-ngu
     dig-PST   eat-PST   collect-SER eat-PST
     nya-ngu wiltja yurri-rranytja
     see-PST shadow   move-PST.CONT
     '(He) went on (and) again saw honey-ants$_i$. (He) dug (these$_i$), collected (them$_i$) (and) ate (them$_i$), (then he) saw a shadow moving.'

8.10 Verb and object ellipsis

The following conversation starts with the assertion in (8.35), parts of which become the presupposition in the exchanges that follow. While the PYN default is third person singular and the speaker may have presupposed the listener knew the identity of this individual, the questions that follow indicate this latter was not the case. In these questions, both verb and

undergoer are elided. This confirms that ellipsis is a different phenomenon to verb valence adjusting.

Clarification of the identity of the actor is sought during the exchange. In each reply the sole NP has ergative marking even though there is no overt verb or object: this takes its cue from the elided S-transitive verb *kultulku*, which is clearly still understood, along with O. Verb and O form the event, the centre of attention, or the stack in Centering Theory terms. The identity of the actor in the event is questioned during development of the discourse. The projection of (8.35) is in Figure 8-7.

Ngaanyatjarra (Douglas 1957: 75)

(8.35) *malu pulkanya kultu-nu.*
roo   big.ABS   spear-PST
'(He/she) speared a big kangaroo.'
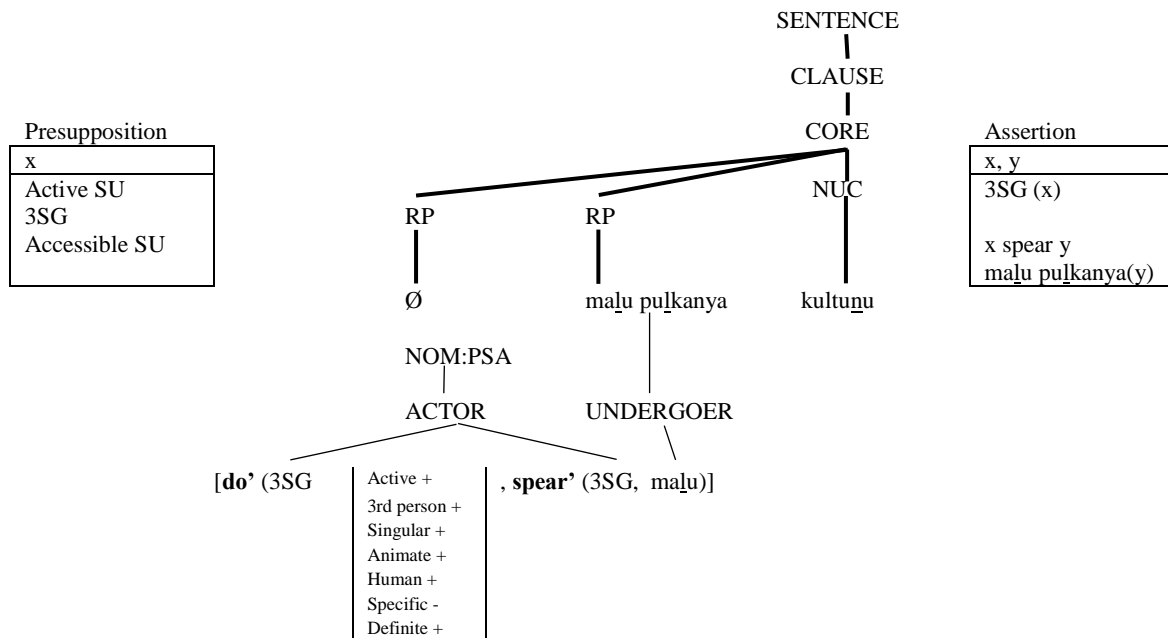
Figure 8-7: Assertion with 3rd person zero

In examples (8.36) to (8.39), verb and object are elided together as they are now the presupposition. (8.36) is a question, to clarify the identity of the actor only. The projection is in Figure 8-8.

(8.36) *ngana-lu?*
who-ERG
'Who (did)?'

SENTENCE

CLAUSE

CORE

Presupposition

x,y
Active SU
3SG (x)
Accessible SU
ma<u>l</u>u (y)
x spear y

NUC

RP

nganalu

PSA:ERG

ACTOR   UNDERGOER

Question

x
nganalu (x)

[**do'** (ngana, **spear'** (ngana, ma<u>l</u>u)]
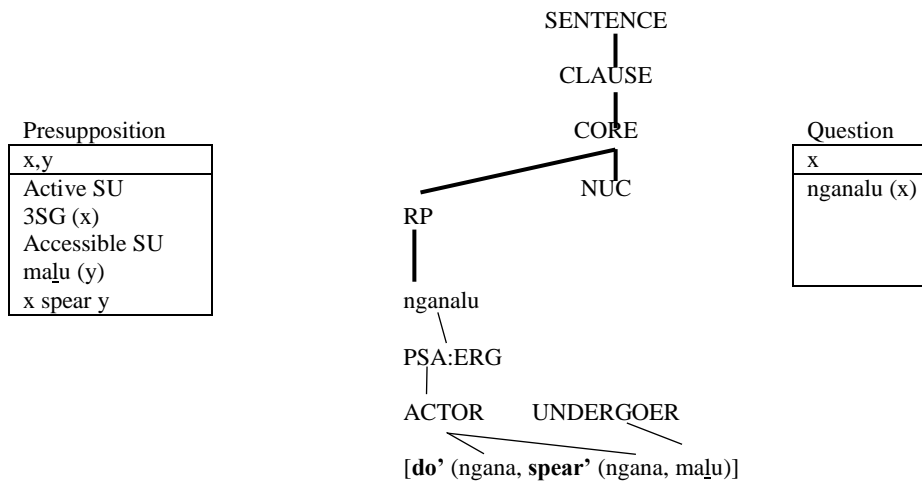
Figure 8-8: Presupposition and question

(8.37) *wati maliki-lu.*
man stranger-ERG
'The stranger-man (did).'

(8.38) *maliki   wirmira-lu?*
stranger tall-ERG
'The tall stranger?'

In (8.39), the identity is settled: again the verb and object remain as the presupposition, so do not occur in the assertion. The projection is in Figure 8-9.

(8.39) *wiya. Litji-ku   kamuru-lu.*
NEG Litji-GEN uncle-ERG
'No. Litji's uncle.'

SENTENCE

CLAUSE

CORE

Presupposition

x,y
Active SU
wati maliki (x)
Accessible SU
ma<u>l</u>u (y)
x spear y

NUC

RP

Litjiku kamurulu

PSA:ERG

ACTOR   UNDERGOER

Assertion

x
Wiya
Litjiku kamurulu (x)

[**do'** (kamuru, **spear'** (kamuru, ma<u>l</u>u)]
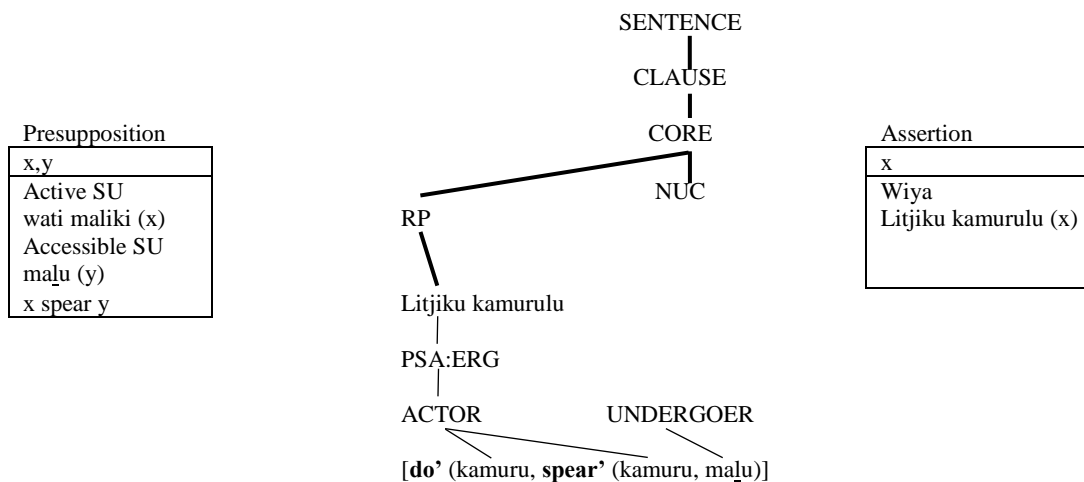
Figure 8-9: Assertion and identification

In the exchange, the undergoer and predicate do not persist as the focus is on the agent/actor, which keeps being reactivated as new. Statements, not questions, refresh the active SU. If the conversation continued, active SU is now *Litjiku kamuru.*

8.11 Summary and discussion

This chapter completes the analysis, by differentiating the pragmatic aspects represented by ellipsis from valence decreasing. We found that non-overt expression of arguments is common in PYN; the A, S or O arguments may be omitted if the referent can be retrieved from the common ground of context, situation or culture. In analysing possible cases of argument ellipsis, we ascertain what role the argument would occupy if it were present. We encode ellipsis into the representation through an extended RRG theory that takes in analytical tools from other theories.

With Van Valin's (2005: 79) five levels of constituent, newly introduced entities are brand new anchored or unanchored; after that they may be active, accessible or inactive. Pronouns and pronoun clitics (including third person singular zero) reference active arguments. In PYN, we suggest there is only one active SU at any one time as discourse topic, while there may be several active entities with other functions. One of these latter is also the accessible SU, the default in a switch of subject. Context can override this.

The use of independent pronouns rather than clitics in PYN is generally marked. In the absence of other evidence a missing argument is interpreted as third person singular, with definite reference. Outside context, overt independent pronouns are used in emphasis or along with bound pronominal clitics, to indicate that the core argument is an entity other than third person singular default. While the third person singular zero clitic may resemble pro-drop, there is no head marking to indicate or reference dropped arguments.

Valence decreasing is clearly different to ellipsis. In languages that have the passive, the agent is demoted or removed. In the latter case the argument may be implied but is unspecified; there is morphological marking on the verb and overt arguments have case markings that follow suit. In contrast, with ellipsis the argument is still understood as present, specific but not overt; remaining arguments behave as they do with all arguments overt. Here, there must be means of tracking such elided arguments as narrative proceeds. In PYN, the usual way of tracking is through switch-reference and this is found in clause coordination (*munu* and *ka* as well as apposed clauses and serial verbs) and subordination (sub-clauses); we have discussed this in previous chapters. Even with clause coordination, the particles usually have pronoun clitics if their reference is not third person singular. Certain cross-linguistic features that facilitate ellipsis and the dropping of pronouns, such as head marking, are missing in PYN.

A question to consider in pragmatically motivated argument ellipsis is how often the protagonists are refreshed and whether the actor or undergoer is more likely to be refreshed.

Cultural and emergent common ground are manifest by PYN by both ellipsis and switch-reference. With emergent or developing common ground, switch-reference particles indicate how many protagonists are involved in the discussion and their potential function as subjects: *munu* if one, *ka* if two, with action back and forth. If there are more than two protagonists, there is a need to specify identity. This is reflected at the level of the clause, sentence and discourse. We suggest active and accessible participants are the initial default assumptions for a non-overt identity, in that order.

We can now update Table 2-6 with the addition of PYN, shown in Table 8-1. The 'subject' in pivot constructions such as 'want' has restricted neutralisation, and switch-reference is the alternative to constraints on coreferentiality (Dixon 2011: 465-466). This is the case for PYN which has an S/A pivot with switch-reference.

Table 8-1: Comparison of PYN restricted neutralisation and pivot type

Language	Restricted neutralisation	Pivot type
English	[S, A, d-S]	Variable syntactic pivot
Dyirbal	[S, U, d-S]	Variable syntactic pivot
Warlpiri	[S, A]	Invariable syntactic pivot
PYN	[S, A]	Switch-reference

The idea of valence as being the number of obligatory elements determined by the predicate should not be confused by ellipsis. Altering the semantic valence (or the S-transitivity) of a predicate mandates the removal or addition of arguments; and in PYN this is through morphological derivation[51]. Ellipsis on the other hand is the pragmatically conditioned dropping of arguments where the valence of the predicate is not affected. Furthermore, unlike valence decreasing (as well as gapping and coordination reduction), ellipsis is a grammatical or syntactic construction that does not target the dependents of specific governing words (Fillmore 2007: 146); in context most things can be elided. Or it can be said that ellipsis is a pragmatic process with grammatical or syntactic consequences.

Because of the verb-rich utterances in PYN, we propose a hierarchy (8.40) if an argument is missing with an non-morphologically changed verb.

Hierarchy of interpretation of zero argument:
(8.40)   3rd person singular > ellipsis of known argument > generalised, unspecified argument

Switch-reference then guides the interpretation, through active and accessible subjects. We argue that argument ellipsis, especially of subjects, is not the most common explanation for a missing argument in PYN. The default means non-third person singular arguments usually need to be specified: so a non-third person singular argument is usually a clitic on the conjunction

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[51] With the handful of PYN ambitransitive verbs, the absence of an argument may reflect reduced semantic or syntactic valence. The latter would be apparent through examining case marking of overt arguments.

(*munu=ya*, *ka=latju* etc.) which lasts for the rest of the sentence. Non-overt arguments are also carried through by clause coordination and serial verbs, as discussed in chapter 6.

There is no head marking on the verb to help with argument resolution; so whether an argument is overt or not, the verb remains unchanged morphologically. An unexpressed element is typically the topic in a chain. This is discourse old; the reference comes from the text or greater context. It is the centre of attention in the Centering Theory stack, salient, and presumed with no need for overt expression. Semantic considerations may however override the subject reference in a chain of verbs. The context extends from current discourse to culture: for example objects may be accounted for by the nature of cognate verbs.

The third person singular default leads to a conflict with the pure ellipsis of arguments. The most common situation is the introduction of an argument, which is then active as the subject of a series of verbs until it is replaced whether by a new argument, a switch-reference conjunction or less commonly a semantic switch. Missing arguments may be accounted for by a default third person singular, ellipsis or shared arguments among verbs. Omitting an argument does not indicate degrees of affectedness: the protagonists are definite but may or may not be specific.

Halliday (2006: 363) claims that a close association should be maintained between theories of grammar and those of discourse and in this chapter we have established such a link in PYN, through RRG, DRT, Basic Linguistic Theory, Common Ground and CT. In this way, we have extended RRG and addressed some of its apparent problems in handling ellipsis and switch-reference.

9 Discussion and conclusions

We have concluded our RRG investigation of valence changing, ellipsis and switch-reference in Pitjantjatjara, Yankunytjatjara and Ngaanyatjarra. The aim is to uncover patterns in the phenomena, and determine how these are similar to or different to those found in other languages. The broader study, uniting the different strands, is to see how and why PYN chooses to highlight or downplay participants.

Chapters 1 to 3 outline the planned route, describing how RRG will be used and the relevant grammatical aspects of PYN. Chapter 4 is a cross-linguistic study of the different types of valence and transitivity and an investigation of how they are manifest in PYN. This prepares the ground for chapter 5 which is an RRG analysis of the morphosyntactic valence-adjusting mechanisms found in PYN simple clauses. Chapter 6 investigates multi-verb clauses. The first part distinguishes two types of serial verb structure; the second part asks whether dependent clauses alter valence or fulfil valence requirements. Switch-reference turns out to be important here in allowing, but not mandating, arguments to be non-overt. In chapters 7 and 8, we extend our analysis to include the discourse factors in what are primarily spoken dialects. In chapter 7, we analyse pragmatic word order variations and ask how these might take the place of certain valence or S-transitivity adjusting structures for topicalising and focus. Finally, in chapter 8 we draw a distinction between valence decreasing and ellipsis. This latter is facilitated by switch-reference particles, which again form an important element of the study.

Throughout, we ask how the treatment of PYN valence adjusting, ellipsis and switch-reference identifies problems of a more general nature that are not currently catered for fully in RRG. The study is therefore intended to help answer broader theoretical linguistic questions posed by the particular features of PYN. The main contribution emerges as being towards word order, ellipsis and switch-reference; the first two of which are pragmatic uses of the language, and the last syntactic.

9.1 Research questions

We repeat here our research questions from chapter 1:

> What morphosyntactic and pragmatic means does PYN use to foreground, background, introduce and remove participants in discourse and voice adjustment?
>
> How can RRG represent these means?
>
> And by applying the representation can we identify and resolve problems and gaps in the theory?

These questions take into account morphological and syntactic valence adjusting as well as other phenomena such as ellipsis, switch-reference and word order changes. We do not privilege any of the phenomena or means. All of them may serve to add, remove, background or

foreground participants as well as ensuring maximum parsimony in the relaying of information from speaker to listener. We look for answers and evidence through a corpus-based study. Where structures are not found in the corpus and for consistency and comparison with studies in other languages, we construct sentences which are tested by consultants for acceptability, and ask consultants how something would normally be said.

9.2   Value of the RRG theoretical framework

RRG is a functional and cognitive theory that aims to account for structures found in all languages. Its specific advantages allow us to characterise arguments and derivations through the layered structures of the clause and word, and to link the constituent projection and semantic representation. Topic and focus extend this to understanding the motivations behind particular phenomena with respect to old and new information.

Despite the apparent strengths of RRG, we have expanded our analysis where necessary by bringing in elements from other theories including Basic Linguistic Theory, Centering Theory, Common Ground and Discourse Representation Theory. We emphasise the value of these and the benefits of their inclusion, in particular with interpreting ellipsis and switch-reference. Some of these ideas can be used to extend the RRG theory, and avenues for this are suggested principally in chapters 6, 7 and 8. We include AVMs in the semantic representation to indicate how switch-reference is tracked by way of dependent clauses and conjunctive particles. In the constituent representation, we fill out the presupposition to include an 'active subject' and 'accessible subject'. These extensions to the theory are applicable to the study of other languages that share particular PYN features.

9.3   Findings

Following the study, we draw conclusions of significance with respect to valence adjusting, ellipsis and switch-reference in PYN. These are discussed in the following sub-sections.

9.3.1   Valence adjusting and S-transitivity

We found the semantic valence and/or class of PYN simple predicates is altered by the suffixing of morphemes of varying productivity. These derivational processes are lexical rather than syntactic, meaning that the scene or action itself is changed. Syntactic valence adjusting or voice, which changes perspective rather than the scene, is not found in PYN. This has implications with respect to the RRG linking algorithm: the assigning of macroroles and PSA are unchanged. This latter is changed by voice in languages which have it. The case-marking alternatives as laid out in chapter 3 give a solid foundation for identifying S-transitivity and whether it is changed.

To gain a full understanding of derived verbs, we established their relation to the verb classes described in Van Valin (2005) and manifest in the LS. In chapter 3, we characterised the

Aktionsarten of some Pitjantjatjara verbs using predicate tests based on those laid out in chapter 2. These tests were then applied to derived Pitjantjatjara verbs in chapter 5. The tests are useful, but there are certain problems: while PYN verbs generally have lexically defined valences, they do not necessarily have lexically defined *Aktionsarten*; they frequently enter structures with other verbs to indicate such things as activity, aspect and telicity. Nevertheless, the tests do assist in establishing the LS and predicate argument structure.

The productive derivational suffixes yield variations on a stative-inchoative-causative spectrum. Nominals behave as stative predicates in the absence of verbs[52]. The inchoative *-ri/-rri* suffix and adding verb endings to nominals to produce causatives emerge as the most productive means of semantic valence adjusting. Causative *-tjinga* suffixed to intransitive verb roots and nominals is less common, and there are several minority operations which are basically lexicalised. The layered structure of the word and lexical rules allow us to formally characterise the derivations, and RRG is well suited to do this. What the inchoative and verb ending causative have in common is the end result being a change of state; this is so regardless of whether the undergoer is animate or inanimate. This kind of morphological derivation does not occur with S-transitive verbs in PYN; for these, periphrastic means are required.

The passive voice is commonly found in accusative languages, and at the outset of the thesis we asked whether it occurs with PYN pronouns but not nouns. However, despite the presence of mixed ergative-accusative case marking systems in the dialects, we find that there is no evidence of either active-passive or corresponding antipassive variations. This lack of voice is part of the pattern where valence adjusting is lexical-morphological in PYN. Lexical semantic valence adjusting in simple clauses means that if a derived predicate has a different number of semantic participants, the number of syntactic core slots required follows suit.

Hopper & Thompson (1980) describe languages where case choices signal different levels of affectedness. Verbs in PYN do not generally allow choices of case with their arguments and the A or S argument in particular tends to have stable case marking. There are however some PYN case alternatives with three-argument verbs such as *watjani/watjalku* 'tell' and *(y)unganyi* 'give': these involve choices between absolute, locative and purposive cases on non-A arguments.

Verbs in PYN are divided into S-transitives and S-intransitives. This influences our interpretation of the structures found because case marking remains consistent with the predicate, regardless of the number of overt arguments present; verbs are not generally used as both transitive and intransitive. Where case marking changes in a verbal derivation, we established that the change in S-transitivity reflects semantic valence changes. The syntactic demoting or promoting of core arguments is generally not found; either new semantic

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[52] Excepting some that require verbs of posture as auxiliaries.

participants are added or else existing ones removed from the scene. An exception to this generalisation is the small number of ambitransitive verbs such as *kampanyi* 'burn', where the agent can be marked like an A or S argument depending on whether it is used S-transitively or intransitively. With these verbs, semantic and syntactic valence varies without any morphological valence-adjusting operations. There is also evidence of dative shift in P/Y (not Ngaanyatjarra), and some verbs of telling have a choice of double object, or one argument being marked locative. Verbs for seeing and hearing may have alternatives of purposive marked goals for directed perception.

While ergative and absolutive are clearly core cases, the purposive *-ku* and locative *-ngka* straddle the border between core and periphery. The nature of the predicate informs case marking; for example, semantically divalent verbs of emotion are of low transitivity. The emoter is absolutive or nominative like an S argument and the stimulus is in *-ku*, therefore the verbs are S-intransitive. With respect to the syntactic template selection principle given in chapter 2, (2.1) and the qualifications in (2.2), the number of core arguments is not reduced by an operation such as the passive, or by a semantic argument being in an extra-core slot.

The *-ku* suffix also marks the recipient of semantically trivalent ditransitive verbs like (*y*)*unganyi*/*yungku* 'give'; but also the beneficiary of an action: a parallel is the 'dative of interest' that is found in some languages. This could be considered case syncretism with core dative sharing its form with the peripheral cases of purpose and beneficiary; or more straightforwardly that an object is given for the benefit of the receiver. The locative-instrumental *-ngka*/*-la* marks the goal of non-ditransitive three-argument verbs such as *tjunanyi*/*tjunku* 'put'. It is also used for the listener in verbs of saying, where the subject matter is absolutive and speaker ergative. This adds a complication in determining syntactic valence variations, in particular with P/Y clauses involving (*y*)*unganyi* where a recipient can be in absolutive or dative/purposive.

A PYN clause may contain several coreferring syntactic elements referring to one semantic element in the LS, such as a nominal and independent pronoun, nominal and clitic, or two pronominal clitics. For the purposes of semantic valence, this has no repercussions: the LS is defined by the arguments required in the lexical entry of each verb; syntactically however there are more referents than strictly required. These extra referents typically occur for emphasis, recapitulation or number (which pronouns have, but nouns do not).

We investigated other structures which in some languages are valence decreasing. Reflexive and reciprocal clitics in PYN represent the patient argument and act syntactically like bound pronouns, fulfilling a semantic and syntactic argument; thus the verb's semantic valence and S-transitivity is unchanged. With the reflexive there is the semantic removal of a participant from the scene, since the actor is also the undergoer. These are not derivations and there is no

change to the verb. This differentiates PYN from languages such as Falam Chin which have detransitivising morphemes on the verb (King 2010: 275-278).

Noun incorporation is not found as a valence-decreasing device in PYN. Where a noun and verb form a compound, this is a lexicalised item rather than the noun being an argument; there is associated semantic narrowing of the predicate. An argument outside the compound is still required. Significantly, this is in line with the lexicosemantic nature of derivation in PYN. We found this differentiates PYN from other languages where a noun may become incorporated to the verb after its first introduction. In PYN such compounds are strictly lexical and not formed through syntax.

Nominalisation of verbs is frequent in the dialects, producing a noun referring to an entity that has undergone the effect indicated (*-nytja/-ntja*) by the verb or that actions it (*-pai/-payi*). Both of these derive fully inflecting nouns and verbs. They are also frequently used predicatively, in passive-like and characteristic senses respectively. This is consistent with the lexical nature of semantic valence adjusting.

9.3.2 Multiple predicate structures

Having noted the strong lexical and semantic nature of valence adjusting in PYN, we find that verbs in the dialects do not typically exist in isolation from each other. Structures involving the serial ending may represent a series of actions or topic chain sharing a subject in clause cosubordination, or a single complex predicate sharing all arguments in nuclear cosubordination; the latter are SVCs according to the definitions of Aikhenvald (2006) and Dixon (2006). If one of the verbs in a complex predicate is transitive, then the complex as a whole is transitive; in a series of actions the verbs keep their own transitivities. Loose serial verbs are topic chains, carrying the narrative, picking up object arguments as required against a backdrop of developing context. Continuity of subject (A/S) with serial verbs indicates syntactic accusativity.

RRG has one grammatical relation, the PSA, which has two functions: agreement and pivot. There is no verb agreement in PYN, so the PSA does not have this function. With respect to the pivot, PSA assignment in PYN follows the accusative pattern in the hierarchy, neutralising S and A as the base against which switch-reference is measured, in other words the 'subject' in 'same subject' and 'different subject' referred to in the literature. This is evident in the pivots with loose serial verbs, dependent clauses and switch-reference with particles. Pivots are not manipulated by syntactic valence adjusting: it is always either S/A through particles, or understood semantically with apposed finite clauses. As noted, syntactic valence adjusting or voice, with reassignment of PSA, is not a feature of PYN: changes in mapping between the PSA, macroroles and LS such as that found in the passive or antipassive are absent. In other words, the patient does not become the PSA as in a passive: furthermore A (and O) is always implied,

and available to be filled, if the verb is S-transitive. The S is of lexical S-intransitive verbs; not a d-S.

Switch-reference in dependent clauses also shows syntactic accusativity. PYN dependent verbs have switch-reference endings relating to the subject (S/A) of the main verb, so an overt subject is not required. Purpose and intent represent control structures with verbs of wanting and trying: actor control occurs with *-kitja*, while a verb with *-ntjaku* frequently represents undergoer control but does not necessarily always as the ending only specifies different subject. In a control structure, the purpose and intent forms take the place of an argument of the main verb. In their basic use, they indicate the purpose of an action. In some cases they reduce valence rather than being an argument.

The anterior sub-clauses are generally adverbials modifying the core of the main clause or the clause itself. These indicate the circumstance of the main action. Like the purposive dependent verbs, the switch only lasts for the duration of the event described by the dependent verb. The active subject remains for the next clause in the text.

Indirect means are used to convey causatives of S-transitive verbs, with serial verbs and purpose/intent dependent verbs; this is used for interpersonal manipulation, less direct causation with the causee being the agent of the second clause. Shibatani & Pardeshi (2002: 88) distinguish manipulative causatives and directive causatives; we examined how these are done in PYN and found that directives are not strongly coercive in the dialects.

9.3.3 Word order

Word (actually phrase) order in PYN clause is free and the order chosen has pragmatic significance. Amongst other motivating factors, changes in word order fill the gap left by the absence of syntactic valence adjusting operations such as the passive. Thus we find that marked word orders are used for topicalising and focus: this is facilitated by case marking, which gives considerable scope for word order flexibility.

We have found that position at the start of a clause indicates topic; intonation indicates focus. We looked for evidence for Bowe's (1990) suggestion of the topicalised undergoer being outside the core sentence for clitic placement. The evidence for this being in an LDP with a resumptive pronoun in the core as per RRG theory is slim. Rather than an LDP, a constituent could be in a previous clause, marked by intonation, akin to a cleft sentence. Conversely, evidence for an RDP is abundant, representing an afterthought clarifying a referent in the main clause. Narrow focused elements are placed clause-first, which is consistent with the precore slot in RRG.

The elements of NPs, which are typical arguments, are contiguous in PYN and there is generally constrained word order within; however changing the order here is possible too and can serve to focus constituents.

9.3.4   Ellipsis and switch-reference

The syntactic core slots themselves need not be overtly filled if the referent can be understood. If an expected argument is missing, in principle it may be a dropped argument due to valence decreasing, an elided argument, or zero third person singular. The default third person singular underlies much of our investigation: a clause with a bare verb and no overt arguments generally has third person singular understood. We examined the role of context, continuity and referent tracking. Arguably the zero third person singular is not true ellipsis because it is not solely dependent on context: non-overt other persons and nouns if thus recoverable would be. The zero third person singular and ellipsis exist on a gradient with specific reference at one end, to generalised activities with no undergoer at the other.

Third person singular zero also make it difficult to confirm Fillmore's (1977: 82) claim that the preterite (such as 'wrote'), with a sense of completion is more likely to need an object than the progressive (such as 'writing'). The pattern in PYN is that once a referent has been introduced, it is non-overt, so in both cases the object would be understood as present. Definiteness or specificity is however determined by the absence or presence of a demonstrative in the original NP (Bowe 1990: 35). We find no evidence that verbs in irrealis/future tense have less affected undergoers.

Tracking of the participants involves tracking within a sentence, as part of the narrative, but is also informed by semantic plausibility and cultural context. In 'saying' or 'spearing' for example, the subject might reasonably be expected to be human: so our task is to distinguish between several possible contenders for subject. Similarly, cultural knowledge informs the interpretation of cognate objects.

A striking feature especially in Ngaanyatjarra narratives is the verb-rich nature of sentences, with few overt arguments being present. This reflects the fact that P/Y has the third person singular full forms *palu_ru_* and *palunya* available. The current investigation has indicated that when referents are present they are accessible beyond the core, into the clause, sentence and text. This allows us to account for non-expression of arguments, switch-reference particles, and switch-reference verb endings. The zero pronoun allows a range of defocusing strategies to occur without changing the semantic valence of the predicate. Our investigation finds that the predicate-argument relationship extends beyond what are considered sentences and must take into account the whole text. The different genres have slightly different biases in this regard: narratives permit freer dropping of arguments, while official communications (Kral 2012: 95-96, Anon 1989) have a fuller overt expression of arguments. Semantic plausibility aids in the interpretation in cases of ambiguity.

Switch-reference particles (such as *munu* and *ka*) track referents; the active subject is the base, with an accessible subject available to become subject after a DS switch. The original subject then changes place to become accessible. Unlike the case with sub-clause endings, the

subject here persists beyond the clause into the sentence and text. The presence of switch function is characteristic of languages with voice (Van Valin & LaPolla 1997: 292): PYN's switch-reference, and lack of switch function, is consistent with its lack of voice. Furthermore, as voice is used in some languages to control pivots, and PYN lacks voice, these structures are among those that inform argument reference in contiguous clauses.

9.3.5   Information flow: integrating word order, switch-reference and ellipsis

A glance at any PYN text shows we do not always expect sentences to be SOV, with all constituents present. Arguments may be backgrounded in certain ways once they have been established in discourse. This foregrounding and backgrounding has been dubbed 'information flow' (Mithun 1999, Lambrecht 2001). We claim that ultimately, word order, switch-reference and ellipsis are bound up with this concept. The valence-adjusting means in PYN, inchoation and causation, are outside this as they refer to the nature of the event itself rather than altering the relative prominence of arguments.

There are several means of controlling information flow cross-linguistically. Word order reflects the flow of information in pragmatically controlled languages like those of the Sino-Tibetan family (LaPolla 1990: 2). This distinguishes them from languages where there are clear syntactic functions such as 'subject' and 'object'. PYN falls between the two: there is case marking, freedom of word order but no head marking. Participants are introduced as the starting point for a message, in order to become topics.

As we saw in chapter 5, section 3.4, noun incorporation is used in some languages in managing information flow: a noun may be independent on first mention and incorporated with a verb in further narrative. This phenomenon is not found in PYN: here, noun-verb compounds represent semantic narrowing so that syntactically the resultant verb still needs an argument. Alternatively where the noun has already been mentioned it may be understood in context and therefore elided, the null nominal retaining salience from a previous clause.

Labov & Waletsky (1967) distinguish storyline clauses which trace out the sequence of actions in a narrative, versus non-storyline ones which contain circumstantial information. Two methods of analysis discussed are the syntactic, with clause internal explanations for the placement of the verb; and discourse analysis which is clause internal but ultimately studies the function of the clause in discourse. Texts themselves typically encompass more than one sentence. Ellipsis is then a form of backgrounding of arguments: they are accessible with no need to be highlighted.

Semantic valence refers to the scene depicted by the message, while syntactic valence involves how arguments are presented and manipulated. Varying word order is closely connected with information structure. Moving an undergoer to the beginning of a clause is superficially the same as a passive, but without a change to the verb. In PYN the agent is always

implied, so the apparent reason for word order variations is to topicalise and focus constituents. Topicalised items may also be not overtly expressed; we have developed this theme centrally in the thesis.

Focus is generally indicated by clause-final position, RDP, and/or intonation. In unmarked predicate focus, this ties into traditional analyses of grammar such as subject-predicate and topic-comment. Importantly, PYN topics can be new, focus marked by intonation. In sentence focus, everything is new in an introductory passage. In predicate focus a subject is being talked about, through continuity in discourse. Narrow focus is also marked. Since focus takes intonation it can occur first as topic. An unmarked old topic lacks intonation so it can be readily dropped. This works in tandem with a full NP, pronoun, clitic and zero. Demonstratives are similar to pronouns, and in some cases act like SS/DS particles, involving continuity or switch of subject.

We summarise PYN information flow phenomena in Table 9-1.

Table 9-1: PYN phenomena involved in information flow

Phenomenon	Use	Means
Topic and focus	Pragmatic	Word order. Topic first as starting point. Focus through intonation and/or last position.
3rd person singular topic	Lexical/syntactic	3rd person singular zero
Ellipsis	Pragmatic	Non-expression of argument, understood by context
Ellipsis of subject	Syntactic	Non-expressed subject informed by membership of construction, until the finite verb, as active subject
Switch-reference of subject	Morphosyntactic	Non-expressed subject informed by dependent verb ending as same or different to subject of main clause
Switch-reference of subject	Syntactic	Non-expressed subject informed by particle as same or different to active subject
Switch-reference of subject	Semantic/pragmatic	Apposition of clauses
Cognate objects	Semantic	Non-expressed object understood by nature of verb
Generalised	Semantic	Non-expressed argument definite or indefinite but not specific

9.3.6 Distinctions between the dialects

The dialects have certain differences in their approaches to argument realisation, such as the existence of the P/Y full form third person singular pronoun *paluru/palunya* that is not found in Ngaanyatjarra. This means Ngaanyatjarra has a greater preponderance of verb-only clauses.

P/Y also allows case alternatives in three-argument ditransitive verbs where the recipient may either be absolutive, or dative/purposive *-ku*; Ngaanyatjarra only has the *-ku* marking option. This is also true for the verb of speaking *wangkanyi/wangkalku*, which has greater scope for varying semantic valence and S-transitivity in P/Y.

9.4　Extending RRG

PYN has particular characteristics that we have identified as in need of fuller representation in RRG. The general problems identified in our study include reference and its scope; different means of switch-reference; topic and focus development; and the constrained interpretation of missing NPs, where pragmatic ellipsis may not be the only explanation. Ellipsis and switch-reference present particular challenges for RRG, which can generally represent valence adjusting well, as we saw in chapter 5. RRG needs to account for non-overt arguments, whose reference changes dynamically as discourse develops. Discourse factors are crucial: this is the domain of pragmatics.

We classified the various instances of non-overt arguments and modelled them in RRG. A challenge lay in comparing and contrasting true ellipsis to the third person singular zero. Ellipsis may be facilitated by certain syntactic structures, or be purely pragmatic; we asked whether and how RRG can represent this.

An unexpressed argument receives its value from the context, situated in core or developing common ground. The default supposition in PYN is that a zero in a sentence refers to third person singular nominative or accusative, but context can override this. Ellipsis strictly is the non-expression of any presupposed or active information. This means that ellipsis is constrained: the first assumption is that a missing argument is third person singular.

Topic chains with loose serial verbs disregard this assumption, with the topic not repeated as it is the subject of all the clauses. This topic can be non-third person; the A/S reference lasts up to the finite verb and after that is typically, but not always, refreshed. This is represented well in RRG as cosubordinated clauses that share tense and IF operators at clause level.

Switch-reference is an important characteristic of PYN and this needs attention in the RRG representation. This shortcoming is not unique to RRG as a theory: Stirling (1993) finds Binding Theory does not fully account for switch-reference and posits extensions. In RRG, we have proposed ways of representing it in the constituent projection and semantic representation linking. Within a clause, switch-reference is by way of dependent verb endings. Where the subject in a passage changes, PYN indicates switch-reference through conjunctions.

To clarify the interpretation of non-overt subjects of dependent verbs, we include attribute value matrices in the LS as part of the syntactic-semantic linking. The dependent verbs look for reference within the LS; the switch only extends to the events described in that dependent clause.

For switch-reference through particles, we have proposed how non-overt arguments may be accounted for in the constituent projection with two boxes, one each for presupposition and assertion. These boxes, based on Discourse Representation Theory, have already been introduced into RRG (Van Valin 2014) but they need additions. We suggest that, with respect to

switch-reference, presupposition needs to include an 'active' SU and an 'accessible' SU. The switch-reference particles maintain the active SU if the following clause is same subject; if different subject, the accessible SU is the default but another entity could overrule this based on context. After a switch, the active SU is updated to reflect the new subject. When working on a particular language, we need to be clear in choosing terms for 'active' and 'accessible' what is being switched, and define accordingly. In PYN, 'subject' (A/S) is the appropriate term.

9.5   Significance and contribution

In dealing with lesser-spoken languages with certain features not found in the more studied Indo-European ones, this thesis is a contribution to RRG's core aim of accounting for structures found in all languages. The study also adds to the growing literature on valence adjusting.

We have built a corpus to provide data to answer the research questions, explain the findings and defend the conclusions. Assembling the corpus has involved gathering diverse PYN written material. The dialects are primarily oral and much of the material here is based on stories and spoken narratives that were recorded and transcribed by linguists working in the field. These have a narrative style which differs from other forms such as newspaper articles or daily conversation. We have glossed the material for consistency and have drawn upon it to investigate the issues raised in this thesis: the data are included in Appendix A, where they are available for other researchers to test the conclusions in this study. Through gathering this mix of genres, we have representative texts relating to shared cultural knowledge, core and developing common ground and different purposes of communication.

We have found that we cannot posit universal structures of valence adjusting; some that are common in other languages are not found in PYN. The dialects have strong preferences for switch-reference and ellipsis; we suggest that the characterisation and representations developed here be incorporated into the RRG theory. The deeper implications are that we should not be bound by a theory as it currently stands, but examine data critically in order to characterise structures in any given language. This serves to strengthen and validate the theory chosen.

9.6   Limitations and avenues for further research

We should consider a number of limitations in the current study. A problem in the approach is the general lack of prosody in the written sources. The examples from the corpus also generally comprise the words of one speaker rather than a conversation. The work could be extended to account for these limitations by recording conversations, both for prosodic and pragmatic reasons.

What might come next? As discussed, we have identified gaps in RRG and suggested solutions. This opens up pathways for further research. The whole area of topic and focus has many parameters (R. Defina p.c.), and a full treatment of this would be beneficial. Further work would investigate detached positions and extra-core slots to determine the interplay of

topicalising and different levels of focus. The concept of a 'focused Theme', with pitch movement on the first element of a clause has been well explained in SFL, and this could be fleshed out in RRG using spoken data.

We have noted the pragmatic use of word order in PYN. Basic word order in a language has been deemed important by many researchers, though Dixon (2010: 71-75) cautions that this is a 'fad' and 'fixation' and not of central importance in Basic Linguistic Theory. Greenberg's (1963) universal 13 states 'if the nominal object always precedes the verb, then verb forms subordinate to the main verb also precede it.' Although the O argument is usually pre-verb in PYN, the dependent verbs are usually post-verb. In order to mount a challenge to universal 13, further research should examine the differences and similarities between PYN objects and sub-clauses and their respective orders in relation to the verb. A reservation in the current study is that the 'dependent sub-clauses' are found actually to be core-core cosubordinate structures and adverbials. Some dependent sub-clauses take the place of arguments and others reduce valence so these distinctions would need to form part of such a study; the former are similar to 'objects'. Furthermore, as we have seen, word order in PYN has pragmatic significance so we need to disambiguate this from a 'basic word order'.

The subject of verbal aspect and its relation to arguments has formed part of the thesis, but could be developed further. This study would centre around perfective and imperfective aspects, whether an event is completed or not. This has been deemed relevant to argument expression by certain authors such as Fillmore (1977). We have looked intensively at derived verbs and their valence; while ellipsis is generally of a specific constituent, it would be useful to tease out the full relations going on here to separate for example activities from active accomplishments.

Because Pitjantjatjara, Yankunytjatjara and Ngaanyatjarra are part of a larger group of dialects in the Western Desert language as well as the Pama-Nyungan family beyond that, it would be fruitful to compare the valence-adjusting operations, ellipsis and word order motivations found here to those occurring in other Australian languages. By doing this, we would identify which of them are core and common to all the languages and dialects, and which are freer to vary. Beyond that, the conclusions might also be compared with studies of other languages that feature such features as morphological ergativity and switch-reference that have formed a central part of this thesis.

10 References

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11 Appendix A: PYN texts

Here we include a corpus of texts that have been drawn upon in this study. The interlinear gloss added is according to the Leipzig convention, with '=' for clitics and morphemes separated by '-'. As noted in chapter 3, Ngaanyatjarra hyphenates its pronominal clitics, while Pitjantjatjara and Yankunytjatjara do not. The serial ending can indicate both prior action (completed) and simultaneous actions. Because P/Y has a separate present form, it is glossed 'SER' in those dialects. With Ngaanyatjarra the ending is glossed 'PRES' if it occurs on its own; otherwise 'SER', no matter whether the actions are consecutive or simultaneous. The free translations are based on those in the original sources, though they have been made more literal in certain cases.

11.1 Pitjantjatjara

11.1.1 Sand-drawing (Eickelkamp 2014)
This paper has five stories told in the sand-drawing tradition in the 2000s. Sheppard (1975) describes two sisters playing the sand-drawing game *milpatjunanyi* as follows.

> They each had a stick and a pile of leaves, and took it in turn to tell a story about people in the tribe. The sandy ground was their stage; the leaves were the tribespeople. As they told the stories, each softly tapped her stick in time to the rhythm of her rising and falling voice, and every now and then they would sweep the sand smooth with the backs of their hands.

This text is from Story Two, titled *Kutjara, Kutjara, Kutjara* 'Cooking, Cooking, Cooking'

Ngayu-lu. [Lila draws a house]
1SG-NOM
I.

Nyaa kungka kulunypanyanta nyangatja tuka-nya.
DEM girl   little   DEM   dingo-ABS
This is a little girl, this here is a dingo.

Ngayu-lu   laka-ra [high pitched sweet voice, gently but firmly poking one spot with wire]
1SG-NOM knock-SER

Ika-ra […] *putu   munu   ngalya pitja-la.*
knock-SER unable and.SS back   come-SER
I was knocking and knocking in vain and then came back.

Inka-ra inkara inkara inkara inkara inkara. [beats wire with words]
play-SER (x6)
Playing, playing, playing, playing, playing.

Ngalya pitja-ngu.
back   come-PST
And came back.

"Ai, tuka! Kami   kungka kulunypanya   nyanga-ngka. A-nkula kunyu nya-wa!"
hey dingo Grandma girl   little ANAPH   DEM-LOC   go-SER REP see-IMP
"Hey, dingo! Grandma and the little girl are here. Go and have a look!"

"Nyapa?" "Nyanga-ngka." A-nkula a-nkula nyinakati-ngu. See? Palu-nya   a-nkula mantji-la
what   DEM-LOC   go-SER(x2)   sit.down-PST see 3SG-ACC go-SER fetch-IMP
"At what?" "Here!" (He) walked and walked and sat down. See? (He) went to get her

munu […] *munu   Sunny kunyu pitja-la pitja-la   nyinakati-ngu.*
and.SS   and.SS Sunny REP   come-SER (x2)   sit.down-PST
and…Sunny came and sat down.

Munu   piruku a-nkula a-nkula a-nkula.
and.SS again   go-SER (x3)
And again (she) walked off, walked and walked.

Mai   kutja-nu, kutja-ra kutja-ra kutja-ra. [soft, slow regular beats with wire, eats sugar
floss]
food.ABS cook-PST cook-SER (x3)
And (she) cooked food, (she) was cooking, and cooking.

Tjuta mulapa-nya. [strong voice]
PL   true-ABS
Lots of it.

Nyuntu   kunyu nyanga-ngka kutja-nu, uh?
2SG.NOM REP   here-LOC   cook-PST EXCLM
Mulapa mulapa? [raises voice, turns to Sunny]
true   true
You were cooking here, weren't you? Isn't it true?

Kutja-ra kutja-ra kutja-ra ngarakati-ngu munu   nyinakati-ngu.
cook-SER (3)   stop-PST   and.SS sit.down-PST
(She) was cooking and cooking, and then (she) stopped and sat down.

[out of story: sings tune of Father Jacob referring to grandmother's departure]

Y.   yaaltji? Y.   yaaltji? Nyaratja, nyaratja! [sings]
[name] where   [name] where   there   there
Where is Y.? Where is Y.? There (she is), there (she is)!

Y: Nyuntu   nyina-ma Ute-la.   Ute-nya   nyura   nyina-nyi wirura.
[name]   2SG.NOM sit-IMP   [name]-LOC [name]-ABS 2PL.NOM sit-PRES   well
Ngayu-lu   a-nanyi mami   R.'s   ngura-kutu.
1SG-NOM go-PRES mummy [name]   place-ALL
Y: You stay with Ute. Ute and you stay there nicely. I'm going to Mummy R.'s place.

Pitja   unta! [eats sugar floss] See you.
come.IMP niece.VOC
Come niece!

[back into story]

Kutja-ra, kutja-ra, kutja-ra.
cook-SER (x3)
Cooking, cooking, cooking.

Munu   pai-nu   nya-ngu kuku-nya [baby talk: *mamunya*]
and.SS shoo-PST see-PST monster-ABS
And (she) was shooed off, having seen a monster.

11.1.2 Sidney Myer Lecture 3 (Lester et al. 2013: 8)
This is part of a lecture on Remote Education.

Nganana   ngura-kutjupa kutu   a-nkula wantikati-nytja wiya-ngku   ma-kati-pai.
1PL.NOM place other   ALL go-SER leave-NOML   NEG-ERG   away-bring-CHAR
Panya witulya   nyanga paluru   nganana-nya kunpu kanyi-ni   kuli-ntja   kunpu,
ANAPH powerful   DEM   3SG.NOM 1PL-ACC   strong keep-PRES think-NOML strong
wangka walytja kunpu ngana-mpa ngura-ngana-mpa manta, ngana-mpa tjukurpa.
word   family strong 1PL-GEN place 1PL-GEN land   1PL-GEN   story
When we travelled to another place, we didn't leave it behind because it is our culture as we
live on our own land that gives us life, with strong thinking, strong language.

Nyangatja kuwari kampa kutjupa-ri-nyil   ara   kutjupa kuwaritja pulka   wirka-nanyi.
DEM   now   alternative-INCH-PRES story other   new   big.ABS   arrive-PRES
But this has all changed. A new and important way has arrived.

Panya   Education tjitji ngana-mpa tjuta ninti-ri-ngkunytjaku
ANAPH Education child 1PL-GEN   PL   know-INCH-PURP
munu   ninti-ntjaku mula mula-ngku–pulkara-ngku.
and.SS know-PURP really really-ERG really-ERG
Education is important for our children to learn these new things better.

Ka=la   nyanga palu-mpa   pulkara mulapa pukul-ari-nyi
and.DS=1PL.NOM   DEM   3SG-PURP really   really   happy-INCH-PRES
Munu=la   pata-ni   ngana-mpa tjitji tjuta
and.SS=1PL.NOM wait-PRES 1PL-GEN   child PL
ma-tjarpa-nytjaku world-kuwaritja-ngka.
enter-PURP   world-new-LOC
We are really happy about this and we want our children to gain understanding so that they can
enter into this new world.

Panya   nganana   tjinguru mala-ri-nganyi   rawa
ANAPH 1PL.NOM perhaps behind-INCH-PRES   long.time
Munu=la   kuwari ma-pitja-nytjikitja mukuri-nganyi nyanga palu-mpa.
and.SS=1PL.NOM now   away-go-INTEN   want-PRES   DEM 3SG-PURP
It seems that we are continually behind. But now we want to go forward.

Government-angku   nganana-nya u-nganyi   nganana   mula mula   nintiri-ngkunytjaku
govt-ERG   1PL-ACC   give-PRES 1PL.NOM really (x2) learn-PURP
munu   ngana-mpa tjitji tjuta nintiri-ngkula nintipu(l)ka   mulapa nyina-ntjaku
and.SS 1PL-GEN   child PL   learn-SER   knowledgeable really   sit-PURP
ka=la   pulkara mukuri-nganyi nyanga palu-mpa.
and.DS=1PL.NOM really   want-PRES   DEM   3SG-PURP
The government has given us this opportunity for our children to get better knowledge and we really want this.

Ka=la   pulkara mulapa mukuri-nganyi=nganana   ngana-mpa
and.DS=1PL.NOM really   really   want-PRES=1PL.NOM   1PL-GEN
witulya-tjara   wani-nytja
powerful-having   discard-NOML
Wiya-kutjupa kuwaritja mantji-ntjikitja-ngku–palu
NEG-other   fresh   get-INTEN-ERG   of.course
kanyi-ntjikitja=la   pulkara mukuri-nganyi
keep-INTEN=1PL.NOM   really   want-PRES
But we don't want to leave behind all our strengths and our power in order to receive this new knowledge.

Ngana-mpa wangka, Tjukurpa–ngura titutjara-ngku   munu   walytjapiti-ku.
1PL-GEN   word   Law–place   always-ERG   and.SS family-GEN
We must keep our language, our stories, our lands and our family connections.

Panya   nyanga paluru   tjana   witi-ni   kunpu-ngku   ngana-mpa manta.
ANAPH DEM 3SG.NOM   3PL.NOM hold-PRES strong-ERG 1PL-GEN   land.ABS
These are things that give us power in our land.

Nganana   wangka kutjupa   pulkara nintiri-ngkula mantji-ra=mpa nganana
1PL.NOM speech other.ABS really   learn-SER   take-SER=INT 1PL.NOM
ma-kawali-nkuku culture ngana-mpa, manta ngana-mpa, Tjukurpa ngana-mpa.
away-lose-FUT   culture 1PL-GEN   land 1PL-GEN   Story   1PL-GEN
If we only learn this new language (English), we will lose our culture, our land and our stories.

Ka=la   ngula malaku a-nkula putu   mantji-lku putu   nguri-lku.
and.DS=1PL.NOM later   return go-SER unable get-FUT   unable find-FUT
ka   kawaliri-ku   alatjitu titutjara
and.DS go.missing-FUT   really   always
And later if we go back and try to search for it, we will not find (it) again. (It) will be lost forever.

Palu nganana   ngana-mpa witulya-tjara   a-nkula
but 1PL.NOM 1PL-GEN   powerful-having go-SER
witulya   kutjupa mantji-ra kutjaratu witi-lku,
powerful   other   get-SER   two   hold-FUT
kampa   kutjaratu titutjara-ngku kanyi-ra=la   kunpu   titutjara   ngara-ku.
alternative two   always-ERG   keep-SER=1PL.NOM strong   always   stand-FUT
But if we hold onto our strengths and as we go, learn new strengths, we will hold onto both strengths and keep strong in both (*Anangu* and *Piranpa*) ways.

Ngayu-lu   wangka-nyi Education nyanga-ngku ala-lku   door tjuta
1SG-NOM   speak-PRES education   DEM-ERG   open-FUT door PL
ngana-mpa   nganana   tjarpa-nytjaku.
1PL-PURP   1PL.NOM   enter-PURP
I believe that education will open many doors for us to enter.

Ka   nyangatja tjukurpa pulka mulapa nyanga palunya nganana   witi-ntjaku
and.DS DEM   story   big   really DEM   DEM   1PL.NOM hold-PURP
palu ngana-mpa-ku=la   watarku-ri-nytja   wiya-ngku   witulya
but 1PL-GEN-PURP=1PL.NOM neglectful-INCH-NOML NEG-ERG   powerful
kanyi-nma   alatjitu   titutjara-ngku.
keep-IMP.CONT   EXCLM   always-ERG
We are looking forward to these important changes, but we must never forget what belongs to
us. We must hold onto our strengths always. We don't want to forget our culture.

Panya   ngana-mpa ara   tjuta culture iriti-nguru   ngara-kati-nytja
ANAPH 1PL-GEN   story   PL   culture long.ago-ABL   stand-take-NOML
munu   ngara-ku   rawa   kuranyu   kutu   ma-ngari-nyangka.
and.SS   stand-FUT   long.time   going.ahead   real   lie-ANT.DS
It is important for us to know that our culture has been there in the past and will be there in the
future.

Wanyu=la   uwankara-ngku tjungu-ngku
let's.just=1PL.NOM all-ERG   together-ERG
ma-pitja=la   kati-ma   tjungu   kutjaratu Anangu ara   tjuta tjara
away-go.IMP=1PL.NOM bring-IMP.CONT   together two   Anangu story PL   having
munu   kuwaritja Piṟanpa ara   tjuta-tjara.
and.SS   new   Piranpa story   PL-having
Let us all lead our children together on the two ways – the old Anangu way, and the new
Piranpa way.

11.1.3 Tjukurpa palya (Anon 2007)
This is from a Bible translation.

Alatji God-alu   palu-nu   wanampi kutjupa kutjupa pulka tjuta
thus   God-ERG create-PST serpent   other   other   big   PL
munu   antipina kutjupa kutjupa   tjuta,
and.SS fish   other   other   PL
And God created serpents and other great things, and fish and others.

uru   unngu-tja   uwankara paluru   palu-nu   uru-ngka   unngu para-ngara-nytjaku.
water inside-LOC   all   3SG.NOM   create-PST water-LOC inside around-stand-PURP
He created everything in the water, in order to live in the water.

Munu   paluru   ilkari-ngka   para-ngara-nytjaku tjulpu
And.SS 3SG.NOM heaven-LOC around-stand-PURP bird.ABS
kutjupa kutjupa uwankaratu palu-nu.
other   other   everything   create-PST
And he created birds and others to live in the sky.

Munu   Goda-lu   nya-kula wiru-nma-nu
and.SS God-ERG see-SER great-say-PST
And God saw (it and) said (it) was good.

11.1.4 Maluringanyi (Klapproth 2004: 222-223)

This is from the tale of a boy who becomes a kangaroo. The tale is told in the third person, describing the adventures of two brothers. The capitalised text is as in the original, involving stressed words. Note the frequent use of *kunyu* 'reportedly.'

tjitji kutju kunyu
child one   REP
a child the story goes

IRITI   a-nangi.
long.ago go-PST.CONT
A LONG TIME AGO was travelling along

iriti   kunyu a-nangi
long.ago REP   go-PST.CONT
a long time ago, the story goes, he was travelling along

tjitji kutju wati kutarara   pula   kunyu a-nangi.
child one   man person.and.brother 3DU.NOM REP   go-PST.CONT
a child and his adult brother, together were travelling along.

ka   kunyu palu-nya   kuta-ngku   kati-ngi.
and.DS REP   3SG-ACC older.brother-ERG bring-PST.CONT
and the brother was leading him.

munu   a-nkula a-nkula kunyu paluru   pula   ngura   tju-nu.
and.SS go-SER (x2)   REP   3SG.NOM 3DU.NOM camp.ABS put-PST
and having travelled a long way they set up camp.

ngura   tju-nkula kunyu pula   ngari-ngi.
camp.ABS put-SER REP   3DU.NOM lie-PST.CONT
having set up camp the two slept.

ka   kunyu malanypa   kuta   panya   kunkunari-ngi;
and.DS REP   young.brother older.brother ANAPH sleep-PST.CONT
and younger and older brother were sleeping;

(*ka* as two brothers are now one; and the brother is specified)

ka   kunyu malanypa   panya   a-nu.
and.DS REP   young.brother ANAPH go-PST
and that younger brother left.

a-nkula kunyu
go-SER REP
(he) went away

malanypa   panya
young.brother ANAPH
that younger brother

ma-manyirka-ra
away-crawl-SER
crawling away

kuṯin-kuṯinkati-ngu munu   kunyu
roll.over-PST   and.SS REP
rolling over and over and

TII-TIINGKA nyara ma-pijta-ngu munu   kunyu malu-ri-ngkula ma-pitja-ngu
dust-LOC   DEM away-go-PST and.SS REP   roo-INCH-SER away-go-PST
IN THE DUST, there, he went off and turning into a kangaroo he went off

munu   kunyu a-nkula a-nkula a-nkula
and.SS REP   go-SER (x3)
and was travelling on and on and on

(*ka*, so need to specify the new subject, *malu*)

ka   kunyu malu tjuta WINKI   nyina-ngi.
and.DS REP   roo   PL   whole.lot sit-PST.CONT
and A WHOLE lot of kangaroo were sitting there.

ka   kunyu tjitji panya   paluru   malu-ri-ngkula a-nkunytjatjanu.
and.DS REP   child ANAPH 3SG.NOM roo-INCH-SER   go-ANT.SS
and that child, having gone, having turned into a kangaroo.

kuli-nu.
listen-PST
listened.

a-nkula a-nkula kunyu
go-SER (x2)   REP
travelling and travelling

tjitji panya   paluru   nya-ngu.
child ANAPH 3SG.NOM see-PST
that child saw (something).

"ai   malu tjuta nyangatja."
  EXCLM roo   PL   DEM
"*ai*, there are so many kangaroos here."

munu   kunyu
and.SS REP

tjitji   panya   malu-ri-ngkula a-nu
child ANAPH roo-INCH-SER go-PST

munu   a-nkula a-nkula (clapping 2x) *a-nkula   yuu-ngka   nyinakati-ngu;*
and.SS go-SER go-SER   go-SER   shelter-LOC sit.down-PST.CONT

that child, having turned into a kangaroo, went on (clapping 2x) and after travelling and travelling sat down in a windbreak;

yuu-nguru   kuli-ra kuli-ra
shelter-ABL listen-SER (x2)

from the windbreak (he) was listening and listening

piruku ma-paka-nu   munu   kunyu a-nkula
again   away-set.off-PST and.SS REP   go-SER

again (he) set off and went on

nya-ngu "nyangatja kuluny-tjara   ngalya-pitja-nyi."
see-PST   DEM   young-having this.way-come-PRES

and saw "here a mother kangaroo with a joey are coming towards me."

munu   kunyu ma-
and.SS REP   away

and away-

ka   kunyu ngalya- wirtjapaka-ra malu panya   punu-wanu   ngalya   wirtjapaka-nu
and.DS REP   this.way run-SER   roo ANAPH wood-across this.way run-PST
ka kunyu
and.DS REP

and that kangaroo was rushing towards him through the thicket bushes it was rushing towards him and he,

para-wirtjapaka-ra tjitji   panya   ma-tati-nu.
around-run-SER   child ANAPH away-climb-PST

that child, ran across and climbed on it.

munu   kunyu inma (clapping and singing)
and.SS REP   song

and (he) sang (clapping and singing)-

"minuru tara tara wararar inpiltjatu minuru tara tara."
(untranslatable song in older version of the language (Klapproth 2004: 221))

ka   kunyu pika-wiya kakar   punu unngu wanu   a-nu   TAANAMILA-NINGI nyanga-ngka
and.DS REP sick-NEG thicket   wood inside PERL go-PST turn-PST.CONT   DEM-LOC
tjutinypa-ngka
club-LOC

and indeed through the thicket bushes (he) went, TURNING that (kangaroo) into another direction with his hitting stick

11.1.5 Don't ask for stories (Eickelkamp 1999: 4)

In this book, local women and men from Ernabella in South Australia talk about their art.

Munu witapi angkalpa tju-nkupai tjirpipa-ngka tjitji tjuta-ngku ngalku-ntjaku.
and.SS back hip.ABS put-CHAR plate-LOC child PL-ERG eat-PURP
And (he) puts the back section of the kangaroo on a branch plate for the children to eat.

Munu wati-ngku miru mantji-ra kuka palya-lpai miru-ngka
and.SS man-ERG miru take-SER meat prepare-CHAR miru-LOC
And the man taking his *miru* (knife) cuts into the meat with his *miru* (to release the blood)

ka tjitji-ngku milkali tjiki-lpai kunpu nyina-nytjikitja-ngku.
and.DS child-ERG blood drink-CHAR strong sit-INTEN-ERG
and the children drink the blood to become strong.

By Nura Rupert, original translation by Ute Eickelkamp.

11.1.6 Tjikalyi tjukurpa (Kavanagh 1990: 28)

Ngayu-lu kuwari ngayu-ku tjukurpa wangka-nyi ngana-mpa worka nyanga
1SG-NOM now 1SG-GEN story tell-PRES 1PL-GEN work DEM
minyma tjuta-ku.
woman PL-PURP
Today I am telling you my story about our work with all the women.

Nganana minyma tjuta-ngku mai palya-ni anangu pikatjara tjuta-ku
1PL.NOM woman PL-ERG food.ABS prepare-PRES people sick PL-PURP
alpamila-ntjikitja-ngku, mai palya.
help-INTEN-ERG food good.ABS
Anangu tjuta pika wiya nyina-nytjaku. Panya irititja purunypa.
person PL sick NEG sit-PURP ANAPH from.long.ago similar
All of us women cook good food to help all the sick people so that we can help them. So they all live healthier as it was in the old days.

Iriti=ya anangu tjuta-ngku mai kuka palya tjuta ngalku-la
long.ago=3PL.NOM person PL-ERG veg meat good PL.ABS eat-SER
palya nyina-ngi.
good sit-PST.CONT
In the old days people used to eat just good food and meat and lived well..

Ka=la nganana kuwari nyanga worka nyangatja kuwari kutju palya-nu.
and.DS=1PL.NOM 1PL.NOM now DEM work DEM now one make-PST
Minyma mankur-tu Kanyu-lu, Tinimai-lu, Nura-lu, Kanginy-tju, Ukala-lu,
woman several-ERG [names]-ERG
mai panya sugar munu salt wiya-tjara.
food ANAPH sugar and.SS salt NEG-having
Today some of us, Kanyulu, Tinamai, Nura, Kanginytja and Ukula are cooking food that has no sugar or salt.

Nganana palya-ni clinic kitchen-angka ukiri, latja, uninypa.
1PL.NOM make-PRES clinic kitchen-LOC green.grass paste seed
Nguru kutjupa kutjupa tjuta nyuma munu bread.
gum various PL seed.cake and.SS bread
We make (good food) in the clinic kitchen, out of vegetables, seeds, ground seeds, and bread.

Nganga tjana-nya=la anangu tjuta-ngka sellamila-ni.
EXCLM 3PL-ACC=1PL.NOM person PL-LOC sell-PRES
(Food from other places) which we sell to other people.

Munu=la kutjupa ara tjintu kutjupa-ngka a-nkupai uril-kutu rapita-ku,
and.SS=1PL.NOM other story day other-LOC go-CHAR outside-ALL rabbit-PURP
tinka-ku mai kampurarpa-ku alatji=la kuwari nyanga workari-ngu wiru
goanna-PURP veg desert.raisin-PURP DEM=1PL.NOM now DEM work-PST great
mulapa kutjupara=la tjina a-nkupai.
really sometimes=1PL.NOM dinner go-CHAR
Other days we go out for bush tucker -rabbits, goarind and bush tomatoes, working well and going for dinner.

Nganana workari-pai minyma tjuta nganana=nku walytja-ngku alpamila-ni.
1PL.NOM work-CHAR woman PL 1PL=REFL family-ERG help-PRES
Ngana-mpa puntu palya nyina-ytjikitja-ngku.
1PL-GEN body good sit-INTEN-ERG
This is how we work and help keep our families' bodies strong.

Transcribed by Sandra Lewis; translated by Stephie Rainow.

11.1.7 Diagram one (Kavanagh 1990: 38-39)

Uwa, ka=na wara wangka-nya:
yes and.DS=1SG.NOM long talk-NOML

Ulparira tjuta-ku munu alinytjara tjuta-ku nyanga kayili tjuta-ku
south PL-PURP and.SS north PL-PURP DEM north PL-PURP

munu ulparira tjuta-ku munu alinytjara tjuta-ku munu kakarara tjuta-ku
and.SS south PL-PURP and.SS north PL-PURP and.SS east PL-PURP
This paper is the story of many people, people from the West, the North, the South, the East.

Tjukurpa, tjukur panya marutjara=na wangka-nyi, anangu tjuta-tjara.
story story ANAPH Aboriginal=1SG.NOM speak-PRES people PL-having
It is the story of all the Aboriginal people in the Centre.

Ka anangu tjuta alatji nyina-payi:
and.DS person PL DEM sit-CHAR
(From the beginning) everyone in the Centre has been living in this way:

Wilurara-nguru alti-payi wati wilurara-tja-ngku minyma alinytjara-tja
west-ABL marry-CHAR man west-of-ERG woman north-of
people from the West, men from the West, would marry women who came from the North,

ka   wati kayili-tja-ngku   alti-payi   ulparira-tja;
and.DS man north-of-ERG   marry-CHAR   south-of
and men from the North would marry (women) from the South.

minyma ulparira-tja   wati kayili-tja-ngku   alti-payi.
woman south-of   man north-of-ERG   marry-CHAR
Women from the South married Northern men

Ka   wati ulparira-tja-ngku   minyma alinytjara-tja alti-payi
and.DS man   south-of-ERG   woman north-of   marry-CHAR
and men from the South would marry Northern women.

ka   kakarara-tja-ngku,   minyma kakarara-tja-ngku,
and.DS east-of-ERG   woman east-of-ERG
wati ulparira-tja-ngku   alti-payi   pula-nya
man south-of-ERG   marry-CHAR 3DU-ACC
Women from the East would marry Southern men;

ka   piruku wati ulparira-tja-ngku minyma kakarara-tja alti-payi
and.DS again   man south-of-ERG   woman east-of   marry-CHAR
and, again, men from the South would marry Eastern women.

munu   wati alinytjara-ngku, minyma alinytjara-ngku, wati alinytjara-tja   alti-payi.
and.SS man north-ERG   woman north-ERG   man north-of.ABS marry-CHAR
And men from the North, and women from the North married men from the North.

Ka   tjitji palu-mpa tjana-mpa walytjapiti kutju-ri-ngkupayi.
and.DS child 3SG-GEN 3PL-GEN   family   one-INCH-CHAR
And the children from all these marriages of men and women from the East, South, North and
West are all of one family.

Nyaa: Wati alinytjara-ngku, wilurara-tja-ngku   alti-payi   minyma kakarara-tja
what   man north-ERG   west-of-ERG   marry-CHAR woman   east-of
munu   wati alinytjara-nguru altipayi   minyma ulparira-tja
and.SS man north-ABL   marry-CHAR woman south-of
munu   kakarara-nguru alti-payi,   kakarara-nguru alinytjara-tja   alti-payi
and.SS east-ABL   marry-CHAR east-ABL   north-of   marry-CHAR
And men from the North marry women from the East and men from the North marry women
from the South anf from the East marry from the North.

ka   tjitji tjuta tjungu-ri-ngkula   walytjapiti   kutju-ri-ngkupayi.
and.DS child PL   together-INCH-SER   family   one-INCH-CHAR
All the people are joined together as one family.

Munu=la   tjamu,   kuntili, kami,   katja, untalpa,
and.SS=1PL.NOM   grandfather, aunt,   grandmother, son,   daughter
walku-lpayi   maru   tjuta-ngku alatji.
address-CHAR person PL-ERG   EXCLM
And all these people call one another family names: grandfather, aunt, grandmother, son,
daughter.

Nyara irititjanya a-nkula alti-kitja   uwankara-nguru, palya.
DEM   long.ago   go-SER marry-INTEN all-ABL   good
In the early days Aboriginal people travelled to places in all directions to marry.

Ka=lampa   manta nyanga, manta nyanga anangu tjuta   nyina-nytja-nya
and.DS=1PL.GEN ground DEM (x2)   person PL   sit-NOML-ABS
ngana-mpa manta kutjutu ngara-nyi,   kutjutu, manta kutjutu.
1PL-GEN   land one   stand-PRES one   land   one
And this land has been the country of Aboriginal people.

Munu=lampa   tjukurpa kutju, anangu winki-ku.
and.SS=1PL.GEN story   one   people complete-GEN
It is all one country; it has one history.

Wilurara-tja-ku, kayili-tja-ku,   ulparira-tj-ku, alinytjara-tja-ku kakarara-tja-ku,
west-of-PURP   north-of-PURP   south-of-PURP north-of-PURP   east-of-PURP
tjukurpa kutju=lampa   ngara-nyi.
story   one=1PL.GEN stand-PRES
Aboriginal people do these things in this way because they are all living in one country, and
they are all following the same law for these things.

Munu=lampa   manta, manta nyangatja,
and.SS=1PL.GEN   ground ground DEM
anangu maru   tjuta-ku ngura winki   winki-ku   anangu   uwankara-ku,
person person PL-GEN place all   all-PURP   people   everywhere-PURP
anangu nyanga uwankaraku tjana   nganana   kuwari nyina-nyi.
person DEM   everywhere 3PL.NOM   1PL.NOM   now   sit-PRES
Our land and our family is all one, made up of people from the North, South, East and West.

Palu-mpa   tjana-mpa ngana-mpa anangu   uwankara.
DEM-GEN 3PL-GEN 1PL-GEN   people   everywhere
And all this land, all over the place, is the country of every *anangu.*

Ka=na   nyiri nyangatja palya-nu   minyma pampa tjuta-ngka
and.DS=1SG.NOM paper DEM   make-PST woman old   PL-LOC
ninti-nijikitja-ngku
show-INTEN-ERG
Munu=na   palulanguru tjakultju-ngkutjikitja-ngku, palya-nu   paluru.
and.SS=1SG.NOM from.there tell-INTEN-ERG   make-PST 3SG.NOM
Tjinguru nganana   kakarara-la pitja-payi   ka   tjinguru nganana-nya kuli-lpayi,
perhaps 1PL.NOM east-LOC   come-CHAR and.DS maybe   1PL-ACC   listen-CHAR
tjinguru nganana-nya kulil-payi   piranypa-ngku or Governmenta-ngku tjinguru
perhaps 1PL-ACC   listen-CHAR white-ERG   or Govt-ERG   maybe
kuli-lpayi,
listen-CHAR
"Yaatji-nguru   nyuntu   pitja-ngu?"
 where-ABL   2SG.NOM   come-PST
Let's say (as an example) that we people come from the East and we hear white people, or
perhaps people from the Government, ask all the time, "Where do you come from?"

Munu=n ngura nyanga-ngka wirka-nu nyanga wilurara
and.SS=2SG.NOM place DEM-LOC arrive-PST DEM west
ka nganana kulil-payi pina-ngku, "Uwa, nyuntu ngurpa:"
and.DS 1PL.NOM know-CHAR mind-ERG yes 2SG.NOM don't.know
And you've just arrived at a place in the West. By such a question we know you don't understand.

Palu iritji ngayu-ku tjamu-ngku,
but long.ago 1SG-GEN grandfather-ERG
katja-ngku wilurara-nguru kakarara-tja married-ari-ngu, alti-ngu,
son-ERG west-ABL east-of married-INCH-PST marry-PST
A long time ago my grandfather from the West married a woman from the East.

munu piruku ka ngayu-ku untalpa minyma ulparira-tja
and.SS again and.DS 1SG-GEN daughter woman south-of
ka wati alinytjara-nguru alti-ngu ka nganana walytjapiti kutju nyina-nyi.
and.DS man north-ABL marry-PST and.DS 1PL.NOM family one sit-PRES
And my daughter was born in the South and she married a man from the North. From all directions we are one family, from all directions we live in one country.

Munu=la walku-lpayi kuntili, kami, untalpa, katja, ukari,
and.SS=1PL.NOM address-CHAR aunt granny daughter son nephew.niece
nyarumpa nganana walku-lpayi, nyanga palula alatji.
sibling 1PL.NOM address-CHAR DEM DEM EXCLM
We all call one another brother, sister, grandfather, grandmother, aunt, uncle, cousin, son and daughter

Munu=la tjukurpa kututjara, minyma tjuta-ngku,
and.SS=1PL.NOM law.ABS for.good woman PL-ERG
law tjana-mpa kutju kanyi-lpayi, tjukurtja.
law 3PL-GEN one keep-CHAR law
We are all one family, we are all of one land, and all of us have one law.

Alinytjara=ya tjuta-ngku, wilurara=ya tjuta-ngku, ulparira=ya tjuta-ngku,
north =3PL.NOM PL-ERG west=3PL.NOM PL-ERG south=3PL.NOM PL-ERG
kakarara=ya tjuta-ngku,
east=3PL.NOM PL-ERG
tjukurpa pararountja kutju.
Story round one
All of the people from the East, North, South and West have been one culture from the beginning.

11.1.8 Diagram two (Kavanagh 1990: 39)

Ka Governtmenta-ngku kuli-nu wilurara-nguru
and.DS govt-ERG think-PST west-ABL
munu paluru manta half mantiji-nu
and.SS 3SG.NOM ground half take-PST
And the government thought from the west and took half the ground

munu   line tju-nkula   anangu tjuta palya-nu.
and.SS line put-SER   person PL   good-PST
And putting a line placed people

Ka   anangu tjuta nyina-nyi   watarku.
and.DS person PL   sit-PRES   unaware
and people were unaware

Ka   South Australia-nguru   palurupurinypatu   palya-nu   Governmenta-ngku.
and.DS [name]-ABL   the.same.way   did-PST   govt-ERG
And from SA the government did the same.

Munu   nyara alinytjara, kakarara-nguru, North Queensland-alanguru palurupurinypa
and.SS DEM north   east-ABL   [name]-ABL   the.same.way
palya-nyi.
do-PRES
And from north, east and North Queensland did the same.

Governmenta nyanga   four-ngku=ya   kanyi-ni.
govt   DEM   four-ERG=3PL.NOM keep-PRES
And four governments kept (it).

Munu=ya   tjana   palya-nu   nyanga=ya   nyuntu-mpa   manta
and.SS=3PL.NOM   3PL.NOM   make-PST   DEM=3PL.NOM 2SG-GEN   ground
And they made this your ground

ka   ngayu-ku   manta nyangatja
and.DS 1SG-GEN   ground DEM
and my ground here

ka   nyuntu-mpa manta palatja ka   ngayu-ku   nyangatja.
and.DS 2SG-GEN   ground DEM   and.DS 1SG-GEN   DEM
And your ground here and mine there

11.1.9 Kukikaku A*ra* (Kavanagh 1990: 60)
In this text, nouns referring to family members have the *-nya* absolutive, used for names.

Nganana=na   utulu nyina-pai walytjapiti ngayu-ku   mama-ku   ngunytju
1PL.NOM=1PL.NOM   group sit-CHAR family   1SG-GEN father-GEN mother
munu   ngayu-ku   mama tjuta munu   ngunytju tjuta.
and.SS 1SG-GEN father PL   and.SS   mother   PL
We were living in a family group comprising of my father's mother and my fathers and mothers.

Nganana   pukulpa nyina-pai   mai   wiru tjuta ngalku-ra kuka wiru tjuta   ngalku-ra
1PL.NOM happy   sit-CHAR   food great PL   eat-SER   meat great PL   eat-SER
munu   mina kutju tjiki-ra.
and.SS water one   drink-SER
We were living happily eating good food and meat and drinking good water.

Munu=la   pika kutjupa kutjupa tjuṯa wiya nyina-ngi   pukulpa.
and.SS=1PL.NOM   sick various   PL   NEG sit-PST.CONT happy
And we were happy and without various sicknesses.

Ka   ngayu-ku   mama   mungawinki kutjupa mungawinki kutjupa paka-lpai
and.DS 1SG-GEN father   day other (x2)   get.up-CHAR
munu   kulata kulunta-nkupai   kuka-ku   a-nkunytjikitja-ngku
and.SS spear   straighten-CHAR meat-PURP go-INTEN-ERG
munu   paluru   a-nkupai kuka-ku   titutjara.
and.SS 3SG.NOM   go-CHAR meat-PURP keep.doing
Early every morning my father used to getup take his spears and go looking for meat

Ka   ngayu-ku   ngunytju ngapartji a-nkupai kuka-ku
and.DS 1SG-GEN mother   in.turn   go-CHAR meat-PURP
nganana-nya wantikati-ra ngura-ngka.
1PL-ACC   leave-SER   camp-LOC
And every morning my mother used to leave us in the camp and go looking for meat.

Ka   nganana   ngura-ngka nganana   inka-pai
and.DS 1PL.NOM place-LOC   1PL.NOM play-CHAR
ka   mungartji-ri-pai   nya-kupai
and.DS afternoon-INCH-CHAR see-CHAR
mama-nya tjana   kuka-tjara   wirka-nkunyangka.
father-ABS 3PL.NOM   meat-having return-ANT.DS
We stayed in the camp and played and afternoon time we would see them come back with meat.

Munu=la   walku-ra   pukula-ri-pai
and.SS=1PL.NOM praise-SER happy-INCH-CHAR
munu=la   ngaparingapari wirtjapaka-ra   ampu-lpai.
and.SS=1PL.NOM approach   run-SER   hug-CHAR
We would be happy and run to them and put our arms around them respectfully.

Ka   ngunytju-nya tjana   mala wirka-nkupai   kuka pinytjatanpa tjara
and.DS mother-ABS 3PL.NOM   later arrive-CHAR   meat rabbit   having
ka   ngayu-ku   ngunytju kuka tjunkukati-ra   a-nkupai   mina-ku
and.DS 1SG-GEN   mother   meat put.away-SER go-CHAR water-PURP
munu   tjuti-ra   wirkakati-pai.
and.SS fetch-SER   arrive-CHAR
Later our mother and the others would come back with lots of rabbits. My mother would go for water after putting away the meat.

Ka   mama-ku(lu?) mina tjiki-ra   wiyari-ngkula kuka maku=lta   pau-lpai.
and.DS father-ERG   water drink-SER finish-SER   meat grub=TURN   cook-CHAR
After drinking water my father would cook the meat.

Ka   kuka panya   tangka-ri-ngkunyangka
and.DS   meat ANAPH   firm-INCH-ANT.DS
mama-lu   kami-nya   warara u-ngkupai   tjaka-ngka
father-ERG granny-ABS first   give-CHAR   routine-LOC
munu   nganana-nya mala u-ngkupai.
and.SS 1PL-ACC   later   give-CHAR
When the meat was roasted father used to always give grandmother the first piece and we would get our pieces later.

Munu   palula malangka mina   tjika-ra   palya-ri-ngkula   nyina-pai.
and.SS   there   afterwards water.ABS drink-SER   good-INCH-SER   sit-CHAR
We would eat them, drink water and with a full stomach sit down contented.

Alatjituku wiyari-ngu
DEM   finish-PST
I have finished.

Transcribed by Sandra Lewis; translated by Stephie Rainow.

11.1.10   NT Constitutional Development Committee (Anon 1989)

This is from the minutes of a meeting held at Docker River. It was a spoken submission from a delegate.

Nyanga pula   Constitutional Development Committee-ngka nyina-pai
DEM   3DU.NOM [name]-LOC   sit-CHAR
ka   ngayu-lu   palu   pula-la   wanu   raunuri-nyi.
and.DS   1SG-NOM but.of.course 3DU-LOC PERL   go.around-PRES
These two people are on the Constitutional Development Committee and I am going around with them.

Palu=pula   Country Party-nya   ngura
but.of.course=3DU.NOM [name]-ABS   camp
ka   ngayu-lu   Labor Party-nya ngura.
and.DS   1SG-NOM   [name]-ABS   camp
They are from the Country party and I am from the Labor party (*the party names are predicative*)

Nganana   sometime pika-pika-ri-nganyi   law kutjupa kutjupa-nguru
1PL.NOM sometimes sick-sick-INCH-PRES law other   other-ABL
idea kutjupa kutjupa-nguru.
idea other   other-ABL
Sometimes we disagree on different matters and ideas.

Kuwari nganana   tjungu   nguwanpa waka-ri-nganyi   idea manti-ntijaku
today 1PL.NOM   together   almost   pierce-INCH-PRES   idea get-PURP
Northern Territory-ku idea
[name]-PURP   idea
Today we are working together to get ideas for the Northern Territory.

panya   nyura   ninti panya   Darwin-takutu a-nkupai ngayu-lu
ANAPH 2PL.NOM   know ANAPH [name]-ALL   go-CHAR 1SG-NOM
nguwanpa wangka-ntjaku kutjupa kutjupa-ku   law tju-nkuntjaku.
almost   say-PURP   other   other-PURP   law put-PURP
Most of you people know that I go to Darwin to talk about different things and to make laws.

11.1.11   Alitji (Sheppard 1975: 1)

This is an extract from a story based on and reworking Lewis Carroll's *Alice in Wonderland*. The tale relates the adventures of Alitji and the characters she meets, and thus the main narrative is told in the third person singular.

Alitji-nya   karu-ngka   rawa   nyina-ra paku-ri-ngangi.
[name]-ABS creek.bed-LOC for.long sit-SER   tired-INCH-PST.CONT.
Alitji was getting very tired of sitting in the creek-bed.

Kangkurura   pula   nyina-ra milpatju-nangi,
she.and.sister 3DU.NOM sit-SER   play.game-PST.CONT,
She and her sister had been playing *milpatjunanyi* (a story-telling game).

ka   Alitji-nya   karkara-ri-ngu   kangkuru rawa   wangka-nyangka,
and.DS [name]-ABS fed.up-INCH-PST sister   for.long talk-ANT.DS,
munu   kuli-ngka kunyu pilupilu-ri-ngangi.
and.SS heat-LOC REP   tired-INCH-PST.CONT
Alitji had become very bored as her sister's voice went on and on, and she was nodding off in the heat.

"*Awari=na=tju,   wanyu=na=tju   puta tjintjulu mantji-la,*"
EXCLM=1SG.NOM=REFL hold.on=1SG.NOM=REFL   try berries get-IMP
"Well," she said to herself, "perhaps I'll collect some tjintjulu berries."

munu kunyu ura-nu   munu=nku   mangka-ngka tjintjulu   wakani-ngi,
and.SS REP   gather-PST and.SS=REFL hair-LOC   berries.ABS   pierce-PST.CONT
This she did, and then began to pierce the berries with small sticks, and poke them through the strands of her hair.

ka   wati witjapaka-nu malu,   watja-ra,
and.DS across run-PST   roo.ABS   tell-SER
"*Awari, awari=na=tju,   mala-ri-ngu=na.*"
EXCLM   EXCLM=1SG.NOM=REFL late-INCH-PST=1SG.NOM
Suddenly a kangaroo hopped past her, saying, "Oh dear, oh deary me, I'm late."

Ka   wanyu kuli-la,   malu paluru   piranpa - piranpa alatjitu.
and.DS hold.on listen-IMP roo 3SG.NOM white   white   really
And the extraordinary thing was that he was white. A white kangaroo!

Munu kunyu iluru-ilururi-ra   yakutja   kali   kulu witi-ra
and.SS REP   feel.downcast-SER carrying.bag boomerang also   hold.on-SER
ma-tarara-ri-ra   piti-ngka   tjarpa-ngu.
away-fast-INCH-SER   burrow-LOC enter-PST
(He) hurried on anxiously, clutching a dilly-bag and a digging-stick, and disappeared from view down a hole in the ground.

Ka   tjitji panya   kungka-ngku nya-kula urulyara-ra   paka-ra wana-nu
and.DS child ANAPH woman-ERG see-SER be.surprised-SER rise-SER follow-PST
The girl (Alitji) saw (this) and in great surprise, jumped up and followed him.

11.1.12   The Giant (Douglas 1955)

Douglas glosses the serial affix on a verb similarly to Glass & Hackett's 'prior action', for example *kulpara* 'having returned'. We have used 'SER' rather than 'PA'. This work is from Ooldea in South Australia, in the Pitjantjatjara dialect. This is reflected in the presence of the separate present tense form as in *tjapini* 'asking', which distinguishes P/Y from Ngaanyatjarra.

Minyma   ngura-ku   kulpa-ngu, kulpa-ra,   ngari-ngu,   waru   kutja-ra
woman.ABS camp-PURP return-PST return-SER lie.down-PST fire.ABS   light-SER
A woman, on returning to camp, lit a fire and lay down.

pangkalangu-ngku nyina-nyina-ra nya-ngu waru tili   nya-kula   pitja-ngu,
giant-ERG   sit-sit-SER   see-PST fire flame.ABS see-SER   go-PST
pitja-la,   minyma panya   mantji-nu   mantji-ra kulpa-ngu,
walk-SER woman ANAPH.ABS pick.up-PST get-SER   return-PST
kulpa-ra,   apu kulpi-ngka tju-nu.
return-SER rock cave-LOC put-PST
A giant, who had been sitting about, saw the flame and went over, picked up the woman, and having got (her), returned and having returned, put (her) into a cave in a rock.

Ngari-ra munga-winki   nya-ngu pangkalangu kutjupa ngalya-pitja-la   ngara-la
lie-SER   early.morning see-PST giant   another towards-come-SER stand-SER
tjapi-ni,
ask-PRES
(He) rested, and in the morning early (he) saw another giant, who coming up stood and asked,

minyma-kuka   panya   wai ?
woman-meat.ABS ANAPH where ?
"Where is that meat ?"

pangkalangu-ngku watja-nu, ngayu-lu   kuka ngurpa.
giant-ERG   say-PST   1SG-NOM meat not.know.
The giant said, "I don't know anything about meat."

palulanguru pangkalangu kutjara   malu-ku   pitja-ngu
afterwards   giant   two.ABS kangaroo-PURP go-PST.
After that the second giant went out for kangaroo.

Pitja-la malu   waka-ra, ngura-ku   kulpa-ngu ngura-ku
go-SER kangaroo.ABS spear-SER camp-PURP return-PST camp-PURP
When (he) had speared a brown kangaroo (he) returned to camp.

kulpa-ra   nya-ngu pangkalangu mankurpa   nyina-ntjala
return-SER see-PST giant   three.ABS sit-ANT.DS
Having returned, (he) saw a third giant sitting (there).

pangkalangu mankur-tu   nyina-ra tjapi-nu, kuka panya   wai ?
giant   three-ERG sit-SER   ask-PST meat ANAPH where ?
The third giant, having sat down, asked, "Where is the meat?"

"kuka   ngayu-lu   ngurpa"
  meat   1SG-NOM   not.know
(The other answered) "I don't know anything about meat."

kuka   ngayu-lu   tjukurma-nu
meat.ABS 1SG-NOM dream-PST
(Giant three continued) "I dreamt about meat."

munga-ri-ngu,   palulanguru watja-nu, kuka warpu-ngkula   watja-la !
night-INCH-PST   after.that   say-PST meat hurry.up-SER   tell-IMP !
And when night fell he said, "Hurry up and tell me about the meat!"

Paka-la   munga-winki waru   kutja-la
arise-IMP early.morning fire.ABS   light-IMP
"Get up early and light a fire!" (said the first giant).

palulanguru wati mankurpa witu-nu.
afterwards   man three.ABS urge-PST
After that time three men were sent out (to look for the woman).

pangkalangu kutjara-ngku waru   kutja-ra   ngara-nyi
giant   two-ERG   fire.ABS light-SER stand-PRES
ka   pangkalangu mankurpa   tjarpa-ngu kulpi kanintjara,
and.DS giant   three.ABS   enter-PST cave inside
The second giant, when he had lit a fire, was standing waiting, and the third giant went into the cave.

Tjarpa-ra putu   para   pampu-ni
enter-SER unable around feel-PRES
Inside he felt around, but was unable to feel anything.

pangkalangu kutjara   tjapi-nu,
giant   two.ABS ask-PST
kuka   warpu-ngkula ngalya-kati!   waru nyangatja wiya-ri-ngu
meat.ABS hurry-SER   bring-IMP!   fire DEM.ABS NEG-INCH-PST
The second giant called, "Hurry up and bring the meat here! This fire has gone out."

pangkalangu kutju tjarpa-ngu kulpi-ngka, tjarpa-ra,   Putu   para   pampu-ni
giant   one enter-PST cave-LOC enter-SER, unable around feel-PRES
pangkalangu tjuta-ngku   tjuta-ri-kula   Putu   para   pampu-ni,
giant   PL-ERG   PL-INCH-SER unable around feel-PRES,
putu   nguri-nguri-ra,
unable search-search-SER,
palulanguru pangkalangu kutju   paka-ra
then   giant   one.ABS   arise-SER
Pitja-ngu, pitja-la,   para: rinta-ra   nya-ngu nyangatja ala   ngara-nyi,
walk-PST walk-SER, around.steal-SER see-PST DEM   hole stand-PRES,
The first giant went into the cave, and when he was in, the whole lot of them banded together
and having felt around, but after much searching having been unable to find anything, then the
first giant left the cave and stealing around the back…saw a hole.

11.2 Yankunytjatjara

11.2.1 Traditional plant use (Kalotas et al. 2002: 26)
This book describes local knowledge of plants and their qualities, and also has passages relating how one works with them, such as this one.

Ngapaṟi   kungka-ngku wati-ngku kuriṟara kuriṟara
gum.leaf   woman-ERG man-ERG couple   couple
wampanti — pararitja-ngku pararitja-ngku
EXCLM   far.off-ERG (x2)
kapuṯu-nkupai, ura-ṟa
wad-CHAR   gather-SER
Women, men, husbands and wives, anyone on a trip, would make it into a ball, as they gathered it.

Ka   kati-ra(2) kapuṯu-ṟa(9) puḻka kutu   kapuṯu-nkupai.
and.DS carry-SER wad-SER   big   really wad-CHAR
They used to carry it along with them, making it bigger and bigger and bigger – into a really big ball.

Kapuṯu puḻkanya kati-ra   tjuṯa yu-ngkupai, tjitji tjuṯa, wati, kungka, wati, kungka, tjitji.
ball   big.ABS carry-SER PL   give   child PL   man woman man woman child
They'd take that big ball and share it out — among the children, the men and the women.

Wampanti ngalku-pai, walytja-ngku waḻi-waḻi.
EXCLM   eat-CHAR oneself-ERG   as.well
Everyone eats some, oneself as well.

Munu   tju-nkula=nku   puṟinyma-ṟa ngalku-pai.
and.SS put-SER=REFL soften-SER   eat-CHAR
After putting it down and softening it, you eat it.

11.2.2 Kanyitji (Goddard 1983: 198)
The transcribed narratives in Goddard's thesis mainly comprise information about lifestyle, though this last piece is a story.

kaa   kunyu tali-nguṟu   ngaṟa-la nya-kula nya-ngu
and.DS REP   sand.hill-ABL stand-SER see-SER see-PST
According to the story, they had been watching from the sandhills and finally saw something.

"*nyangatja maṯaṟi   winki   ila-ri-nganyi*"
DEM   overcast whole.ABS close-INCH-PRES
"There's a big overcast cloud getting close"

kaa=ya   wiltja puḻkanya wiltja-ṉu   munu   utju   tju-nu
and.DS=3PL.NOM shelter big.ABS   make.shelter-PST and.SS narrow.ABS put-PST
And they made a big shelter, and made a narrow entrance

munu   kampa kutjupa   tju-nu   utju
and.SS side   other.ABS put-PST narrow.ABS
And made another narrow entrance on the other side.

11.3 Ngaanyatjarra

11.3.1 Newsletter (Kral 2012: 174)

This is from a newsletter (*Warbutonngamartatji Tjukurrpa* 'Warburton News': Volume 4, No 7. Wednesday, November 21st, 1979) containing several pieces of local news.

Purnu   payipu-ngkula
artefact.ABS buy-PRES
Buying artefacts

Community-lu=latju   tjimarri pirni-ngka   payipu-ngkulanytja
community-ERG=1PL.EX.NOM   money PL-LOC   pay-NOML
purnu   pirni yarnangu-ngkatja.
artefact PL   people-from
The community has been spending a lot of money buying artefacts from the people.

Puru=latju   ninti-lku   mani-kitja-lu   Alice Spring-ku puru Perth-ku.
also=1PL.EX.NOM give-FUT money-INTEN-ERG [place]-PURP   also   [place]-PURP
Puru=lan   manikara=lpi   purnu   pirninya payipu-ngama yarnangu-ngkatja.
also=1PL.INC.NOM money=in.turn   artefact all   pay-IMP   people-from
We also need to sell these artefacts in Alice Springs and Perth so that we have enough money to continue buying artefacts.

Mary Macha-lu yininti   payipu-ngku.
[name]-ERG   seed.ABS   pay-COND
Mary Macha would buy the seed.

Nyangka minyma pirni-lu=ya   yininti pirninya murtu-murtu-lku.
and.DS   woman many-ERG=3PL.NOM   seed   all   make.short.pieces-COND
And many women would divide seed necklaces into shorter lengths.

Mary Macha-lu=nyu   purtu   nya-kupayi   yininti-ku.
[name]-ERG=REP   in.vain   see-CHAR   seed-PURP
Mary Macha has been waiting a long time for the seeds.

11.3.2 Formal written correspondence (Kral 2012: 195-6)

This extract is a letter to the Department of Aboriginal affairs.

Blackstone-ku=rna   wangka-kitja.
[name]-PURP=1SG.NOM   speak-INTEN
I want to talk about Blackstone.

Wanytja-wara-munta. Tju-nku   ngurra.
where-EXCLM-Q   put-FUT camp
Palunya-tjanu tawunpa   tju-nku   wati mapitja-tjaku=ya
DEM.after   house.ABS put-FUT   man come-PURP=3PL.NOM
Pensioners pirninya nyina-tjaku Tawun-ta   Blackstone-ta?
pensioners all   sit-PURP   Town-LOC [name]-LOC
When will you put houses and make it a place for all the pensioners to stay at the Settlement of Blackstone?

Ka=latju   *kuwarripa waituma-ra puurumara-tjaku kapi ngana-lu*
and.DS=1PL.EX.NOM now   wait-SER   put.bore-PURP   water who- ERG
George-tju.
[name]-ERG
We are waiting for George to put a bore down there.

Tjinguru before Christmas puuruma-lku George-ulu
perhaps [time]   put.bore-FUT [name]-ERG
Warburton-ta ngarnmanytju wiya-ra=lpi.
[name]-LOC first   finish-SER=in.turn
Perhaps he will be able to do that before Christmas after he has finished around Warburton.

Ka=latju   *purtu=latju*   *tjapi-lku tjinguru.*
and.DS=1PL.EX.NOM in.vain=1PL.EX.NOM ask-FUT perhaps
Perhaps we will ask in vain.

Palunya-tjanu ngurra-ngka=latju   *nyina-kitja mukurri-ngkula.*
DEM-after   place-LOC=1PL.EX.NOM stay-INTEN want-PRES
We want to stay in our own country.

Watja-la warrpu-ngkula=lpi wiya-la   *Canberra-langaru tjinguru tawunpa.*
say-IMP send-SER=in.turn   send-SER [name]-ABL   maybe   house.ABS
You say the word and quickly send a house from Canberra maybe.

Tjinguru=tju   *kapamantu helpumanuma*   *ngangu-ku Landrover ninti-lku*
perhaps=1SG.REFL govt.ERG   help.IMP.CONT 1SG-PURP [name]   give-FUT
ngurra-ngka nyina-tjaku.
land-LOC   sit-PURP
Perhaps the Government will help me and give me a Landrover so that we can stay in our own country.

Puu-ku=latju   *nya-kula.*
bore-PURP=1PL.EX.NOM see-PRES
We are waiting for a bore.

Puuruma-lku nyangka puu-ngka=latju   *nyina-ku ngarnmanytju*   *Blackstone-ta.*
put.bore-FUT and.DS bore-LOC=1PL.EX.NOM sit-FUT first   [name]-LOC
When a bore is put down we will go and live at Blackstone

[names]

Palunyanya=ya   *Blackstone-tat nyina-payi.*
DEM=3PL.NOM   [name]-LOC   sit-CHAR
These are the ones who always stayed at Blackstone.

Caravanpa   *tjinguru wiya-lku medicine-tjarra tjilku pirni-ku*
caravan.ABS perhaps send-FUT medicine-having child many-PURP
after Christmas Blackstone-ku.
after [name]   [name]-PURP
Perhaps after Christmas you will send a caravan with medicine to Blackstone for the children.

Tjitji pirni-ku   Blackstone-ku caravanpa   ngarnmanytju wiya-lku
child PL-PURP [name]-PURP caravan.ABS first   send-FUT
mirrka mitjitji-ku
food   white.woman-PURP
Caravanpa   tju-nkunyangka sister nyina-tjaku stores-tjarra
caravan.ABS put-ANT.DS   sister sit-PURP   stores-having
nyina-tjaku mirrka-tjarra   nyina-tjaku.
sit-PURP   food-having   sit-PURP
For the children first of all send a caravan and food for white women so that a sister can stay there with her own food.

Ka=yi   miranykanyi-nma   pika-rri-ngkunyangka   tjilturru-nama.
and.DS=then   look.after-FUT.IMP sick-INCH-ANT.DS   prick-FUT.CONT
Palunyangka tjitji   pika-rri-ngkunyangka.
and.DS   child.ABS   sick-INCH-ANT.DS
And she will look after the children and give them needles when they become sick.

Mukurri-nganyi=latju   mutuka purlkanya wiya-ltjaku pensioner pirni-ku mirrka
like-PRES=1PL.EX.NOM car   big.ABS   send-PURP pensioner PL-GEN food. ABS
kati-tjaku Warburton-tanguru Partininytjarra-ku.
take-PURP [name]-ABL   [name]-PURP
We would like you to send a big truck to take the pensioners' food from Warburton to Blackstone.

Ka=n   caravanpa   ngalyawiya-lku sisterkamu
and.DS=2SG.NOM   caravan.ABS send-COND   sister and
tjitji   miranykanyi-ltjaku Blackstone-tanguru.
child   look.after-PURP   [name]-ABL
And to send a caravan and a sister to look after the children at Blackstone.

11.3.3 Blackstone (Kavanagh 1990: 29)
This text is about a health worker.

Yuwa kurranyu=rna   watja-lku ngayu-ku work-tjarra.
yes   in.front=1SG.NOM say-FUT 1SG-GEN work-having
Well I'd like to tell you about my job.

Tjukurrpa kurranyu-nya=rna   watja-lku ngayunya=rna   Warburton-ta
story   in.front-ABS=1SG.NOM say-FUT   1SG=1SG.NOM   [name]-LOC
tjilku   nyina-ngu   purlka-rri-ngu.
child   sit-PST   happy-INCH-PST
I'd like to tell my story as a child happy in Warburton.

Kuul-ta=rna   *tjarrpa-ngu Warburton-ta wiya rri-ngkula=lpi*   *ya-nu*
school-LOC=1SG.NOM enter-PST [name]-LOC NEG INCH-SER=in.turn go-PST
Esperance-akutu high school-ta   *tjarrpa-kitja,*
[name]-ALL   high school-LOC enter-INTEN
Esperance-tja=rna   *Wongutha Farm-ta ngurra-ngka nyina-rranytja.*
[name]-LOC=1SG.NOM [name]-LOC   place-LOC sit-PST.CONT
I went to school in Warburton and when I finished I went away to a high school in Esperance.
Wongutha Farm was my first home.

…

Kuulpa=rna   *wiyarri-ngkula=lpi Esperence-nga wanti-rra*
school=1SG.NOM finish-SER=in.turn [name]-ABS   leave-SER
ya-nu marlaku Warburton-kutu.
go-PST back   [name]-ALL
When I finished school I left Esperance I went back to Warburton.

...

Tjitja-lu   *clinic wanti-rra ya-nkulanyangka*
nurse-ERG clinic leave-SER go-ANT.DS
ngayu-lu=rrna   *clinic   miranykanyi-lpayi.*
1SG-NOM=1SG.NOM clinic.ABS look.after-CHAR
Sometimes when sister goes away for a couple of weeks I go in charge.

Tjirntu-ngka=latju   *ya-nkupayi kuul-kutu   tjilku-ku   pina pika*
day-LOC=1PL.EX.NOM   go-CHAR school-ALL child-PURP ear sick
nya-kula mirritjinpa tjuti-ltjaku pina pika-ngka.
see-SER medicine   pour-PURP ear sore-LOC
In the morning we go to school to check their sore ears and so on.

Ngayu-lu=rrna   *clinic workk-arri-ngkula pikatjarra pirninya nya-kupayi*
1SG-NOM=1SG.NOM clinic work-INCH-SER sick   all   see-CHAR
Palunyalu=rna   *mirritjinpa   yu-ngkupayi,*
and.SS =1SG.NOM medicine.ABS give-CHAR
Ngayu-lu=rna   *radio-ngka=rtartu   wangka-payi.*
1SG.NOM=1SG.NOM radio-LOC=EMPH speak-CHAR
I work in the clinic and see the sick, then I give medicine and speak on the radio.

Clinicpa-ngka=ya   *kutjupatjarra=rtartu   work-karringkula health worker,*
clinic-LOC=3PL.NOM others=EMPH   work-PRES   health worker
work-pa=latju   *yirringka-ra   work-kirnara.*
work-ABS=1PL.EX.NOM share-PRES   work-month
Other health workers work at the clinic and we share the work during the month.

Yarnangu tjinya   pika purlkanya ngarri-rranyangka=latju
person   you.know sick big   lie-ANT.DS=1PL.EX.NOM
Royal Flying Doctor Service-nga ring-ngimara   watja-lpayi
[name]-ABS   ring-?   tell-CHAR
nyangka=ya   pitja-la   pikatjarra-nya mantji-rra kati-payi   Kalgoorlie-ku.
and.DS=3PL.NOM come-SER sick-ABS   get-SER take-CHAR [name]-PURP
If someone's very sick we ring the RFDS and they come and pickup and take the sick person to Kalgoorlie.

Work kutupa=lampatju   ngara-la   ngamurtu-ngamurtu palya-ra   nya-kurltu-aku
work other=1PL.EX.PURP stand-SER frequently   do-SER   see-PURP?
tjiinya   blood pressure, pulse kamu   weight.
you.know blood pressure pulse and.also weight
Sometimes we do the health check like blood, pulse, weight and so on.

Munga-ngka=rtartu=latju   parra-pitja-la   pikatjarra pirninya nya-kula=tu.
night-LOC=EMPH=1PL.EX.NOM around-go-SER sick   all   see-PRES=just.so
Also we do night call every week.

Translation by Lizzie Ellis.

11.3.4 Wati=ya pirni mirrirringkupayi (Kavanagh 1990: 58-59)

This story uses the future *-ku* tense, which is also the habituative in Ngaanyatjarra (Glass & Hackett 1979: vii, Glass 2006: 89). This is translated in the text as 'would'; it is thus glossed here as 'COND'. The piece also features the present tense *-ni* form, generally associated with P/Y.

Wati-lu   warru pirni   pu-ngkula ngalku-payi.
man-ERG wallaby PL.ABS hit-SER   eat-CHAR
There once was a man who was always killing rock-wallabies and eating them

Wati-lu   nyina-ku   nya-ku   wati=ya   maliki   pitja-ku.
man-ERG sit-COND   see-COND man=3PL.NOM stranger come-FUT
The man would sit and wait for strangers to come.

Nyangka wati ngaa ngurra-ngka tirtu   nyina-payi-lu   watja-lku,
and.DS   man DEM camp-LOC always sit-CHAR-ERG say-COND
Then this man who always stayed in camp would say,

"Kuka=ya   yapu   ngaa-ngka=rtu   pirni warru   nyina-rra."
  meat=3PL.NOM mountain DEM-LOC=EMPH many wallaby.ABS   sit-PRES
"There's a lot of rock-wallabies on the mountain here."

Nyangka=pula   watja-lku, "Kuka yapu   wanytja-ngka=ya   nyina-rra?"
and.DS=3DU.NOM say-COND   meat mountain where-LOC=3PL.NOM sit-PRES
One day two men came along and when he said that, they said, "Where's the mountain where all the meat is?"

Kanyu wati-lu   mawatja-lku, "Munta   yapu   tjii-ngka."
REP   man-ERG tell-COND   EXCLM mountain DEM-LOC
"Oh, I mean that mountain over there," he said.

Ka=pula=nyu   *watja-lku,*
and.DS=3DU.NOM=REP   say-COND

"Wiya, ya-nku=litju   *kuka pu-ngku kati-ku.*
NEG   go-FUT=1DU.EX.NOM   meat   kill-FUT   take-FUT

Nyangka ngurra-ngka nyina-ma."
and.DS   camp-LOC   stay-IMP

Then the two men replied, "Why we'll go and kill some and bring it back. You stay home."

Wati=pula   *kutjarra-nya tjawarnu*   *kuti-pitja-ngu.*
man=3DU.NOM   two-ABS   quickly   out-go-PST

The two men went off quickly.

Pitja-yirnu   *yapu-ngka*   *tati-rnu.*
come-PST.EXT   mountain-LOC climb-PST

They came along and climbed up the mountain.

Palunyalu nya-ngu kuka   *waru*   *pirni-*   *purlka=ya*
and.SS   see-PST   edible.animal wallaby many   big=3PL.NOM
minga-pirinypa   *pupa-rra-warni-nytja.*
ant-like   crouch-SER-scatter-NOML

When they got to the top they saw lots of rock-wallabies. They were crouching around everywhere like a mass of ants.

Warta=pula   *yintirri-wana*   *tati-rnu.*
tree=3DU.NOM   dead.tree-PERL   climb-PST

The two men climbed up on a dead tree with broken-off branches.

Warru   *pirni=pula*   *pu-ngkula mularrpa=rtu*   *warni-ngu-warni-ngu.*
wallaby many=3DU.NOM   hit-SER   really=EMPH   scatter-PST (x2)

Just as they had been told, they killed a lot of rock-wallabies and threw them down.

Palunyangka wati-lu   *pitja-ku*   *ngara-la*   *nya-ku-nya-ku.*
and.SS   man-ERG come-COND   stand-SER watch-COND (x2)

Then the other man came and stood there watching.

Palunyalu kuka yurra-lku   *puru warta yintirri*   *ngaralanytja mantji-lku*
and.SS   meat gather-COND again tree   tree.ladder   stand.NOML   get-COND
warni-ku
throw-COND

He gathered up the meat, then got the tree-ladder and threw it away.

Nyangka=pula   *wati kutjarra-lu watja-lku,*
and.DS=3DU.NOM   man two-ERG   say-COND
"Warta=n   *nyaaku*   *mantji-rnu warni-ngu?"*
 tree=2SG.NOM why   get-PST   throw-PST

The two men shouted out, "Why have you thrown away the tree-ladder?"

"Wiya, nyina=pula   *mirri-rri-wa."*
 NEG   sit.IMP=3DU.NOM   corpse-INCH-IMP

(The other man said,) "No, stay there and die."

Nyangka wati-lu=pulanya   watja-lku,
and.DS   man-ERG=3DU.ACC   say-COND
He said to them,

"Wiya nyina=pula   kurtalakatuku   tarrka   liirriwaru-waru   ngarri-rranyangka,
  NEG sit=3DU.NOM   on.top.each.other   bone   ant.hill.in   stand-ANT.DS
palunya-pirinypa   mirrirri."
DEM   like.that   die.IMP
"Stay there on top of each other where the old bones have been built into anthills. Stay and die like that".

Ka=pulanya   watja-lku   wanti-nyangka   nyina-ku=pula
and.DS=3DU.ACC   say-COND   stay-ANT.DS   sit-COND=3DU.NOM
mirri-rri-ku.
corpse-INCH-COND
When he had said that, they stayed there and died.

Nyangka wati-lu   ya-nku   kuka   paa-lku   nga-lku-nga-lku   ngarri-ku
and.DS   man-ERG go-COND   meat.ABS   cook-COND   eat-COND (x2)   lie-COND
paka-lku   nya-ku
rise-COND   see-COND
Wati=pula=nyu   kutjarra pitja-ku   nyinakati-ku.
man=3DU.NOM=REP   two   come-COND   sit.down-COND
Then the other man went and picked up the meat, cooked it and ate it. Then he lay down and later got up when he saw another two men come and sit down.

Palunyangka wati mayunytju-lu   nya-ku=pulampa   yularra-yilku kuka
and.then   man deceitful-ERG   see-COND=3DU.PURP cry-COND   meat.ABS
ninti-lku.
give-COND
That deceitful man saw them, cried for them and gave them some meat.

Ka=pula   nga-lku   ngarri-ku   paka-lku   waru tili-lku   nyina-ma.
and.DS=3DU.NOM eat-COND   lie-COND   rise-COND   fire light-COND   sit-IMP.CONT
They ate it and slept the night. Then they lit a fire and sat by it.

Nyangka wati-lu   ngalyawatja-lku,
and.DS   man-ERG   say-COND
Then the man said to them,

"Kuka wiya-rri-ngu.   Nyangka ya-nku=pulan   tati-lku   warru
 meat   NEG-INCH-PST   DEM   go-COND=2DU.NOM   climb-COND   wallaby
kutjarra-munu pu-ngkula warni-ku-warni-ku yintirri-wana   tjarungara-ku?"
two-NEG   hit-SER   scatter-COND   tree.ladder-PERL   descend-COND
"The meat is all finished. Will you two go and climb up and kill all those rock-wallabies, throw them down, then climb down by way of the tree-ladder?"

Nyangka=pula   kuli-rnu   watja-rnu,
and.DS=3DU.NOM   think-PST   say-PST
Then the two men thought and said,

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"Yuwa, ya-nku=litju   tati-lku   pu-ngkula warni-ma.
  yes   go-FUT=1DU.EX.NOM climb-FUT kill-SER   throw-FUT.CONT
"Yes, we'll go and climb up and kill them and throw them down.

Nyangka ngara-la   yurra-ra   tju-nama."
and.DS stand-IMP gather-SER put-FUT.CONT
You stand there and collect them and put them in a heap."

Ka=pula=nyu   paka-ra   ya-nu yintirri-wana   tati-rnu   nya-ngu
and.DS=3DU.NOM=REP get.up-SER go-PST tree.ladder-PERL   climb-PST see-PST
warru pirnipurlka=ya   nyina-rranytja.
wallaby large.number=3PL.NOM sit-PST.CONT
So they got up, went and climbed up and saw a great number of rock-wallabies sitting there.

Ka=pula   pu-ngkula warni-ngu-warni-ngu.
and.DS=3DU.NOM   kill-SER   throw-PST (x2)
They killed them and threw them all down.

Nyangka wati-lu   warta yintirri   mantji-rnu warni-ngu.
and.DS   man-ERG tree tree.ladder get-PST   throw-PST
But the other man got the tree-ladder and threw it aside.

Ka=pula   purtu yula-ngu wanti-ngu.
and.DS=3DU.NOM   in.vain cry-PST scatter-PST
The two men cried in vain.

Ka   wati-lu   watjalku=pulanya,
and.DS man-ERG say=3DU.ACC
The man said to them,

"Nyina=pula   kurta-lakatuku   mirrirri,
  sit.IMP=3DU.NOM   brother-at.same.place die.IMP
"Stay there and die on top of each other.

Pala   tarrka   wati-ngarri-rra   wirrtja-rni."
DEM bone   aside-lie-SER   hurry-PRES
Right near you where the bones are lying in a heap that's getting bigger and bigger."

Ka=pula   purtu yula-ku   wanti-ku   nyina-ku
and.DS=3DU.NOM in.vain cry-COND scatter-COND   sit-COND
palunyangka=rtu mirrirri-ku,
then=EMPH   die-COND
tarrka liirrwaruwayu ngarri-rranyangka   kurtalakatuku.
bone anthill   stand-ANT.DS   on.top.each.other
So the two men cried out in vain and stayed and died right in that very place on top of where the old bones had been built into ant-hills.

Nyangka ya-nku kuka   paa-lku   nyina-rra nga-lku-nga-lku tju-nku
and.DS   go-PST meat.ABS cook-COND sit-SER   eat-COND (x2)   put-COND
wanti-ku   tjirntu-ku.
leave-COND   day-PURP
The other man went and cooked the meat, ate as much as he could and put the rest away for the next day.

Wati yirna ngaa-lu=tjana-nya   wati pirni   tatitju-ra   wanti-rranyangka nyina-rra=ya
man   old   DEM-ERG=3PL-ACC   man   many   climb-SER leave-ANT.DS   sit-SER=3PL.NOM
yapu katu   mirrirri-ngkupayi.
hill   top   die-CHAR
This old man had made lots of men go and die on top of the hill.

Palunyangka=pula   wati kutjarra-lu tjukurrtju-nu wati yirna kutju-lu=tjana-nya
and.DS=3DU.NOM   man two-ERG   dream-PST   man old   one-ERG=3PL-ACC
mayu-ra   yapu-ngka   tatitju-ra.
deceive-SER hill-LOC   climb-SER
Then it happened that two men had a dream about an old man who deceived them into climbing up a hill.

Nyangka=pula   tjukurrtju-nu ninti   pitja-nytja.
and.DS=3DU.NOM   dream-PST   know   come-NOML
Because they had the dream, they came along prepared.

Nyangka=pula   pitja-ngu   nyina-rranytja.
and.DS=3DU.NOM   come-PST   sit-PST.CONT
They came along and sat down near there.

Palunyalu=pula   nya-ngu wati katurri-ngkula pitja-ngu=pula.mpa   yula-rranytja.
and.SS=3DU.NOM   see-PST   man get.up-SER   come-PST=3DU.PURP   cry-PST.CONT
Then they saw a man getup and come towards them crying.

Nyangka=pula=nku kuru ngaparrku nya-ngu kuli-rnu=pula,
and.DS=3DU=REC   eye   returning   see-PST think-PST=3DU.NOM
The two men exchanged glances and thought,

"Wiya,   yarla=n   mayu-ra."
  NEG   falsely=2SG.NOM deceive-SER
"You're deceiving (us)."

Ka=pula=nyu   kuli-ranyangka=rtu   wati-lu   watja-rnu,
and.DS=3DU.NOM=REP   think-ANT.DS=EMPH man-ERG say-PST
But as they were thinking that the man said

"Kuka wiya-rri-ngu.
  meat NEG-INCH-PST
"The meat is all finished.

Nyangka yapu   ngaa-ngka warru pirni=ya   nyina-rra.
and.DS   mountain DEM-LOC wallaby many=3PL.NOM   sit-PRES
But there are lots of rock-wallabies on a mountain near here.

Nyangka kuti-pitja-ku=pulan   pu-ngkula warni-ku-warni-ku tjarungara- ku
and.DS   out-go-FUT=2DU.NOM   kill-SER   throw-FUT (x2)   descend-FUT
yintirri-wana?"
tree.ladder-PERL
Will you two go and kill them and throw them down, and then come down by way of the tree-ladder?"

Ka=pula   watja-rnu, "Wanytja-wana   tati-lku?"
and.DS=3DU.NOM say-PST   where-PERL   climb-FUT
The two men asked, "How will we getup?"

"Mapitja nya-wa   warta purlkanya murrungara-la,   palunya-wana   tati-la."
 go.IMP see-IMP tree big   lean-SER   DEM-PERL   climb-IMP
"Go along and you'll see a big tree leaning against the mountain, climb up that way."

Nyangka=pula   ya-nu   yapu-ngka   tati-rnu
and.DS=3DU.NOM go-PST   mountain-LOC climb-PST
nya-ngu warru pirni=ya   pupa-rranytja.
see-PST wallaby many=3PL.NOM crouch-PST.CONT
The two of them went and climbed up and saw lots of rock-wallabies crouching there.

Nyangka=pula   pu-ngkula   warni-rranytja.
and.DS=3DU.NOM   hit-SER   throw-PST.CONT
They were killing them and throwing them down.

Palunyangka wati-lu   pitja-ngu ngara-la   mantji-ra   tju-nu-tju-nu.
and.DS   man-ERG come-PST stand-SER   pick.up-SER put-PST (x2)
Then the old man came along, stood there, picked them up and put them in a heap.

Palunyalu warta yintirri   wati-narril-tjinga-rnu.
and.SS   tree   tree.ladder aside-wobble-CAUS-PST
Next he got the tree-ladder and pushed it aside.

Ka=pula   kata   paarnarra-rnu   kuli-ranytja,
and.DS=3DU.NOM   head.ABS   amaze-PST   think-PST.CONT
The two men didn't know what to do. They thought,

"Wiya, wati   ngaa-lu=linya   mayu-rnu.
 NEG   man   DEM-ERG=1DU.INC.ACC   deceive-PST
Nyangka=li   pukurltju tati-rnu."
DEM=1DU.INC.NOM   happy   climb-PST
"Why this man has deceived us and we happily climbed up here."

Nyina-arra=pula   kuli-rnu-kuli-rnu watja-rnu,
sit-SER=3DU.NOM   think-PST (x2)   say-PST
They sat there and thought and thought and then one said,

"Munta,   yanumarra-rri-ngkula=lpi=li   tjarungara."
   EXCLM green.caterpillar-INCH-SER=in.turn=1DU.INC.NOM descend.IMP
"I know, let's turn into green caterpillars and get down that way."

Nyangka puru kuli-rnu,
and.DS   again think-PST
Then they thought again,

"Wiya=li   mangka   karta-la
NEG=1DU.INC.NOM   hair.ABS   cut-IMP
palunyalu rulyupu-wa   puru mangka manta-kutu   wiya-la.
and.SS   grind-IMP   again hair   ground-ALL finish-IMP
Palunyalu=li   tjarungara."
and.SS=1DU.INC.NOM   descend.IMP
"No, let's cut our hair and spin it and let the hair down to the ground. Then we can get down."

Nyangka wati kutju yanumarra-rri-ngu.
and.DS   man one   green.caterpillar-INCH-PST
Nyangka kutjupa-nyalu ngalyakanti-rri-ngu.
and.DS   other-then   white.caterpillar-INCH-PST
So one man became a green caterpillar and the other one became a white caterpillar.

Palunyalu=pula   tjarungara-ngu.
and.SS =3DU.NOM   descend-PST
Then they both climbed down.

Pitja-yirnu-pitja-yirnu   mantakutu-rri-ngu=pula   tjarungara-ngu
come-PST.EXT (x2)   ground-INCH-PST=3DU.NOM   descend-PST
marlaku wati-rri-ngu   yarnangu-rri-ngu.
back   man-INCH-PST   man-INCH-PST
They came slowly down and when they had finally reached the ground, they turned themselves back into men.

Palunyalu=pula=nyu   kurlarta   mapitja-ngu mantji-rnu
and.SS=3DU.NOM=REP   spear.ABS   go-PST   get-PST
tju-nu=pula   wanti-tja-lu.
put-PST=3DU.NOM   leave-NOML-ERG
Then they went and got the spears that they had put away.

Mantji-ra   parra-pitja-ngu   nyaku-nya-kula parra-pitja-ngu
get-SER   around-come-PST   see-SER   around-come-PST
nya-ngu   wati palunyanya nyina-rra kuka watatja-lu   nga-lkula.
see-PST   man DEM   sit-SER   meat unaware-ERG   eat-SER
They got them and came around looking and looking until they finally saw that man sitting there eating meat quite unaware of the danger.

Nyangka=pula   pitja-ngu-pitja-ngu ngamu   kintilma-ra   pitja-ngu.
and.DS=3DU.NOM come-PST (x2)   frequent   cough-SER   come-PST
The two men came nearer and nearer, coughing as they got close to him

Nyangka wati palunyalu tjulurraa-rnu   nya-ngu   palunyalu watja-rnu,
and.DS   man and.SS   get.fright-PST see-PST   and.SS   say-PST
He really got a shock when he turned and saw them, but he said

"Munta,   kuka=rna   paa-ra   wanti-rra   mapitja-kitja kuwarripa nyina-rranytja."
  EXCLM meat=1SG.NOM cook-SER leave-SER   go-INTEN   now   sit-PST.CONT
"I was just about to go. I was just waiting for this meat to cook."

11.3.5 A traditional story of the Turkey (Glass & Hackett 1979: 1-14)
This is a third person narrative, telling a story about two brothers. Overt pronouns are uncommon in the text, with the third person singular zero clitic being frequent.

Wati=pula   kutjarra kurtararra   nyina-rranytja waru-maalpa
man=3DU.NOM   two   brothers.ABS   sit-PST.CONT fire-without
Two men who were brothers had no fire.

Nyina-ngu-nyina-ngu   wanti-rra   kuti-pitja-ngu
stay-PST (x2)   leave-SER out-go-PST
And (one) got up and went away.

Ka   kurta-mirntany-nga   nyina-rranytja   waru nyaa-tjarra   pukuny-pukuny-tjarra
and.DS elder.brother-DEM-ABS sit-PST.CONT   fire   what-having coals-coals-having
And the elder brother had a coal fire.

Ka   pitja-yirnu   nyina-rranytja   marlany-pa   nyina-ngu-nyina-ngu
and.DS come-PST.EXT   sit-PST.CONT   younger.brother-ABS sit-PST (x2)
parra-pupa-rrayintja   waru tjirratja Warutjarra-la   kapi-ngka
around-crouch-PST.CONT fire-desirous.of [place name]-LOC water-LOC
And the younger brother came and sat there crouching around longing for a fire at the water-hole Warutjarra.

nyina-ngu-nyina-ngu   waru-maalpa pupa-ngu-pupa-ngu pupa-ngu-pupa-ngu
stay-PST (x2)   fire-without   crouch-PST (x4)
(He) stayed on there crouching and crouching with no fire.

11.3.6 Recent experiences during the holidays (Glass & Hackett 1979: 15-19)
This story is told in the first person exclusive plural nominative, represented by the pronoun clitic =*latju.*

May holidaytime=latju   ya-nu   well-ku
May holidaytime=1PL.EX.NOM go-PST well-PURP
In the May holidays we went to the well.

mapitja-yirnu=latju
go-PST.EXT=1PL.EX.NOM
Warupuyu-la=latju   nyina-rra mirrka   paa-ra   ngala-ngu
[place name]-LOC=1PL.EX.NOM sit-SER   food.ABS cook-SER eat-PST
We went away and at Warupuyu we sat cooking and eating food.

ngarri-ngu=latju   *tjirntu-rri-ngu*   *katu-rri-ngu=latju*
lie.down-PST=1PL.EX.NOM   day-INCH-PST   up-INCH-PST=1PL.EX.NOM
mapitja-ngu Winpuly-tja   *tju-nu*   *nyina-ngu=latju*
go-PST   [place name]-LOC put-PST stay-PST=1PL.EX.NOM
We lay down and next day got up, went and set down (our things) at Winpuly and stayed there.

Ka=ya   *kutitja-ngu minyma pirni-lu=ya*
and.DS=3PL.NOM go-PST   woman   many-ERG=3PL.NOM
raapita=ya   *tjulya-rnu kati-nytja*   *kati-ngu*
rabbit.ABS=3PL.NOM catch-PST   bring.back-NOML bring.back-PST
And many women went and caught rabbits and brought them back.

Ka=latju   *paa-rnu*   *ngala-ngu nyina-ngu ngarri-ngu=latju*
and.DS=1PL.EX.NOM cook-PST   eat-PST   sit-PST   lie-PST=1PL.EX.NOM
tjirntu-rri-ngu katu-rri-ngu=latju   *kapi kutjupa-kutu*
day-INCH-PST up-INCH-PST=1PL.EX.NOM   water another-ALL
pitja-nytja   *creek-ngka ngarri-rranytja*
come-NOML   creek-LOC lie-PST.CONT
And we cooked and ate them and next day got up, came back to another water-hole and were camping at the creek.

11.3.7 A narrative regarding *kiṯi* (Spinifex gum) (Douglas 1957: 112)
Douglas uses *palunyalu* for the distant third person A argument throughout this short piece, after introducing *wati* 'man' at the outset. Glass (2006: 109) calls *palunyalu* the same subject conjunction. This story takes the form of a series of short declarative statements.

Wati-lu   *kiṯi-tjara-munu-lu*   *kuti-pitja-ngu,*   *kiṯi*   *palya-ṉu.*
man-ERG gum.having-NEG-ERG out-go-PST   gum.ABS good-PST
A man, who had no gum, went out and prepared some.

palunyalu lankuru-ngka   *tju-nu. Palunyalu*   *kuḻaṯa-ngka tju-nu.*
and.SS   spearthrower-LOC put-PST and.SS   spear-LOC   put-PST
He then put (it) on his spear-thrower and put (it) on his spear.

palunyalu karpi-nu   *pulyku-ngka.*
and.SS   bind-PST   sinew-LOC
He also bound (these) with kangaroo sinew.

11.3.8 Preparation of *kiṯi* (Spinifex gum) (Douglas 1957: 112-113)
Douglas notes the switch from first person to third person with *palunyalu*; and says that by context this third person is understood to be the informant's wife. *Palunyalu* is the same subject conjunction in more recent work; Douglas has it as the 'not visible' third person A argument.

nganku-lu kuti-pitja-ngu, kiṯi   *palya-ṉu,*   *warpu-ṉu,*   *warpu-ṉu yapu-ngka*
1SG-NOM out-go-PST   gum.ABS prepare-PST pull.up-PST, pull.up-PST rock-LOC
tju-nu.
put-PST.
I went out and prepared *kiti*. Firstly, (I) pulled up (the spinifex), and, having done so placed (it) on a rock.

Palunyalu   wata-ngka   pu-ngu.
and.SS/3SG.NOM   stick-LOC   hit-PST.
And (my wife) beat (it) with a stick.

Palunyalu yura-nu.   yura-nu   wira-ngka
and.SS   gather.up-PST gather.up-PST wira-LOC
and when (she) had gathered (it) up in a *wira* (a small wooden dish),

palunyalu kuti-pitja-ngu, kani-nu.
and.SS   out-go-PST   yandy-PST
(she) went away and yandied (or 'winnowed') (it).

palunyalu tju-nu   waru-ngka, nyuma   tju-nu.
and.SS   put-PST   fire-LOC   cake.like put-PST
And (she) put (it) in the fire and made (it) like a cake.

(She then placed it on a rock and by means of a fire-stick, moved just over the top of it, she extracted the *kiti*, which she moulded into the form of a small pancake.)

nganku-lu pukula-ri-ngu   kiti-tjara. nganku-lu pukul-ari-ngu   kiti-tjara
1SG-NOM happy-INCH-PST gum-having 1SG-NOM happy-INCH-PST gum-having
kulata-ku.
spear-PURP
I rejoiced to be equipped with *kiti*, I was glad to have some *kiti* for my spear.

11.3.9 Story by a girl (Douglas 1957: 114)
In the opening line of this and the next story are an apposed S-intransitive and S-transitive finite verb; but shared subject is ergative.

Wati nga:-lu   pitja-anu malu   nya-ngu kultu-nu, yitjili-nu.
man DEM-ERG go-PST kangaroo.ABS see-PST   spear-PST divide.up-PST.
This man went out hunting, saw a kangaroo (and) speared (and) cut (it) up.

palunyalu katuri-ngu   nyuti-nu,   ma-witja-ntja
and.SS   get.up-PST   put.meat.on.head-PST   hurry.on-NOML
witja-nu   ngura-ku   para-pitja-ngu, ka   tjitji-lu   nya-ngu, pukula-ri-ngu.
hurry-PST camp-PURP around-go-PST   and.DS child-ERG see-PST   happy-INCH-PST.
He arose and put the uncooked meat on his head and hurried off and came quickly to camp. (He) skirted around the outside of the camp, but a child saw (him) and was glad.

ka   wati-lu   para-pitja-ngu kurkaltju-nu   waru   tili-nu,
and.DS man-ERG around-go-PST   build.fire-PST   fire.ABS   light-PST,
But the man went around and heaped up a great pile of wood and lit a fire.

ka   tjiti-nu, tjiti-ra=lpi   pa:-nu   (warungka tjarpa-tjunu, pa:nu)
and.DS lift-PST   lift-SER=in.turn   cook-PST ('in the fire put in, cooked it')
And they lifted (the meat) over into the fire and cooked (it).

Tjitji=ya   mama-ngka yula-rantja,   ka   mama-lu payi-nu
child=3PL.NOM father-LOC   cry-PST.CONT and.DS father-ERG drive.away-PST.
All the children were crying at their father, but he drove (them) away.

11.3.10   Emu eggs (Douglas 1957: 114-115)

Wati nga:-lu   pitja-ngu   nya-ngu   kalaya pupa-rantja,
man DEM-ERG   come-PST   see-PST   emu   bend.down-PST.CONT
This man came and saw an emu while it was bending down.

panyka-<u>nu</u>,   kultu-<u>nu</u>,   ngampu kutjara-kutjara mantji-nu
approach.stealthily-PST   spear-PST, egg   four.ABS   get-PST
(He) approached (it) stealthily and speared (it). (He) got four eggs.

12 Appendix B: Pitjantjatjara predicate tests

12.1 *Nyinanyi* 'sit/be'

Test1: continuous	*palya **nyinangi*** (Kavanagh 1990: 28) '(they) were living well'
Test2: dynamic	
Test3: slowly	
Test4: for X time	*Munu=ya pitjala Ernabella-la nyinangi **wiki kutju*** (Goddard 1996: 231) 'and they came and were staying at Ernabella for a week'
Test5: in X time	
Test6: derived adjective	*Ipi mai panya paluru **nyinanytja**, ipi waninyi* (Kalotas et al: 2002: 69) 'The capsules sitting on the seeds, you discard the capsules'

12.2 *Wangkanyi* 'say/speak'

Test1: continuous	*kata wanu **wangkangi*** (Sheppard 1975: 61) '(They) were talking across its head'
Test2: dynamic	*Paluru pulkara kutu wangkangu* (Goddard 1996: 62) 'She shouted really loudly'
Test3: slowly	*Wanyu, puriny nguwan wangka, ngayulu kulintjaku* (Goddard 1996: 146) 'Could you talk more slowly, so I can understand'
Test4: for X time	***rawa** wangkanyangka* (Sheppard 1975: 1) '(She) was speaking for a long time'
Test5: in X time	*wangkara mungaringu* (Rose 2001: 48) 'talking became night'
Test6: derived adjective	*Kaya tjana tjukurpa tjana **wangkanytja** tjuta kuruntu mantjilpai purkarangku kulira atatjura wangkanyangka* (Lester et al 2013: 11) 'The words that are spoken are received by the child's spirit when they are spoken gently and with patience'

12.3 *Punkani* 'fall'

Test1: continuous	*Munu kunyu rawa **punkaningi*** (Sheppard 1975: 2) 'And she was falling for a long time'
Test2: dynamic	
Test3: slowly	***Purkara**=na punkani* (Sheppard 1975: 2) 'I am falling slowly'
Test4: for X time	*Munu kunyu **rawa** punkaningi* (Sheppard 1975: 2) 'And she was falling for a long time'
Test5: in X time	
Test6: derived adjective	*Punu **punkantja*** 'fallen tree'

12.4 *Kampanyi* 'burn'

Test1: continuous	*Ka waru pulkanya, tili pulkanya* **kampangi** (Goddard 1996: 163) 'A big fire was burning there, a big flame'
Test2: dynamic	
Test3: slowly	
Test4: for X time	*Warulu kampa**rayirnu*** (Ngaanyatjarra Glass & Hackett 2003: 167) 'The fire burned for a long time'
Test5: in X time	
Test6: derived adjective	*Purku puriny, warungka* **kampanytja** (Goddard 1996: 81) 'Like charcoal, burnt on the fire' *Wali* **kampanytja** 'burnt house'

12.5 *Wirtjapakani* 'speed off, run'

Test1: continuous	*TJUKARURU mulapa kunyu* **wirtjapakaningi** (Klapproth 2004: 228) 'really STRAIGHT they were speeding along'
Test2: dynamic	
Test3: slowly	
Test4: for X time	*Ngayulu* **hour kutjuku** *wirtjapakanu* 'I ran for an hour'
Test5: in X time	
Test6: derived adjective	***wirtjapakanytja** 'the running event'

12.6 *Ngalkuni* 'eat'

Test1: continuous	*Minyma kutjutjangku nyinara mai* **ngalkuningi** 'The woman was sitting alone eating'
Test2: dynamic	**Ngalkuni-ngalkuni** (Goddard 1983: 122) '(he/she/it) is gobbling it down'
Test3: slowly	*Ngura* **puriny-tju** *munganma* (Goddard 1983: 122) (*munguni* means same as *ngalkuni* (Goddard 1996: 83)) 'Eat slowly'
Test4: for X time	
Test5: in X time	*Munula ngalkuningi kuka winki. Munula ngalkula wiyanu* **kalala kutjutu** (Goddard 1996: 30) 'We ate all the meat. We ate it all up in just one day'
Test6: derived adjective	

12.7 *Ananyi* 'go'

Test1: continuous	IRITI **anangi** (Klapproth 204: 222) 'A long time ago was travelling along'
Test2: dynamic	
Test3: slowly	*Ka nganana* **purkara** *ankula ankula* (Goddard 1996: 146-147) 'and we were going slowly'
Test4: for X time	**ankula ankula ankula** (Rose 1996) 'going going going= going for a long time'
Test5: in X time	
Test6: derived adjective	

12.8 *Nyanganyi* 'see/watch/look for'

Test1: continuous	*Munula* **nyangangi**, *kamula panya mulyangka* (Goddard 1996: 16) 'We were looking at the camel's nose' *Mungartjina pitiyu wiru* **nyangangi** (Goddard 1996: 82) 'I saw a really good video this afternoon' (spoken at 9pm)
Test2: dynamic	
Test3: slowly	
Test4: for X time	
Test5: in X time	
Test6: derived adjective	*nyakunytja* (not found as terminal state in corpus)

12.9 *Taani* 'burst'

Test1: continuous	**Taa-taani** (Goddard 1996: 157) 'pop, sizzle' *Warungka tilira apulyu tjunkula,* **taa-taannyangka** *lampira ngalkupai* (Goddard 1996: 11) 'After you've lit a fire and put the pods on it, once they start bursting open, you peel and eat (the cooked green seeds)'
Test2: dynamic	
Test3: slowly	
Test4: for X time	
Test5: in X time	
Test6: derived adjective	**Taantja** (Goddard 1996: 157) 'Something that has been burst out of'

12.10 *Kuntjulpunganyi* 'cough'

Test1: continuous	*Rawangkula* **kuntjulpungangi** (Goddard 1996: 237) 'We were coughing for a long time'
Test2: dynamic	*Kuntjulpunganyi* is a 'vigorous' action (Goddard 1983: 121)
Test3: slowly	
Test4: for X time	**Rawa**ngkula *kuntjulpungangi* (Goddard 1996: 237) 'We were coughing for a long time'
Test5: in X time	
Test6: derived adjective	

12.11 *Nintiringanyi* 'learn'

Test1: continuous	*Ngayulu kuulangka nyinara puḻkaṟa* **nintiringangi** *nyara palula* (Goddard 1996: 57)
	'I used to study hard when I went to school there'
Test2: dynamic	*Ngayulu kuulangka nyinara* **puḻkara** *nintiringangi nyara palula* (Goddard 1996: 57)
	'I used to study hard when I went to school there'
	Munula palulanguṟu Aṉapalalaku anu kaṉa nyara palulalta **puḻkaṟa** *nintiringu.* (Goddard 1996: 142-143)
	'After that we moved to Ernabella and that's where I really learnt a lot'
	Tjitj tjutaya **pulkara** *nintiringkupai* (Lester et al 2013: 11)
	'Children learn well'
Test3: slowly	
Test4: for X time	
Test5: in X time	
Test6: derived adjective	

12.12 *Wirtjapakani 1 mile/karukutu* 'run a mile/to the creek'

Test1: continuous	*Pula kunyu karukutu* **wirtjapakaningi** (Goddard 1996: 22)
	'The two of them were running to the creek'
Test2: dynamic	
Test3: slowly	
Test4: for X time	
Test5: in X time	*Ngalyulu mile kutjuku wirtjapakanu, panya* **minute kutjara-kutjaraku=na ma-ankula wiyaringu=lta**
	'I ran a mile, and for four minutes I went and then stopped'
	Kukurrarnu=rna 1 milepa, **four minutespangka** *(N)*
	'I ran a mile in four minutes'
Test6: derived adjective	

13 Appendix C: Pitjantjatjara derived verb predicate tests

Constructed sentences, for each of the six tests, were tested for acceptability. Suggested corrections are in bold.

13.1 *-ri*: inchoative

13.1.1 *Pulkaringanyi*: get bigger

*waru pulkaringi
intended meaning: 'the fire was getting big'

waru pulkaringu
'the fire got big'

*waru pulkaringu pulkara
intended meaning: 'the fire got big strongly'

waru pulkaringu mulapa
'the fire got really big'

*waru pulkaringu purkara

?waru pulkaringu hour kutju-ku
'the fire got bigger for an hour'

waru pulkaringu hour kutju-nguru
'the fire got bigger one hour ago'

*waru pulkaringu four minutespa-ngka
intended meaning: 'the fire got bigger in four minutes'

*waru pulkarintja

13.1.2 *Ankuringanyi*: fall asleep

Note: *anku* is a Yankunytjatjara word; the corrections here use *kunkun* which is Pitjantjatjara.

*ankuringangi
intended meaning: 'he's falling asleep'

kunkunaringi 'were sleeping' (Klapproth 2004: 222-223)

ankuringu/kunkunaringu
'he/she's asleep'

*ankuringanyi pulkara

kunkunpa ngarinyi
'he/she's asleep'

*ankuringanyi purkara

*ankuringanyi hour kutju-ku

kunkunaringanyi hour kutju
'they've been sleeping for one hour'

*ankuringanyi four minutespa-ngka

kunkunaringu four minutespa-ngka
'he went to sleep four minutes ago'

ankuringkunytja

kunkunarinytjatjanu
'he just woke up and he's still tired'

13.1.3 *Tjinturinganyi*: become day
*tjinturingangi

*tjinturinganyi pulkara

tjinturinganyi
'its daytime = wake up it's time to wake up'

*tjinturinganyi purkara

*tjinturinganyi hour kutju-ku

tjinturinganyi hour kutjunguru
'it became day one hour ago'

*tjinturinganyi four minutespa-ngka

*tjinturingkunytja

13.1.4 *Palyaringanyi*: get better
palyaringangi
'he was getting better'

*palyaringanyi pulkara

palyaringanyi purkara
'(he is) getting better slowly'

*palyaringanyi hour kutju-ku

palyaringanyi hour kutju-nguru
'getting better one hour ago'

*palyaringanyi four minutespa-ngka

palyaringkunytja
'he's already well'

palyaringkunytjatjanu
'he got better and he's gone'

13.2 -*ara*: decausative

13.2.1 *Tjilpirara<u>n</u>i*: become cracked
*Ngayuku wiila tjilpiraraningi

Ngayuku wiila tjilpiraranu pulkara

?Ngayuku wiila tjilpiraranu purkara

Ngayuku wiila tjilpiraranu tjukutjuku

Ngayuku wiila tjilpiraranu hour kutju-ku
'My wheel became cracked one hour ago'

Ngayuku wiila tjilpiraranu four minutespa-ngka
'My wheel became cracked four minutes ago'

*Tjilpirarantja

Ngayuku wiila tjilpipa pulka

13.3 (-*ma*-) + verb endings: causative

13.3.1 *Palyani*: fix, make, work, butcher in prescribed manner
palyani pulkara
'he's working hard'

palyani purkara
'he's working slow'

palyani hour kutju-ku
'he's working for one hour'

palyani four minutespa-ngka
'he's working for four minutes'

palyantja
'it's been made'

13.3.2 *Pukulmananyi*: make happy, please
pukulmanangi
'he's been making someone happy'

pukulmanu pulkara
'he made someone so happy'

*pukulmanu purkara

pukulmanu hour kutju-ku
'he made him happy one hour ago'

four minutespa-ngka
'he made him happy four minutes ago'

pukulmankunytja
'he was made happy by someone'

13.4 *-tjinga*: causative

13.4.1 *Ngulutjingani*: frighten
ngulutjinganingi
'he was frightening him'

ngulutjingani pulkara
'he is frightening him strongly'

*ngulutjingani purkara
'he is frightening him slowly'

*ngulutjingani hour kutju-ku
'he is frightening him for an hour'

*ngulutjingani four minutespa-ngka
'he is frightening him in four minutes'

ngulutjingantja
'he was frightened'

13.4.2 *Punkaltjingani*: drop, make fall
*punu punkaltjinganingi

?punu punkaltjinganu pulkara

?punu punkaltjinganu purkara

*punu punkaltjinganu hour kutju-ku

punu punkatjinganu kuwari nguwanpa
'the tree now nearly fell'
(if someone said when was that tree knocked down and I answered a while ago)

*punu punkaltjinganu four minutespa-ngka

punu punkaltjingantja
'he planted the tree'

13.4.3 *Ikaritjingani*: make someone laugh
palurulanya ikaritjinganingi
'he was making us laugh'

palurulanya ikaritjinganu pulkara
'he made us laugh strongly'

palurulanya ikaritjinga<u>n</u>u purkara
'he made us laugh slowly'

palurulanya ikaritjinga<u>n</u>u hour kutju-ku

palurulanya ikaritjinga<u>n</u>u four minutespa-ngka

palurulanya ikaritjingantja

13.4.4 *Wangkatjinga<u>n</u>i*: make someone speak
wangkatjinga<u>n</u>ingi
'he was making us talk'

wangkatjinga<u>n</u>i pulkara

wangkatjinga<u>n</u>i purkara

wangkatjinga<u>n</u>i hour kutju-ku

wangkatjinga<u>n</u>i four minutespa-ngka

wangkatjingantja

wangkatjingantja wangkatjingantja ka ngayulu pikatjararingu
'Someone made me talk and made me talk and now I'm sick'

13.5 -*nta*: causative of harm

13.5.1 *Pikantananyi*: hurt
pikantanangi
'it's been making me hurt'

pikantananyi pulkara
'it's hurting me so hard'

pikantananyi purkara
'it's hurting me slowly'

pikantananyi hour kutju-ku
'it's been hurting for one hour'

pikantananyi four minutespa-ngka
'it started to hurt four minutes ago'

pikantankunytja