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

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University of Dublin, Trinity College
Centre for Language and Communication Studies
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Declaration

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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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Valence in PYN

Valence

Transitivity

Analysis of semantic valence

Semantic valence 0

Semantic valence 1

Semantic valence 2

Semantic valence 3

Semantic valence 4

Verbs of varying semantic valence

Verbs of saying

Talking and speaking

Telling

Addressing

Summary and discussion

Summary of chapter

Distinctions between the di

Sentence boundaries

Distinctions between the dialects

Summary of chapter

Valence in PYN

Valence

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Analysis of semantic valence

Semantic valence 0

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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>1, 2, 3</td>
<td>First, second and third persons</td>
</tr>
<tr>
<td>DU</td>
<td>Dual</td>
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<tr>
<td>PASS</td>
<td>Passive</td>
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<tr>
<td>A</td>
<td>Agent-like argument in a transitive clause</td>
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<td>E</td>
<td>Extension to core argument</td>
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<td>PERL</td>
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<td>Argument adjunct</td>
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<td>Reported</td>
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<td>CL</td>
<td>Classifier</td>
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<td>Intransitive verb</td>
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<td>Complementiser</td>
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<td>Left-detached position</td>
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<td>Single argument, intransitive clause</td>
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<td>Comitative</td>
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<td>Non macrorole</td>
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<td>Tense aspect and mood</td>
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<td>Less agent-like argument of transitive clause</td>
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<td>Oblique</td>
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<td>Verb phrase</td>
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<td>Direct object</td>
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<td>Obviative</td>
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<td>Derived intransitive subject</td>
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<td>Object of comparison</td>
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<td>=</td>
<td>Clitic (Word boundary)</td>
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<td>DS</td>
<td>Different subject</td>
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<td>P</td>
<td>Patient-like argument</td>
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<td>-</td>
<td>Morpheme boundary</td>
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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 UN1, 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.lyil2019.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 *milpatjumanyi* sand storytelling at Ernabella (now Pukatja), South Australia.

*Tjitji Maluarninganyi ‘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

*Punu: 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. Ngaanyatjarra muna Małatja 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 & Ngaatyatjarra 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.


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.


*Categories, Constituents and Constituent Order in Pitjantjaytjara* (Bowe 1990) discusses simple and complex sentences to establish how word order works in Pitjantjaytjara, 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.

*Pitjantjaytjara 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 pedagogical 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

<table>
<thead>
<tr>
<th>Semantic Element</th>
<th>Syntactic Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicate</td>
<td>Nucleus</td>
</tr>
<tr>
<td>Argument in semantic representation of predicate</td>
<td>Core argument</td>
</tr>
<tr>
<td>Non-arguments</td>
<td>Periphery</td>
</tr>
<tr>
<td>Predicate + Arguments</td>
<td>Core</td>
</tr>
<tr>
<td>Predicate + Arguments + Non-arguments</td>
<td>Clause (= Core + Peripheries)</td>
</tr>
</tbody>
</table>

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.
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>
<thead>
<tr>
<th>Predicate Class</th>
<th>Static</th>
<th>Change of State</th>
<th>Dynamic</th>
<th>Telic</th>
<th>Punctual</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Activity</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Achievement</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Semelfactive</td>
<td>-</td>
<td>-</td>
<td>±</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Accomplishment</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Active Accomplishment</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

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.
38

(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 $\alpha$ CAUSE $\beta$ (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$_2$) $\land$ DO (x, [LS$_1$…CAUSE LS$_2$])
(2.15) DO (x, (LS$_i$)) 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

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

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

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

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: 40)
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>
<thead>
<tr>
<th>Verb class</th>
<th>Logical structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>STATE</td>
<td>predicate'(x) or (x, y)</td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>do'(x, [predicate'(x) or (x, y)])</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>INGR predicate'(x) or (x, y)</td>
</tr>
<tr>
<td>SEMELACTIVE</td>
<td>SEML predicate'(x) or (x, y)</td>
</tr>
<tr>
<td>ACCOMPLISHMENT</td>
<td>BECOME predicate'(x) or (x, y)</td>
</tr>
<tr>
<td>ACTIVE ACCOMPLISHMENT</td>
<td>do'(x, [predicate'(x) or (x, y)]) &amp; INGR predicate'(x) or (x, y)</td>
</tr>
<tr>
<td>CAUSATIVE</td>
<td>α CAUSE β, where α, β are LSs of any type</td>
</tr>
<tr>
<td>AGENTIVE</td>
<td>DO do'(x, [predicate'(x) or (x, y)])</td>
</tr>
</tbody>
</table>

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](image)

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); ⊕ represents fusion. The φ is then available for inflection.

(2.19)  [[α Input_Lexeme] ⊕ [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 doo(x ∨ 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](image-url)

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.
Yesterday, what did Robin show to Pat in the library?

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).
More likely to be ACTOR
More likely to be UNDERGOER
More AGENT like
More PATIENT like

Argument of DO
1st argument of do’
(x, …)
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

THEME
STIMULUS
CONTENT
DESIRE
JUDGMENT
POSSESSED
SENSATION
TARGET
ATTRIBUTE
IDENTITY

VALUE
PERFORMANCE
CONSUMED
CREATION
LOCUS
IMPLEMENT

Figure 2-6: Actor-undergoer hierarchy

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 & Thompso 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](image)

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 languages 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 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 bangul yara-ngu bura-n
She.ABS dog.ABS descend-PST he.ERG man-ERG see-PST
‘The dog, went downhill and _i was seen by the man’

(2.32) Balan guda bangul yara-ngu bura-n buŋa-n
She.ABS dog.ABS he.ERG man-ERG see-PST descend-PST
‘The dog, 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

<table>
<thead>
<tr>
<th>Language</th>
<th>Restricted neutralisation</th>
<th>Pivot type</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>[S, A, d-S]</td>
<td>Variable syntactic pivot</td>
</tr>
<tr>
<td>Dyirbal</td>
<td>[S, U, d-S]</td>
<td>Variable syntactic pivot</td>
</tr>
<tr>
<td>Warlpiri</td>
<td>[S, A]</td>
<td>Invariable syntactic pivot</td>
</tr>
</tbody>
</table>

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)

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.

![Diagram of linking algorithm of syntactic and semantic representations](image)

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).

\[(2.35) \quad \text{It was John that left early.} \]
\[(2.36) \quad \text{John left early.} \]

### 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 pronouns 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.).
Mandarin Chinese (Halliday 2006: 354)

(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 want _i/*j to eat
(2.40) The man, came in and _i/*j sat down
(2.41) The man, 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

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).

![Pragmatic status hierarchy of NP expression](image)

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-
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](image)

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.

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 intransitive 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 communolcets, 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 Maṭutjara using maṭu ‘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.
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 *anangu* (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 <n>/</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

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i</td>
<td></td>
<td>u</td>
</tr>
<tr>
<td>Low</td>
<td>a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 ː/ː is similar to the English one; the ː/ː 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

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Laminodental</th>
<th>Dental</th>
<th>Retrflex</th>
<th>Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stops</td>
<td>p</td>
<td>tj</td>
<td>t</td>
<td>ː/ː</td>
<td>k</td>
</tr>
<tr>
<td>Nasals</td>
<td>m</td>
<td>ny</td>
<td>n</td>
<td>ː/ː/ː</td>
<td>ng</td>
</tr>
<tr>
<td>L-sounds</td>
<td>w</td>
<td>y</td>
<td>r /rr</td>
<td>ː/ː</td>
<td>r</td>
</tr>
</tbody>
</table>

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 pigan ends in a dental. We take this into account in glossing.

Pitjantjatjara (Goddard 1993: 16)

(3.1) Malany-tju wati pigan-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 <a>, found in tjana ‘they’. (3.3) shows the long <i:>. 
Pitjantjatjara (Trudinger 1943: 209)

(3.3)  
Tjilpi:rpa lipi mulapa kati

piece wide really.ABS bring.IMP

‘bring the widest piece’

Trudinger (1943) uses <j> for <γ> and <ŋ> for <ng>: for example he has njangatja ‘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 ɲana rather than ngana.

Pitjantjatjara (ibid.: 214)

(3.4)  
Minma ɲana-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 <ɖ>, <ɳ> and <ʈ> 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 Aliji 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 pawuŋi ‘roasting, shooting’ and <γ> in mayi ‘vegetable food’ instead of the standard South Australian pauŋi 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...
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**

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

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.

\[ P/Y \text{ (Goddard 1996: 123)} \]

(3.5) \( Ka=la \ ngula wiki \ kutjara-nguru \ palyalkati-nyi. \)
\hspace{1cm} 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.

\[ Ngaanyatjarra \text{ (Douglas 1957: 75)} \]

(3.6) \( Puuka-lu \ tjukupi \ pu-nga \)
\hspace{1cm} 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

<table>
<thead>
<tr>
<th>Sub-class</th>
<th>PYN</th>
<th>English</th>
<th>cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun</td>
<td>papa</td>
<td>dog</td>
<td>all (ergative)</td>
</tr>
<tr>
<td>Adjective</td>
<td>palya</td>
<td>good</td>
<td>all (ergative)</td>
</tr>
<tr>
<td>Active adjective/ adverb of manner</td>
<td>anku</td>
<td>asleep</td>
<td>core (ergative)</td>
</tr>
<tr>
<td>Spatial adverb</td>
<td>paṭytiwa</td>
<td>far</td>
<td>local only</td>
</tr>
<tr>
<td>Time adverb</td>
<td>ngula</td>
<td>later</td>
<td>-ku only</td>
</tr>
<tr>
<td>Interrogative pronoun</td>
<td>ngananya</td>
<td>who</td>
<td>all (ergative)</td>
</tr>
<tr>
<td>Demonstrative pronoun</td>
<td>ngaa</td>
<td>what</td>
<td>all (ergative)</td>
</tr>
<tr>
<td>Demonstrative adverb</td>
<td>nyanga/ngaanya</td>
<td>this</td>
<td>all (ergative)</td>
</tr>
</tbody>
</table>

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.

Ngaanyatjarra (Blake 1987: 3)

(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.

Ngaanyatjarra (Glass & Hackett 2003: 202)

(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.

P/Y (Goddard 1996: 20)

(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 -ngkal-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).
Pitjantjatjara (Sheppard 1975: 51)

(3.10) *Ngayu-* _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

<table>
<thead>
<tr>
<th></th>
<th>Subject (A and S)</th>
<th></th>
<th>Object (O)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full</td>
<td>Clitic</td>
<td>Full</td>
</tr>
<tr>
<td>1st Person</td>
<td>ngayulu</td>
<td>=ŋa</td>
<td>ngayunya</td>
</tr>
<tr>
<td>2nd Person</td>
<td>nyuntu</td>
<td>=ŋ</td>
<td>nyuntunya</td>
</tr>
<tr>
<td>3rd Person</td>
<td>paluŋu</td>
<td>=∅</td>
<td>palunya</td>
</tr>
<tr>
<td>Dual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Person</td>
<td>ngali</td>
<td>=li</td>
<td>ngalininya</td>
</tr>
<tr>
<td>2nd Person</td>
<td>nyupali</td>
<td></td>
<td>nyupalinya</td>
</tr>
<tr>
<td>3rd Person</td>
<td>pula</td>
<td></td>
<td>pulunya</td>
</tr>
<tr>
<td>Plural</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Person</td>
<td>ngananya</td>
<td>=la</td>
<td>ngananyanya</td>
</tr>
<tr>
<td>2nd Person</td>
<td>nyura</td>
<td></td>
<td>nyuranya</td>
</tr>
<tr>
<td>3rd Person</td>
<td>tjana</td>
<td>=ya</td>
<td>tjananya</td>
</tr>
</tbody>
</table>

Table 3-6: Ngaanyatjarra pronoun core cases

<table>
<thead>
<tr>
<th></th>
<th>Subject (A and S)</th>
<th></th>
<th>Object (O)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full</td>
<td>Clitic</td>
<td>Full</td>
</tr>
<tr>
<td>1st Person</td>
<td>ngayulu</td>
<td>=rna</td>
<td>ngayunya</td>
</tr>
<tr>
<td>2nd Person</td>
<td>nyuntu</td>
<td>=ŋ</td>
<td>nyuntunya</td>
</tr>
<tr>
<td>3rd Person</td>
<td>paluŋu</td>
<td>=∅</td>
<td>palunya</td>
</tr>
<tr>
<td>Dual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Person incl</td>
<td>=li/=lin</td>
<td>=linya/=linyanta</td>
<td></td>
</tr>
<tr>
<td>1st Person excl</td>
<td>=litju</td>
<td>=linyatju</td>
<td></td>
</tr>
<tr>
<td>2nd Person</td>
<td>=pula/=pulan</td>
<td>=pulanyanta</td>
<td></td>
</tr>
<tr>
<td>3rd Person</td>
<td>=pula</td>
<td>=pulanya</td>
<td></td>
</tr>
<tr>
<td>Plural</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Person incl</td>
<td>=la/=lan</td>
<td>=lanya/=lanyanta</td>
<td></td>
</tr>
<tr>
<td>1st Person excl</td>
<td>=latju</td>
<td>=lanyatju</td>
<td></td>
</tr>
<tr>
<td>2nd Person</td>
<td>=ya/=yan</td>
<td>=tjananyanta</td>
<td></td>
</tr>
<tr>
<td>3rd Person</td>
<td>=ya</td>
<td>=tjananya</td>
<td></td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>S</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full</td>
<td>Clitic</td>
<td>Full</td>
</tr>
<tr>
<td>1st Person</td>
<td>ngankulu</td>
<td>=na</td>
<td>ngankulu</td>
</tr>
<tr>
<td>2nd Person</td>
<td>nyuntulu</td>
<td>=n</td>
<td>nyuntulu</td>
</tr>
<tr>
<td>3rd Person</td>
<td>nga:lu</td>
<td>=Ø</td>
<td>nga:nya</td>
</tr>
<tr>
<td>mid distant</td>
<td>palalu</td>
<td></td>
<td>palanya</td>
</tr>
<tr>
<td>distant</td>
<td>nyaralu</td>
<td></td>
<td>nyaranya</td>
</tr>
<tr>
<td>not visible</td>
<td>palunyalu</td>
<td></td>
<td>palunyanya</td>
</tr>
<tr>
<td>Dual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Person</td>
<td>yali</td>
<td>=litju</td>
<td>yali/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ngankulalitju</td>
</tr>
<tr>
<td>2nd Person</td>
<td>nyuntulpula</td>
<td>=pulan</td>
<td>nyuntulu pula</td>
</tr>
<tr>
<td>3rd Person</td>
<td>kutjara palalu</td>
<td>=pula/</td>
<td>kutjara palanya</td>
</tr>
<tr>
<td></td>
<td></td>
<td>=tjanapula</td>
<td></td>
</tr>
<tr>
<td>Plural</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Person</td>
<td>yala/</td>
<td>=latju</td>
<td>yala/</td>
</tr>
<tr>
<td></td>
<td>ngankulalatju</td>
<td></td>
<td>ngankulalatju</td>
</tr>
<tr>
<td>2nd Person</td>
<td>nyuntulaya</td>
<td>=yan</td>
<td>nyuntulaya</td>
</tr>
<tr>
<td>3rd Person</td>
<td>nga:laya</td>
<td>=ya/</td>
<td>nga:laya</td>
</tr>
<tr>
<td></td>
<td></td>
<td>=tjana</td>
<td></td>
</tr>
<tr>
<td>mid distant</td>
<td>palulaya</td>
<td></td>
<td>palulayanya</td>
</tr>
<tr>
<td>distant</td>
<td>nyaralaya/</td>
<td></td>
<td>nyaranya</td>
</tr>
<tr>
<td></td>
<td>nyarajintu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>not visible</td>
<td>palunyalaya</td>
<td></td>
<td>palunyanya</td>
</tr>
</tbody>
</table>

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* 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).

(3.12) *ngali-nya=lta*  
1DU-ACC=TURN take-PRES  
‘(he) will take us two’

P/Y *palu* ‘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

---

4 Realised as *palu*/palunya.
used as a demonstrative as in *palaŋu 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) *palunyaŋya* ‘he/she’ is the S argument. The ergative *palunyalu* is A in (3.14) because *nyütimu* 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.

Ngaanyatjarra (Douglas 1957: 37, 114)

(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 nyütimu*
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>
<thead>
<tr>
<th>Table 3-8: Peripheral pronouns in PYN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local Peripheral</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Syntactic Peripheral</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

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.

\[(3.15)\]
\[
\begin{align*}
\text{(a) Ngayu-} & \text{lu} \quad a-nu \\
& \quad 1\text{SG-NOM} \text{ leave-PST} \\
\text{(b) A-} & \text{nu}=\text{na} \\
& \quad \text{leave-PST}=1\text{SG.NOM} \\
& \text{‘I left’}
\end{align*}
\]

\[(3.16)\]
\[
\begin{align*}
\text{(a) Ngayu-} & \text{lu} \quad palya \\
& \quad 1\text{SG-NOM} \text{ good} \\
\text{(b) Palya=} & \text{na} \\
& \quad \text{good}=1\text{SG.NOM} \\
& \text{‘I am well’}
\end{align*}
\]

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 =r=na on kunkunpa serves as the sole argument of the intransitive verb tjaati. Kunkunpa has the absolutive ending -pa for consonants, confirming that =r=na 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) \textit{Kunkunpa=rna tjaati-ngu}

asleep.ABS=1SG.NOM yawn-PST

‘I yawned sleepily’

Ngaanyatjarra (Kavanagh 1990: 29)

(3.18) \textit{kuul-katu}

school-ALL

‘to school’

(3.19) \textit{kuulp=rna wiya-rr=ngkula=lpi}

school.ABS=1SG.NOM NEG-INCH-SER=in.turn

‘I having finished school’

Pitjantjatjara

(3.20) \textit{Ngula=ni nya-wa}

later=1SG.ACC see-IMP

‘(you) see me later’

(3.21) \textit{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 \textit{palur}u/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 \textit{nintilku} ‘give’ is the object clitic =nta in (3.22); giver and theme are both Ø.

(3.22) \textit{Ninti-nu munta=nta}

give-PST Q=2SG.ACC

‘Did (he/she) give (it) to you?’

Ngaanyatjarra (Glass & Hackett 1970: 42)

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 (\textit{nyaku} ‘see’ and \textit{watjalku} ‘tell’) in Ngaanyatjarra, though in (3.24) the verb is \textit{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.

Ngaanyatjarra (Douglas 1957: 48)

(3.23)  
\[ \text{Watja-}n\text{u}=\text{lu} \]
\text{tell-PST}=3\text{SG.ACC}

‘(He) told him.’

Ngaanyatjarra (Glass & Hackett 1979: 34)

(3.24)  
\[ \text{Ka Donnegan-ng}a=\text{lu \ kutikati-ng}u. \]
\text{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 \text{kutikatiku} is transitive and the sole overt argument \text{wikarru} is ergative. The translators suggest ‘them’ as the missing argument because the previous clause (3.25a) introduces =ya ‘they’.

Ngaanyatjarra (Glass & Hackett 1979: 50-51)

(3.25)  
(a)  
\[ \text{pitja-yilku} = \text{ya \ kapi-ngka \ nyina-yilku} \]
\text{come-COND=3PL \ water-LOC \ stay-COND}
\[ \text{nya-ku \ pitja-ku \ wati \ waalkarra-ntja \ wikarru} \]
\text{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)  
\[ \text{Pitja-ku \ waalkarra-ra \ wikarru-}l\text{u \ kutikati-ku \ kutjupa \ kapi-ku} \]
\text{IV \ IV \ A \ TV}

\[ \text{come-COND \ appear-SER \ messenger-ERG \ take-FUT \ another \ water-PURP} \]

‘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 \text{munu}. Since \text{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.
Pitjantjatjara (Goddard 1996: 142)

(3.26) *Munu=ya kunyu kuka pulka kati-ra u-ngkupai*
and.SS=3PL.NOM REP meat much.ABS bring-SER give-CHAR
*minyma, tiji tjinta 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.

Ngaanyatjarra (Glass 2006: 60)

(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>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>=tju</td>
<td>=limpa</td>
<td>=lampa</td>
</tr>
<tr>
<td>1st excl</td>
<td>=limpatju (N)</td>
<td>=lampatju (N)</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>=nku</td>
<td>=pulampanku (N)</td>
<td>=tjanampanku (N)</td>
</tr>
<tr>
<td>3rd</td>
<td>=ra</td>
<td>=pulampa (N)</td>
<td>=tjanampa (N)</td>
</tr>
</tbody>
</table>

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’

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 *pitja*. Example (3.30) has *ngayulu=na*, first person full form and clitic for emphasis. In (3.31), the ergative marked NP is cross-referenced by *=ya*.

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\(^{6}\) Some have related this to Western Desert but this is disputed by the authors.
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.

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.

### 3.9 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.

Pitjantjatjara (Bowe 1990: 11)

(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.

Pitjantjatjara (Bowe 1990: 54)

(3.38) Tjilka-ngku ngayu-nya tjina waka-nu
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. 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 absolutive.

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

P/Y (Goddard 1996: 42)

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 tjuta is absolutive.

(3.40) Wati tjuta wali-ngka nyina-nyi
man PL.ABS house-LOC sit-PRES
‘The men are in/at the house’

P/Y (Goddard 1996: 98)

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 S₀ is distinguished from Sₐ 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; nyuttulu 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 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 *nyuntu* 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 pulkanya 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’

---

8 So being in the NPIP is not a prerequisite for definiteness in PYN.
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 tjuta/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.

P/Y (Goddard 1996: 191)

(3.47) *Papa tjapu tjuta-ngku mai ngalku-nu*
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).

Pitjantjatjara (Bowe 1990: 141-143)

(3.49)  
\[ \text{Wati-ngku tjitji-ngku minyama-ngku=ni nya-ngu} \]  
\[ \text{[man-ERG child-ERG woman-ERG]=1SG.ACC see-PST} \]  
\[ \text{‘The man, the child and the woman \textit{ACT} all saw me\textit{UND}’} \]

(3.50)  
\[ \text{Wati-ngku tjitji-ngku munu minyama-ngku=ni nya-ngu} \]  
\[ \text{[man-ERG child-ERG and.SS woman-ERG]=1SG.ACC see-PST} \]  
\[ \text{‘The man, the child and the woman saw me’} \]

(3.51)  
\[ \text{Wati tjitji \ minyama \ kunyu} \]  
\[ \text{[man child woman-ERG]=1SG.ACC see-PST} \]  
\[ \text{‘The man, the child and the woman saw me’} \]

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 \textit{kunyu} ‘reportedly, apparently’ comes after the first constituent in a clause (Bowe 1990: 42-43). In (3.52) the constituent \textit{wati, tjitji, minyama} is absolutive with intransitive \textit{ngari-ngu}.

Pitjantjatjara (Bowe 1990: 43)

(3.52)  
\[ \text{Wati, tjitji, minyama kunyu paltjatjiratja ngari-ngu} \]  
\[ \text{[man child woman.ABS] REP hungry lie.down-PST} \]  
\[ \text{‘The story goes that the man, the child and the woman \textit{UND} went to sleep still hungry’} \]

In (3.53) the sub-clause \textit{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 \textit{kunyu} or the anaphor \textit{panya}, as shown by the ungrammatical nature of (3.54). This again indicates that the nouns form one unit. \textit{Tjanampa} in (3.55) is the determiner for both following nouns; \textit{putu} follows the NP.

Pitjantjatjara (Bowe 1990: 43)

(3.53)  
\[ \text{Wati-ngku, tjitji-ngku, minyama-ngku kunyu,} \]  
\[ \text{[man-ERG child-ERG woman-ERG] REP} \]  
\[ \text{kuka-tjiratja-ngku mai ngalku-nu} \]  
\[ \text{meat-lacking-ERG food.ABS eat-PST} \]  
\[ \text{‘The story goes that the man, the child and the woman \textit{ACT} ate bread\textit{UND} because they didn’t have any meat’} \]
(3.54) *Wati-ngku, tjitji-ngku kunyu minyama-ngku kuka-tjiratja-ngku mai ngalku-nu
man-ERG child-ERG REP woman-ERG meat-lacking-ERG food.ABS eat-PST

P/Y (Goddard 1996: 102)

(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.

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).

(3.56) Ngayu-lu Tjampu-la tjana-la nyina-ningi
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.

(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.’
d o’ (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.

(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

---

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 pulka-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.
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’, ngaranyi/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

<table>
<thead>
<tr>
<th>Verb</th>
<th>Verb</th>
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<tbody>
<tr>
<td>nyinanyi</td>
<td>sit</td>
</tr>
<tr>
<td>wangkanyi</td>
<td>say</td>
</tr>
<tr>
<td>punkanji</td>
<td>fall</td>
</tr>
<tr>
<td>kampanyi</td>
<td>burn</td>
</tr>
<tr>
<td>wirtjapakani</td>
<td>run, speed off</td>
</tr>
<tr>
<td>ngalkani</td>
<td>eat</td>
</tr>
<tr>
<td>ananyi</td>
<td>go</td>
</tr>
<tr>
<td>nyanganyi</td>
<td>see</td>
</tr>
<tr>
<td>taangi</td>
<td>burst</td>
</tr>
<tr>
<td>kuntjulpangi</td>
<td>cough</td>
</tr>
<tr>
<td>nintiringanyi</td>
<td>learn</td>
</tr>
<tr>
<td>wirtjapakani l mile/ karukutu</td>
<td>run a mile/to the creek</td>
</tr>
</tbody>
</table>

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. |n |
|-----------|-------|----------|--------------|-------------|----------------|-----------|
| 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.

(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.

(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 wirtjapakani ‘run’ in (3.62) has past continuous tense and aspect. Here they are running to a location, a finite event.

10 Active accomplishment.
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.).

Kuntjulpangani ‘coughing’ (Appendix B, section 12.10) has the progressive ending and taa-taanyangka ‘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

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<tbody>
<tr>
<td>2. Occurs with dynamic adverbs like vigorously</td>
<td>No</td>
<td>Yes</td>
<td>Some</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

This test identifies predicates involving activity. In (3.63), the adverb pułkara ‘really, strongly, forcefully’ indicates wangkanyi is an active verb.

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

However pułkara 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 pułkara is different than with active verbs.

(3.64) Ka=la urulyara-nu pułkara alatjiwu
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

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<tr>
<td>3. Occurs with slow adverbs like gradually</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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.

Pitjantjatjara (Sheppard 1975: 2)

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

Ngaanyatjarra (Glass & Hackett 1979: 22)

(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

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<tbody>
<tr>
<td>4. Occurs with for an hour</td>
<td>Some</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Irrelevant</td>
<td>Irrelevant</td>
</tr>
</tbody>
</table>

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 *wirtjapakanji/kukurralku* ‘run’; there is no change of state. The purposive case is used here on the length of time.

Pitjantjatjara

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

Ngaanyatjarra

(3.69) *Kukurra-rnu=ma* 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).
Time is described metaphorically similarly to space. 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.

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11 Different cultures use different metaphors (D. Rose p.c.).
3.14.5 Test 5: End point: +telic

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<tbody>
<tr>
<td>5. Occurs with <em>in an hour</em></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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’.

Ngaanyatjarra (Glass 2006: 68)

(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 absolutive case for the distance travelled and locative for the length of time it took.

Pitjantjatjara

(3.77) *Ngalyu-lu mile kutju-ku wirtjapaka-nu,*

1SG-NOM mile one-PURP run-PST

*panya minute kutjara-kutjara-ku=na ma-a-ntuku wiyari-ngu=li*

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’

Ngaanyatjarra

(3.78) *Kukurra-ru=ma 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.
Verbs that require *wiya* to indicate an ending, such as *wirtjapakanyu* ‘run (off)’ thus are atelic in themselves. Other verbs such as *punkanji* ‘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.). *Punkanji* 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

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<tbody>
<tr>
<td>6. Has derived adjective representing terminal state</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

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

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<tr>
<td>7. Has causative meaning</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

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.

Yankunytjatjara (Goddard 1996: 227)

(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

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<tbody>
<tr>
<td>8. Has agentive meaning: cannot occur with unintentionally</td>
<td>No</td>
<td>Some</td>
<td>Some</td>
<td>No</td>
<td>Some</td>
<td>Some</td>
</tr>
</tbody>
</table>

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).

Pitjantjatjara (Goddard 1996: 219)

(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’

Ngaanyatjarra (Glass & Hackett 2003: 554, 167)

(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

<table>
<thead>
<tr>
<th>Verb</th>
<th>Test1</th>
<th>Test2</th>
<th>Test3</th>
<th>Test4</th>
<th>Test5</th>
<th>Test6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>progr.</td>
<td>dynamic</td>
<td>slowly</td>
<td>duration</td>
<td>telic</td>
<td>derived adj. state</td>
</tr>
<tr>
<td>nyinanyi</td>
<td>sit</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>wangkanyi</td>
<td>say</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
</tr>
<tr>
<td>punkani</td>
<td>fall</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>kampanyi</td>
<td>burn</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>wiritjapakani</td>
<td>run, speed off</td>
<td>+</td>
<td>+</td>
<td>+/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ngalkani</td>
<td>eat</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>ananyi</td>
<td>go</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>nyanganyi</td>
<td>see</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>taani</td>
<td>burst</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>kuntjulpunganyi</td>
<td>cough</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>nintiringanyi</td>
<td>learn</td>
<td>+</td>
<td>+/-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>wiritjapakani</td>
<td>run a mile/ to the creek</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Verb</th>
<th>Static</th>
<th>Dynamic</th>
<th>Telic</th>
<th>Punctual</th>
<th>Change of state</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>nyinanyi</td>
<td>sit</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>state</td>
</tr>
<tr>
<td>wangkanyi</td>
<td>say</td>
<td>-</td>
<td>+</td>
<td>+/-</td>
<td>-</td>
<td>activity</td>
</tr>
<tr>
<td>punkani</td>
<td>fall</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
<td>activity/active accomplishment</td>
</tr>
<tr>
<td>kampanyi</td>
<td>burn</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+/-</td>
<td>activity</td>
</tr>
<tr>
<td>wiritjapakani</td>
<td>run, speed off</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td></td>
<td>activity</td>
</tr>
<tr>
<td>ngalkani</td>
<td>eat</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>activity</td>
</tr>
<tr>
<td>ananyi</td>
<td>go</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>activity</td>
</tr>
<tr>
<td>nyanganyi</td>
<td>see/watch</td>
<td>+/-</td>
<td>+/-</td>
<td>-</td>
<td>-</td>
<td>state/activity</td>
</tr>
<tr>
<td>taani</td>
<td>burst</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>achievement</td>
</tr>
<tr>
<td>kuntjulpunganyi</td>
<td>cough</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>semelfactive</td>
</tr>
<tr>
<td>nintiringanyi</td>
<td>learn</td>
<td>+/-</td>
<td>-</td>
<td>+/-</td>
<td>-</td>
<td>accomplishment</td>
</tr>
<tr>
<td>wiritjapakani</td>
<td>run a mile/ karakatu</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>active accomplishment</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Predicate class</th>
<th>PYN</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>STATE</td>
<td>nyinanyi/nyinaku</td>
<td>be, sit</td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>wiritjapakani/wirrtjalku</td>
<td>run</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>taani/taalku</td>
<td>burst</td>
</tr>
<tr>
<td>SEMELFACTIVE</td>
<td>kuntjulpunganyi</td>
<td>cough</td>
</tr>
<tr>
<td>ACCOMPLISHMENT</td>
<td>nintiringanyi/nintirringku</td>
<td>learn</td>
</tr>
<tr>
<td>ACTIVE ACCOMPLISHMENT</td>
<td>(y)ananyi/yanku ngur(r)akatu</td>
<td>go home</td>
</tr>
<tr>
<td>CAUSATIVE</td>
<td>papatjunanyi/wiralpungku</td>
<td>spill</td>
</tr>
<tr>
<td>AGENTIVE</td>
<td>miripunganyi (P/Y)</td>
<td>murder</td>
</tr>
</tbody>
</table>

We will use tests 1-7 with Pitjantjatjara valence-adjusted derived predicates in chapter 5. The means we use are continuous aspect, pu\l\kara ‘strongly’, pur\kara ‘slowly’, hour kutjuku ‘for an hour’, fourminutespangka ‘in four minutes’, -nytja nominalised 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\_\_\_\_\_\_ is a billycan’

be’ (DEM, [billycan’])

P/Y (Goddard 1993: 13)

(3.86) *Nyangatja papa*

DEM.ABS dog

‘This\_\_\_\_\_\_ is a dog’

be’ (DEM, [dog’])

(3.87) *Papa nyangatja tjukutjuku*

dog DEM.ABS small

‘This\_\_\_\_\_\_ is small’

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

(3.88) *Ngayu-lu* *paltja-tjeratja!*

1SG-NOM sated-lacking

‘I 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.

(3.89) *anku ngari-nyi*

asleep lie-PRES

‘(he/she/it) is asleep.’

*asleep’ (3SG)

Yankunytjatjara (Goddard 1996: 9)
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.

Pitjantjatjara (Sheppard 1975: 21)

(3.90) \( Ka=ya \) kutjupa tjuta pukulpa nyina-ngi tjiintjulu-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**])

Pitjantjatjara (Kavanagh 1990: 60)

(3.91) \( Nganana \) pukulpa nyina-pai \\
1PL.NOM happy sit-CHAR \\
‘We are happy (in general)’ \\
attributive: **be** (1PL, [**happy**])

---

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.
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(3.92)  Tjitji tjuta kuvari kuul-nga nyina-nyi
        child PL.ABS now school-LOC sit-PRES
‘The children\textsuperscript{und} are at school\textsuperscript{nmr} now’
\textbf{be-in’} (kuul, tjitji tjuta)

Such verbs in the present tense describe a state as being true right now. The PYN active adjective \textit{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, \textit{ninti} is intransitive with only one core argument \textit{ngayulu}; \textit{palumpa} is marked with the non-core purposive case.

(3.93)  Ngayu-lu palu-mpa ninti
        1SG-NOM 3SG-PURP know
‘1\textsc{act} know him/her\textsuperscript{und}’
\textbf{know’} (1SG, 3SG)

State predicates can also be lexical verbs, such as \textit{nyinanyi/nyaku} ‘see’. The perceiver \textit{wati} in (3.94) is the more actor-like, and the stimulus \textit{mal\textsc{u}} 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 malu apu katu-nguru nya-ngu
        man-ERG kangaroo.ABS hill top-ABL see-PST
‘The man\textsc{act} saw a kangaroo\textsuperscript{und} from the hilltop’

\textbf{Figure 3-5: Linking of syntactic and semantic representations}

3.15.2 Activity
The intransitive verb \textit{wirtjapakanu} in (3.95) is an activity. Transitive \textit{ngalkuni} in (3.96) and (3.97) introduces a complication. In (3.96) with past tense and food \textit{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?

P/Y (Goddard 1996: 16, 20)

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

(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)

Pajantjatjara

(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, [eat’ (3SG, 3SG)])

3.15.3 Instantaneous classes
The intransitive verbs taani/taalku and tjalakatinyi/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.

P/Y (Goddard 1996: 157)

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

Ngaanyatjarra (Glass & Hackett 2003: 415)

(3.99) (a) Tjilku-lu  ngampu  lingkurr-tu  warni-ku
       child-ERG  egg.ABS  hard-ERG  throw-FUT
   ‘A little child might throw eggs hard’
   (b) Ka  tjjarlakati- 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
repeated activity so has do’ as well as SEML in the LS. Example (3.101) is a repeated intransitive verb.

Ngaanyatjarra (Glass & Hackett 2003: 344, 88)

(3.100) $Tuu \quad pu-n\text{-}gu-pu\text{-}ngu$

do'.ABS hit-PST-hit-PST

‘(He/sheshACT) knocked (on) the doorUND’

SEML do’ (3SG, [knock’ (3SG, tuu)])

(3.101) $Rawa \quad kunyjtjulu\text{-}ngu-kunyjtjulu\text{-}ngu$

long.time cough-PST-cough-PST

‘HeACT coughed for a long time’

SEML do’ (3SG, [cough’ (3SG)])

The reduplicated forms taa-taan\text{-}ti\text{-}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. Nintringanyi ‘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\textsuperscript{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).

P/Y (Goddard 1996: 142-143)

(3.102) $Ka=na \quad nyara\text{-}palu-la=lt\text{a} \quad pulkara\text{-}ninti\text{-}ri\text{-}ngu$.n

and.DS=1SG.NOM DEM DEM-LOC=TURN really know-INCH-PST

‘and that’s where IUND really learnt a lot’

BECOME know’ (1SG, Ø)

Ngaanyatjarra (Glass & Hackett 2003: 143)

(3.103) $Tjaa \quad mantji\text{-}rnu\text{ }palunya\text{-}tjanu\text{ }wangka\text{-}payi$

speech.ABS learn-PST DEM-after speak-CHAR

‘(He/she)ACT learned (the Ernabella) languageUND and now can speak (it).’

BECOME know’ (3SG, tjaa)

= PROC learn’ (3SG, tjaa) & INGR know’ (3SG, tjaa)

P/Y (Goddard 1996: 197)

(3.104) $munu \quad kunyu\text{-}ngu\text{ }nguwanpa=lt\text{a} \quad ilu\text{-}ngi$.n

and.SS REP almost=TURN die-PST.CONT

‘and (he) was almost dying.’

BECOME dead’ (3SG)

\textsuperscript{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.

\[(3.105) \text{ Ka=la a-nu ngura-kutu }\]

\[
\text{ and.DS=1PL.NOM go-PST home-ALL} \\
\text{ ‘And we_ACT went home’} \\
\text{ do’ (1PL, [move.away.from.ref.point’ (1PL)]) & INGR be-at’ (ngurra, 1PL)}\]

### 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).

\[(3.106) \text{ Munu ngayu-lu papa tjuta pu-ngu ngayu-ku ngura-ngka }\]

\[
\text{ and.SS 1SG-NOM dog PL hit-PST 1SG-GEN country-LOC} \\
\text{ ‘I_ACT killed a lot of dingoes in my country’} \\
\text{ be-in’ (ngura, do’ (1SG, hit’ (1SG, papa tjuta)) CAUSE BECOME dead’ (papa tjuta)}\]

### 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.

\[(3.107) \text{ Ka=ma parra-wirrtja-rnu }\]

\[
\text{ and.DS=1SG.NOM around-hurry-PST} \\
\text{ ‘And I hastened around’}\]

Ngaanyatjarra (Glass & Hackett 1979: 16)
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.

(3.108) *Papa* *wuurlarralku* *wiltja-nguru*

  dog.ABS jump-FUT shelter-ABL

  ‘A dog might jump down from a shelter.’

Ngaanyatjarra (Glass & Hackett 2003: 240)
The negator *wiya* in (3.109) is a core operator on the predicating nominal *waru*; the projections are in Figure 3-8.

(3.109) *Nyongatja* *waru wiya.*

DEM.ABS   fire   NEG

‘This isn’t a fire.’

<_{NEG} (be’ (nyangatja, [*waru*’]))

P/Y (Goddard 1996: 239)
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**

<table>
<thead>
<tr>
<th></th>
<th>Verb inflection</th>
<th>Verb prefix</th>
<th>Noun case</th>
<th>Lexical</th>
<th>Clitic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nucleus</strong></td>
<td>Aspect</td>
<td>Direction</td>
<td></td>
<td>Negation</td>
<td></td>
</tr>
<tr>
<td><strong>Core</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Negation</td>
</tr>
<tr>
<td><strong>Clause</strong></td>
<td>Tense, IF</td>
<td></td>
<td></td>
<td>Evidential, negation</td>
<td>Evidential</td>
</tr>
</tbody>
</table>

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 *kukurraarntu* ‘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 is sitting’
sit’ (papa)

(3.111) Tjitji-ngku *papa* patja-nu
child-ERG dog.ABS bite-PST
‘The child bit the dog’
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 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 ate them, sat, lay down’
d0’ (1PL, eat’ (1PL, 3PL)) ∧ sit’ (1PL) ∧ 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-nga
get.up-PST go-PST again sandhill-LOC dig-PST
‘They ate, got up, went on and again 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/palunyalu14 (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 hit the dog and (he, it) cried out’
d0’ (wati, hit’ (wati, papa)) ∧ d0’ (3SG, cry’ (3SG))

(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, and (it, it) cried out’
d0’ (wati, hit’ (wati, papa)) ∧ d0’ (3SG, cry’ (3SG))

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).

14 Sometimes shortened to nyalu.
(3.117) (a) *Tjinguru 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 Ilkaritja-katu.*
   but angel.ABS come-PST and.SS bring-PST place heaven-ALL
   ‘Then an angel came and SS 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, hit him, and he, lost consciousness’ = ‘He was hit and knocked out.’
   [do’ (3SGi, hit’ (3SGi, 3SGj))] CAUSE [INGR unconscious’ (3SGj)]

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 topological, 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.

Ngaanyatjarra (Blake 1987: 102)

(3.120) Mantyi-nu=rni nganku-la-martattyi 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 confirms 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.

P/Y (Goddard 1996: 112)

(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 alatjitu pukulpa.
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.

Pitjantjatjara (Trudinger 1943: 215)

(3.123) Utuluna-nji=na njajanpa ngayulu 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.

Ngaanyatjarra (Douglas 1957: 48)

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

Ngaanyatjarra (Glass & Hackett 1979: 34)

(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 kulunj 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 kulunj-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).

Ngaanyatjara (Glass & Hackett 1970: 100)

(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’

Pitjantjatjara (Rose 2001: 513)

(3.130) Wati panya mungartji ngalya-va-nkuntja-lu mutaka kati-ngu
man ANAPH yesterday this.way-go-NOML-ERG car.ABS take-PST
‘The man who came yesterday took the car’

Pitjantjatjara (Bowe 1990: 103)

(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.

Pitjantjatjara (Bowe 1990: 100)

(3.132) Wati-ngku panya kuka ngalya-kati-ngu
man-ERG ANAPH meat.ABS back-bring-PST
panya palu mutaka palya-nu
ANAPH 3SG.NOM car.ABS fix-PST
‘The man, who brought back the meat, the same one, 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.
Pitjantjatjara (Trudinger 1943: 213)

(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 who is sitting over there’

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) \(wati\ panya\ palu-mpa\ katja\ kula-ngka\ nvina-nyi\)
man ANAPH 3SG-GEN son school-LOC sit-PRES
‘the man whose son is a student’

(3.135) \(wati\ panya\ ngayu-ku\ kuta\ wara\ munkara\)
man ANAPH 1SG-GEN brother tall other.side
‘the man who my brother is taller than’

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 (Bow 1990: 70, 93, 136). 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

\[^{15}\] 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 *malany* ‘younger sibling’ is *malanypa* 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 *ananyil/yanyilyanku* 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).

(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.

(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>
<thead>
<tr>
<th>Dialect</th>
<th>End consonant</th>
<th>Begin vowel/y</th>
<th>Ergative</th>
<th>Separate present</th>
<th>3rd pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitjantjatjara</td>
<td>No</td>
<td>Yes/no</td>
<td>ngku/lu</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Yankunytjatjara</td>
<td>Yes</td>
<td>Yes/yes</td>
<td>ngku/lu</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ngaanyatjarra</td>
<td>No</td>
<td>No/yes</td>
<td>lu</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
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 tjukurpal/wapar ‘story, Law’, paŋalmanta ‘earth, land’ and kinaral/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

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

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 & Thomp 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 & Thomp, 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 predicing 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-atatransitive 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-atatransitive 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 \( \text{wari} \). Something that can feel cold is animate, so ‘him/her’.

\[
(4.5) \quad \text{Wari-ngku ngayi-nya puyi-}ni \\
\text{cold-ERG 1SG-ACC chill-PRES} \\
\text{‘The cold’s chilling me = it is cold’} \\
\text{do’ (wari, Ø) CAUSE BECOME feel’ (1SG, [cold’])}
\]

\[
(4.6) \quad \text{Ka puyi-ningi alatji} \text{t}u \\
\text{and.DS chill-PST.CONT really} \\
\text{‘(It) chilled (him/her) = it was really cold’} \\
\text{do’ (Ø, Ø) CAUSE BECOME feel’ (3SG, [cold’])}
\]

\[
(4.7) \quad \text{Puyi-}ni=\text{ni} \\
\text{chill-PRES=1SG.ACC} \\
\text{‘(It) chills me = I am chilled’} \\
\text{do’ (Ø, Ø) CAUSE BECOME feel’ (1SG, [cold’])}
\]

However an exception is found in example (4.8), where a zero pronoun accounts for the sole argument of an S-intransitive verb. \( \text{Tjirntu} \) 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.

\[
(4.8) \quad \text{Tjirntu-}rri-\text{n}gu \\
\text{day-INCH-PRES} \\
\text{‘(It) became day’} \\
\text{BECOME day’}
\]

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 \( \text{ruku} \) in (4.10)\(^\text{16}\).

\[
(4.9) \quad \text{‘It suddenly struck me that Mary was right.’}
\]

\[
(4.10) \quad \text{Ruku nyanga alatji-katu} \\
\text{looks.like DEM like.this-ALL} \\
\text{‘Looks like it goes on this way’}
\]

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

\[\text{\textsuperscript{16} There are numerous PYN particles that take part in this kind of construction; another is \text{kanyu ‘it is said’}.}\]
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 predicking 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 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 is green.’
green’ (arbre)

(4.12) L’arbre verdroie.
DET tree become.green.3SG.PRES
‘The tree 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 is dead’
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.

---

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*

\[ \text{dog.ABS howl-PRES} \]

‘The dog\(_{\text{ACT}}\) is howling’

\[ \text{do’} (\text{papa}, [\text{howl’} (\text{papa})) \]

(4.15)  *Irupulaina tjaru-wanu wirtjapaka-nu*

\[ \text{aeroplane.ABS low-.PERL speed-PST} \]

‘The aeroplane\(_{\text{ACT}}\) sped along really low’

\[ \text{do’} (\text{irupulaina, speed’} (\text{irupulaina})) \]

The predicate in (4.16) is the adjective *pulka*. Demonstrative *nyangatja* serves as the first argument, or attributant, of *be’*. As the single argument of a state predicate, *nyangatja* is undergoer.

(4.16)  *Pulka nyangatja*

\[ \text{big\ DEM.ABS} \]

‘This\(_{\text{UND}}\) is big/heavy’

\[ \text{be’} (\text{nyangatja, [big’]}) \]

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 static *nyinangi* ‘sit/be’ is an undergoer.

(4.17)  *Minyma kutjutja nyina-ngi*

\[ \text{woman\ alone.ABS sit-PST.CONT} \]

‘There was a woman by herself.’

\[ \text{sit’} (\text{minyma kutjutja}) \]

Pitjantjatjara (Goddard 1996: 108)

(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).

(4.19)  *Minyma kutjutja-ngku nyina-ra mai ngalku-ningi*

\[ \text{woman\ alone-ERG sit-SER food.ABS eat-PST.CONT} \]

‘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’.

(4.20)  
\[ Ka \ Alitji-nya \ pukul-ari-ngu. \]
\[ and.DS [name]-ABS happy-INCH-PST \]
\[ ‘And Alice\textsubscript{UND} was relieved.’ \]
\[ BECOME \text{feel’} (\text{Alitji}, [\text{happy’}]) \]

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.

(4.21)  
\[ Mary-\text{lu} \ Sally-nya \ pu-ngu \]
\[ [name]-ERG [name]-ABS hit-PST \]
\[ ‘Mary\text{\textsubscript{ACT}} hit Sally\textsubscript{UND}’ \]
\[ \text{do’} (Mary, [hit’ (Mary, Sally)]) \]

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.

(4.22)  
\[ Ka \ walpa-ngku nyiri \ ngalya-kati-ngi \]
\[ and.DS wind-ERG paper.ABS this.way-take-PST.CONT \]
\[ ‘The wind\text{\textsubscript{ACT}} was blowing a piece of paper\textsubscript{UND} over’ \]
\[ \text{do’} (walpa, [\text{blow’} (walpa, nyiri)]) \]

(4.23)  
\[ Apu-ngku=ni \ tjana \ ularpu-nganyi. \]
\[ stone-ERG=1SG.ACC back.ABS scrape=PRES \]
\[ ‘A stone\text{\textsubscript{ACT}} is scraping my back\textsubscript{UND} (through mattress)’ \]

(4.24)  
\[ Yapu-lu=rni \ pirtu-pu-ngu \]
\[ stone-ERG=1SG.ACC toe-hit-PST \]
\[ ‘The stone\text{\textsubscript{ACT}} toe-stubbed me\textsubscript{UND} = I stubbed my toe on a stone’ \]
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) \text{Carl}_{\text{ACT}} \text{drank a beer}_{\text{IND}}
  \text{do'} (\text{Carl}, [\text{drink'} (\text{Carl}, \text{beer})]) \& \text{BECOME consumed'} (\text{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) \text{Carl}_{\text{ACT}} \text{drank beer}
  \text{do'} (\text{Carl}, [\text{drink'} (\text{Carl}, \text{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 wăn on the quantified nominal fân. 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.

(4.27) \text{Tā chī-le liăng-wăn fân}
  3SG eat-PFV two bowl rice
  ‘He ate two bowls of rice.’
  \text{do'} (3SG, [\text{eat'} (3SG, fân)]) \& \text{BECOME consumed'} (fân)

(4.28) \text{Tā chī-le fân}
  3SG eat-PFV rice
  \text{do'} (3SG, [\text{eat'} (3SG, fân)])
  *‘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. Palurugu ‘he/she/it’ is also

Mandarin Chinese (Sun 2006: 65-67)
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 acent at 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_{SUBJ} = 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’])

Pitjantjatjara
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.

(4.37)  
Ngayu-lu kuwari kutju nya-nganyi  
1SG-NOM now one.ABS see-PRES  
‘I now see one’  
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 -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.

(4.38)  
Ngayu-ku malpa nyuntu-mpa mukuri-nganyi  
1SG-GEN friend.ABS 2SG-PURP like-PRES  
‘My friend fancies you.’  
like’ (malpa, 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.

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?

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)\(^1\). 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 ngurpa*  
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.

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’ (Van Lier 2012). 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 predcate’ (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/ungku ‘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-*wati mai u-ngu
1SG-NOM man.ABS food.ABS give-PST
‘I.ACT gave the man.NMR food.PST’
[do’(1SG, Ø)] CAUSE [BECOME have’(wati, mai)]

(4.53) Ngayu-*mai wati-ku u-ngu
1SG-NOM food.ABS man-PURP give-PST
‘I.ACT gave the man.NMR food.PST’

(4.54) *Ngayu-*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.PST in/next to/behind the box.PST.’
[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.PST 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.

(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)]
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 (4.6) 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 ngalkun/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 ngalkun/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).

(4.65) (a) Kai kutjupa-lu ngalku-ni
and.DS other-ERG eat-PRES
‘And the other (person) eats (some of it)’

(b) kai palu=m=ltu ngalku-ni, wati panya umari-ngku=ltu.
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.’

(4.66) Palya-lku=yə piri-lu=rtu nga-lku
cut-COND=3PL.NOM many-ERG=EMPH eat-COND
‘They would cut (it) up (and) everybody would eat (it)’

P/Y (Goddard 1996: 49) Ngaanyatjarra (Glass & Hackett 1979: 103)
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 *wankanyi* ‘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; *waru 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.

(4.67) **Nyaratja waru lipi kampa-nyi**  
DEM fire broad.ABS burn-PRES
‘There’s a bush fire burning over there’
do’ (waru, *burn*’ (waru))

(4.68) **Tjintu-ngku=ni kampa-ngu kutu**  
sun-ERG=1SG.ACC burn-PST really
‘The sun’s really burnt me’
do’ (tjintu, *burn*’ (tjintu, 1SG))

Ngaanyatjarra (Douglas 1957: 116)

(4.69) **Waru-łu kampa-ngu piki-ну**  
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.

(4.70) **Tjitji kulunypa inka-nyi**  
child young.ABS play-PRES
‘The young child is playing’

(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’

P/Y (Goddard 1996: 21)
Yankunytjatjara (Goddard 1983: 43)

(4.72) Wati tjilpi-ngku inma inka-nyi, punu tjatainy 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 ‘ambitranstive’ 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 kunga kutjara in absolutive case as the sole argument, so the verb here is S-intransitive. Nothing specific is being said.
‘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 ara 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.(a).to.(β).in.language.(γ)’ (2SG, ara))], where α = ara, 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.(a).to.(β).in.language.(γ)’ (1PL, mani))], where α = mani

(4.79) Paluru Yami-la wangka-ngu

3SG.NOM [name]-LOC speak-PST

‘He spoke with Yami.’

[do’ (3SG, [express.(a).to.(β).in.language.(γ)’ (3SG, Yami))], where β=Yami

The language spoken, Yankunytjatjara, receives ergative case marking in (4.80), alongside nominative paluru. 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 paluru is A rather than S, despite no O argument being expressed.

(4.80) Paluru Yankunytjatjara-ngku wangka-nyi

3SG.NOM [name]-ERG speak-PRES

‘He’s speaking in Yankunytjatjara.’

[do’ (3SG, [express.(a).to.(β).in.language.(γ)’ (3SG, Yankunytjatjara))], where γ = Yankunytjatjara

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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).

\[(\mathbf{do}' (x, [\mathbf{express}(\alpha).\mathbf{to}.(\beta).\mathbf{in.language}(.\gamma') (x, y)]))\]

CAUSE [BECOME aware.of’ (y, z)], where y = β, z = α

Watjanj/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).

\[\text{Paluru palu-mpa kamuru watja-ntja wiya}\]
3SG.NOM 3SG-GEN uncle.ABS tell-NOML NEG

‘He didn’t tell his uncle’

\[\text{do'} (3SG, [\mathbf{express}(\alpha).\mathbf{to}.(\beta).\mathbf{in.language}(.\gamma') (3SG, kamuru)]\]

CAUSE [BECOME aware.of’ (kamuru, Ø)], where β = kamuru

(4.83) Nyuntu tjinguru palu-la watja-lku
2SG.NOM perhaps 3SG-LOC tell-FUT

‘Maybe you’ll speak with him’

\[\text{do'} (2SG, [\mathbf{express}(\alpha).\mathbf{to}.(\beta).\mathbf{in.language}(.\gamma') (2SG, 3SG)]\]

CAUSE [BECOME aware.of’ (3SG, Ø)], where β = 3SG

Nganyatjarrar (Glass & Hackett 1979: 24, 33)

(4.84) nyalu tjilk=pula kutjarra-nya watja-rnu
and.SS child=3DU.NOM two-ABS say-PST
ngaanya ngaara-latjaku left-hand-pa right-hand-pa=kamu=pula
DEM stand-PURP left-hand-ABS right-hand-ABS=too=3DU.NOM ngaara-latjaku

‘And (he) told two children, one left-handed and the other right-handed, to stay there.’

(4.85) Ka=ma 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.”’
Ngaanyatjarra (Kavanagh 1990: 29)

(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

Wałkuji/warlkulkw ‘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).

Yankunytjatjara (Goddard 1983: 31)

(4.87) Ngayu-lu tjilpi panya kuṭa walku-ni

1SG-NOM old.man.ABS ANAPH senior.brother.ABS address-PRES

‘I ACT address that old man海底 as big brother海底’

[do’ (1SG, [express,(α).to.(β).in.language.(γ)’ (3SG, tjilpi)])]

CAUSE [BECOME have.as.name’ (tjilpi, kuṭa)], where α = kuṭa, β = tjilpi

Ngaanyatjarra (Glass & Hackett 2003: 477)

(4.88) Walypala-lu tjukarurrulu warlku-ru Yirrpintirri-nya kurnili

white.man-ERG correctly-ERG address-PST [name]-ABS aunt.ABS

‘The white man ACT correctly addressed Yirrpintirri海底 as auntie海底’

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

<table>
<thead>
<tr>
<th>verb</th>
<th>participants</th>
<th>kinesis</th>
<th>aspect</th>
<th>punctuality</th>
<th>volitionality</th>
<th>affirmation</th>
<th>mode</th>
<th>agency</th>
<th>affectedness of O</th>
<th>individuation of O</th>
<th>transitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>wangkanyi</td>
<td>1 or 2</td>
<td>low</td>
<td>medium</td>
<td>medium</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>medium</td>
</tr>
<tr>
<td>wangkaku</td>
<td>2</td>
<td>high</td>
<td>low</td>
<td>high</td>
<td>low</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>punganyi</td>
<td>2</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>pungku</td>
<td>2</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>nyanganyi</td>
<td>2</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>nyaku</td>
<td>2</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>mukuringanyi</td>
<td>2</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>mukurringku</td>
<td>1</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>low</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>tjurpinyi</td>
<td>1</td>
<td>low</td>
<td>medium</td>
<td>medium</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>tjarrpaku</td>
<td>1</td>
<td>low</td>
<td>medium</td>
<td>medium</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ilanyi</td>
<td>1</td>
<td>low</td>
<td>medium</td>
<td>medium</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>verb</th>
<th>Semantic</th>
<th>Syntactic</th>
<th>Macrorole number</th>
</tr>
</thead>
<tbody>
<tr>
<td>puyinyi/puvunku</td>
<td>rain</td>
<td>2</td>
<td>1 or 2</td>
</tr>
<tr>
<td>ilanyi/yulirrilku</td>
<td>die</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>ngalkuni/ngalku (activity)</td>
<td>eat</td>
<td>1 or 2</td>
<td>1</td>
</tr>
<tr>
<td>ngalkuni/ngalku (act acc)</td>
<td>eat</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>punganyi/pungku</td>
<td>hit</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>tjunanyi/tjungku</td>
<td>put</td>
<td>3</td>
<td>2 or 3</td>
</tr>
<tr>
<td>(y)unganyi/yungku</td>
<td>give</td>
<td>3</td>
<td>2 or 3</td>
</tr>
<tr>
<td>wangkanyi/wangkaku</td>
<td>speak</td>
<td>1, 2 or 3</td>
<td>1 or 2</td>
</tr>
</tbody>
</table>

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 (Hauselmath & Müller-Bardey 2004: 1140), and it is a grammatical category giving flexibility in the viewing of thematic roles (Saedd 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 got up and _, saw the woman.  
(5.6) The man got up and _, 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

<table>
<thead>
<tr>
<th>Test</th>
<th>P/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Occurs with progressive aspect</td>
<td>-ngi</td>
</tr>
<tr>
<td></td>
<td>past continuous verb ending</td>
</tr>
<tr>
<td>2. Occurs with dynamic adverbs like vigorously</td>
<td>pulkara</td>
</tr>
<tr>
<td></td>
<td>‘really, strongly, forcefully’</td>
</tr>
<tr>
<td>3. Occurs with slow adverbs like gradually</td>
<td>purkara</td>
</tr>
<tr>
<td></td>
<td>‘slowly’</td>
</tr>
<tr>
<td>4. Occurs with for an hour</td>
<td>hour katjuka</td>
</tr>
<tr>
<td></td>
<td>‘for an hour’</td>
</tr>
<tr>
<td>5. Occurs with in four minutes</td>
<td>four minutespangka</td>
</tr>
<tr>
<td></td>
<td>‘in four minutes/four minutes ago’</td>
</tr>
<tr>
<td>6. Has derived adjective representing terminal state</td>
<td>-ntja/-ntja</td>
</tr>
<tr>
<td></td>
<td>nominalising of verb</td>
</tr>
</tbody>
</table>

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).
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\textsubscript{ACT} \textbf{sees} them\textsubscript{UND}

(5.8)  They\textsubscript{UND} \textbf{are seen} (by him\textsubscript{ACT})

![Figure 5-1: Active-passive alternation](image)

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\textsubscript{UND} \textbf{was broken}

\begin{verbatim}
  broken’ (vase)
  [do’ (Ø, Ø)] CAUSE [BECOME broken’ (vase)]
\end{verbatim}

(5.10) The vase\textsubscript{UND} \textbf{got broken}

\begin{verbatim}
  *broken’ (vase)
  [do’ (Ø, Ø)] CAUSE [BECOME broken’ (vase)]
\end{verbatim}
Kulikov (2010) summarises the passive derivation as in Figure 5-2 with SU as subject and DO as direct object.

![Figure 5-2: Active to passive derivation](image)

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.
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 patjaŋi 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)
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 -rrri/-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 pulkinganyi ‘become big’, ankuringanyi ‘become asleep’, tjinturinganyi ‘become day’ and palyaringanyi ‘become better’. Significantly purkara ‘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>
<thead>
<tr>
<th></th>
<th>-ngi</th>
<th>pulka</th>
<th>purkara</th>
<th>hour kutjuku</th>
<th>four minutes/</th>
<th>-ntja</th>
</tr>
</thead>
<tbody>
<tr>
<td>pst cont.</td>
<td>strongly</td>
<td>slowly</td>
<td>for an hour</td>
<td>in four minutes/ four minutes ago</td>
<td>noml</td>
<td></td>
</tr>
<tr>
<td>pulkinganyi</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>maybe</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>ankuringanyi</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes1</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>tjinturinganyi</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>palyaringanyi</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

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-rrri-ngku
tired-INCH-FUT
‘(He/she) will become tired’

---

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.

(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)

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.

(5.21) (a) Nyangka wati kutju yanumarra-rrri-ngu.
and.DS man one green.caterpillar-INCH-PST
Nyangka kutjupa-nyalu ngalyakanti-rrri-ngu.
and.DS other-then white.caterpillar-INCH-PST
‘So one man became a green caterpillar and the other one became a white caterpillar.’
BECOME be’ (wati kutju, [yanumarra’])
∧ BECOME be’ (kutjupa, [ngalyakanti’])

(b) Pitja-yirnu-pitja-yirnu manta-kutu-rrri-ngu=pula
come-PST.EXT (x2) ground-ALL-INCH-PST=3DU
Tjarungara-ngu marlaku wati-rrri-ngu yarnangu-rrri-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 malanypu 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) *Marlangukatja pirminya=ya kurranyu-ri*

most.recent all.ABS=3PL.NOM in.front-INCH.IMP

‘Can the last group come to the front?’

BECOME forward’ (marlangukatja pirminya)

Yankunytjatjara (Goddard 1983: 198)

(5.23) *Nyangatja maatari winki ila-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-ri-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 *nyaainganyi/nyaaingku* ‘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?’

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.

---

21 This suggests the possibility of a dummy subject if *nyaainganyi/nyaaingku* is interpreted as ‘what happened?’ with no particular referent in mind.
Ngaanyatjarra (Obata & Kral 2005: 78)

(5.27) *Nyaa-rrri-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-rrri-ngku=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’; *tjilprisinganyi* ‘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 *pulka* and derived inchoative *pulkaringu* are given in Figures 5-4 and 5-5 respectively.
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>
<thead>
<tr>
<th>Construction:</th>
<th>-ri/-rrri inchoative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Template: one core slot</td>
</tr>
<tr>
<td></td>
<td>PSA: sole argument</td>
</tr>
<tr>
<td></td>
<td>Linking: Undergoer=PSA</td>
</tr>
<tr>
<td>Morphology</td>
<td>N+ -ri/-rrri. Forms verb of ng class</td>
</tr>
<tr>
<td>Semantics</td>
<td>PSA: patient</td>
</tr>
<tr>
<td></td>
<td>Aktionsart: +static, +telic, ±punctual</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td></td>
<td>Focus structure: unspecified</td>
</tr>
</tbody>
</table>

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
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 absolutive/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 wiyanganyi ‘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 tjukatjuku nyina-ra paku wiya-ri-ngyi
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. 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 *tjilpiran* are in Appendix C, and summarised in Table 5-4. The derivation cannot occur with continuous aspect and *purkara* ‘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**

<table>
<thead>
<tr>
<th></th>
<th>-ngi</th>
<th>pulkara</th>
<th>purkara</th>
<th>hour kutjuka</th>
<th>four minutespangka</th>
<th>-ntja</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>tjilpiran</em></td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

Yankunytjatjara (Goddard 1983: 117)

(5.32) *Ngayu-ku wiila tjilpir-ara-nu*

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 *tjilpirara*nu; showing it as semantically monovalent, S-intransitive and M-intransitive.

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>
<thead>
<tr>
<th>Construction:</th>
<th>-<em>ara/-arra</em> decausative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Template: one core slot</td>
</tr>
<tr>
<td></td>
<td>PSA: S argument</td>
</tr>
<tr>
<td></td>
<td>Linking: Undergoer =PSA</td>
</tr>
<tr>
<td>Morphology</td>
<td>N+ -<em>ara/-arra</em>. Forms intransitive verb of 1 class</td>
</tr>
<tr>
<td>Semantics</td>
<td>PSA: patient</td>
</tr>
<tr>
<td></td>
<td><em>Aktionsart</em>: +static, +telic, +punctual</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td></td>
<td>Focus structure: unspecified</td>
</tr>
</tbody>
</table>

### 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.
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.

**Pitjantjatjara** (Douglas 1955)

(5.35) *palulanguru wati mankurpa witu-nu.*
  Afterwards man three.ABS send-PST
  ‘afterwards (someone) sent three men<sub>UND</sub>’ = ‘three men<sub>UND</sub> 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. *Bangul 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.

\[(5.39)\] Balan guda bangul yara-ngu 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.
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.

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 palurul/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.
To express a disposition, PYN uses the -pail-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 manyija ‘miss’. The argument ma.lu 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.

Pitjantjatjara

(5.53) Wati-ngku ma.lu 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’

(5.55) Wati-ngku ma.lu manyija pau-nu
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.

*(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 pułka* 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 pul̕a-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‘])

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.

**Pitjantjatjara (Bowe 1990: 13)**

(5.60)  
\[ \text{Ngayu-}lu=na=tju \quad waka-\text{nu} \]  
\[ 1\text{SG-NOM=}1\text{SG.NOM=}\text{REFL} \quad \text{spear-PST} \]  
‘I speared myself’  
\[ \text{do’ (1SG, spear’) (1SG, 1SG)} \]

(5.61)  
\[ \text{Waka-}\text{nu=}na=tju \]  
\[ \text{spear-PST=}1\text{SG.NOM=}\text{REFL} \]  
‘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.

**Pitjantjatjara (Goddard 1996: 183)**

(5.62)  
\[ \text{Ngayu-}lu=na=tju \quad \text{watarku-ngku} \quad \text{pu-ngu} \]  
\[ 1\text{SG-NOM=}1\text{SG.NOM=}\text{REFL} \quad \text{accidentally-ERG} \quad \text{hit-PST} \]  
‘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).
French (Hawkins et al. 2001: 198)

(5.63) *Je me lave*

1SG REFL wash.PRES
‘I am washing myself’
do’ (1SG, wash*’ (1SG, 1SG))

With the transitive verb *paltji*ni ‘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.

P/Y (Goddard 1996: 106, 121)

(5.64) *Nyaratja=ya=nku paltji-ni*

DEM=3PL.NOM=REFL wash-PRES
‘They are washing themselves over there’
do’ (3PL, wash*’ (3PL, 3PL))

(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=nlku 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.

Ngaanyatjarra (Glass 2006: 61-62)

(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.

Yankunytjatjarra (Goddard 1983: 191)

(5.67) *Palu nyuntu panya=nku watja-nma, kuja*

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

<table>
<thead>
<tr>
<th>P/Y</th>
<th>Ngaanyatjarra</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full</td>
</tr>
<tr>
<td><strong>Singular</strong></td>
<td></td>
</tr>
<tr>
<td>1st Person</td>
<td>ngayulunatju</td>
</tr>
<tr>
<td>2nd Person</td>
<td>nyuntunku</td>
</tr>
<tr>
<td>3rd Person</td>
<td>palunku</td>
</tr>
<tr>
<td><strong>Dual</strong></td>
<td></td>
</tr>
<tr>
<td>1st Person</td>
<td>ngali</td>
</tr>
<tr>
<td>2nd Person</td>
<td>nyupali</td>
</tr>
<tr>
<td>3rd Person</td>
<td>pulanku</td>
</tr>
<tr>
<td><strong>Plural</strong></td>
<td></td>
</tr>
<tr>
<td>1st Person</td>
<td>ngana</td>
</tr>
<tr>
<td>2nd Person</td>
<td>nyura</td>
</tr>
<tr>
<td>3rd Person</td>
<td>tjana</td>
</tr>
</tbody>
</table>

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.

(5.68) Kuwari=na=nta punga-nyi.
      now=1SG.NOM=2SG.ACC hit-PRES
      ‘I’ll hit you directly.’
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:

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

<table>
<thead>
<tr>
<th>Construction:</th>
<th>Reflexive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Template: number of core slots: 2</td>
</tr>
<tr>
<td>PSA: A argument</td>
<td></td>
</tr>
<tr>
<td>Linking: Actor=Undergoer</td>
<td></td>
</tr>
<tr>
<td>Morphology</td>
<td>=tjui=ntu clitic to coreferential argument</td>
</tr>
<tr>
<td>Semantics</td>
<td>Actor and undergoer are coreferential</td>
</tr>
<tr>
<td>Aktionsart: any</td>
<td></td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td>Focus structure: unspecified</td>
<td></td>
</tr>
</tbody>
</table>
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.

French (Jones 1996: 279)

(5.69) Paul s’ admire
       [name] REFLEX admire.3SG.PRES
   ‘Paul is admiring himself.’

(5.70) Ils s’ admire
       3PL.NOM REFLEX/REC admire.3PL.PRES
   ‘They are admiring each other/they/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.

P/Y (Goddard 1996: 106)

(5.71) Pula=nku pika-ngku pu-ngangi
       3DU=REC fight-ERG hit-PST.CONT
   ‘The two of them were fighting each other’

Ngaanyatjarra (Obata & Kral 2005: 115)

(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.’

Ngaanyatjarra (Kavanagh 1990: 58)

(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…’

P/Y (Goddard 1996: 94)

(5.74) Paluru 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.

The constructional schema for reciprocals is given in Table 5-8.

Table 5-8: PYN reciprocal constructional schema

<table>
<thead>
<tr>
<th>Construction:</th>
<th>Reciprocal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Template: number of core slots: 2</td>
</tr>
<tr>
<td></td>
<td>PSA: A argument</td>
</tr>
<tr>
<td></td>
<td>Linking: Actor=PSA</td>
</tr>
<tr>
<td>Morphology</td>
<td>=pula=nku</td>
</tr>
<tr>
<td>Semantics</td>
<td>Actor and undergoer are not coreferential; but both arguments fill both roles simultaneously</td>
</tr>
<tr>
<td></td>
<td>Aktionsart: any</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td></td>
<td>Focus structure: unspecified</td>
</tr>
</tbody>
</table>

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*.

\[(5.75)\] \(\text{Nyaaku}=\text{ni}=\text{tju}=\text{nyi} \text{ ngayu-nya } \text{ wangka-nyi?} \)

\(\text{why}=1\text{SG.ACC}=1\text{SG.REFL}=2\text{SG.NOM} \quad 1\text{SG.ACC} \quad \text{speak-PRES} \)

‘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 \(\text{=}\text{na}=\text{tju}\) 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.

\[(5.76)\] \(\text{Ilu-ku}=\text{na}=\text{tju!} \)

\(\text{die-FUT}=1\text{SG.NOM}=\text{REFL} \)

‘I UND might die myself’ = ‘Better save myself while I can!’

\(\text{BECOME dead} (1\text{SG}) \)

### 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 -\(\text{te}\), Sioupi draws a distinction between middles, ergative unaccusatives and passives.

\[(5.77)\] \(\text{To krasi } \text{pine-}\text{te } \text{efharista} \)

\(\text{DET wine.NOM drinks-PASS with.pleasure} \)

‘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 si. The adverb facilmente is obligatory and is predicing 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.

Italian (Van Valin & LaPolla 1997: 416)

(5.78) La porta si apre-Ø facilmente
     the.F.SG door REFL open-3SG.PRES easily
     ‘The door opens easily’

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.

(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 \(ulu\) ‘dust’ and \(punganyi\) combine to form the verb \(ulupunganyi\) ‘grind to powder’. The compound is transitive like \(punganyi\); \(ulu\) is not an argument and \(ulupunganyi\) requires two arguments. The demonstrative adverb \(nyangatja\) satisfies the second argument. \(Ulupunganyi\) is in the same ng verb class as \(punganyi\) (Goddard 1993: 12).

\[\text{(5.82)} \quad \text{Wanyu=na} \quad \text{nyangatja} \quad \text{ulupu-nganyi} \]

\[\text{let’s.just=1SG.NOM DEM grind.to.powder-PRES} \]

\[\text{‘I’ll just grind this into flour’} \]

\[\text{do’ (1SG, grind’ (1SG, DEM)) CAUSE BECOME ground’ (DEM)} \]

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 \(ulu\) does not function as an argument.

\[\text{Figure 5-12: Arguments of N-V compound} \]

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 (\(angura\)) is still required.

\[\text{(5.83)} \quad \text{Angura} \quad \text{atu-ra} \quad \text{tjilpirpu-nganyi, munu unngutja uti-ni} \]

\[\text{bush.coconut.ABS hit-SER crack-PRES and.SS inside reveal-PRES} \]

\[\text{‘(You) crack open the bush coconut and reveal (what’s) inside’} \]

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

\(^{23}\) 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.

Lakota (Van Valin & LaPolla 1997: 123)

(5.84) Wičháša ki čhą́ ki kaksá-he
    man DET wood DET chop-CONT
    ‘The man\textsubscript{ACT} is chopping the wood\textsubscript{UND}’

(5.85) Wičháša ki čhą́-kaksá-he
    man DET wood-chop-CONT
    ‘The man\textsubscript{ACT} is chopping wood’/‘The man\textsubscript{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).

Gunwinggu (Blake 1987: 55)

(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).
P/Y (Goddard 1996: 11, xii)

(5.93)  
\[ \text{Ka kutjupa-kutjupa tju-nkunytja, nyara arali-arali ngaga-nyi.} \]
and.DS something put-NOML, DEM dangling stand-PRES
‘There's something been put there, that's hanging down there.’

(5.94)  
\[ \text{Kartarnta-nkuntja-nya break-NOML-ABS} \]
‘the broken one’
\[ \text{broken’ (Ø)/ do’ (Ø, Ø) CAUSE broken’ (Ø)} \]

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.

(5.95)  
\[ \text{Pukul-ma-nkunytja happy-ma-NOML} \]
‘(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 ngalku ‘ate’.

(5.96)  
\[ \text{Nyuntu kuka u-ngkunytja wiya-ngku ngurtju-ngku ngalku-nu.} \]
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)  
\[ \text{Wiya, mira-nytja wiya-ngku wanti-ma} \]
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) Tjinguru 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 walul-payi-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
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.

Ngaanyatjarra (Glass & Hackett 1970: 100)

(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.

P/Y (Goddard 1996: 129, 117)

(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=na ngulu-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\textsubscript{cause}, V\textsubscript{effect}) may relate through coordinate clauses, matrix and subclauses 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\textsubscript{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\textsubscript{cause} and the other V\textsubscript{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\textsubscript{cause}] preceding that of effect [V\textsubscript{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\textsubscript{cause}]…)S2 + AND + S2(…[V\textsubscript{effect}]…)S2)S1

PURP denotes goal or purpose, with event\textsubscript{x} taking place for the purpose of event\textsubscript{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.

French (Tesnière 1966: 259)

(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/ungku ‘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 absolute, 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 alatjiŋu kanyi-ni
meat.ABS=1PL.NOM plenty have-PRES
‘We’ve got plenty of meat’
have’ (1PL, kuka)

Pitjantjara (Bowe 1990: 24)

(5.113) Minyma-ngku tjitji mai u-ngu
woman-ERG child.ABS bread.ABS give-PST
‘The woman _give the child some bread_’
[do' (minyma, Ø)] CAUSE [BECOME have' (tjitji, mai)]

Pitjantjara (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 ninti/ku ‘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) _would give tobacco to the others_’
[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 absolute on the theme, with the recipient dative/purpose, or absolute 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.

![Figure 5-13: Linking of lexical ditransitive ungu](image)

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**

<table>
<thead>
<tr>
<th>Construction:</th>
<th>Ditransitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Template: three core arguments, A, S and E</td>
</tr>
<tr>
<td>PSA: A argument</td>
<td>Linking: Actor=PSA, Undergoer=Theme, NMR=Recipient Actor=PSA, Undergoer=Recipient, NMR=Theme</td>
</tr>
<tr>
<td>Morphology</td>
<td>Lexical</td>
</tr>
<tr>
<td>Semantics</td>
<td>PSA: instigator</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>Aktionsart: -static, +telic, +punctual</td>
</tr>
<tr>
<td></td>
<td>IF: unspecified</td>
</tr>
<tr>
<td></td>
<td>Focus structure: unspecified</td>
</tr>
</tbody>
</table>

5.4.1.1.3 Non-ditransitive three-argument verbs

Straightforward 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
[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 put the pods (from prickly wattle trees) in the fire
[do’ (3PL, Ø)] CAUSE [BECOME be-in’ (tili, yurminypa)]

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).

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**

<table>
<thead>
<tr>
<th>Construction:</th>
<th>Non-ditransitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Template: three core arguments</td>
</tr>
<tr>
<td>PSA: A argument</td>
<td></td>
</tr>
<tr>
<td>Linking: Actor=PSA, Undergoer=Theme, DCA=Goal</td>
<td></td>
</tr>
<tr>
<td>Morphology</td>
<td>Lexical</td>
</tr>
<tr>
<td>Semantics</td>
<td>PSA: instigator</td>
</tr>
<tr>
<td>Aktionsart: -static, +telic, +punctual</td>
<td></td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td>Focus structure: unspecified</td>
<td></td>
</tr>
</tbody>
</table>

**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 Yidiny (Pama-Nyungan, Queensland) example, S argument *ngayu* ‘I’ in (5.119) becomes O *nganyan* ‘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.

Yidiny (Dixon 1977: 312, rescripted by Blake 1987: 68)

(5.119) *ngayu* warnggi:*n

1SG.NOM turn.PST
‘I turned around.’

*do*’ (1SG, *turn*’ (1SG))

(5.120) *nąpany* gudununggu warnggi:*n

1SG.ACC wind.ERG turn-CAUS-PST
‘The wind spun me around.’

*do*’ (gudununggu, 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

<table>
<thead>
<tr>
<th></th>
<th>-ngi</th>
<th>pukara</th>
<th>purkara</th>
<th>hour katjuka</th>
<th>four minutespangka</th>
<th>-ntja</th>
</tr>
</thead>
<tbody>
<tr>
<td>palyani</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>pukulmananyi</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

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).

(5.121) *ila*

‘(be) close’ (predicate/adj)

*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’])
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). Wiltja/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.

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

---

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.

P/Y (Goddard 1996: 122-123)

(5.129) Ka nyayu-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.

Pitjantjatjara (Bowe 1990: 31)

(5.131) Wati nyanga pukupa 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.

Pitjantjatjara

(5.132) Pukul-ma-nkunytiya 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’.

Ngaanyatjarra (Glass & Hackett 2003: 578)

(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.

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Figure 5-16: Linking algorithm for causation through affixing of -ma and verb ending

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P/Y (Goddard 1996: 141)
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

<table>
<thead>
<tr>
<th>Construction:</th>
<th>Causative verbalisation of nominals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Template: two core slots</td>
</tr>
<tr>
<td>PSA: A argument</td>
<td></td>
</tr>
<tr>
<td>Linking: Actor=PSA, Undergoer=DCA</td>
<td></td>
</tr>
<tr>
<td>Morphology</td>
<td>N + verb endings forms verb of l class</td>
</tr>
<tr>
<td></td>
<td>N + -ma + verb endings forms verb of n class</td>
</tr>
<tr>
<td>Semantics</td>
<td>PSA: instigator</td>
</tr>
<tr>
<td>Aktionsart</td>
<td>-static, +telic, +punctual</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td></td>
<td>Focus structure: unspecified</td>
</tr>
</tbody>
</table>

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.
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 punkatjinga 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, Ø)] CAUSE [do’ (3SG, run’ (3SG))]

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 wangkatjinga means bringing about the situation that someone must talk, as in (5.139).

---

**Table 5.13:** tjinga derived causative tests

<table>
<thead>
<tr>
<th>suffix</th>
<th>-ngi</th>
<th>pulkara</th>
<th>purkara</th>
<th>hour kutjuka</th>
<th>four minutespangka</th>
<th>-ntja</th>
</tr>
</thead>
<tbody>
<tr>
<td>gigilajinga</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>punkatjinga</td>
<td>no</td>
<td>maybe</td>
<td>maybe</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>ikaritjinga</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>wangkatjinga</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>
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.

There is overlap with causatives derived by suffixing verb endings to nouns in some cases: ngulu/ ngurlu and ngulutjingani 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 as actor, =lanya as undergoer. Ikaritjinganu has two core slots, so is S-transitive. The new argument palu has nominative case; the other core argument, formerly S, switches from nominative to accusative =lanya as O.
The linking of P/Y *palumpa katja ikaringu* ‘his son laughed’ (Goddard 1996: 16) is shown in Figure 5-17. The causative derivation *ikaritjinganu* ‘make laugh’ with -*tjinga* is shown in Figure 5-18. An actor *paluŋu* is added; =*lanya* is undergoer.

![Diagram](image)

*Figure 5-17: Linking algorithm for intransitive verb *ikaringu*

![Diagram](image)

*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

<table>
<thead>
<tr>
<th>Construction:</th>
<th>-<em>tjinga</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Template: two core slots</td>
</tr>
<tr>
<td>PSA: A argument</td>
<td>Linking: Actor=PSA, Undergoer=DCA</td>
</tr>
<tr>
<td>Linking: Actor=PSA, Undergoer=DCA</td>
<td>Morphology</td>
</tr>
<tr>
<td>V or N + -<em>tjinga</em> forms verb of <em>l</em> class</td>
<td>Semantics</td>
</tr>
<tr>
<td>PSA: causer of undergoer’s intransitive activity or state</td>
<td>Aktionsart: -static, +telic, +punctual</td>
</tr>
<tr>
<td>IF: unspecified</td>
<td>Pragmatics</td>
</tr>
<tr>
<td>Focus structure: unspecified</td>
<td></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th></th>
<th>-nta</th>
<th>pulkara</th>
<th>purkara</th>
<th>four minutes</th>
<th>noml</th>
</tr>
</thead>
<tbody>
<tr>
<td>pikantananyi</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

Pikanananyi/pikarntanka derives from the nominal pika ‘pain, sick, anger’ in (5.143) and (5.144).

(5.143) Pika-nta-nanyi  pulkara
hurt-HARM-PRES strongly
‘(It’s) hurting (me) so hard’
[do’ (3SG, Ø)] CAUSE [feel’ (1SG, [hurt’])]

Ngaanyatjarra (Glass & Hackett 2003: 310)

(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 [mar], [hurt’])]

Iluyul in PYN is the adjective ‘dead’ (Bowe 1990: 26-28, Glass & Hackett 2003: 586); this derives iluntananyi/yulirntanka ‘kill’26. This may be metaphorical: the undergoer does not have to be sentient as with waru ‘fire’ in (5.146).

(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/yulirrilka ‘die’, the latter with the inchoative suffix.
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)\(^2\).

\[(5.147) \textit{Lirri-rnta-nku} \]
\[
\text{throat-HARM-FUT} \\
\text{‘(He/she) choked (someone) to death, cut someone’s throat’} \\
[\text{do’ (3SG, Ø)}] \text{CAUSE [BECOME choked’ (3SG)]}\]

Suffixing *-ntal-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).

Another example is P/Y *nguذي* ‘neck’ forming transitive *nguذيntananyi* ‘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.

<table>
<thead>
<tr>
<th>Construction:</th>
<th>-nta/-rnta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Template: two core slots</td>
</tr>
<tr>
<td>PSA: A argument</td>
<td>Linking: Actor=PSA, Undergoer=DCA</td>
</tr>
<tr>
<td>Morphology</td>
<td>V or N + -nta/-rnta forms verb of n class</td>
</tr>
<tr>
<td>Semantics</td>
<td>PSA: instigator of state of undergoer</td>
</tr>
<tr>
<td>Aktionsart</td>
<td>-static, ±telic, +punctual</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td>Focus structure: unspecified</td>
<td></td>
</tr>
</tbody>
</table>

5.4.1.2.4 Suffixing -li to intransitive verbs
Capell (1956: 70) claims that the suffix -li is causative in Pitjantjatjara, for example deriving transitive ngaralyinanyi ‘make someone stand’ (Goddard 1996: 95) from intransitive ngaranyi ‘stand’. This is not productive however: the few other examples include ngarileyinanyi ‘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 -li.

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<sup>ACT</sup> baked a cake<sup>UND</sup> yesterday
(5.149) Larry<sup>ACT</sup> baked a cake<sup>UND</sup> for Sue
(5.150) Larry<sup>ACT</sup> baked Sue<sup>UND</sup> a cake<sup>DCA</sup>

The PYN benefactive (Goddard 1996: 42, Glass & Hackett 1970: 79-80, 97) is the morpheme -ku on the beneficiary or goal. (5.151) has tjumu ‘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
‘1SG.ACT made a windbreak\_PST for grandfather’
[do’ (1SG, Ø) CAUSE BECOME exist’ (yuu)] PURP have’ (tjamu, yuu)

Ngaanyatjarra (Glass & Hackett 1970: 79-80)

(5.152) *Wiltja-nu 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=na=tju palatja kalku-\=nu*
1SG-NOM=1SG.NOM=REFL DEM.ABS claim-PST
‘1SG.ACT claimed that one\_PST for myself’
Yankunytjatjara (Goddard 1983: 195)

(5.157) *Malu wakal-payi=nku=na*
roo.ABS spear-CHAR=REFL=1SG.NOM
‘I am always spearing us kangaroos’

5.4.2.1.2 Locative/instrumental/comitative/associative
Instrumental or comitative applicatives are found in Australian languages such as Yidin’ (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.

(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), *yaɾa* ‘man’ is absolutive, as it is the sole core argument. In (5.160), a comitative suffix *-ma* is added to the verb *danay* ‘stand’ which makes it transitive. Now *yaɾa* is ergative; *yugu* ‘wood’ is absolutive as a core argument, and also the undergoer.

(5.159) *Ba-ɾi yaɾa-Ø yugu-ŋga danay-pu*
DEIC-ABS.I man-ABS wood-LOC stand-TNS
‘The man is standing in/at/on some wood’

(5.160) *Ba-la-Ø yugu-Ø ba-ŋgu-ɾ yaɾa-ŋgu danay-ma-n*
DEIC-ABS-IV wood-ABS DEIC-ERG-I man-ERG stand-COM-TNS
‘The man is standing on/with some wood’

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 *lqiwi* ‘play’ to be in core accusative rather than instrumental case.

(5.161) *a=pam imáy lqiwi-ʃan-a inmí-ki wišanik-t-ki*
REL=2PL 2NOM.PL play-IPFV-PST mine-INST treasure-INST
‘you who were playing with my treasure’

(5.162) *á lqiwi-twana-ʃan-a inmí-na miyána-ʃ-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).
Ngaanyatjarra (Glass & Hackett 1979: 5)

(5.163) *Tali-ngka parranyinati-ngu*

Sand.hill-LOC sit.down-PST

‘(He) sat down by a sandhill’

P/Y (Goddard 1996: 11, 98-99)

(5.164) *Mungarti 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) *Kuntili-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*<sub>ACT</sub> gave a gift<sub>UND</sub> to Chris<sub>DCA</sub>.

(5.167) *I*<sub>ACT</sub> gave Chris<sub>UND</sub> a gift<sub>DCA</sub>.

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.
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 absolute 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.

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 -
Anti 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.

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 mara-ngka  
man-LOC hand-LOC  
‘on the man’s hand’

(5.175) *Wati-ku mara-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.

Ngaanyatjarra (Glass 2006: 57)

(5.176) Tjarlpa=rni kaarrngara-la pika  
leg.ABS=1SG.ACC hurt-PRES sore  
‘My leg 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 broke’  
INGR broken’ (have.as.part’ (1SG, yamirri))

Not all ‘body parts’ are inalienable. In example (5.178) with transitive katani, the possessor is genitive, indicating miri ‘nail’ is not inalienably possessed.

Pitjantjatjara

(5.178) Ngayu-ku miri kata-nu mapalku  
1SG-GEN nail.ABS break-PST quickly  
‘(It) broke my nail 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.

P/Y (Goddard 1996: 99)

(5.179) Mara-ngku=ŋa pu-ngu  
hand-ERG=1SG.NOM hit-PST  
‘I hit (it) with my hand’  
do’ (hit’ (1SG, 3SG)) ∧ use’ (1SG, have.as.part’ (1SG, mara))
Yankunytjatjara (Goddard 1983: 42)

(5.180) *Wati palu* tjina kulpa- ngu
man DEF.ABS foot.ABS return-PST
‘The man returned on foot’

\[ \text{do'} (\text{wati}, [\text{move.to.ref.point} (\text{wati})]) \& \text{INGR be-at'} (\emptyset, \text{wati}) \]
\& \text{use'} (\text{wati}, \text{have.as.part'} (\text{wati}, \text{tjina}))

Capell (1956: 63-64) prefers the term ‘operative’ case in Australian languages to cover agentive and instrumental. However (5.180) shows both *wati palu* and *tjina* case marked absolutive with intransitive *kulpanyi* ‘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 *punu* in (5.181), and animates such as *papa* in (5.182).

P/Y (Goddard 1996: 3)

(5.181) *Munu* *punu* igumypa alatjinga-ra *punu-ngka* waka-ningi.
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).’

Ngaanyatjarra (Blake 1987: 42-43)

(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).
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 (Hаспелмaтh 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 *-tjinganyi*. 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’ > *ila* ‘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 *uritjingani* ‘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-ngkunytkaku 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>
<thead>
<tr>
<th><strong>Word class</strong></th>
<th><strong>Inchoative (1)</strong></th>
<th><strong>Causative (2)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun</td>
<td>malu</td>
<td>maluringanyi</td>
</tr>
<tr>
<td></td>
<td>kangaroo</td>
<td><em>maluni</em></td>
</tr>
<tr>
<td>Adjective</td>
<td>palya</td>
<td>palyaringanyi</td>
</tr>
<tr>
<td></td>
<td>good</td>
<td>palyani</td>
</tr>
<tr>
<td>Active adjective/adverb of manner</td>
<td>anku(Y)</td>
<td>asleep</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>ankuni</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>kunkurinyi</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kunkurtjunanyi</td>
</tr>
<tr>
<td>Spatial adverb</td>
<td>patu</td>
<td>patasuringanyi</td>
</tr>
<tr>
<td></td>
<td>far</td>
<td>patuni</td>
</tr>
<tr>
<td>Time adverb</td>
<td>ngula</td>
<td>later</td>
</tr>
<tr>
<td></td>
<td>later</td>
<td>ngularinganyi</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>ngulani</em></td>
</tr>
<tr>
<td>Interrogative pronoun</td>
<td>ngananya</td>
<td>who</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrative pronoun</td>
<td>nyanga</td>
<td>this</td>
</tr>
<tr>
<td>Personal pronoun</td>
<td>ngayulu</td>
<td>I</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Middle</th>
<th>Conative</th>
<th>Body part owner ascension</th>
</tr>
</thead>
<tbody>
<tr>
<td>cut</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>break</td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>touch</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>hit</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

(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: katani ‘cut’, katantananyi ‘break’, pampuni ‘touch’ and punganyi ‘hit’. There is evidence from the lexicon (Goddard 1996: 38) that the first two are derived from the adjective kataly ‘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.

(5.191) *Purita* katga-ni witu-witu wiya
\[\text{bread ABS cut-PRES difficulty NEG}\]
\[\neq \text{‘The bread cuts easily.’}\]
\[\text{‘He/she cuts the bread easily.’}\]

(5.192) *Kalatji* kaṭanta-nanyi witu-witu wiya 29
\[\text{glass ABS break-PRES difficulty NEG}\]
\[\neq \text{‘The glass breaks easily.’}\]
\[\text{‘He/she breaks the glass easily.’}\]

(5.193) *Punu* pampu-ni witu-witu wiya
\[\text{wood ABS touch-PRES difficulty NEG}\]
\[\neq \text{‘The wood touches easily.’}\]
\[\text{‘He/she touches the wood easily.’}\]

(5.194) *Tuwa* pu-nganyi witu-witu wiya
\[\text{door ABS hit-PRES difficulty NEG}\]
\[\neq \text{‘The door hits easily.’}\]
\[\text{‘He/she hits the door easily.’}\]

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.

(5.195) *Margaret-alu purita-ngka* kaṭa-ni
\[\text{[name]-ERG bread-LOC cut-PRES}\]
\[\neq \text{‘Margaret cuts at the bread.’}\]

(5.196) *Margaret-alu kalatji-ngka kaṭanta-nanyi*
\[\text{[name]-ERG glass-LOC break-PRES}\]
\[\neq \text{‘Margaret breaks at the glass.’}\]

(5.197) *Margaret-alu punu-ngka pampu-ni*
\[\text{[name]-ERG wood-LOC touch-PRES}\]
\[\neq \text{‘Margaret touches at the wood.’}\]
\[\text{‘Margaret touches (it) with the wood.’}\]

---

29 There is a related intransitive verb kaṭakatinyi ‘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.

Pitjantjatjara

(5.199) Margaret-alu  Bill-nga  amirri  kaṭa-nu
   [name]-ERG  [name]-ABS  arm.ABS  cut-PST
‘Margaret cut Bill’s arm.’

(5.200) *Margaret-alu Bill-nga  amirri-ngka kaṭa-nu
   [name]-ERG  [name]-ABS  arm-LOC  cut-PST
‘Margaret cut Bill on the arm.’

(5.201) Margaret-alu  Bill-nga  amirri  kaṭanta-nu
   [name]-ERG  [name]-ABS  arm.ABS  break-PST
‘Margaret broke Bill’s arm.’

(5.202) *Margaret-alu Bill-nga  amirri-ngka kaṭanta-nu
   [name]-ERG  [name]-ABS  arm-LOC  break-PST
‘Margaret broke Bill on the arm.’

(5.203) Margaret-alu  Bill-nga  amirri  pampu-ŋu
   [name]-ERG  [name]-ABS  arm.ABS  touch-PST
‘Margaret touched Bill’s arm.’

(5.204) *Margaret-alu Bill-nga  amirri-ngka pampu-ŋu
   [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>
<thead>
<tr>
<th>verb</th>
<th>middle</th>
<th>conative</th>
<th>body part owner ascension</th>
</tr>
</thead>
<tbody>
<tr>
<td>katani</td>
<td>cut</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>kantantananyi</td>
<td>break</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>pampuni</td>
<td>touch</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>punganyi</td>
<td>hit</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>

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 palyani 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) \[ [\alpha \text{ palya}] \oplus [\beta (\emptyset)] \] \( \varphi \) type (l class)

(5.208) \[ [\alpha \text{ palya}] \oplus [\beta \text{ ri}] \] \( \varphi \) type (ng class)

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) \( \alpha + \text{-ri/-rri} \rightarrow \) \{BECOME/INGR \( \alpha \}\)
(b) \( \alpha + \text{-ara/-rra} \rightarrow \) \{INGR \( \alpha \}\)

(5.210) (a) \( \alpha (+ \text{-ma}) + \text{verb endings} \rightarrow \) \{[\text{do}^\upprime (x, \emptyset)] \text{CAUSE BECOME/INGR } \alpha\}
(b) \( \alpha + \text{-tjinga} \rightarrow \) \{[\text{do}^\upprime (x, \emptyset)] \text{CAUSE feel' } \alpha\}
\text{or} \quad \{[\text{do}^\upprime (x, \emptyset)] \text{CAUSE do' } (y, \emptyset)\}\}
(c) \( \alpha + \text{-nta/-rnta} \rightarrow \) \{[\text{do}^\upprime (x, \emptyset)] \text{CAUSE BECOME/INGR } \alpha\}
\text{or} \quad \{[\text{do}^\upprime (x, \emptyset)] \text{CAUSE feel' } \alpha\}

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**

<table>
<thead>
<tr>
<th>-ngi</th>
<th>-ra</th>
<th>-tjingga</th>
<th>-ntja</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Valence -</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>waru pulkaringanyi</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>ankuringanyi</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>tjinturinganyi</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>palyaringanyi</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>tiilpiraranji</td>
<td>no</td>
<td>yes</td>
<td>yes ?</td>
</tr>
<tr>
<td><strong>Valence +</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>palyani</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>pulkulmananyi</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>ngulujingagi</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>punu punkalijingagi</td>
<td>no</td>
<td>maybe</td>
<td>maybe</td>
</tr>
<tr>
<td>palurulanya ikaritjingagi</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>wangkatjingagi</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>pikanta njanyi</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>-ri</th>
<th>-ra</th>
<th>-tjingga</th>
<th>verb endings</th>
<th>-ntja</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Occurs with progressive aspect</td>
<td>depends</td>
<td>no</td>
<td>depends</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>2. Occurs with dynamic adverbs like vigorously (pulkara)</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>3. Occurs with slow adverbs like gradually (pulkara)</td>
<td>depends</td>
<td>yes</td>
<td>no</td>
<td>depends</td>
<td>yes</td>
</tr>
<tr>
<td>4. Occurs with for an hour (-ka)</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>5. Occurs with in four minutes (-ngka)</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>6. Has derived adjective representing terminal state (-nytja)</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>7. Has causative meaning</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Table 5-22: Aktionsarten of common Pitjantjatjara derivational processes**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>-ri</th>
<th>-ra</th>
<th>-tjingga</th>
<th>verb endings</th>
<th>-ntja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Change of state</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Dynamic</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Telic (inherent endpoint)</td>
<td>yes</td>
<td>yes</td>
<td>maybe</td>
<td>maybe</td>
<td>maybe</td>
</tr>
<tr>
<td>Punctual (instantaneous)</td>
<td>maybe</td>
<td>maybe</td>
<td>maybe</td>
<td>maybe</td>
<td>maybe</td>
</tr>
</tbody>
</table>
Table 5-23: Proposed predicate class for derived PYN verbs

<table>
<thead>
<tr>
<th>Criterion</th>
<th>-ri/-rr</th>
<th>-ra/-rra</th>
<th>-tinga</th>
<th>verb endings</th>
<th>-nta/-rnta</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Activity</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Achievement</td>
<td>yes</td>
<td>yes</td>
<td>maybe</td>
<td>maybe</td>
<td>maybe</td>
</tr>
<tr>
<td>Semelfactive</td>
<td>no</td>
<td>no</td>
<td>maybe</td>
<td>maybe</td>
<td>maybe</td>
</tr>
<tr>
<td>Accomplishment</td>
<td>maybe</td>
<td>no</td>
<td>maybe</td>
<td>maybe</td>
<td>maybe</td>
</tr>
<tr>
<td>Active Accomplishment</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Causative</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Effective</th>
<th>Non-effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>ngulutjinganyi ‘frighten’</td>
<td>pulkaringanyi ‘become bigger’</td>
</tr>
<tr>
<td>ikaritjinganyi ‘make laugh’</td>
<td>ankaringanyi/kankmarinyi ‘fall asleep’</td>
</tr>
<tr>
<td>wangkatjinganyi ‘make talk’</td>
<td>tjinturinganyi ‘become day’</td>
</tr>
<tr>
<td>palyani ‘fix’</td>
<td>palyaringanyi ‘become better’</td>
</tr>
<tr>
<td>pulukamananyi ‘make happy’</td>
<td>wankaringanyi ‘wake’</td>
</tr>
<tr>
<td>pikantananyi ‘hurt’</td>
<td>tjipirarini ‘become split’</td>
</tr>
</tbody>
</table>

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 absolutive 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 -*pail/-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

<table>
<thead>
<tr>
<th>Operation</th>
<th>Syntactic</th>
<th>Semantic</th>
<th>Macrorole</th>
<th>Found in PYN</th>
<th>Means</th>
<th>Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive</td>
<td>-1</td>
<td>0</td>
<td>-1</td>
<td>No</td>
<td>Word order change</td>
<td></td>
</tr>
<tr>
<td>Subject omission</td>
<td>-1 or 0</td>
<td>-1 or 0</td>
<td>0</td>
<td>No</td>
<td>Ellipsis/3rd person</td>
<td></td>
</tr>
<tr>
<td>Impersonal passive</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anticausative/</td>
<td>-1 or 0</td>
<td>-1 or 0</td>
<td>-1 or 0</td>
<td>Yes</td>
<td>-ringanyi/-rrinku</td>
<td></td>
</tr>
<tr>
<td>Antipassive</td>
<td>-1</td>
<td>0</td>
<td>0</td>
<td>No</td>
<td>Case alternatives</td>
<td></td>
</tr>
<tr>
<td>Object omission</td>
<td>-1</td>
<td>0</td>
<td>0</td>
<td>Yes</td>
<td>-ngka,-ku</td>
<td></td>
</tr>
<tr>
<td>Deaccentive/</td>
<td>-1</td>
<td>0</td>
<td>0</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antipassive</td>
<td>-1</td>
<td>0</td>
<td>0</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>No</td>
<td>-ringanyi/-rrinku</td>
<td></td>
</tr>
<tr>
<td>Nominalising</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>Yes</td>
<td>-nytja/-ntja</td>
<td>-pail/-payi</td>
</tr>
<tr>
<td>Noun incorporation</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causative</td>
<td>+1</td>
<td>+1</td>
<td>+1</td>
<td>Yes</td>
<td>-(ma) +verb endings,</td>
<td></td>
</tr>
<tr>
<td>Applicative</td>
<td>+1</td>
<td>+1</td>
<td>0</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dative shift</td>
<td>+1</td>
<td>0</td>
<td>0</td>
<td>Yes (P/Y)</td>
<td>Absolutive/-ku P/Y</td>
<td></td>
</tr>
<tr>
<td>Dative of interest</td>
<td>+1</td>
<td>0</td>
<td>0</td>
<td>No</td>
<td>-ku beneficiary</td>
<td></td>
</tr>
<tr>
<td>Advancement</td>
<td>+1</td>
<td>0</td>
<td>0</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possessor ascension</td>
<td>+1</td>
<td>0</td>
<td>0</td>
<td>No</td>
<td>Possessor, possessed same case</td>
<td></td>
</tr>
<tr>
<td>Inverse</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>No</td>
<td>Topicalising patient</td>
<td></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Means</th>
<th>Original</th>
<th>Derived</th>
<th>Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal</td>
<td>Intransitive verb</td>
<td>-ri/-rri</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Nominal</td>
<td>Intransitive verb</td>
<td>-ara/-rra</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Nominal</td>
<td>Transitive verb</td>
<td>verb endings</td>
<td>1</td>
<td>2</td>
<td>+1</td>
</tr>
<tr>
<td>Nominal</td>
<td>Transitive verb</td>
<td>-tjinga</td>
<td>1</td>
<td>2</td>
<td>+1</td>
</tr>
<tr>
<td>Nominal</td>
<td>Transitive verb</td>
<td>-nta/-rnta</td>
<td>1</td>
<td>2</td>
<td>+1</td>
</tr>
<tr>
<td>Intransitive verb</td>
<td>Transitive verb</td>
<td>-ltyi</td>
<td>1</td>
<td>2</td>
<td>+1</td>
</tr>
<tr>
<td>Verb</td>
<td>Noun</td>
<td>-nytja/-ntja</td>
<td>1 or 2</td>
<td>1</td>
<td>0 or -1</td>
</tr>
<tr>
<td>Nominal</td>
<td>Nominalised object verb</td>
<td>-pui/-payi</td>
<td>1 or 2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

(‘ 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

<table>
<thead>
<tr>
<th></th>
<th>-ri/-rri</th>
<th>-ara/-rra</th>
<th>reflexive</th>
<th>verb endings</th>
<th>-tjinga</th>
<th>-nta/-rnta</th>
</tr>
</thead>
<tbody>
<tr>
<td>participants</td>
<td>1</td>
<td>1</td>
<td>1 or 2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>kinesis</td>
<td>low</td>
<td>low</td>
<td>high-low</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>aspect</td>
<td>high</td>
<td>high</td>
<td>medium</td>
<td>medium</td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>punctuality</td>
<td>medium</td>
<td>high</td>
<td>medium</td>
<td>medium</td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>volitionality</td>
<td>low</td>
<td>low</td>
<td>high-low</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>affirmation</td>
<td>medium</td>
<td>medium</td>
<td>medium</td>
<td>medium</td>
<td>medium</td>
<td>medium</td>
</tr>
<tr>
<td>mode</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>agency</td>
<td>low</td>
<td>low</td>
<td>high-low</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>affectedness of O</td>
<td>medium</td>
<td>low</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>individuation of O</td>
<td>low</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>transitivity</td>
<td>medium</td>
<td>medium</td>
<td>medium</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
</tbody>
</table>

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)unganyilyungku ‘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-...[nuc PRED]... + ...[nuc PRED]...] nuclear juncture
- [clause-...[core...]... + ...[core...]...] core juncture
- [sentence-...[clause...]... + ...[clause...]...] clausal juncture
- [sentence...] + [sentence...] 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).
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 *palyu* 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 *wary* 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

Pitjantjatjara (Goddard 1993: 26)

(6.1) \textit{ngayulu waru atu-nu ka palu\textsubscript{r}u 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, \textit{chop’} (1SG, waru)) \& do’ (3SG, \textit{pick.up’} (3SG, waru))

![Figure 6-2: Pitjantjatjara clausal coordination](image)

The constructional schema for such coordinated clauses is given in Table 6-1.

<table>
<thead>
<tr>
<th>Construction:</th>
<th>Construction coordinated clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Juncture: clause</td>
</tr>
<tr>
<td>Nexus</td>
<td>coordination</td>
</tr>
<tr>
<td>Construction type</td>
<td>conjunction</td>
</tr>
<tr>
<td>Template</td>
<td>two or more verbs of any type</td>
</tr>
<tr>
<td>PSA</td>
<td>default; identity in non-initial clause informed by conjunction</td>
</tr>
<tr>
<td>Linking</td>
<td>Actor PSA</td>
</tr>
<tr>
<td>Morphology</td>
<td>Nothing specific</td>
</tr>
<tr>
<td>Semantics</td>
<td>PSA: S or A: switch-reference</td>
</tr>
<tr>
<td>Aktionsart</td>
<td>unspecified</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td>Focus structure</td>
<td>unspecified</td>
</tr>
</tbody>
</table>

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), \textit{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), went and _saw (it).’  
do’ (3SG, [move.away.from.ref.point’ (3SG)]) & INGR be-at’ (Ø, 3SG)  
& see’ (3SG, Ø)  

(b) *Wati nga:-lu pija-ngu nya-ngu kalaya papa-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 occurring 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>
<thead>
<tr>
<th>(0)</th>
<th>(l)</th>
<th>(ng)</th>
<th>(n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘zero’ class</td>
<td>(la-class)</td>
<td>(wa-class)</td>
<td>(ra-class)</td>
</tr>
<tr>
<td>‘talk’</td>
<td>‘bite’</td>
<td>‘hit’</td>
<td>‘put’</td>
</tr>
<tr>
<td>wangka-ra/-rra</td>
<td>patja-ra/-ra</td>
<td>pu-ngkula</td>
<td>tju-nkula</td>
</tr>
</tbody>
</table>

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 *fānwān* respectively) are shared by the complex predicate.

\(^{30}\) 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’.
Mandarin Chinese (Van Valin & LaPolla 1997: 529)

(6.3)  
\( Tā \ \text{qiāo pò} \ \text{le} \ \text{yī ge fànwăn} \)

3SG hit break PFV one CL bowl

‘She broke (by hitting) a ricebowl.’

\([\text{do} \ (3SG, \ \text{hit} \ (3SG, \ \text{fànwăn})])\] CAUSE [BECOME broken’ (fànwăn)]

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.

Ozanne-Rivierre & Rivierre (2004) distinguish switch subject and same subject causative serial verbs in Papua New Guinea languages. These are SV,OV, and SV,OV.\(^{31}\) 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 [\(V_{\text{cause}}\)] (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.

\(^{31}\) 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).  

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 wankanyi/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.

(6.4) \(\text{Wangka-ra ikari-nganyi} \)  
\(\text{talk-SER laugh-PRES} \)  
‘(he/she) is joking around’

(6.5) \(\text{Wangka-rra kuli-lku} \)  
\(\text{talk-SER consider-FUT} \)  
‘(they) will discuss’

In (6.6), the serial ngulura wana- shares two arguments: the agent/actor papa and the patient/undergoer mahu 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.

(6.6) \(\text{Papa-ngku mahu tjuta ngulu-ra wana-} \)  
\(\text{dog-ERG roo PL.ABS scare-SER follow-PST} \)  
‘The dog chased the kangaroos off.’

\(\text{do} \) (papa, \text{chase.off} (papa, mahu 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).

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In (6.7), rungka ‘grind’ is followed by ulupunganyi ‘grind to powder’ with the undergoer mai palunya ‘the food (from plants)’ intervening and shared; both verbs are S-transitive.

Yankunytjatjara (Kalotas et al. 2002: 86)

(6.7) *Munu palulanguru rungka-ra mai palu-nya ulpu-nganyi*

and.SS after.that grind-SER food DEM-ABS grind.to.powder-PRES

‘After that (one) grinds the food 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 *urani* 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.

P/Y (Goddard 1996: 151)

(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’
The constructional schema of the PYN serial complex predicate is given in Table 6-3.

<table>
<thead>
<tr>
<th>Construction:</th>
<th>Serial complex predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Juncture: nuclear</td>
</tr>
<tr>
<td></td>
<td>Nexus: cosubordination</td>
</tr>
<tr>
<td></td>
<td>Construction type: serial verb</td>
</tr>
<tr>
<td>Template</td>
<td>two or more verbs of any type</td>
</tr>
<tr>
<td>PSA</td>
<td>determined by finite verb</td>
</tr>
<tr>
<td>Linking</td>
<td>as with simple</td>
</tr>
<tr>
<td>PSA:</td>
<td></td>
</tr>
<tr>
<td>Linking:</td>
<td></td>
</tr>
<tr>
<td>Semantics</td>
<td>PSA: determined by predicate class</td>
</tr>
<tr>
<td>Aktionsart:</td>
<td>unspecified</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td>Focus structure:</td>
<td>unspecified</td>
</tr>
</tbody>
</table>

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\textsuperscript{ACT}’ll eat up all the food\textsuperscript{UND}’
do’ (2SG, eat’ (2SG, mai)) \& 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*/*minyna* 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’

Ngaanyatjarra (Glass & Hackett 1979: 15)

(6.13) *Warupuyu-la=latju nyina-ra 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.

P/Y (Goddard 1996: 154)

(6.14) *Pika unga ngari-ra rituwana-ri-nganyi*
sore infected.ABS lie-SER red-INCH-PRES
‘The infected sore is turning red’
BECOME *red*’ (pika)

Yankunytjatjara (Goddard 1996: 9)

(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.

Pitjantjatjara (Douglas 1955)

(6.16) *Pangkalangu-ngku nyina-nyina-ra nya-ngu waru tili nya-kula pijja-ngu*
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.
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.

While ‘subject’ is shared across the predicates, other arguments may or may not be. In the series of actions in (6.19), the verbs share subject (mandated by the serial structure) but have their own objects, which intervene between the verbs.

Similarly, in (6.20) *kami* is the shared subject; *wangkara* and *nguluţjingani* have their own objects. In (6.21), the recipient *ngananyanya* is an argument of *yungkupayi* only; the balls have to be made before being given.

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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,) roasted (it) (and) _i gave them (some)’

Yankunytjatjara (Goddard 1983: 191)

(6.23) tjitji-ngku kati-ra tjiti-ra yu-nganyi
child-ERG take SER pour-SER give-PRES
‘A child, 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 kukuraa-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) *Paluru pu-ngkula ngalya-kati-ngu*

3SG.NOM hit-SER towards-bring-PST

‘He/she killed (it) (and) brought (it) here’

[do’ (3SGi, hit’ (3SGi, 3SGj)) CAUSE BECOME dead’ (3SGj)] & bring’ (3SGi, 3SGj)

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

<table>
<thead>
<tr>
<th>Construction:</th>
<th>Serial verb, sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Juncture: clause</td>
</tr>
<tr>
<td></td>
<td>Nexus: cosubordination</td>
</tr>
<tr>
<td></td>
<td>Construction type: serial verb</td>
</tr>
<tr>
<td></td>
<td>Template: two or more verbs of any type</td>
</tr>
<tr>
<td></td>
<td>PSA: shared S or A</td>
</tr>
<tr>
<td></td>
<td>Linking: Actor PSA</td>
</tr>
<tr>
<td>Morphology</td>
<td>All but last verb have serial ending; last verb is finite</td>
</tr>
<tr>
<td>Semantics</td>
<td>PSA: in series of actions, without switch-reference</td>
</tr>
<tr>
<td></td>
<td>Aktionsart: any</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td></td>
<td>Focus structure: unspecified</td>
</tr>
</tbody>
</table>

P/Y (Goddard 1993: 26)
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.

Ngaanyatjarra (Glass & Hackett 1979: 70)

(6.28)  
Ngarri-ngu=latju  tjirntu-rringkula  kuti-pitja-ngu  
lie.down-PST=1PL.EX.NOM  day-INCH-SER  out-go-PST  
‘We lay down, (it) having become day, (we) went’

(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\textsubscript{ACT} watched TV while _\textsubscript{ACT} eating pizza.

(6.31)  
The student\textsubscript{ACT} looked out the window while _\textsubscript{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 -ntjala/-ntja and different endings: -ku for purposive (DS); -kitja for intent (SS); locative -ngkal-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 -ntjala/-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

<table>
<thead>
<tr>
<th></th>
<th>(0)</th>
<th>(l)</th>
<th>(mg)</th>
<th>(n)</th>
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</thead>
<tbody>
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<td>Purposive DS</td>
<td>wangka-ntjakuna</td>
<td>patja-ntjakuna</td>
<td>pu-ngkunjaka</td>
<td>tju-nkuntjakuna</td>
</tr>
<tr>
<td>Purposive SS</td>
<td>wangka-ntjikitja</td>
<td>patja-ntjikitja</td>
<td>pu-ngkuntjitja</td>
<td>tju-nkuntjitja</td>
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<tr>
<td>Anterior DS</td>
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<td>patja-nyangka</td>
<td>pu-ngkunyangka</td>
<td>tju-nkunyangka</td>
</tr>
<tr>
<td>Anterior SS</td>
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<td>patja-ntjatjanu</td>
<td>pu-ngkjuntjanu</td>
<td>tju-nkuntjatjanu</td>
</tr>
</tbody>
</table>

Table 6-6: Dependent verb forms in Ngaanyatjarra

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<th>(l)</th>
<th>(mg)</th>
<th>(n)</th>
</tr>
</thead>
<tbody>
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<td>Purposive DS</td>
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<td>nitti-ljakuna</td>
<td>pu-ngkutjakuna</td>
<td>tju-nkutjakuna</td>
</tr>
<tr>
<td>Purposive SS</td>
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<td>nitti-lkitja</td>
<td>pu-ngkukitja</td>
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</tr>
<tr>
<td>Circumstantial</td>
<td>wanti-nyangka</td>
<td>nitti-nyangka</td>
<td>pu-ngkunyangka</td>
<td>tju-nkunyangka</td>
</tr>
<tr>
<td>Anterior SS</td>
<td>wanti-tjanu</td>
<td>nitti-ntjatjanu</td>
<td>pu-ngkutjatjanu</td>
<td>tju-nkutjatjanu</td>
</tr>
</tbody>
</table>

Bowen (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. 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 (Bowen 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**

---

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.

Pitjantjatjara (Goddard 1993: 33)

(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 tjiti tjuta of the dependent verb here is overt.

P/Y (Eickelkamp 1999: 4)

(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, tjiipi 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.

P/Y (Goddard 1996: 177)

(6.37) Tjiipi-ngku watja-ŋu ngayu-lu ya-ngkunytjaku.
old.man-ERG tell-PST 1SG-NOM go-PURP
‘The old man told (me) that I should go.’
[do’ (tjiipi, [express.(α).to.(β).in.language.(γ’) (tjiipi, 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/watjaku* 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 *watjawatjanu*, and understood as actor of *tjikintjaku* which has no undergoer specified. Figure 6-9 shows the linking.


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)])]
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’.

\[(6.39) \text{Ka}=\text{ya} \quad \text{watja-lku}=\text{ya} \quad \text{tjaalyma-nku} \quad \text{watja-lku} \]
\[\text{and.DS}=\text{3PL.NOM} \quad \text{say-COND}=\text{3PL.NOM} \quad \text{whisper-COND} \quad \text{say-COND} \]
\[\text{kapi}=\text{ya} \quad \text{kati-tjaku} \quad \text{tjuti-ra}^{37} \quad \text{kurli} \quad \text{tjuku-munu-ngka}. \]
\[\text{[water}=\text{3PL.NOM} \quad \text{bring-PURP} \quad \text{pour-SER} \quad \text{heat} \quad \text{small-NEG-LOC}\text{]} \quad \text{CORE} \]

‘And they would whisper and say to pour water and take it because of the great heat.’

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 *mantji*_\text{ra} *tjunu* ‘get and put’. In the RRG analysis, *wariringkunytjaku tjunu* is two cores, with freedom of order. *Mantji*_\text{ra} is in a preceding clause.

\[(6.40) \text{Kal} \quad \text{minyma-ngku panya} \quad \text{mantji-ra} \quad \text{wari-ri-ngkunytjaku} \quad \text{tju-nu}. \]
\[\text{and.DS} \quad \text{woman-ERG} \quad \text{ANAPH} \quad \text{get-SER} \quad \text{cool-INCH-PURP} \quad \text{put-PST} \]

‘The wife took it (out of the fire) and put (it) to cool.’

\[^{37}\text{Note the flexible but unusual word order of } \text{kati-tjaku} \text{ and the serial } \text{tjutira} \text{ in this core.}\]
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.

\[(6.41)\] \[\text{Arkani} = \text{na} \quad \text{a}l\text{a}-\text{ri-ngkunytjaku} \]
\[
\begin{align*}
\text{try-PRES} &= 1\text{PL.NOM open-INCH-PURP} \\
\text{'1ACT will try to see if (it) \text{UND} opens'} \\
\text{do'} &= (1\text{SG. try'} (1\text{SG, } \emptyset)) \text{ PURP BECOME open'} (3\text{SG})
\end{align*}
\]

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.

\[(6.42)\] \[\text{Tjana} \quad \text{mukuri-nganyi tjalamila-nytjaku market-angka.} \]
\[
\begin{align*}
3\text{PL.NOM want-PRES} &= \text{sell-PURP market.place-LOC} \\
\text{'They want (you) to sell (it) in a marketplace.'} \\
\text{They, want } &\text{ want to sell it} \\
\text{want'} &= (3\text{PL. [do'} (2\text{PL. [sell'} (2\text{PL, 3SG)]}))\\
\end{align*}
\]

The constructional schema for the purposive verb form is given in Table 6-7.

<table>
<thead>
<tr>
<th>Construction:</th>
<th>Purpose, different subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Juncture: core</td>
</tr>
<tr>
<td></td>
<td>Nexus: coordination</td>
</tr>
<tr>
<td></td>
<td>Construction type: two cores</td>
</tr>
<tr>
<td></td>
<td>Template: main verb and purpose</td>
</tr>
<tr>
<td>PSA:</td>
<td>different to main verb</td>
</tr>
<tr>
<td>Linking:</td>
<td>PSA actor or undergoer</td>
</tr>
<tr>
<td>Morphology</td>
<td>Verb root + -nytjaku</td>
</tr>
<tr>
<td>Semantics</td>
<td>Semantic controller: actor</td>
</tr>
<tr>
<td></td>
<td><em>Aktionsart</em>: any</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td></td>
<td>Focus structure: unspecified</td>
</tr>
</tbody>
</table>
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)

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) Ngana nga minyma tjuta-ngku mai palya-ni anangu pikatjara tjuta-ku
IPL.NOM woman PL-ERG food.ABS prepare-PRES people sick PL-PURP
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))]

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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.

Ngaanyatjarra (Glass & Hackett 1979: 29)

(6.47) *Ka watja-rnu=panyatja 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.

P/Y (Goddard 1993: 31)

(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.

Pitjantjatjara (Sheppard 1975: 51)

(6.49) \textit{Palu nya-kuntjikitja=}na \ mukuri-nganyi
  but see-INTEN=1SG.NOM want-PRES
‘But of course I should like to see (inside)’
\textit{want$^\prime$} (1SG, [see$^\prime$ (1SG, Ø)])

A similar situation holds in (6.50) with \textit{papa; ngarriku} ‘lie’ is intransitive while \textit{marlarrku} is an adverb.

Ngaanyatjarra (Glass & Hackett 2003: 172)

(6.50) \textit{Papa=}ya \ mukurri-ngkupayi \ marlarrku \ ngarri-kitja
  dog=3PL.NOM want-CHAR at.someone$'$s.feet lie-INTEN
‘Dogs, like _, to lie at someone$'$s feet’
\textit{like$^\prime$} (papa, [lie$^\prime$ (papa)])

The constructional schema for the intention verb form is given in Table 6-8.

\textbf{Table 6-8: Constructional schema for intention}

<table>
<thead>
<tr>
<th>Construction:</th>
<th>Intention, same subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Juncture: core</td>
</tr>
<tr>
<td></td>
<td>Nexus: cosubordination</td>
</tr>
<tr>
<td></td>
<td>Construction type: two cores</td>
</tr>
<tr>
<td></td>
<td>Template: main verb and intent</td>
</tr>
<tr>
<td></td>
<td>PSA: same as that of main verb</td>
</tr>
<tr>
<td></td>
<td>Linking: PSA actor</td>
</tr>
<tr>
<td>Morphology</td>
<td>Verb root + -kitja</td>
</tr>
<tr>
<td>Semantics</td>
<td>Semantic controller: actor</td>
</tr>
<tr>
<td></td>
<td>Aktionsart: any</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td></td>
<td>Focus structure: unspecified</td>
</tr>
</tbody>
</table>

\textbf{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 -\textit{ku} is used for acting as people do to achieve an aim, while -\textit{kitja} refers to one’s personal wishes or desires. This requires a qualification. As well as indicating different subject, -\textit{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, don’t want _I to have to just sit forever.’

<NEG+want’ (1SG, [sit’ (1SG)])

(6.52) *munu=na ulkaru-nyi, wangka-nytjaku.*

and.SS=1SG.NOM reluctant-PRES, speak-PURP

‘and 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.

P/Y (Goddard 1996: 31, 32)

(6.53) *Nyuntu mula-mula-ngku kutu-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 ngananya 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 anangu palunya muku-muku-ni, 
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-n ingi 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.

Pitjantjatjara

(6.59) Ngayu-lu wangka-ngu a-nkunytjaku 
1SG-NOM say-PST go-PURP 
‘I persuaded (him/her) to go’

(6.60) Ngayu-lu wangka-ngu a-nkunytjikitja-ngku 
1SG-NOM say-PST go-INTEN-ERG 
‘I promised 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.

Pitjantjatjara (Goddard 1996: 5)

(6.61) Munu=ya ngari-ra kuli-ningi, 
and.SS=3PL.NOM lie-SER listen-PST.CONT 
apirli-ngku pai-nnyangka. 
public.speaking-ERG criticise-ANT.DS 
‘They lay there listening, as (people) criticised (them) in the morning speeches.’

Ngaanyatjarra (Glass & Hackett 1979: 50)

(6.62) Katu-rrri-ku=ya kapi paalyukai-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’

Yankunytjatjara (Goddard 1996: 9)

(6.63) Ngayu-lu anta-anta-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), \textit{ngaranytjala} ‘stand’ is used in an attributive sense with the adjective \textit{arkai}. Posture verbs are not usually required with adjectives\footnote{They are with active adjectives.} but this one provides a basis for the anterior sub-clause as adjectives do not get inflected.

Yankunytjatjara (Goddard 1996: 12)

(6.64) \textit{Putu nya-nganyi, tjina arkai ngara-nytjala.}
\begin{itemize}
\item unable see-PRES foot.ABS faint stand-ANT.DS
\end{itemize}
‘(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: \textit{pungkunytja} is the nominalised verb describing the action and is being used as a terminal state, freely translated as passive.

Pitjantjatjara (Goddard 1996: 160)

(6.65) \textit{Ka nga-nanga tarapula tjuta ma-paka-nyyangka=lt\_a}
\begin{itemize}
\item and.DS 1PL.NOM trouble PL COMPL-start-ANT.DS=TURN
\item ma-tjituri-tjtiru-ri-ntju, witi-ra kati-nyyangka, mama ku\_ta
\end{itemize}
COMPL-unhappy-INCH-PST, grab-SER take-ANT.DS father brother.ABS
\textit{pu-ngkunytja} 
\begin{itemize}
\item hit-NOML
\end{itemize}
‘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 \textit{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.

Yankunytjatjara (Goddard 1991: 34)

(6.66) \textit{Ngayu-lu anangu-ngku wangka-nytjala kuli-nu.}
\begin{itemize}
\item 1SG-NOM person-ERG talk-ANT.DS hear-PST
\end{itemize}
‘I heard a person talking.’

In (6.67), the dependent form is part of a serial structure. \textit{Katinyi} ‘bring/take’ and \textit{tjunanyi} ‘put’ are both transitive; the serial structure requires two arguments (\textit{kuka} and \textit{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).
Figure 6-11: Circumstance: clause periphery

The constructional schema for the anterior DS sub-clause is given in Table 6-9.

<table>
<thead>
<tr>
<th>Construction:</th>
<th>Circumstance: anterior DS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Juncture: clause-clause</td>
</tr>
<tr>
<td>Nexus:</td>
<td>subordination</td>
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<td>Construction type:</td>
<td>sub-clause</td>
</tr>
<tr>
<td>Template:</td>
<td>main clause and sub-clause</td>
</tr>
<tr>
<td>PSA:</td>
<td>S/A different to that of main clause</td>
</tr>
<tr>
<td>Linking:</td>
<td>PSA actor</td>
</tr>
<tr>
<td>Morphology</td>
<td>Verb root + -nyangka/-nytjala</td>
</tr>
<tr>
<td>Semantics:</td>
<td>Semantic controller: any</td>
</tr>
<tr>
<td>Pragmatics:</td>
<td>IF: unspecified</td>
</tr>
</tbody>
</table>

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).

(6.68) Ngayu-lu kuţa puľka, tjiti palu-nya pula-nya pini-njitjanu.
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.’

\textit{after’ (do’ (1SG, \textit{mind’ (1SG, 3DU))), (be’ (1SG, [kuţa’])))}

\textbf{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.

\textbf{Ngaanyatjarra (Glass & Hackett 2003: 421)}

(6.69) Mirrka nya-kunytjanu kuti-pitja-nga
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>
<thead>
<tr>
<th>Construction:</th>
<th>Background: anterior SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax</td>
<td>Juncture: core - clause</td>
</tr>
<tr>
<td></td>
<td>Nexus: subordination</td>
</tr>
<tr>
<td></td>
<td>Construction type: sub-clause</td>
</tr>
<tr>
<td></td>
<td>Template: main clause + sub-clause</td>
</tr>
<tr>
<td></td>
<td>PSA: S/A same as that of main clause</td>
</tr>
<tr>
<td></td>
<td>Linking: PSA actor</td>
</tr>
<tr>
<td>Morphology</td>
<td>Verb root + -nytjanu</td>
</tr>
<tr>
<td>Semantics</td>
<td>Semantic controller: any</td>
</tr>
<tr>
<td></td>
<td>Aktionsart: any</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>IF: unspecified</td>
</tr>
<tr>
<td></td>
<td>Focus structure: unspecified</td>
</tr>
</tbody>
</table>

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.

(6.70) *Trevor*-lu *watja-nu* Mary-nya nya-kuntjatjanu-ngku

[name]-ERG say-PST [name]-ABS see-ANT.SS-ERG

‘Trevor, said that (he) 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 $\alpha$ and $\beta$, Western Desert does not distinguish grammatically between the means by which $\alpha$ follows $\beta$, 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 *wirtjapakaŋi* ‘run’ and transitive *palyani* ‘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-nga 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))
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.

(6.75) *Jean a lu ce livre*

[Jean] 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

<table>
<thead>
<tr>
<th>Structure</th>
<th>Nexus-juncture</th>
<th>Can be main verb semantic argument</th>
<th>Can be main verb syntactic argument</th>
<th>Valence decreasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tight serial</td>
<td>Nuclear cosubordination</td>
<td>n/a</td>
<td>n/a</td>
<td>Some</td>
</tr>
<tr>
<td>Loose serial</td>
<td>Clause cosubordination</td>
<td>n/a</td>
<td>n/a</td>
<td>No</td>
</tr>
<tr>
<td>Purpose DS</td>
<td>Core coordination</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Intention SS</td>
<td>Core cosubordination</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Circumstance DS</td>
<td>Clause subordination</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Background SS</td>
<td>Core subordination</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

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, focussed 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 order40. 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.

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 *patja-nu*, *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).

(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.

(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 *nyuntu* 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.

(7.4) *Nyuntu-nya=na kuli-nu*
2SG-ACC=1SG.NOM hear-PST
‘It was you I heard’

(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’

P/Y (Goddard 1993: 7)
Ngaanyatjarra (Glass 2006: 28)
Ngaanyatjarra (Douglas 1957: 48)
Ngaanyatjarra (Kral 2012: 195-196)
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.

\[ (7.6) \quad \text{Wati=pula kurrirarra nyina-rranytja} \]
\[ \text{man}=3DU \text{ man.and.wife.ABS sit-PST.CONT} \]
\[ \text{‘There was a man and his wife’} \]

![Figure 7-1: Sentence focus](image)

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.

Pitjantjatjara (Douglas 1955)

(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.”’

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. The projection of (7.10) is shown in Figure 7-3.

(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=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)]*

---

P/Y (Goddard 1996: 107, 102)

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. 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. In the reply *patjani 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-ngu=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) was bitten by a snake.’  
**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)? A snake bit (him).’  
**do**’ (*liru, bite*’ (*liru, 3SG*))

---

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.

Pitjantjatjara (Kral 2012: 256)

(7.15) Yangupala kutju nyina-nga palu-nya walytja tjuta-ngku wanti-ngu.

youngfella alone sit-PST.CONT 3SG-ACC relation PL-ERG leave-PST

Paluru kutju nyina-nga 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 katjarara 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>
<thead>
<tr>
<th>Table 7-1: Constructional schema for marked OAV word order clauses</th>
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<tbody>
<tr>
<td><strong>Construction:</strong></td>
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<tr>
<td>Syntax</td>
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<td>Pragmatics</td>
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In (7.17), the patient *kutjupa iti* is fronted with actor *kuta* 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 iti inka-tjinga-lpai ngulu-tjinga-ra kuta-ngku,*

and. DS some baby.ABS play-CAUS-CHAR afraid-CAUS-SER brother.ERG
‘Itji, 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).

Pitjantjatjara (Bowe 1990: 114)

(7.19) *Punu* \(\text{wati-ngku}=\text{n}i\) \(u\text{-ngu}\)

\begin{tabular}{ll}
\text{wood.ABS} & \text{man-ERG}=1\text{SG.ACC} \\
\text{give-PST} & \\
\end{tabular}

‘The man gave me some wood.’

(7.20) \(?\text{Punu}=\text{n}i\) \(\text{wati-ngku}\ u\text{-ngu}\)

\begin{tabular}{ll}
\text{wood.ABS}=1\text{SG.ACC} & \text{man-ERG} \\
\text{give-PST} & \\
\end{tabular}

‘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.

Pitjantjatjara (Bowe 1990: 115)

(7.21) *Punu* \(\text{ngayu-lu}=\text{na}\) \(\text{mantji-nu}\)

\begin{tabular}{ll}
\text{wood.ABS} & 1\text{SG-NOM}=1\text{SG.NOM} \\
\text{get-PST} & \\
\end{tabular}

‘As for the wood, I got (it) myself.’

(7.22) *Punu*=\(\text{n}i\) \(\text{paluru}\ u\text{-ngu}\)

\begin{tabular}{ll}
\text{wood.ABS}=1\text{SG.ACC} & 3\text{SG.NOM} \\
\text{give-PST} & \\
\end{tabular}

‘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 *punu* ‘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 *punu* 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 *punu*. 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.

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 (pu
ugu). 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’

Yankunytjatjara (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.
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 in the clause.

(7.32) *Minyma pu-ngu, wati-lu*
woman.ABS hit-PST man-ERG
‘(He) hit the woman, the man = the man hit the woman’

Ngaanyatjarra (Glass 2006: 28)
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.

Pitjantjatjara (Rose 2001: 215)

(7.34) pulkara tjana-la wangkan-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.

P/Y (Goddard 1996: 172)

(7.35) Tjiipi-lu Kunmanja-la tjapi-nu, tamiyaka
old.man-ERG [name]-LOC ask-PST tomahawk.ABS
‘The old man asked Kunmanja about (it), a tomahawk’
[do’ (tjiipi, [express.(α).to.(β).in.language.(γ)’ (tjiipi, Kunmanja)])]
CAUSE [BECOME aware.of’ (tjiipi, tamiyaka)], where β = Kunmanja

Yankunytjatjara (Goddard 1983: 199)

(7.36) Nyitayira-ngku panya watja-ningi, akuri 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 watja-lku 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.

(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)\(^{46}\).

\(^{45}\) Goddard (1983: 21) calls the first position ‘the location for prominence’.

\(^{46}\) We examine topic continuity and ellipsis in chapter 8.
(7.39) *kuniya PUL ka 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*

tiny 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 *wartingku*, and the whole NP receives the pronoun clitic: we have given the sentence a new translation. (7.46) is dubious because neither *punu* nor *warti* ‘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.’
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.

(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’

(7.54)  *Munu palula malangka=ya kuli-nu*
and.SS DEM afterwards=3PL.NOM think-PST
‘And afterwards they thought’

Pitjantjatjara (Kavanagh 1990: 39)

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.

(7.55)  *culture ngana-mpa, manta ngana-mpa, Tjurura ngana-mpa,*
culture 2SG-GEN land 2SG-GEN story 2SG-GEN
‘Our culture, our land, our story’

Pitjantjatjara (Trudinger 1943: 209)

(7.56)  *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).
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.

| (7.57) | *Palu* *r* *minyma-ngku=n* *ni* *nya-ngu* |
|        | 3SG.NOM woman-ERG=1SG.ACC see-PST |
|        | ‘It was the woman who saw me’ |

| (7.58) | *Panya* *minyma-ngku=n* *ni* *nya-ngu* |
|        | DEM woman-ERG=1SG.ACC see-PST |
|        | ‘It was the woman who saw me’ |

| (7.59) | *Panya* *palu* *r* *minyma-ngku=n* *ni* *nya-ngu* |
|        | DEM 3SG.NOM woman-ERG=1SG.ACC see-PST |
|        | ‘It was that woman who saw me’ |

**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. Puncta ‘fall’ is an S-intransitive verb, so only one argument is unexpressed.

Pitjantjatjara

(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.

P/Y (Goddard 1993: 16)

(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.(a).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 palurul/palunya available, which Ngaanyatjarra lacks.

Pitjantjatjara (Bowe 1990: 66)

(8.4) Wati-ngku waka-nu
    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=na=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
pitta-ku mantji-lku nga-lku
     come-COND get-COND eat-lku
mama ngunytju-lu=pula mantji-lku ninti-nyangka
     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 ‘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).

Pitjantjatjara

(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.

Yankunytjatjara (Kalotas et al. 2002: 41)

(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.

Ngaanyatjarra (Glass & Hackett 1979: 1)

(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.

Ngaanyatjarra (Glass & Hackett 2003: 500)

(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 usSUND 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 ellipsis47.

Ngaanyatjarra (Douglas 1957: 112-113)

(8.15) nganku-lu kuti-pitja-ngu, kiti palya-nu,
1SG-NOM pull.up-PST, pull.up-PST rock-LOC put-PST
warpu-nu, warpu-nu 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 kiti 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, shoo’ (3SG, 3SGi))] ∧ [see’ (3SG, 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.
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.

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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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.

Ngaanyatjarra (Glass & Hackett 1979: 20)

(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. 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.

P/Y (Klapproth 2004: 224)

(8.19) munu  kunyu  tjukaruru-ngku  kati-nga
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).

Ngaanyatjarra (Glass & Hackett 1979: 3)

(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)’

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.

Ngaanyatjarra (Glass & Hackett 1979: 21)

(8.21)  
(a) *Ka* katurri-ngkula  
and.DS get.up-SER  
‘And (it) was getting up.’

(b) *ka* pitja-yintja wana-rmu 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-rrangka pitja-ngu pu-ngkkitja-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).

Ngaanyatjarra (Glass & Hackett 1979: 52)

(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.

P/Y (Klapproth 2004: 230)

(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 *palunyalanjul* (SS) as well as *(palunjyangka* (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 backrounding; 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.

Ngaanyatjarra (Glass & Hackett 1979: 15)

(8.24)  *May holidaytime=latju ya-nu well-ku*
"In the May holidays we went to the well."

mapitja-yrnu=latju

Go-PST=1PL.EX.NOM
Warupuyu-la=latju
"We went away (and) at Warupuyu we sat cooking (and) eating food."

ngarri-ngu=latju

lie.down-PST=1PL.EX.NOM
rabbit.ABS=3PL.NOM=latju
"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-nyija 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."

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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.

(8.27) (a) {\textit{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 caravampa 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.

(8.28) (a) {\textit{Munu wati-ngka miru mantji-ra kuka palya-lpai miru-ngka}}
Like-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.

\[(8.29)\] *Munu a-nkula tjapi-nu\]
\[and.SS go=SER ask-PST\]
\[ka watja-nu\]
\[and.DS say-PST\]

‘And he, went (and) asked (him) and he, said...’

\[do’ (3SG, \text{[move.away.from.ref.point} (3SG_i)] & \text{INGR be-at} (\emptyset, 3SG_i)\]

\& \[do’ (3SG, \text{[express.(α).to.(β).in.language.(γ)} (3SG_i, 3SG_j)])\], where \(β = 3SG_j\)

CAUSE \[\text{BECOME aware.of} (\emptyset, 3SG_j),\) where \(β = 3SG_i\)

\& \[do’ (3SG, \text{[express.(α).to.(β).in.language.(γ)} (3SG_i, 3SG_j)])\], where \(β = 3SG_i\)

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

Figure 8-2: Switch-reference particles *munu* and *ka*
accessible SU, so the default third person is triggered for object: its identity is clarified later in the text.

(8.30) (a) \(\text{Tali-ngka}=\text{la ya-nkapai,}\)  
\(\text{sand.hill-LOC}=\text{1PL.NOM go-CHAR}\)
‘We would be travelling in sand-hill country’
(b) \(\text{munu nya-kapai tali-wanu-ngku}\)
and.SS see-CHAR sand.hill-PERL-ERG
‘and (we) would see (some) across a sandhill’

In (8.31b), the object is elided. Because \(\text{ka}\) has switched subject to the accessible SU \(\text{mama}\) (and it is overt in this case too), the elided object is interpreted as active SU \(\text{tjitji}\) from (8.31a) by context and availability. The projection of (8.31b) is in Figure 8-4.

(8.31) (a) \(\text{Tjitji}=\text{ya mama-ngka yula-rantja,}\)  
\(\text{child}=\text{3PL.NOM father-LOC cry-PST.CONT}\)
‘All the children were crying at their father,’
(b) \(\text{ka mama-lu payi-nu}\)
and.DS father-ERG drive.away-PST.
‘and father drove (them) away’
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).

(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)*

Pitjantjatjara
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.*

\[
\begin{array}{ll}
\text{man}=3DU.NOM & \text{two-ABS} \\
\text{quickly} & \text{out-go-PST} \\
\text{The two men went off quickly.'}
\end{array}
\]

(b) *Pitja-yirnu yapu-ngka tati-rnu.*

\[
\begin{array}{ll}
\text{come-PST.EXT} & \text{mountain-LOC} \\
\text{climb-PST} & \\
\text{‘(The two) came along (and) climbed up the mountain.'}
\end{array}
\]
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.

Ngaanyatjarra (Glass & Hackett 1979: 12)

(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-rrantja*  
see-PST shadow move-PST.CONT  
’(He) went on (and) again saw honey-ants,. (He) dug (these), collected (them,) (and) ate (them), (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.

(8.35) *malu pulkanya kultu-nu.*

roo big.ABS spear-PST

‘(He/she) speared a big kangaroo.’

Ngaanyatjarra (Douglas 1957: 75)

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)?’

![Presupposition and question diagram](image)

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.’
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**

<table>
<thead>
<tr>
<th>Language</th>
<th>Restricted neutralisation</th>
<th>Pivot type</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>[S, A, d-S]</td>
<td>Variable syntactic pivot</td>
</tr>
<tr>
<td>Dyirbal</td>
<td>[S, U, d-S]</td>
<td>Variable syntactic pivot</td>
</tr>
<tr>
<td>Warlpiri</td>
<td>[S, A]</td>
<td>Invariable syntactic pivot</td>
</tr>
<tr>
<td>PYN</td>
<td>[S, A]</td>
<td>Switch-reference</td>
</tr>
</tbody>
</table>

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. 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 Pitjantatjara verbs using predicate tests based on those laid out in chapter 2. These tests were then applied to derived Pitjantatjara 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. 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 -tjingga 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/watjalika ‘tell’ and (y)unganyi ‘give’: these involve choices between absolutive, 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-transitivility reflects semantic valence changes. The syntactic demoting or promoting of core arguments is generally not found; either new semantic...

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)unganyilyungku ‘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 -ngkal-la marks the goal of non-ditransitive three-argument verbs such as tjunanyiltjunku ‘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)ungani 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
‘s’ 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 topicaised 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 paluru 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>
<thead>
<tr>
<th>Phenomenon</th>
<th>Use</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic and focus</td>
<td>Pragmatic</td>
<td>Word order. Topic first as starting point. Focus through intonation and/or last position.</td>
</tr>
<tr>
<td>3rd person singular topic</td>
<td>Lexical/syntactic</td>
<td>3rd person singular zero</td>
</tr>
<tr>
<td>Ellipsis</td>
<td>Pragmatic</td>
<td>Non-expression of argument, understood by context</td>
</tr>
<tr>
<td>Ellipsis of subject</td>
<td>Syntactic</td>
<td>Non-expressed subject informed by membership of construction, until the finite verb, as active subject</td>
</tr>
<tr>
<td>Switch-reference of subject</td>
<td>Morphosyntactic</td>
<td>Non-expressed subject informed by dependent verb ending as same or different to subject of main clause</td>
</tr>
<tr>
<td>Switch-reference of subject</td>
<td>Syntactic</td>
<td>Non-expressed subject informed by particle as same or different to active subject</td>
</tr>
<tr>
<td>Switch-reference of subject</td>
<td>Semantic/pragmatic</td>
<td>Apposition of clauses</td>
</tr>
<tr>
<td>Cognate objects</td>
<td>Semantic</td>
<td>Non-expressed object understood by nature of verb</td>
</tr>
<tr>
<td>Generalised objects</td>
<td>Semantic</td>
<td>Non-expressed argument definite or indefinite but not specific</td>
</tr>
</tbody>
</table>

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 *palury/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


Kittilä, Seppo. 2006. The anomaly of the verb “give” explained by its high (formal and semantic) transitivity. Linguistics, 44(3), 569–612.


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 kulunpanya 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-nga. 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-nga.” 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

(He) 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)!


[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-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 walyija 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 pulkul-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 kwari 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.
The government has given us this opportunity for our children to get better knowledge and we really want this.

But we don’t want to leave behind all our strengths and our power in order to receive this new knowledge.

These are things that give us power in our land.

If we only learn this new language (English), we will lose our culture, our land and our stories.

And later if we go back and try to search for it, we will not find (it) again. (It) will be lost forever.

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.
I believe that education will open many doors for us to enter.

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.

It is important for us to know that our culture has been there in the past and will be there in the future.

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.

And God created serpents and other great things, and fish and others.

He created everything in the water, in order to live in the water.

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

iri
long.ago REP go-PST.CONT
a long time ago, the story goes, he was travelling along

ka kutju wati kutjarara pula kunyu a-nangi.
and.DS REP 3SG-ACC 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 kari
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.

nguru tju-nkula kunyu pula ngari-nga.
camp.ABS put-SER REP 3DU.NOM lie-PST.CONT
having set up camp the two slept.

ka kunyu malanyapa ku ta panya kunkunari-nga;
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 malanyapa 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-THINGKA nyara ma-piṭa-ngu munu kunyu malu-ri-ngkula ma-piṭja-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-nkulaka a-nkulaka a-nkulaka
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-nkulaka a-nkulaka 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
that child, having turned into a kangaroo, went on (clapping 2x) and after travelling and travelling sat down in a windbreak;

from the windbreak (he) was listening and listening

again (he) set off and went on

and saw “here a mother kangaroo with a joey are coming towards me,”

again (he) set off and went on

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 tjiti tjuta-ngku ngalku-ntjakur. 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.

11.1.6 Tjikalyi tjukurpa (Kavanagh 1990: 28)
Ngayu-lu kwari 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.

Ngana nga minyma tjuta-ngku mai palya-ni aŋangu pikatjara tjuta-ku 1PL-NOM woman PL-ERG food.ABS prepare-PRES people sick PL-PURP alpamila-ŋjtikitja-ngku, mai palya. help-INTEN-ERG food good.ABS
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 aŋangu 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..
Nganana palya-ni clinic kitchen-angka ukiři, latja, uninypa.
1PL.NOM make-PRES clinic kitchen-LOC green,grass paste seed

Ngurukutjupa 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=lα 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 aza 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 kampurarparku alatji=lα kawari nyanga workari-ngu wiru
goanna-PURP veg desert raisin-PURP DEM=1PL.NOM now DEM work-PST great
mulapa kutjupara=lα 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-npa puntu palya nyina-ytjikiti-junga-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=nα 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=nα 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:
andDS person PL DEM sit-CHAR
(From the beginning) everyone in the Centre has been living in this way:

Wilurara-nguru alti-payi wati wilurara-tjku 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 and 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.
In the early days Aboriginal people travelled to places in all directions to marry.

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.
And you've just arrived at a place in the West. By such a question we know you don't understand.

A long time ago my grandfather from the West married a woman from the East.

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.

We all call one another brother, sister, grandfather, grandmother, aunt, uncle, cousin, son and daughter.

We are all one family, we are all of one land, and all of us have one law.

All of the people from the East, North, South and West have been one culture from the beginning.
And putting a line placed people

Ka anangu tjuta nyina-nyi watarku.
and.PL person sit-PRES unaware
and people were unaware

Ka South Australia-nguru palurupurinypatu palya-nu Governmenta-ngku.
and.ABL [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
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.SS 1SG-GEN ground DEM
and my ground here

ka nyuntu-mpa manta palatja ka ngayu-ku nyangatja.
and.SS 2SG-GEN ground DEM and.SS 1SG-GEN DEM
And your ground here and mine there

11.1.9 Kukikaku Ara (Kavanagh 1990: 60)
In this text, nouns referring to family members have the -nya absolutive, used for names.

Nganana=ŋa 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 tiki-ra.
and.SS water one drink-SER
We were living happily eating good food and meat and drinking good water.
And we were happy and without various sicknesses.

Early every morning my father used to get up, take his spears and go looking for meat.

And every morning my mother used to leave us in the camp and go looking for meat.

We stayed in the camp and played and afternoons time we would see them come back with meat.

We would be happy and run to them and put our arms around them respectfully.

Later our mother and the others would come back with lots of rabbits. My mother would go for water after putting away the meat.

After drinking water my father would cook the meat.
When the meat was roasted father used to always give grandmother the first piece and we would get our pieces later.

We would eat them, drink water and with a full stomach sit down contented.

I have finished.

This is from the minutes of a meeting held at Docker River. It was a spoken submission from a delegate.

These two people are on the Constitutional Development Committee and I am going around with them.

They are from the Country party and I am from the Labor party (the party names are predicative)

Sometimes we disagree on different matters and ideas.

Today we are working together to get ideas for the Northern Territory.
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).

"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!
He hurried on anxiously, clutching a dilly bag and a digging stick, and disappeared from view down a hole in the ground.

The girl (Alijtji) saw (this) and in great surprise, jumped up and followed him.

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.

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.

(He) rested, and in the morning early (he) saw another giant, who coming up stood and asked,

"Where is that meat?"

The giant said, “I don't know anything about meat.”

After that the second giant went out for kangaroo.
When (he) had speared a brown kangaroo (he) returned to camp.

Having returned, (he) saw a third giant sitting (there).

The third giant, having sat down, asked, “Where is the meat?”

(The other answered) “I don't know anything about meat.”

(Giant three continued) “I dreamt about meat.”

And when night fell he said, “Hurry up and tell me about the meat!” (said the first giant).

After that time three men were sent out (to look for the woman).

The second giant, when he had lit a fire, was standing waiting, and the third giant went into the cave.

Inside he felt around, but was unable to feel anything.

The second giant called, “Hurry up and bring the meat here! This fire has gone out.”
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.

*Ngaparî kungka-ngku wati-ngku kurirara kurirara*
gum.leaf woman-ERG man-ERG couple couple
*wampanti — pararitja-ngku pararitja-ngku*
EXCLM far.off-ERG (x2)
*kapaṭu-nkupai, ura-ra*
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) kapaṭu-ra(9) puḷka kutu kapaṭu-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.

*Kapuṭu puṅkanya kati-ra tiṭa ya-ngkupai, tiṭji tiṭa, wati, kungka, wati, kungka, tiṭji.*
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 wali-wali.*
EXCLM eat-CHAR oneself-ERG as.well
Everyone eats some, oneself as well.

*Munu tiḷu-nkula=nku purinyma-ra 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-nguru ngara-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 maṭaṛi winki ila-ri-nganyi”
DEM overcast whole.ABS close-INCH-PRES
“There’s a big overcast cloud getting close”

*kaa=ya wiltja puṅkanya wiltja-nu 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=ipi 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-tjana 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-ka?_
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?
George-itu.

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=lp'i.*

[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-tjana 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=lp'i 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 helpunanuma 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.
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.

And she will look after the children and give them needles when they become sick.

And to send a caravan and a sister to look after the children at Blackstone.

This text is about a health worker.

I’d like to tell my story as a child happy in Warburton.
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.

When I finished school I left Esperance I went back to Warburton.

Sometimes when sister goes away for a couple of weeks I go in charge.

In the morning we go to school to check their sore ears and so on.

I work in the clinic and see the sick, then I give medicine and speak on the radio.

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?
tjinya 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 mirrirringkupaiy (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.

Nyanga 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.”

Nyanga=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.
Then the two men replied, “Why we’ll go and kill some and bring it back. You stay home.”

The two men went off quickly.

They came along and climbed up the mountain.

When they got to the top they saw lots of rock-wallabies. They were crouching around everywhere like a mass of ants.

Just as they had been told, they killed a lot of rock-wallabies and threw them down.

Then the other man came and stood there watching.

He gathered up the meat, then got the tree-ladder and threw it away.

“Why have you thrown away the tree-ladder?”

(Another man said,) “No, stay there and die.”
He said to them,

"Wiya nyina=pula kurtalakatuku tarrika liirriwaru-waru ngarri-rranyangka. NEG sit=3DU.NOM on.top.each.other bone ant.hill.in stand-ANT.DS palunya-pirinpypa 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".

When he had said that, they stayed there and died.

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.

That deceitful man saw them, cried for them and gave them some meat.

The men went and climbed up on the wallabies, threw them down, then climbed down by way of the tree-ladder.

Then the two men thought and said,
"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-rranyija.
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  kurti-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  wirrija-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-rranyanga  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.
The other man went and cooked the meat, ate as much as he could and put the rest away for the next day.

This old man had made lots of men go and die on top of the hill.

Then it happened that two men had a dream about an old man who deceived them into climbing up a hill.

The two men exchanged glances and thought, "Wiya, yarla=n mayu-ra."

You're deceiving (us)."

But as they were thinking that the man said

"Kuka wiya-rri-ngu.

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-rnu.
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-rranytja,
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-arru=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-rrirngku=ltjarungara.”

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-rringu.
and.DS man one green.caterpillar-INCH-PST
Nyangka kutjupa-nyalu ngalyakanti-rringu.
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-rringu=pula tjarungara-ngu
come-PST.EXT (x2) ground-INCH-PST=3DU.NOM descend-PST
marlaku wati-rringu yarnangu-rringu.
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=nu 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-likula.
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
He really got a shock when he turned and saw them, but he said

"Munta, kuka=rn paa-ra wanting to go rnu, man=3DU.NOM two brothers.ABS 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.

Two men who were brothers had no fire.

And (one) got up and went away.

And the elder brother had a coal fire.

And the younger brother came and sat there crouching around longing for a fire at the water hole Warutjarra.

We went away and at Warupuyu we sat cooking and eating food.

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.

We went away and at Warupuyu we sat cooking and eating food.
We lay down and next day got up, went and set down (our things) at Winpuly and stayed there.

And many women went and caught rabbits and brought them back.

And we cooked and ate them and next day got up, came back to another water-hole and were camping at the creek.

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.

I went out and prepared kiti. Firstly, (I) pulled up (the spinifex), and, having done so placed (it) on a rock.
All the children were crying at their father, but he drove child=3PL.NOM Tjitji And they l
ka
And (she) put (it) in the fire and made (it) like a cake.
This man went out hunting, saw a kangaroo man Wati verb; but shared subject is ergative.
I rejoiced to be equipped with 1SG+NOM happy
l
a
And (my wife) beat a Palunyalu And (she) went away and yandied (or ‘winnowed’) (it).
(She then placed it on a rock and by means of a fire-stick, moved just over the top of it, she extracted the kitei, which she moulded into the form of a small pancake.)
spear-PURP
I rejoiced to be equipped with kitei, I was glad to have some kitei 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-nya, yijili-nya.
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 nyutu-nya, ma-witja-ntja
and SS get.up-PST put.meat.on.head-PST hurry.on-NOML
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-nya para-pitja-ngu kurkaltju-nya waru tili-nya,
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 tjiiti-nya, tjiiti-ra=lp1 pa:-nya (warungka tjarra-tjuna, pa:-nya)
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 mammangka yula-rantja, ka mamalu payi-nya
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)

This man came and saw an emu while it was bending down.

(He) approached (it) stealthily and speared (it). (He) got four eggs.
12 Appendix B: Pitjantjatjara predicate tests

12.1 *Nyinanyi* 'sit/be’

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test1: continuous</td>
<td><em>palya nyinangi</em> (Kavanagh 1990: 28)</td>
<td>‘(they) were living well’</td>
</tr>
<tr>
<td>Test2: dynamic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test3: slowly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test4: for X time</td>
<td><em>Munu=ya pitjala Ernabella-la nyinangi wiki kutju</em> (Goddard 1996: 231)</td>
<td>‘and they came and were staying at Ernabella for a week’</td>
</tr>
<tr>
<td>Test5: in X time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test6: derived adjective</td>
<td><em>Ipi mai panya paluru nyinanytja,ipi waninyi</em> (Kalotas et al: 2002: 69)</td>
<td>‘The capsules sitting on the seeds, you discard the capsules’</td>
</tr>
</tbody>
</table>

12.2 *Wangkanyi* ‘say/speak’

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test1: continuous</td>
<td><em>kata wanu wangkangi</em> (Sheppard 1975: 61)</td>
<td>‘(They) were talking across its head’</td>
</tr>
<tr>
<td>Test2: dynamic</td>
<td><em>Paluru pulkara kutu wangkangu</em> (Goddard 1996: 62)</td>
<td>‘She shouted really loudly’</td>
</tr>
<tr>
<td>Test3: slowly</td>
<td><em>Wanyu, puriny nguwan wangka, ngayulu kulintjaku</em> (Goddard 1996: 146)</td>
<td>‘Could you talk more slowly, so I can understand’</td>
</tr>
<tr>
<td>Test4: for X time</td>
<td><em>rawa wangkanyangka</em> (Sheppard 1975: 1)</td>
<td>‘(She) was speaking for a long time’</td>
</tr>
<tr>
<td>Test5: in X time</td>
<td><em>wangkara mungaringu</em> (Rose 2001: 48)</td>
<td>‘talking became night’</td>
</tr>
<tr>
<td>Test6: derived adjective</td>
<td><em>Kaya tjana tjukurpa tjana wangkanytja tjuta kuruntu mantjilpai purkarangku kulira atatjura wangkanyangka</em> (Lester et al 2013: 11)</td>
<td>‘The words that are spoken are received by the child’s spirit when they are spoken gently and with patience’</td>
</tr>
</tbody>
</table>

12.3 *Punkani* ‘fall’

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test1: continuous</td>
<td><em>Munu kunyu rawa punkaningi</em> (Sheppard 1975: 2)</td>
<td>‘And she was falling for a long time’</td>
</tr>
<tr>
<td>Test2: dynamic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test3: slowly</td>
<td><em>Purkara=na punkani</em> (Sheppard 1975: 2)</td>
<td>‘I am falling slowly’</td>
</tr>
<tr>
<td>Test4: for X time</td>
<td><em>Munu kunyu rawa punkaningi</em> (Sheppard 1975: 2)</td>
<td>‘And she was falling for a long time’</td>
</tr>
<tr>
<td>Test5: in X time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test6: derived adjective</td>
<td><em>Punu punkantja</em></td>
<td>‘fallen tree’</td>
</tr>
</tbody>
</table>
### 12.4 Kampanyi ‘burn’

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>continuous</td>
<td>Ka waru pulkanya, tili pulkanya kampanyi (Goddard 1996: 163)</td>
<td>‘A big fire was burning there, a big flame’</td>
</tr>
<tr>
<td>2</td>
<td>dynamic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>slowly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>for X time</td>
<td>Warulu kamparayirnu (Ngaanyatjarra Glass &amp; Hackett 2003: 167)</td>
<td>‘The fire burned for a long time’</td>
</tr>
<tr>
<td>5</td>
<td>in X time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>derived adjective</td>
<td>Purku puriny, warungka kampanytja (Goddard 1996: 81)</td>
<td>‘Like charcoal, burnt on the fire’ (Wali kampanytja ‘burnt house’</td>
</tr>
</tbody>
</table>

### 12.5 Wirtjapakani ‘speed off, run’

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>continuous</td>
<td>TJUKARURU mulapa kunyu wirtjapakeningi (Klapproth 2004: 228)</td>
<td>‘really STRAIGHT they were speeding along’</td>
</tr>
<tr>
<td>2</td>
<td>dynamic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>slowly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>for X time</td>
<td>Ngayulu hour kutjuku wirtjapakani</td>
<td>‘I ran for an hour’</td>
</tr>
<tr>
<td>5</td>
<td>in X time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>derived adjective</td>
<td>*wirtjapakanytja ‘the running event’</td>
<td></td>
</tr>
</tbody>
</table>

### 12.6 Ngalkuni ‘eat’

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>continuous</td>
<td>Minyma kutjutjangku nyinara mai ngalkuningi</td>
<td>‘The woman was sitting alone eating’</td>
</tr>
<tr>
<td>2</td>
<td>dynamic</td>
<td>Ngalkuni-ngalkuni (Goddard 1983: 122)</td>
<td>‘(he/she/it) is gobbling it down’</td>
</tr>
<tr>
<td>3</td>
<td>slowly</td>
<td>Ngura puriny-tju munganna (Goddard 1983: 122) (mungunu means same as ngalkuni (Goddard 1996: 83))</td>
<td>‘Eat slowly’</td>
</tr>
<tr>
<td>4</td>
<td>for X time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>in X time</td>
<td>Munula ngalkuningu kuka winki. Munula ngalkula wiyanu kalala kutjutu (Goddard 1996: 30)</td>
<td>‘We ate all the meat. We ate it all up in just one day’</td>
</tr>
<tr>
<td>6</td>
<td>derived adjective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 12.7 Ananyi ‘go’

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>continuous</td>
<td>IRITI anangi (Klapproth 204: 222)</td>
<td>‘A long time ago was travelling along’</td>
</tr>
<tr>
<td>2</td>
<td>dynamic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>slowly</td>
<td>Ka nganana purkara ankula ankula (Goddard 1996: 146-147)</td>
<td>‘and we were going slowly’</td>
</tr>
<tr>
<td>4</td>
<td>for X time</td>
<td>ankula ankula ankula (Rose 1996)</td>
<td>‘going going going= going for a long time’</td>
</tr>
<tr>
<td>5</td>
<td>in X time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>derived adjective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 12.8 Nyanganyi ‘see/watch/look for’

<table>
<thead>
<tr>
<th>Test1: continuous</th>
<th>Munula nyangangi, kamula panya mulyangka (Goddard 1996: 16)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘We were looking at the camel’s nose’</td>
</tr>
<tr>
<td></td>
<td>Mungartjiŋa pitiyu wiru nyangangi (Goddard 1996: 82)</td>
</tr>
<tr>
<td></td>
<td>‘I saw a really good video this afternoon’ (spoken at 9pm)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test2: dynamic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test3: slowly</td>
</tr>
<tr>
<td>Test4: for X time</td>
</tr>
<tr>
<td>Test5: in X time</td>
</tr>
<tr>
<td>Test6: derived</td>
</tr>
<tr>
<td>adjective</td>
</tr>
<tr>
<td>nyakunytja (not found as terminal state in corpus)</td>
</tr>
</tbody>
</table>

### 12.9 Taani ‘burst’

<table>
<thead>
<tr>
<th>Test1: continuous</th>
<th>Taa-taani (Goddard 1996: 157)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘pop, sizzle’</td>
</tr>
<tr>
<td></td>
<td>Warungka tilira apulyu tjunkula, taa-taannyangka lampira ngalkupai (Goddard 1996: 11)</td>
</tr>
<tr>
<td></td>
<td>‘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)’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test2: dynamic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test3: slowly</td>
</tr>
<tr>
<td>Test4: for X time</td>
</tr>
<tr>
<td>Test5: in X time</td>
</tr>
<tr>
<td>Test6: derived</td>
</tr>
<tr>
<td>adjective</td>
</tr>
<tr>
<td>Taantja (Goddard 1996: 157)</td>
</tr>
<tr>
<td>‘Something that has been burst out of’</td>
</tr>
</tbody>
</table>

### 12.10 Kuntjulpunganyi ‘cough’

<table>
<thead>
<tr>
<th>Test1: continuous</th>
<th>Rawangkula kuntjulpungangi (Goddard 1996: 237)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘We were coughing for a long time’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test2: dynamic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test3: slowly</td>
</tr>
<tr>
<td>Test4: for X time</td>
</tr>
<tr>
<td>Test5: in X time</td>
</tr>
<tr>
<td>Test6: derived</td>
</tr>
<tr>
<td>adjective</td>
</tr>
<tr>
<td>Rawangkula kuntjulpungangi (Goddard 1996: 237)</td>
</tr>
<tr>
<td>‘We were coughing for a long time’</td>
</tr>
</tbody>
</table>
### 12.11 *Nintiringanyi* ‘learn’

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1: continuous</td>
<td><em>Ngayulu kuulangka nyinara pulkara nintiringangi nyara palula</em> (Goddard 1996: 57)</td>
<td>‘I used to study hard when I went to school there’</td>
</tr>
<tr>
<td>Test 2: dynamic</td>
<td><em>Ngayulu kuulangka nyinara pulkara nintiringangi nyara palula</em> (Goddard 1996: 57)</td>
<td>‘I used to study hard when I went to school there’</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Munula palulanguryu Anapalalaku anu ka nyara palulalta pulkara nintirinu.</em> (Goddard 1996: 142-143)</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Tirit tjataya pulkara nintiringkupai</em> (Lester et al 2013: 11)</td>
</tr>
<tr>
<td>Test 3: slowly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test 4: for X time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test 5: in X time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test 6: derived adjective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 12.12 *Wirtjapakani* 1 mile/karukutu ‘run a mile/to the creek’

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1: continuous</td>
<td><em>Pula kunyu karukutu wirtjapakani</em> (Goddard 1996: 22)</td>
<td>‘The two of them were running to the creek’</td>
</tr>
<tr>
<td>Test 2: dynamic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test 3: slowly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test 4: for X time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test 5: in X time</td>
<td></td>
<td><em>Ngalyulu mile kutjuku wirtjapakanu, panya minute kutjara-kutjaraku=na ma-ankula wiyaringu=ltu</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Kukurrarnu=rna 1 milepa, four minutespangka</em> (N)</td>
</tr>
<tr>
<td>Test 6: derived adjective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 pulkaringntja*

#### 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 Tjilpiraranji: 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’

*Tjilpiraranji

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 Ngulutjinganji: frighten
ngulutjinganingi
‘he was frightening him’

ngulutjinganji pulkara
‘he is frightening him strongly’

*ngulutjinganji purkara
‘he is frightening him slowly’

*ngulutjinganji hour kutju-ku
‘he is frightening him for an hour’

*ngulutjinganji four minutespa-ngka
‘he is frightening him in four minutes’

ngulutjingantja
‘he was frightened’

13.4.2 Punkaltinganji: drop, make fall
*punu punkaltinganingi

?punu punkaltinganu pulkara

?punu punkaltinganu purkara

*punu punkaltinganu hour kutju-ku

punu punkaltinganu kuwari nguwanpa
‘the tree now nearly fell’
(if someone said when was that tree knocked down and I answered a while ago)

*punu punkaltinganu four minutespa-ngka

punu punkaltingantja
‘he planted the tree’

13.4.3 Ikaritjinganji: make someone laugh
palurulanya ikaritjinganingi
‘he was making us laugh’

palurulanya ikaritjinganu pulkara
‘he made us laugh strongly’
*palurulanya ikaritjinganu purkara
‘he made us laugh slowly’

*palurulanya ikaritjinganu hour kutju-ku

*palurulanya ikaritjinganu four minutespa-ngka

*palurulanya ikaritjingantja

13.4.4 Wangkatjinganji: make someone speak

wangkatjinganjingi
‘he was making us talk’

wangkatjinganji pulkara

*wangkatjinganji purkara

*wangkatjinganji hour kutju-ku

*wangkatjinganji 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