Topics in Pintupi-Luritja syntax and semantics

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James Gray
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Abstract

This thesis investigates a number of issues in the syntax and semantics of Pintupi-Luritja, a Western Desert (Pama-Nyungan) language spoken in Central Australia. Languages of the region have long been noted for their non-configurational character, whereby the role of syntax in determining or constraining grammatical phenomena is uncertain. However this research has largely been restricted to the determination of grammatical functions, and information structural notions. The role of scope for example as a semantic factor with a potential syntactic reflex has been comparatively much less investigated. Based on both original fieldwork and existing materials, in this thesis I investigate a range of topics in Pintupi-Luritja, and to what extent variations in meaning correlate with variations in word order. These topics include negation, focus sensitivity, and modality. These are investigated both as standalone phenomena, as well as how they interact with each other. This work suggests that to differing degrees in different domains, syntax does play an important role in determining how these phenomena interact semantically.

These studies therefore not only provide a deeper description of negation, focus sensitivity, and modality in Pintupi-Luritja, but also informs our understanding of these topics as phenomena of natural language. This in turn has theoretical significance, helping to map out the (limits of) variation in how languages do and don't encode certain phenomena through syntactic means.

Piipa ngaatja Aṉangu tjuṯaku

Piipa ngaatja Pintupiku Luritjiku. Ngayulu yini James Gray-nya. 2019angka anta 2020ngka ngayulu Pupanyila Alice Springila nyinarra nintirringangi Luritji-Pintupiku. Ngayulu aṉangu Warumpinya ngurarra tjuṯa tjapiṉu Luritjiku. Ngayulu piipa tjuṯa riitamilaṉu Warumpinya ngurarra anta payipalaṯarra. Ngayulu yuntjurringanyi nintirrinytjaku yaalytjiyaalytji aṉangu tjuṯa wangkanyi.

Nyawa, ini liipula, ini kutjuparrinyi.

(1) a. *Ngayulu nyuntunya nyangu.*

b. *Ngayulu nyangu nyuntunya.*

Palatja wangka liipula. Ingkilitji kutjupa, Luritji kutjupa. Ingkilitjingku wangkanyi "*I saw you*", ngaatja wiyakampa tjukururru "*I you saw*", wiya. Piipa ngaangka ngayulu wakaṉu alatji alatji.

Ngayulu wakara nintirringu yini *puṯu*-ku. Nganaṉa tjinguru kuliṉi yini *puṯu* Inkilitjingku wangkanyi *can't*. Tjinguru *puṯu* anta *can't* wiya liipula. Nyawa ngaanpa ini tjuṯa:

(2) a. *Ngayulu puṯu tjarrpanyi.*

b. *Ngayulu wiya tjarrpanytjaku.*

Ingkilitjingku alatji wangkanyi "*I can't come in.*" Nyaanguru nyuntu wiya tjarrpanyi? Yini yurruntitjanya tjinguru tuu pati. Tjinguru kutjupa nyarrangku watjalku "wiya!" Ingklitjingku wangkanyi *can't*, Luritjingku wangkanyi *puṯu* anta *wiya tjarrpanytjaku*. Ngayulu ngaa nguwanpaṯarra wakaṉu.

Ngayulu wakaṉu ngaatja ngayuku waarkaku, aṉangu tjuṯaku nyakula nintirrikunytjaku. Ngayulu wakaṉu Ingkilitjingku, ngaatja tjinguru aṉangu kutjupaku aata nguwanpa ngaranyi. Ngayulu yunytjurringanyi aṉangu kutjupa tjuṯaṯarra wangkaku nintirrikunytjaku.

Ngayulawana yunytjurrikula wangkanytjaku, ngayunya messagamilala, or ringamilala, or e-mailamilala.

A message for Pintupi and Luritja people

This book is about Pintupi-Luritja. My name is James Gray, and in 2019 and 2020 I was in Papunya and in Alice Springs to learn about Pintupi and Luritja. I talked with some people from Papunya and asked them questions about the language. I also read lots of books from Papunya, and the Luritja Bible. I wanted to learn about how people say things.

For example in Luritja and Pintupi people say one meaning in different ways.

(3) a. *Ngayulu nyuntunya nyangu.*

b. *Ngayulu nyangu nyuntunya.*

These both sound good. In English it's different. We say "I saw you" but it sounds wrong if we say "I you saw." In this book I wrote about things like this.

I also wrote about words like *puṯu*. We sometimes think that *puṯu* is the same as "can't" in English. But *puṯu* and "can't" sometimes mean something different. Look at these sentences:

(4) a. *Ngayulu puṯu tjarrpanyi.*

b. *Ngayulu wiya tjarrpanytjaku.*

In English maybe we would say "I can't come in", but in Luritja we might think "Why don't you come in?" The first sentence maybe because the door is locked. The other one, maybe someone says to you "no!" In English we say "can't" for both of these situations but in Luritja they are different. I also wrote about things like this.

I wrote this book for my university about Pintupi-Luritja, so that other people learn about the language. It is written in hard English and maybe is not easy to understand. I hope that if people read this book, they will know more about Pintupi-Luritja. If you are reading this and would like to talk to me I would be really happy if you write to me– you can write me a message on the internet, or call me, or email.

james.gray@anu.edu.au

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I could not have done this without my family and friends. My parents Helen and Mark and brother Hugh have supported me in every way from the beginning. Mum and Dad have always fostered and nurtured an interest in the world in Hugh and I, and I think this is a natural continuation of that. Thank you so much. Thanks also to the Blazek family for ongoing friendship and support. My non-linguistics friends have helped me maintain my sanity– most especially Nik and Alex, and everyone in Vienna. Thanks to Gustl for being a good writing partner (I write and he sleeps), and ensuring I get outside for a walk.

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List of Figures

1.1 The Northern Territory, with a number of communities in the the Macdonnell Ranges. Pintupi-Luritja is spoken from roughly Papunya and Haasts Bluff through to a little beyond the Western Australian border. Map reproduced with the permission of CartoGIS Services, Scholarly Information Services, The Australian National University 4
1.2 Map showing the approximate area where Pintupi-Luritja is spoken with other languages of the region. Reproduced from Heffernan and Heffernan (2000) with permission from John Heffernan. 6
1.3 Honey Ant hills, just outside Papunya, July 2019. Photo by author. 18
1.4 Papunya, July 2019. Photo by author. 19

1 Use of *uuni*; see example (197a) 362

Abbreviations

1	First person
2	Second person
3	Third person
ABL	Ablative
ABS	Absolutive
AC.NMZ	Action Nominalisation
ACC	Accusative
ALL	Allative
ANT.DS	Anterior Different Subject
ASSOC	Association
ATTB	Attribute
AUG	Stem augment
AUX	Auxiliary
AVOID	Avoidance
CARD	Cardinal
CHAR	Characteristic
CIRC	Circumstantial
CNTFC	Counterfactual
COMIT	Comitative
COMP	Complementiser
CONC	Concerning
CONJ	Conjunction
CONT	Continuous
DAT	Dative
DEF	Definite
DEM	Demonstrative
DENIZ	Denizen
DP	Determiner Phrase
DU	Dual
DUAL	Dual
EMPH	Emphasis
ERG	Ergative
excl.	Exclusive
EXPL	Expletive
FUT	Future
HABIT	Habitual
IDIOM	Idiomatic
IMP	Imperative
IMPF	Imperfective

INCH	Inchoative
INSTR	Instrumental
INTENS	Intensifier
INTENT	Intentive
INTJ	Interjection
IR	Irrealis
KN	Known
KP	Case Phrase
LOAN	Loan word transitiviser
LOC	Locative
MV	Medial verb
NEG	Negation
NMLZ	Nominalisation
NOM	Nominative
NP	Noun Phrase
NPST	Non-past
NSubj	Non-subject
Obj.	Object
OBL	Oblique
OPT	Optative
PERL	Perlative
PL	Plural
POSS	Possessive
PRIV	Privative
PRS	Present
PRT	Particle
PST	Past
PTCPLE	Participle
PURP	Purposive
Q	Question
RDP	Reduplication
REPORT	Reportative
RFLX	Reflexive
S	Subject
SAY	Say, emit
SEMBL	Semblative
SG	Singular
SPEC	Specific
Subj.	Subject
TOP	Topic
VP	Verb Phrase

Contents

Abstract i

Piipa ngaatja Aṉangu tjuṯaku ii

Acknowledgements iv

List of Figures vii

Abbreviations viii

I Foundations 1

1 Introductions 2

1.1 Pintupi-Luritja: People, place, and language . . . 3

1.1.1 Recent history in the Western Desert . . . 3

1.1.2 Individuation of Western Desert languages . . . 8

1.1.3 Pintupi and Luritja . . . 11

1.1.4 Previous work on Western Desert languages . . . 14

1.2 Methods . . . 15

1.2.1 Fieldwork . . . 17

1.2.2 Corpus work . . . 21

1.3 Some questions and assumptions . . . 26

1.3.1 (Non-)configurationality . . . 27

1.3.2 Scope . . . 30

1.3.3 Guiding questions . . . 33

2 Grammatical overview 36

2.1 Phonetics, phonology, and phonotactics . . . 38

2.2 The nominal domain . . . 40

2.2.1 Case marking . . . 45

2.2.2 Pronouns . . . 53
2.2.3 Case marking in peripheral constructions . . . 56
2.3 Clitics . . . 60
2.3.1 The morphology of clitics . . . 61
2.3.2 The syntax of clitics . . . 64
2.4 The verbal domain . . . 71
2.4.1 Finite and non-finite clauses . . . 72
2.4.2 Some important clause types . . . 75
2.4.3 Notes on control . . . 89

3 Negation **94**
3.1 Negation preliminaries . . . 94
3.1.1 The sentential/constituent distinction . . . 95
3.2 The Pintupi-Luritja negative particle *wiya* . . . 97
3.2.1 The semantics of *wiya* . . . 97
3.3 Justifying a constituent and sentential *wiya* . . . 100
3.3.1 Teasing the privative apart from constituent negation . . . 104
3.3.2 Clitics and constituency with *wiya* . . . 111
3.3.3 Issues with clause-initial *wiya* . . . 114
3.4 Comparison with negation in other Western Desert languages . . . 123
3.4.1 Comparing Western Desert languages . . . 123
3.4.2 Comparing negation . . . 124
3.5 Conclusions on negation . . . 131

II Focus sensitivity **133**

4 Focus preliminaries **134**
4.1 Focus, alternatives, and association . . . 135
4.1.1 The realisation of focus . . . 139
4.1.2 The size of focus . . . 141
4.1.3 The syntactic relation with focus associates . . . 144
4.2 Focus in Western Desert languages . . . 147

5 The exclusive particle *kutju* **157**
5.1 The semantics of *kutju* . . . 158
5.1.1 Scalar and temporal readings . . . 161
5.2 The syntax of *kutju* . . . 169
5.2.1 Case marking and constituency . . . 173

5.2.2 Some ambiguities involving case . . . 179
5.3 Association with larger focus sizes . . . 184

6 *Kutju:* Interactions with negation 193
6.1 Scope of *kutju* with sentential and constituent negation . . . 194
6.1.1 Clause-initial *wiya*, clitics and *kutju* . . . 198
6.2 *Wiya kutju* . . . 199
6.2.1 The syntax of *wiya kutju* . . . 202
6.3 Clause-initial positions and the scope of *kutju* . . . 205
6.4 Some general conclusions on *kutju* . . . 209

7 Other focus sensitive elements 211
7.1 The additive suffix -*ṯarra* . . . 211
7.1.1 -*ṯarra* and association with larger constituents . . . 215
7.1.2 Brief comparison with other additives . . . 218
7.2 Negative *wiya* interacting with focus . . . 222
7.3 Parallels in syntactic behaviour . . . 224

8 Revisiting the role of syntax in focus sensitivity 226
8.1 The c-command requirement . . . 226
8.1.1 The syntactic basis of focus association in Pintupi-Luritja . . . 228
8.1.2 Extension to a more general role of syntax for scope . . . 234
8.1.3 Brief comparison with other Australian languages . . . 236
8.2 Larger constituents, association, and placement . . . 239
8.2.1 The syntactic and typological sides of the issue . . . 240
8.2.2 A reckoning with syntax . . . 243
8.2.3 The semantic side of the issue . . . 244
8.3 Conclusions on focus sensitivity . . . 244

III Modality 246

9 Modality preliminaries 247
9.1 Introduction . . . 247
9.2 An overview of modality . . . 247
9.2.1 The representation of modality . . . 250
9.2.2 Cross-linguistic variability in force and flavour . . . 254
9.3 The interaction of negation and modality . . . 256
9.4 Modal systems in the context of Australian languages . . . 259

10 The expression of epistemic modality **261**
10.1 The particle *tjinguru* . . . 263
10.1.1 The question of modal strength . . . 264
10.2 Non-ignorant uses of *tjinguru* . . . 274
10.2.1 *Tjinguru* in conditionals . . . 275
10.2.2 *Tjinguru* as apparent disjunction . . . 278
10.3 Other epistemic markers . . . 282
10.4 Negation and epistemic modality . . . 285
10.4.1 The syntactic side of the interaction . . . 287

11 Some general remarks on Pintupi-Luritja root modal expression **291**
11.1 English derived modals . . . 293
11.2 The particle *puṯu* . . . 295
11.2.1 Complications: The real world . . . 299

12 The purposive suffix **303**
12.1 Modal readings of purposive clauses . . . 303
12.2 Negation in modal purposive clauses . . . 312
12.2.1 Wide scope negation? . . . 315
12.3 The role of nominalised/non-finite clauses . . . 318
12.4 Purposives across the Western Desert family . . . 320

13 General conclusions and outlook **322**

Bibliography **325**

Appendix **358**
.1 Part I: Foundations . . . 358
.2 Part II: Focus sensitivity . . . 361
.3 Part III: Modality . . . 361
.4 Participant Information Sheet . . . 365

Part I

Foundations

Chapter 1

Introductions

This thesis is about a number of topics in the grammar of Pintupi-Luritja (ISO 6393-3: `piu`; Glottocode: pint1250), which belongs to the Western Desert family,[1] and is spoken in Central Australia. Languages of this region have played a critical role in the development of linguistic theories over the last half century or so, primarily due to a number of syntactic characteristics they display. Despite their importance, these languages remain under-researched and under-described in an academic linguistic context.

This thesis aims both for deeper description of the topics under discussion in Pintupi-Luritja, as well as situating the description within broader investigations of the relevant phenomena. This is linguistic description informed by theory, in the hope of arriving at a more cross-linguistically informed view of the phenomena. Investigations of syntactic phenomena in Pintupi-Luritja for example have significance for understanding the nature of configurationality– what role does syntax play in (the) language, and to what extent is it articulated? The broader implications for some of the bigger theoretical questions are discussed in chapter 1.3. This thesis also represents a greater description of a number of semantic issues, which are in general greatly under-studied in Australian languages.

Throughout this thesis we will examine a range of topics; after a general overview of the grammar in chapter 2, we then examine negation in chapter 3. The next several chapters investigate focus sensitivity/association with focus; these are bundled together as part II of the thesis. The third part of the thesis investigates topics involving modality. A common thread through these discussions is the interplay of syntax and semantics, and how syntax does/does not constrain or determine particular readings.

I hope too that greater depth of description of these phenomena also can play a role beyond informing theoretical linguistics. Pintupi-Luritja is a living and thriving language in Central Australia, but it does not enjoy the same status as English in official contexts. An understanding of how the language encodes certain meanings is important, particularly in high-stakes environments like legal,

[1] Also sometimes known as the Wati subgroup, after the name for 'man' in many of the languages (O'Grady, Voegelin, & Voegelin, 1966; Babinski, Rojas-Berscia, & Bowern, 2023).

medical, or educational contexts.[2] For example the importance of the difference between what one *can* or *must* do, or whether something is impossible because it is prohibited or simply unachievable, are important distinctions. The investigations throughout this dissertation are all relevant for fine semantic contrasts such as these– for example the discussion of modality in part III. I hope that work like this helps to lay out some of the complexities that are important in these kinds of domains.

1.1 Pintupi-Luritja: People, place, and language

We begin with some background on Pintupi-Luritja as a Western Desert language, ordered within the larger Pama-Nyungan family. It is spoken primarily in a number of communities scattered across Central Australia; the most eastern of these include Papunya (Warumpi) and Haasts Bluff (Ikuntji), and in the west to Kintore (Wa̲lungurru) and Kiwirrkurra around the border between the Northern Territory and Western Australia, a range of communities and outstations in between and around them, and by diaspora in regional centres like Alice Springs and further afield. The community-based aspect of the language is important, as will be discussed in this chapter; so much so that the language has sometimes been called Papunya Luritja (Papunya being an important community in the history of the language). By Australian standards, Pintupi-Luritja enjoys relative vitality; it is spoken as a first language in a number of communities across the Northern Territory and the diaspora in regional centres further afield, with speaker numbers in the low thousands,[3] and is one of the few Australian languages being acquired as a first language (DITRC et al., 2020).

In order to understand the language as it is today, some discussion of recent history in the region is important; we will look at this in section 1.1.1. This will help understand what language individuation means in the context of Western Desert languages in section 1.1.2, and with Pintupi-Luritja more specifically in section 1.1.3. An overview of the actual grammar of the language is postponed until chapter 2.

1.1.1 Recent history in the Western Desert

Every language reflects the history of its speakers. This is particularly true of Western Desert languages like Pintupi-Luritja, as the Western Desert has seen wide-scale changes for A̲nangu[4] over the last century or so. These changes have had an effect on the languages as they are today, and can help inform

[2] It is clear how misunderstandings in these environments can have devastating effects for Aboriginal people (Bowen, 2019, 2021; DITRC et al., 2020).

[3] Exact numbers are difficult; Hansen and Hansen (1978) suggested "approximately 1000" Pintupi speakers at the time of writing; the 2021 Australian Census (Australian Bureau of Statistics, 2022a) records only 260 Pintupi speakers in Australia, but 1,285 Luritja speakers (out of a total number of speakers of all Western Desert languages being 8,416); although note that the ABS make small random adjustments to values to protect the confidentiality of data. See also section 1.1.3 below for some difficulties of the label Luritja, which can apply to other Western Desert groups around Arrernte country. See also Simpson et al. (2018) for discussion of interpreting Census data on Australian Indigenous languages. In any case, the total number of speakers does not exceed a few thousand at most.

[4] A̲nangu is an ethnonym for Aboriginal people, particularly for those belonging linguistically or culturally to the Western Desert group. The word itself means 'person', and can be found across the Western Desert languages. Note that there is



Figure 1.1: The Northern Territory, with a number of communities in the the Macdonnell Ranges. Pintupi-Luritja is spoken from roughly Papunya and Haasts Bluff through to a little beyond the Western Australian border. Map reproduced with the permission of CartoGIS Services, Scholarly Information Services, The Australian National University

us when considering questions about comparative issues within the Western Desert family. In this section we briefly review a history of Central Australia and the Western Desert over the last century or so; this description is based on other reports, who discuss the issues in much greater detail than I can here; see especially Davis, Hunter, and Penny (1977), Hansen and Hansen (1978), Nathan and

variability in Pintupi-Luritja as to whether a consonantal onset is required or not (see chapter 2.1), so the term variably appears as *Aṉangu* or *Yaṉangu*; I will follow convention in using both forms interchangeably throughout the text.

Leichleitner Japanangka (1983), Hansen (1984), Heffernan (1984), Myers (1986), Long (1989), Burum (1993) and Holcombe (2004, 2016). This description relies heavily on these sources.

Central Australia saw contact with non-Indigenous people much later than most of the rest of the country, no doubt due to its remoteness from urban centres and the harshness of the environment, which made habitation difficult without extremely detailed knowledge of the landscape and how to utilise it. The first white contact in the more westerly regions with Pintupi inhabitants in the Gibson and Great Sandy deserts began with some sporadic exploratory expeditions with fleeting contact in the 1870s onwards (Long, 1989), but it was only in the twentieth century that any real and more regular European presence was felt in the region.[5] For many Aboriginal people of the Western Desert, it was only then that they were introduced to non-Indigenous Australia for the first time.[6]

In pre-contact times, Central Australia was– as it is now– home to a number of culturally and linguistically diverse groups of Indigenous peoples, including speakers of Western Desert languages. The Pintupi lived and travelled across their countries hunting game and collecting vegetable foods, and moving between water sources. Across a vast area, people lived in small bands which "numbered no more than twenty to thirty persons for much of the year" (Myers, 1986: 27); there was obviously a degree of fluctuation in the number and composition of these groups (Hansen, 1984). Movement through this area was largely determined by water availability, which depended on an encyclopaedic knowledge of water reserves: transient pools formed by rain, rock reservoirs, soakages and wells (Myers, 1986). Hansen (1984) and Myers (1986) both give accounts of the movements of a number of individuals, which indicate that people regularly travelled great distances across the region. By all accounts, at this time there was also linguistic variation between groups; we revisit this in section 1.1.2 below.

This way of life began to shift in the early twentieth century, which saw the beginnings of a sustained 'exodus' out of the desert and into missions and settlements on its fringes; this emigration had "certainly begun by the 1920s" (Long, 1989), likely even earlier– at least southwards towards Kalgoorlie and Ooldea (Myers, 1986: 30).[7] For the Pintupi, Myers (1986: 28) describes the major movement events to have occurred in the "late twenties, early forties, mid-fifties, and early sixties."

People were leaving the desert for various reasons, which also shifted over the decades. Early on people were enticed by missionaries from Hermannsburg, and later from a series of expeditions initiated

[5]Further east, white settlement started a little earlier, but not substantially so; Alice Springs for example was settled from 1871 (Myers, 1986: 30).

[6]Some recollections of these were recorded in stories– particularly involving seeing aeroplanes flying overhead, e.g. Napurrula and Nakamarra (1987a), Wararrngula Tjupurrula (1988), Nakamarra (1988); see also Kimber (1982).

[7]Palmer (2016) notes issues with the term 'exodus' to describe this movement of people (which probably gained currency from the language used by Long, 1989); Palmer suggests that the term 'exodus' indicates a lack of agency on behalf of Yanangu in moving towards settlements, as perhaps victims of external circumstances. I don't want to suggest this is the case at all, as reasons for movement into settlements were clearly complex. Cf. also the following point by Long (1989: 40f): "The decisions to leave traditional country which the Pintupi and their neighbours to the south in the Petermann Ranges took were consistent with a tradition of opportunistic exploitation of resources when and where they appeared. It was not a helpless 'drift' but a series of highly motivated and purposeful moves... If their migrations meant that they abandoned, for a time at least, the care and use of the land they knew best, they also allowed them to re-establish links with their relatives and to establish new ties to many more people and this maintenance and extension of personal and ritual links was also a strong tradition."

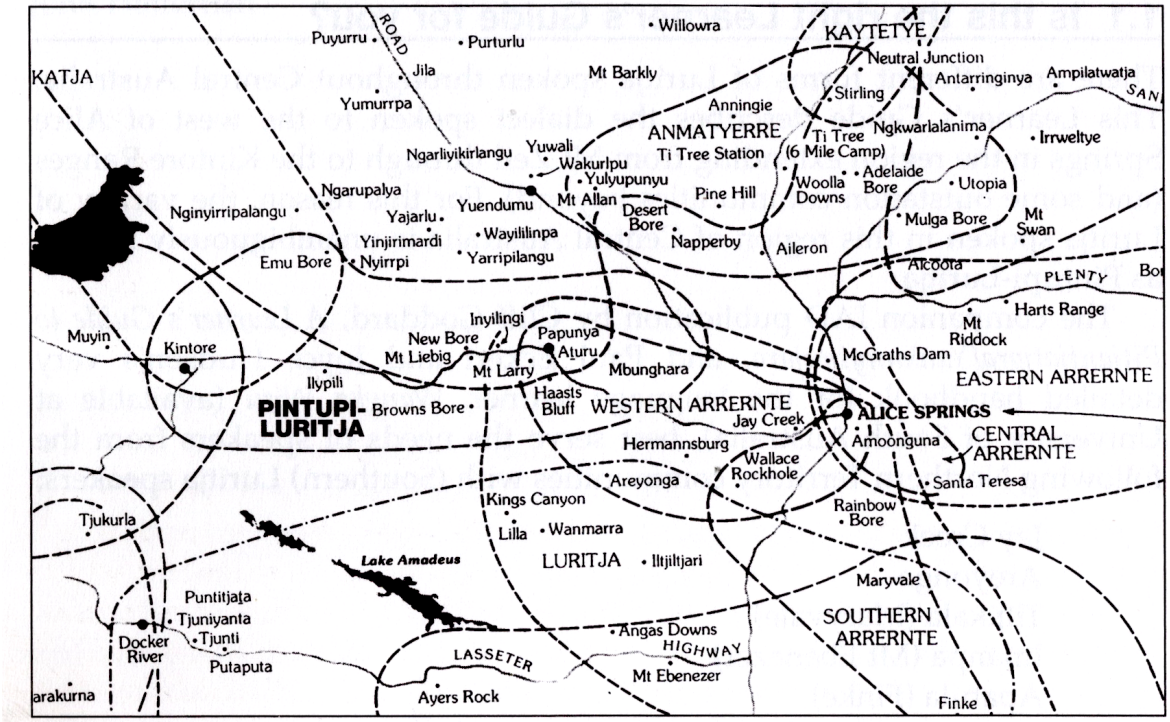


Figure 1.2: Map showing the approximate area where Pintupi-Luritja is spoken with other languages of the region. Reproduced from Heffernan and Heffernan (2000) with permission from John Heffernan.

by the Welfare Branch of the Northern Territory Administration and other authorities (Nathan & Leichleitner Japanangka, 1983; Long, 1989). The draw of food in the form of rations (and perhaps in part the reliability of food in the context of recurring bad droughts over the decades, and partly its exoticism[8]) has been argued to play a role. Later, in the face of increasing isolation as the remaining population in the desert dwindled, these movements were doubtless also motivated by the desire to remain close to kin– sometimes evidently also at the suggestion of those already living in these settlements– and be among large enough numbers for "the social system to function effectively" (Long, 1989: 33). It is however unclear the extent to which these factors played a role in leaving the desert for which people at which points in time.[9] Although movement was towards communities on all fringes of the desert, it was the initial and subsequent movements eastward that are important for the development of Pintupi-Luritja. Other areas of Central Australia also saw movements around and away from traditional

[8]Stories told by Anangu of these times often focus on new foods and items like clothing; see e.g. Burum (1993), Palmer (2016).

[9]E.g. Long (1989) argues against 'round ups' by white authorities as playing a central role, whereas Nathan and Leichleitner Japanangka (1983) see it as a primary force in the context of governmental policy of assimilation; Palmer (2016) is skeptical of the role of drought as a motivating factor, whereas Myers (1986) points to correlations of drought and larger migrations, etc. Also unclear is the extent to which decisions to move for the Pintupi were affected by stories of the massacre at Coniston of Warlpiri and Anmayterr peoples in 1928 (Davis et al., 1977; Holcombe, 2016).

lands, but not necessarily for the same reasons; the terrible effects of nuclear bomb and missile testing on Aboriginal land around Maralinga, Emu and Woomera appear to have been far enough away from Pintupi country to not play the same role it did for the movement of Aṉangu further south (Davis et al., 1977; Long, 1989; Dousset, 2002; see Palmer, 1990; Brady, 1999 and Urwin, 2022 for the surrounding histories and discussion of Aṉangu who were affected by bomb testing).[10] These movements were also not necessarily only in one direction, nor did people necessarily stay in the one community; Hansen and Hansen (1978) and Hansen (1984) describe cases of individuals making a number of trips into and out of various settlements before staying in one particular community on a long term basis.

This emigration saw the establishment of non-missionary settlements, in addition to Lutheran missions like Hermannsburg. Haasts Bluff was established in 1941, with the explicit aim of stemming the movement of Aboriginal people from the west into towns like Alice Springs or pastoral leases like Glen Helen (Long, 1989; Holcombe, 2004). Haasts Bluff served as a ration depot, and a place to trade dingo scalps and kangaroo skins.[11] A series of other camps and bores also appeared at this time throughout the region, including at what later became the Mt Liebig/Amunturrngu community (Holcombe, 2004, 2016). Papunya was established in the late 1950s; most inhabitants of Haasts Bluff moved to Papunya (a little less than 30kms away in a direct line, nearly 50km by road), due to issues with the water supply in Haasts Bluff making the water unfit for human consumption. 450 people were moved to Papunya, and just 65 remained in Haasts Bluff (Davis et al., 1977: 2).[12]

A number of Pintupi arrived into Papunya in the 1960s; this represented the last wave of substantial migration, and these Pintupi were among the last people to move from a traditional existence living exclusively off the land, to a more settlement-based one.[13] Papunya was at this time home to many different language groups– mainly Pintupi, Luritja, Warlpiri, and Anmatyerr; the population reached about 1000 by 1973 (Davis et al., 1977: 22), but has fluctuated and declined since this time.[14] Conflict, illness, poor nutrition, a terribly high mortality rate, and other problems prompted Pintupi desires for self-determination, which largely manifested in the desire to leave Papunya, which had developed a more institutional and assimilationist character than had existed in Haasts Bluff, and move back towards their traditional lands further west. Apparent derisiveness from whites and other Aboriginal groups towards the 'new' Pintupi due to their ignorance of settlement life and customs may have also helped to sow the seeds of 'Pintupi separatism' (Myers, 1986: 36).

[10] Some other accounts of movements of speakers of Western Desert languages at the time include Bolger (1987) and Jones (2011) on Wangkajunga and Palmer (2016) on Pitjantjatjara movements.

[11] Authorities saw dingos as a threat to pastoralist aspirations, and put bounties on dingo skins/scalps; as an indication, in 1946 Haasts Bluff received 853 dingo scalps and 3171 kangaroo skins (Young, 2010).

[12] Davis et al. (1977: 16) note that a number of years later, new bores were sunk around Haasts Bluff that did provide for good water; note that Haasts Bluff continues as a community today.

[13] The apparent last group of Pintupi to experience the first contact with white Australia involves a group of nine who made contact in 1984 (Myers, 1986: 22). Note too that the boundary between traditional and settlement life is no way binary– hunting and living off other traditional foods continue through to the present day. What we are discussing here is the balance shifting towards the dominance of settlement life.

[14] The 2021 Australian Census lists 438 total residents for Papunya and Outstations, 383 of which are Aboriginal and/or Torres Strait Islander persons (Australian Bureau of Statistics, 2022b).

Already from the late 1960s, there were forays into the establishment of outstations[15] (Coombs, Dexter, & Hiatt, 1982; Nathan & Leichleitner Japanangka, 1983; Peterson & Myers, 2016; Myers & Peterson, 2016). In the Pintupi context, there were a number of attempts to establish such outstation communities, including Yayayi from 1973 (Myers, 1986, 2016); among the most enduring of these are Kintore/Wa̱lungurru, founded in 1981, and Kiwirrkurra, in 1983. Many Pintupi relocated back west, but many also stayed in communities further east like Papunya.

The increasing possibilites of individual car ownership by Aboriginal people, the existence of other means of travelling like bus services, and the improvement of road conditions have long facilitated travel between communities; movement between communities had been interrupted to a great degree from the 1930s through to roughly the 1960s (Hansen, 1984). A̱nangu today remain in general highly mobile, travelling to visit family often in other communities, some many hundreds of kilometres away. Since at least the 1980s there has again been a higher and more sustained level of communication between relations further afield (a point already noted by Myers, 1986: 46).

The twentieth century was a time of radical change for Ya̱nangu; livelihoods drifted from a traditional highly mobile life on their own country– relying on an extensive intricate knowledge of where and when surface water, and edible plants and animals would be abundant– to a more sedentary settlement-based existence of bore water and rations, and later store food. For some, this time also represents movement away from, and subsequently back to their traditional country. Relevant for the development of current-day Pintupi-Luritja, this populating of settlements played out in successive waves of emigration eastwards; the time span between these waves also created distinctions between the more established groups and the new arrivals from the west. This influenced not only the system of interpersonal connections, but also speech practices, related to greater contact between new and old arrivals and different language groups in communities. This history is therefore an important part of understanding language differentiation among Western Desert languages as they are today.

1.1.2 Individuation of Western Desert languages

With this history in mind, we can turn to the Western Desert language(s). The literature on linguistic variation between Western Desert varieties has always been unsure of how to quantify and label it; Hansen and Hansen (1978: 17) describe the situation regarding the diverse language varieties as "anything but clear." Some researchers prefer to speak of Western Desert as a single language, with some linguistic variation that can be associated with geographic areas and/or familial lines (as a dialect continuum, or the 'family-like language' discussed by Douglas, 1964 and O'Grady et al., 1966; also Dixon, 2002; Sutton, 2010). Most others have described the varieties as independent languages within a

[15] "Outstations are small, decentralised and relatively permanent communities of kin established by Aboriginal people on land that has social, cultural or economic significance to them" (Myers & Peterson, 2016: 2). As Nathan and Leichleitner Japanangka (1983: 4) note, the term 'outstation' skews the concept by relating these camps as 'out' or away from the larger settlements, rather than as re-occupation of traditional land; they note that it is "in any case absurd to talk about a people's home or country as an outstation."

closely related but higher-level Western Desert family. It is of course not clear the extent to which this distinction is linguistically meaningful; communicability between varieties is evidently high (Hansen, 1984),[16] whereas forms and function vary– in some cases greatly. It is certainly clear that this variation is highly salient for speakers, who very clearly see varieties as distinct languages. The fact that these varieties belong more closely together than more distantly related languages of the region is also of course obvious to speakers; e.g. Hansen (1984) reports Pintupi speakers describing the various Western Desert varieties as belonging to one language variety ('our talk', or 'one talk'), as opposed to e.g. Warlpiri or Arrernte (cf. also Hansen and Hansen, 1978: 17f). Here, we will be speaking of distinct languages– i.e. of Pintupi-Luritja, of Pitjantjatjara, of Kukatja, etc. Some work in this thesis compares Pintupi-Luritja with other Western Desert languages (particularly in chapter 3.4); there we will discuss some issues that arise when comparing varieties.

A history of the languages can be roughly split into pre- and post-settlement time periods, as these represent a shift towards solidification of variation and subsequent language individuation. Hansen (1984) details the extremely complex and fluid relations of linguistic groups and contact in the period immediately leading up to the late 1960's, by which time the vast majority of Aṉangu were living "more or less permanently" at some settlement or other. The movement of people characteristic of the Western Desert until the last half-century made for a very different linguistic ecology in terms of variation and contact to more sedentary language communities (Hansen, 1984; Mansfield, 2023).[17] As Hansen (1984) notes, the distances travelled and contact with other Western Desert speaking people further away surely had implications for language use; Hansen speaks of *multigroups* for these interconnecting bands, which would often share "minor speech variations" within the groups.

These variations would be the source of names or labels of language varieties; Hansen lists a number of such labels, but notes that there must have been "scores" of such names across the region. At the same time, he denies that there were names for higher level multigroup varieties– what we might call 'languages' (1984: 8f; cf. also the multitude of names given by Thieberger, 1993 and Sutton, 2010). Indeed, when speakers were asked what language they were listening to when hearing stories from various communities, the variety and overlapping of responses indicate that linguistic cues alone did and do not distinguish language individuation (Hansen, 1984: 77f).

Differentiating language varieties by distinguishing features has been the basis for the names of a number of the Western Desert languages as they are today. For example, consider Pitjantjatjara and Yankunytjatjara; both of these language names indicate distinctive verbal stems for 'to go/come' in the respective languages: *pitja-* and *ya-*; these stems are followed by nominalisers, and the proprietive suffix *-tjara*. These indicate that the 'Pitjantjatjara' are the group that use the verb stem *pitja-*, as opposed to the 'Yankunytjatjara', who use the stem *ya-* (Goddard, 1985: 6). Similar reasoning applies to the Ngaatjatjarra

[16] As Hansen and Hansen (1978) and Hansen (1984) note however, it is difficult to tease mutual intelligibility apart from bi- or multilingualism and language contact.

[17] Note too that Western Desert languages are spread across three Australian states and territories (the Northern Territory, Western Australia, and South Australia); this means that different language groups also had to contend with different state and territory authorities with potentially differing attitudes to Aboriginal peoples' rights and the role of traditional languages.

and the Ngaanyatjarra, who can be identified by whether they use the demonstrative *ngaatja* or *ngaanya* ('Those that have the word *ngaatja*', etc). These names in fact did not originally single out one language group, but are clearly based on local distinctions and contrasts between neighbouring varieties. That is, a term like *Yankunytjatjara* was only useful when contrasting with neighbouring varieties that did not use the verb *ya-*; other features would have to be invoked to distinguish varieties that shared that verb[18] (Goddard, 1985). This naming practice is then inherently contrastive, rather than picking out stand-alone linguistic entities. Other names are similarly contrastive, but of different form (e.g. Kukatja, being the ones who use the word *kuka* for 'meat'). Over the twentieth century however, these distinctions have increasingly been used as language names in a more European-style manner; i.e. that 'Yankunytjatjara', 'Kukatja', etc refer to single languages. This shift correlates with the development of languages in an increasingly sedentary existence in communities.[19]

The beginnings of non-Indigenous research into Western Desert languages coincided (not coincidentally) with the increase of settlement-based existence for Aṉangu. This shift toward settlements and communities disrupted previous patterns of contact between language varieties, which in turn began to slowly solidify certain linguistic features within certain geographical areas; this was happening all across the area where Western Desert languages are spoken, although the particulars differ (e.g. see also Goddard, 1985: 6). The beginnings of this appear to have started relatively rapidly; Douglas (1971) already noted the emergence of "notable dialect concentrations" in government settlements and missions. On the other hand, individuation is not exclusively linguistic; Hansen (1984: 15) notes that cohabitation of various linguistic groups in communities has meant that "... Western Desert speakers at any one settlement regard themselves as having a unique local identity in their relationship to other settlements"; however it is clear that this 'unique local identity' also includes a linguistic identity. It is on this basis, and continuing with further development of varieties, that we speak of individual languages within the Western Desert family today. The continuation of settlement-based linguistic ecologies has had an ongoing effect on the solidification of linguistic variation into particular forms associated with various communities. Hansen (1984: 79, 83) suspects that younger speakers in communities were less knowledgeable of the variation within and between languages than older speakers.

The community/settlement-based aspect of the linguistic situation is therefore extremely important to understanding the current state of Western Desert languages.[20] Sometimes Pintupi-Luritja and other Western Desert languages have been called communilects (i.e. as opposed to dialect) to reflect the centrality of community living to the language (Hansen, 1984; Holcombe, 2004); Pintupi-Luritja has sometimes been called Papunya Luritja for the same reason (e.g. by Heffernan, 1984), highlighting the centrality of the Papunya community to the language. This view of language individuation is slightly and subtly different to a geographical designation of the language variety– i.e. a *dialect*. The term

[18] Pintupi-Luritja also uses the verb *ya-*.

[19] There are other strategies for language naming; the case of Luritja and Pintupi are described below, but others are built off the word *wangka*, variously meaning 'speech, conversation, word, message' etc, and is in an extended sense used to mean 'language, language variety'; these include Wangkajunga, Martu Wangka, Wangkatja, among others.

[20] As it is elsewhere in Australia; see Mansfield (2023) for some discussion.

communilect highlights the location of the speech community not only in geographical terms, but as part of the history of that settlement/community. As discussed in the previous section, in the case of Western Desert languages and successive waves of migration of speakers, these do not necessarily overlap. What is important is who is living where, since when, with whom, and with what history. While acknowledging the importance of these considerations, we will simply use the term 'language' for Western Desert varieties here, as the speakers of these languages themselves do.

1.1.3 Pintupi and Luritja

In this thesis, like elsewhere in the linguistic literature, we will be talking about Pintupi-Luritja as a single language. For speakers however, Pintupi and Luritja are different languages with different histories. What this means is that 'Pintupi-Luritja' is a construct, born of the history described above, which effectively blurs linguistic variation in the speech community. Impressionistically in my own experience, in and around Papunya the language spoken is generally called Luritja[21] by its speakers, with Pintupi being associated more with the west. Hansen and Hansen (1978) suggest that the label Luritja has been embraced largely due to connotations of higher social status, in contrast to the 'new' Pintupi. A demarcation between the two can be seen in examples in the Pintupi-Luritja dictionary– Luritja is associated with both eastern communities (6a) and particular linguistic forms (6b). A differing status between the two is however not shown in these examples.

(6) a.

Luritji	tjuṯa=ya	nyina-nyi	Warumpiyi-la,	Amuṉṯurrngu-la,	Ngaṉkirritja-la.
Luritja	many=3PL.Subj	sit-PRS	Papunya-LOC	Mt.Liebig-LOC	Haasts.Bluff-LOC

(Source translation:) Luritja people live at Papunya, Mount Liebig and Haasts Bluff.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *amuṉṯurrngu*

[21] In fact the language is pronounced *Luritji*, with a final *-i* instead of a final *-a* (see also Heffernan, 1984). As the examples in (5) and (6) show, this is the form found in written Pintupi-Luritja as well.

(5)

…yingkilitji	ngayulu	taana-mila-ṉi	**luritji**-kutu.
…English	1SG.ERG	turn-LOAN-PRS	Luritja-ALL

I turn (i.e. translate) English to Luritja.
(Source translation:) …I translate English to ***Luritja****.*

Tjakulpa kuwarritja, Papunya School. June 1996, p.12

The Pintupi-Luritja dictionary (Hansen & Hansen, 2022) suggests that the final vowel *-i* is influenced by Warlpiri, which has vowel harmony (see Nash, 1980). Sutton (2010) states that *Luritji* is a variant of Luritja associated with the Imanpa–Angas Downs–Areyonga area, although these are all further south than Pintupi-Luritja speaking communities like Papunya and Haasts Bluff. Mary Laughren (*pers.comm.*) suggests the final *-i* might be related to the interpretation of the phrase-final schwa in the Arandic source as a high vowel. I will stick with the spelling 'Luritja' here for consistency with the literature, but it's worth noting that it is not the pronunciation in the language itself.

b. “Ngalungku-rri-nyi” wiya, wangka Luritji-ngku watjaṉi “ina-rri-ngu=pula.”
friend-INCH-PRS NEG language Luritja-ERG say-PRS friend-INCH-PST=3DU.Subj
“Become friends” no, (not that word) in Luritja they say “those two have become friends” (the Luritja version).

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ina*

Although Yaṉangu speak of Pintupi and Luritja, the extent to which they linguistically overlap is also clear to them as well. The distinction is not purely a question of linguistic form, but is also historical, associated with emigration to and from the west. Luritja is generally the name for those that had arrived in earlier migrations to Haasts Bluff and Papunya (and their children), and the Pintupi being reserved for those that arrived in Papunya in later waves (Hansen and Hansen, 1978: 23, Hansen, 1984: 13, Holcombe, 2004). However there are complications in how the terms are and have been applied, which function to blur distinctions between language varieties (Hansen, 1984: 14).

Briefly to the languages names themselves: Pintupi was evidently not a name used by the Pintupi themselves pre-contact and pre-movement eastwards (Hansen, 1984: 9, Myers, 1986: 28). Hansen (1984) suggests the name derives from an expletive *pintupi* often used by Pintupi speakers that arrived in Papunya.

(7) Tjiiṯuka=ya nyini-npa ngurra walytja-ngka. **Pintupi!**
???=3PL.Subj sit-PRS place own-LOC **EXPL**
(Source translation:) They’re definitely living there now in their own country, definitely (oath)!

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *pintupi*

Luritja (also sometimes *Loritja* i.a.) similarly began as an exonym. It has origins in an Arrernte word meaning ‘stranger’[22] and was applied generally to Western Desert speakers living to the west of Hermannsburg/Arrernte country (Hansen, 1984: 13; Heffernan, 1984: 1; Sutton, 2010: 47; Holcombe, 2016: 112; a.o.); Myers (1986: 30) identifies the Luritja with people from the Western MacDonnell range– eastern neighbours to the Pintupi. The term then not only applies to the Luritja associated with the histories of Haasts Bluff and Papunya, but is used more generally particularly around Arrernte land for Western Desert languages– for example Southern Luritja, associated with the area from Kings Canyon to Finke, and other groups that call their language Luritja (Heffernan, 1984: 1, Holcombe, 2004: 271). It has since become the preferred label by Western Desert speakers in a number of communities including Papunya (Heffernan, 1984; Holcombe, 2016).

Pintupi-Luritja as the name of a language is then partly a construct; the result of decades of settlement-based co-habitation of groups of Western Desert speaking peoples that arrived in succession over roughly half a century, and the lumping together of their language varieties. Co-habitation and multilingualism with other Western Desert languages and other languages of the region– primarily

[22]The Pintupi-Luritja dictionary (Hansen & Hansen, 2022) also lists *lurinya* and *lurinyi*, both as nouns meaning ‘stranger.’

Arrernte, (Ngaliya) Warlpiri and Anmatyerr clearly had an effect (Hansen, 1984: 13, Heffernan, 1984); Hansen and Hansen (1978: 23) note that Luritja speakers use some Pitjantjatjara verbal tense inflectional morphology, free pronouns, and some lexical items; they also note lexical borrowings from Arrernte and Warlpiri, and some grammatical borrowings from Arrernte as well.

There is a certain ambiguity in the name Pintupi-Luritja as to the role and contribution of the two languages. As a compound it would suggest a mix of equal parts Pintupi and Luritja; some evidence suggests this was intended; Hansen (1984: 14) notes that "a broken English way of referring to this is 'Pintupi, Luritja mix up' " and Hansen and Hansen (1978: 24) describe it as a mixture of Pintupi and Luritja. Another possibility is to see it as Luritja spoken 'Pintupi-style'; language names such as Papunya Luritja seem to suggest this– i.e. that it is fundamentally Luritja, as spoken in Papunya (which saw a historical Pintupi influence). The opposite is also possible– the Pintupi-Luritja dictionary, under the entry for *luritja* states that this dialect name is "given to people now living on Arrarnta land; mostly Western Desert speakers; *Papunya Luritja is an Eastern dialect of Pintupi*" (emphasis mine).[23] In a way these questions are not vital to understanding Pintupi-Luritja as a language; Pintupi-Luritja is what speakers say it is– it is the language as it is spoken today in these communities (a view shared by Heffernan, 1984). The recent history of emigration and subsequent settlement in communities is important to understanding how it has developed, but ultimately it is a synchronic view of the grammar that is important here.

However there is of course variation in the language, and it is here that history can potentially provide insights into how to conceive of it. Linguistic variation has clearly been present across Western Desert languages throughout recent history; Hansen and Hansen (1978: 24) note that in Papunya at the time, "it can almost be said that no two speakers use the same mixture of grammatical forms and synonyms." Similarly, Heffernan (1984) describes "glaring differences between the two dialects" [i.e. Pintupi and Luritja]. What is difficult in this context (for an outsider researcher) is identifying the source of variation– to know whether particular forms are attributable to different source languages that we happen to be conflating by considering them together,[24] whether they are sociolinguistic variables, or whether there is general intra-language linguistic variation.

As discussed, some of this variation may be associated with either Pintupi or Luritja (e.g. lexical choices), but most variation is not easily classifiable. Further sociolinguistic work in particular would be needed for a better picture of synchronic linguistic variation within individual Western Desert

[23] Cf. also personal communication with Ian Green cited by Thieberger (1993: 217): "Papunya Luritja has developed from Eastern Pintupi, shows influence from Warlpiri and Arrernte, and shares some grammatical/morphological features with the southern Western Desert dialects Yankunytjatjarra and Pitjanytjatjarra rather than Pintupi. Eastern Pintupi was spoken in the Kintore-Ilypili region, and the Pintupi described by Hansen and Hansen was spoken in the area west of Kintore."

[24] This issue was noted by Hansen (1984). An example of apparent cases of drawing on different varieties synchronically can be see in Thieberger (1993: 189), who quotes personal communication with James Marsh on Martu Wangka, spoken at Jigalong, saying that "it is a variant made up of two mutually intelligible languages, not 'mixed-up', but *drawing synonyms and linguistic variations from more than one source*" [emphasis mine].

languages.[25] Unless there is compelling evidence, I will consider variation here to be of a more general kind (i.e. not associated with particular groups in the speech community); this will in future work doubtless need to be reconsidered.

1.1.4 Previous work on Western Desert languages

For reasons listed above, a comprehensive list of the Western Desert languages is not really feasible. Nonetheless, there are a number of varieties that are widely accepted as distinct languages, often associated with particular communities– as is the case with Pintupi-Luritja. In addition to Pintupi-Luritja, these include (non-exhaustively) Pitjantjatjara, Yankunytjatjara, Ngaanyatjarra, Ngaatjatjarra, Kukatja, Wangkajunga, Martu Wangka, Yulparija, Mantjiltjarra, Antikarinya, and Wangkatja.

These languages have collectively been the focus of quite a lot of linguistic research compared to many languages of Australia. This work includes the following (non-exhaustive) list, covering strictly linguistic work only, ordered roughly by genre:

- **Long form descriptions (PhD or master's theses, other book length descriptions)**:
  Gugada: Platt (1972)
  Mantjiltjara: Marsh (1976)
  Ngaanyatjarra: Glass (1980)
  Pintupi: Hansen and Hansen (1978)
  Pitjantjatjara: Bowe (1990), Rose (2001), Langlois (2004), Wilmoth (2022)
  Wangkajunga: Jones (2011)
  Western Desert/various/unclear: Douglas (1964), Glass and Hackett (1970), Bell (1988), Pyle (2020)
  Yankunytjatjara: Goddard (1985)

- **Shorter language descriptions/particular grammatical constructions:**
  Gugada/Kukata/Kukatja: Platt (1967, 1968)
  Manjiljarra: Clendon (1988)
  Ngaanyatjarra: Glass and Hackett (1979), Ellis (2007)
  Pintupi-Luritja: Heffernan (1984), Gray (2021)
  Pitjantjatjara: Trudinger (1943), Langlois (2006), Wilmoth and Mansfield (2021), Wilmoth, Nordlinger, Garrido, and Kidd (forth.)
  Western Desert/various/unclear: Bednall (2011, 2020)
  Yankunytjatjara: Goddard (1988)
  Yulparija: Burridge (1996)

- **Phonetics, phonology, and intonation:**
  Mantjiltjara: Marsh (1969)

[25] Early work on variation came up against complications related to the geographic spread of particular forms (Miller, 1971a, 1971b; Douglas, 1971); see also Mansfield (2023). Recently there has been a greater focus on investigating variation and change in Pitjantjatjara (Langlois, 2004; Minutjukur, Tjitayi, Tjitayi, & Defina, 2019; Wilmoth, Defina, & Loakes, 2021; Wilmoth, 2022).

Pintupi: Hansen and Hansen (1969)
Pitjantjatjara: Tabain and Fletcher (2012), Tabain, Fletcher, and Butcher (2014), Tabain and Butcher (2014, 2015b, 2015a), Tabain, Butcher, Breen, and Beare (2016b, 2016a, 2020), Defina, Torres, and Stoakes (2020)
Western Desert/various/unclear: Douglas (1955)

- **Variation and change:**
  Pitjantjatjara: Minutjukur et al. (2019), Wilmoth et al. (2021)
  Western Desert/various/unclear: Miller (1971a, 1971b), Douglas (1971), Hansen (1984)
  Yankunytjatjara: Naessan (2008)

- **Dictionaries:**
  Kukatja: Valiquette (1993)
  Ngaanyatjarra/Ngaatjatjarra: Glass et al. (2003), Obata, Kral, and Ngaanyatjarra speakers (2005)
  Pintupi-Luritja/Luritja: Hansen, Luritja language speakers, and Pintupi language speakers (2011), Hansen and Hansen (2022) [4th edition]
  Pitjantjatjara/Yankunytjatjara: Goddard and Defina (2020)
  Western Desert/various/unclear: Douglas (1988)

- **Language acquisition**:
  Pitjantjatjara: Defina (2020), Wighton (2021)

- **Sign language:**
  Western Desert/various/unclear: Ellis, Green, Kral, and Reed (2019)

- **Learners' guides:**
  Ngaanyatjarra: Glass (2006)
  Pintupi-Luritja: Heffernan and Heffernan (2000)
  Pitjantjatjara/Yankunytjatjara: Goddard (1982a), Eckert and Hudson (1988)
  Wangkatja: Vaszolyi, Hadfield, and Hadfield (1979)

This should give an indication of the level of detail done collectively on Westen Desert languages. This list also demonstrates that the work done on the family has a slightly greater focus on Pitjantjatjara and closely related languages (like Yankunytjatjara); other languages have received comparatively less attention. This thesis aims to add depth of description for a number of topics relating to the syntax and semantics of Pintupi-Luritja, and their relation to each other.

1.2 Methods

This thesis relies on both original fieldwork as well as existing materials, whereby the latter form the bulk of the examples. The greater reliance on existing published material in Pintupi-Luritja in this

thesis has two main reasons. The first is the interruption of fieldwork due to the COVID-19 pandemic, which resulted naturally in a greater reliance on published material. The second is to demonstrate and emphasise the examples in more natural linguistic environments than those arising in the course of linguistic elicitation (e.g. narrative stories). The range of sources, genres, eras, and speakers should hopefully attest to the robustness of the phenomenon at hand. Greater detail on these sources is discussed below.

I have attempted as much as possible to use a wide variety of sources in giving examples; in most cases I give more than one example of a phenomenon, and where possible (or easy to provide), I have tried to give examples from more than one speaker in more than one text. This is done in an attempt to mitigate the possibility of speech errors, typos, or idiosyncrasies being interpreted as representative examples. I also typically give more examples than would strictly be necessary to convey the point at hand; I would argue that in such under-represented languages as Indigenous languages of Australia, that an abundance of examples from a range of sources is important.

On occasion there will be examples of a phenomenon that all originate from a single source. Usually this is due to the size and organisation of the source material. In particular, the sheer amount of text in the Luritja Bible means that some very particular linguistic configurations (e.g. particular orderings of three or more elements) may be more likely to be found in a text the length of the Bible. Additionally to this, the ease and accuracy of performing searches with regular expressions on the Bible as opposed to OCR[26] scanned community texts has also on occasion resulted in a greater reliance on the Bible for some examples. I have tried to minimise this as much as possible, and to rely on a range of sources for the phenomena under discussion.

I have tried to maintain full transparency with examples from source materials. Almost all of the sources cited are publicly available; citations throughout this dissertation are hyperlinks to online versions of the texts, whether scanned books and newsletters, or videos; this information is also included in the bibliographic entries. This allows the interested reader to instantly check the examples, and in particular to see them in the broader context of the text that is necessarily left out in single sentence examples.

This transparency of sources with clear links to the original documents is also out of respect of their origin. All language discussed here involves the linguistic and cultural heritage of Luritja and Pintupi people, and the examples represent the intellectual property of the speakers that produced them– both the recordings made during my field trips, as well as publicly available sources. For this reason, I have been as specific as possible in identifying sources and attributing data to speakers/creators; many of the language examples given here come from the work of Pintupi-Luritja speakers over many decades.

Many of the ethical considerations discussed by Janke, Curtis, and Langton-Batty (2020) and the Australian Institute of Aboriginal and Torres Strait Islander Studies (2020) apply here: that Indigenous peoples have the rights to maintain, protect, and develop their cultural heritage, including their

[26] Optical Character Recognition; computer-based conversion of scans/images of text to computer-readable and searchable text.

languages; and to maintain control over language material and how it is interpreted (see also particularly Woods, 2023). Transparency of origin and attribution for example sentences is an important and fundamental point in recognising this. The original documents also serve to show the vitality of Pintupi-Luritja as a robust and thriving living language– that it is used for children's books, for community newsletters, for religious purposes, for playing games, and everything else that a living language does. This thesis focuses on specific and relatively abstract grammatical topics; I hope that the liberal use of these sources helps a little to remind the reader that the language is much more than isolated glossed examples.

Note too that throughout the text I indicate when English translations are those from the source text; if there is no such indication, then they are my own translations. I have only included my own translations when there is either no English translation in the original text, or the translation is such a free paraphrase of the Pintupi-Luritja that the sentence in question is not included.

1.2.1 Fieldwork

Part of the data in this thesis comes from original fieldwork in Central Australia. As discussed earlier, Pintupi-Luritja and other Western Desert languages have already been the focus of a reasonable amount of linguistic research (comparatively, in the Australian context). As such, I did not need to begin with eliciting basic terminology, verbal inflection, etc. I was able to quickly work towards the questions and topics addressed in this thesis. This was also facilitated by the language consultants I had the good fortune to work with, some of whom have spent much of their lives working with language and literacy through institutions like the Papunya school, and who have an obvious natural talent for language work and linguistics.

In total I made three trips to the region: a scoping trip to discuss the idea with some members of the community in Papunya, and then two working trips: from February to March 2020, and then October to December 2020.[27] The first trip was disrupted by the development of the COVID-19 pandemic and rapid closure of state borders. The second trip was possible at short notice among fluid border situations and with strict health precautions.

During these trips I was able to work together with a total of twelve speakers, although the majority of the work was done with just three of these. Specifically I had the fortune of working together with Nantayah Nakamarra Tjonggarda, Charlotte Phillipus Napurrula, Makisha Anderson, Matthew Brown, Elwin Ward, Isobel Major, Patrick Poulson, Lizzie Nangala, Rosalie, Lance McDonald†, Helen Gibson, and Dana Goodwin. The most hours were spent with Nantayah, Makisha, and Matthew. I was able to work with both men and women, in an age range of roughly 20–60s. Every one is multilingual, speaking a number of other languages of the region, including other Western Desert languages, a number of Arandic languages, Warlpiri, and English. I spent time in Papunya, but also longer stretches

[27] Exact dates: Scoping trip: 15.7–1.8 2019 (18 days); First trip: 16.2–20.3 2020 (34 days); Second trip: 20.10–12.12 2020 (54 days).

in Mparntwe/Alice Springs, where I was able to work with Papunya residents who were staying in town for various reasons.



Figure 1.3: Honey Ant hills, just outside Papunya, July 2019. Photo by author.

Recording sessions were varied. In the beginning we worked on translating the ethics information sheet into Pintupi-Luritja, so that other interested people might have the full details of the project in their own language (see appendix for this text). Many sessions were of the classic elicitation type. Some recordings involved the use of storyboards or board games (discussed below). Some involved telling stories or recollections, such as reminiscing about youth spent in the country around Papunya and Haasts Bluff, about football games the speakers had played in, or describing the plot of a movie. Many sessions involved transcribing earlier recordings. In one session, we sat to watch the film *Kaja-warnu-jangka 'From the bush'* (Tasman Japanangka & O'Shannessy, 2020), which centres on the lives of two senior Warlpiri men, Jerry Patrick Jangala OAM and Henry Cook Jakamarra; this recording focuses on the spontaneous reactions and commentary on the film. Another session was a procedural video for cooking kangaroo tail on the fire. Together, these methods produced a very varied group of recordings, totalling roughly 27.5 hours.



Figure 1.4: Papunya, July 2019. Photo by author.

Sometimes sessions were one-on-one, but in general I found sessions with a group of two (sometimes more) to be more productive. Often, one person would offer a translation or commentary on an utterance, and another would be able to react to this. Agreement and disagreement on forms or the acceptability of sentences in particular contexts was often revealing. It was also in general a more comfortable way to record, and was more relaxed than one-on-one sessions. Recordings were made in various places, only occasionally inside; generally we sat in a park, or in the backyards of houses where people were living, or on their verandahs.

Recordings were made with a Zoom H5 recorder, some additionally with a Røde lapel microphone, and a few with Zoom Q8 video camera. They have been transcribed to varying degrees in ELAN (Max Planck Institute for Psycholinguistics, The Language Archive, 2022). All recordings are archived in PARADISEC (The Pacific and Regional Archive for Digital Sources in Endangered Cultures) in the collection JAG1 (Gray [Collector], 2020).

The majority of recordings were elicitation sessions. For these I took inspiration from methodologies and principles associated with recent discussion on semantic fieldwork methods (Matthewson, 2004;

Bochnak & Matthewson, 2015; Bohnenmeyer, 2015; Berthelin, 2020; Bochnak & Matthewson, 2020). The most important tasks in elicitation include translation tasks and judgement tasks (Matthewson, 2004). For translation tasks, speakers are asked to translate sentences from/to/between the metalanguage (in this case, English) and the target language (in this case, Pintupi-Luritja).

Translation tasks crucially require a discourse context, as the metalanguage sentences in isolation can be ambiguous (e.g. *You must drive slowly* could be a directive or an assessment). For translation, the speaker is first presented with a context before asking for a translation (e.g. *Imagine you're driving through town, and there's a sign outside the school...*). The contextual information I included for prompts is included for fieldwork examples throughout. The need for a discourse context also carries across to grammaticality judgement tasks; here, the linguist constructs a sentence in the target language, and asks whether that sentence would be acceptable in a particular context. Often translation and judgement tasks are utilised in tandem; I mark these explicitly throughout. I have edited and cleaned up the prompts and contexts here for readability; however occasionally I have transcribed some resulting speaker comments or discussion surrounding a prompt. These discussions are faithfully transcribed and unedited (although ellipsis indicates the exclusion of some intervening, less relevant discussion). This kind of valuable discussion often resulted during transcription sessions, and not only during elicitation.

I also used other materials for linguistic elicitation. One of these methods were storyboards– a story in pictures which the speaker is asked to tell in their language in their own words (Burton & Matthewson, 2015; Bochnak & Matthewson, 2020; Kolagar & Vander Klok, 2022). The use of such storyboards has been discussed in great detail particularly for semantic fieldwork, and have also been used to target morpho-syntactic elicitation, particularly by O'Shannessy (2004). These stories were designed so that the situations require speakers to express particular linguistic forms. This included two storyboards designed for weak epistemic modality, question/answer and contrastive focus, and *wh*-questions (*'The binoculars story'*, Gray, 2019a; and *'The stolen drink story'*, Gray, 2019b); and a storyboard targeting exclusive particle placement with a VP focus (*'The getting the bread story'*, Gray, 2020). Using storyboards was also an easy and low stakes way of gathering texts, and made it easy to compare the forms used by different speakers, or the same speaker on repeated readings of the story. Speakers either told the stories alone, or together in a duo, playing roles. I also on occasion asked speakers to play rounds of the board game *Guess Who?*[28] with each other. This targeted question/response pairs, and various epistemic utterances; playing a game together also helped combat some of the unnaturalness that can arise from fieldwork sessions generally.

A brief note on the use of negative data throughout: collecting negative evidence (that is, cases where a speaker explicitly rejects an utterance) is a cornerstone of linguistic elicitation. Although I present some negative evidence, there will be less of it in this thesis than readers may wish. There are a few reasons for this. One issue is that the rejection of a sentence may have various reasons– morphosyntactic, semantic, lexical, pragmatic, etc. (see e.g. Mithun, 2001 and Matthewson, 2004 for

[28] See https://en.wikipedia.org/wiki/Guess_Who%3F

discussion). I certainly had cases where particular sentences constructed or put in context by myself were met with uncertainty from speakers; this uncertainty can be difficult to interpret (from an outsider's point of view). In this thesis I have included negative evidence either because it is clear that/why a speaker rejects the utterance, or where they have particular insights that suggest what underpins the badness of a particular utterance. I also felt that rejection of an utterance would need to be consistent across speakers for me to be confident about that judgement. If there was inconsistency, or I was unsure about consistency, I've tended not to include this as negative evidence, as it may represent e.g. sociolinguistic variation, or encode subtle semantic distinctions that I have missed. I've tried to note where this occurred, or include discussion where possible. These issues are not insurmountable, but they require more work. This was made difficult by the disrupted nature of my fieldwork trips; at the time I didn't know how long I would be able to stay, or when I would be able to come back, so I had to make choices about what to focus on in our sessions. This means that the depth of investigation may have sometimes given way to breadth. There are a number of areas discussed and predictions made throughout that would benefit greatly from further work, including more explicit negative evidence.

1.2.2 Corpus work

I have also drawn on a range of publicly available materials in the language. These include books and literacy materials created through the bilingual literacy programs at schools in Pintupi-Luritja speaking communities (generally Papunya), community and school newsletters, video and audio material published online, the newest edition of the Pintupi-Luritja dictionary, a picture dictionary, and the Luritja Bible.

It is difficult to say exactly what the size of this corpus is, since it involves different texts in different formats, some of which are easier to search and navigate than others. Similar issues involve the recordings collected during fieldwork, which involve different types of recordings (e.g. whether elicitation or transcription sessions should be included as the size of the corpus used), and which are currently all transcribed to varying degrees.

For all written sources I have maintained source spelling, which means there are some inconsistencies and deviations in orthography (e.g. vowel length, or whether a consonant is orthographically marked as retroflex). In some cases where a speaker has indicated to me that a particular word is a mistake or typo, I have included an indication, but have not updated spelling. One change is the occasional inclusion of a space between elements where it is either unclear in the original text, or helps to be clearer in the glossing; these are minor in nature (e.g. whether the reportative *kunyu* is best characterised as a free particle or a suffix/clitic[29]). In all possible cases I have linked a scan of the original text to the citation for the interested reader to check for themselves. I will give a brief description of the texts consulted for this thesis.

[29] A question also mused on for *kunyu* in Pitjantjatjara by Bowe (1990: 63).

Literacy texts

An excellent source of texts can be found in the large number of books produced in coordination with the program of bilingual education, which for various Pintupi-Luritja communities ran from 1974 until the mid-2000s (Devlin, Disbray, & Devlin, 2017; Mooney, 2017).[30] The majority of these texts– which number 'a couple of hundred' (Mooney, 2017)– were produced at the Papunya Literature Production Centre at the Papunya school. These were painstakingly sorted, catalogued, scanned, and archived as part of the Living Archive of Aboriginal Languages (Bow, Christie, & Devlin, 2014, 2017; Christie, Devlin, & Bow, 2014); these texts are also available via the National Library of Australia. These texts are extremely varied– some are one word per page, some are translations of other books, some are short tales, and others are (edited) transcriptions of oral stories– recollections of life events, Dreaming stories, procedural texts, discussions about the benefits of using particular items, etc. They are sometimes accompanied by English translations/paraphrases, and are generally accompanied by illustrations. They represent rich and varied examples of language use, from a variety of speakers from different communities ranging from the late 1970s until early 2000s.

Newspapers

Related to the educational literacy texts are a series of newspapers, also produced (at least to a large degree) through the Papunya school. These newspapers are local community papers, with community news in both Pintupi-Luritja and English– sometimes both languages are present as translations/paraphrases of the same text, and sometimes only in one or the other language. These were produced from 1979 until 2003, often in monthly editions, with intermittent pauses. Production was strongest throughout the 1980s (coinciding with a period when the bilingual education program was thriving), with editions becoming less frequent from the 1990s onwards. They are extremely varied in length and content. They variously include community news and happenings; messages to the public from the health clinic, church, school council, or police; reports about recent meetings on housing, education, law changes, etc.; arrivals and farewells of non-Indigenous workers in the town; personal stories and recollections; work and drawings of school children; photographs; messages and letters to the community from former Papunya inhabitants; crosswords; Pintupi-Luritja comics; and more. As such they represent rich historical documents of the community. They also appear under a range of names, the most common being *Tjakulpa Kuwarritja* ('Current news'). Like the literacy books, these have been scanned and archived, and are publicly available through the National Library of Australia; every citation of a newsletter here is a hyperlink to the issue.

[30] Although no community had a bilingual education program spanning this entire time range; some started later and some ended earlier. See the timeline in Devlin et al. (2017), and the extended timeline on the supplementary website noted there.

Dictionaries

The latest, fourth edition of the Pintupi-Luritja dictionary (Hansen & Hansen, 2022) contains a large number of example sentences in Pintupi-Luritja with English translations. Many examples listed here are drawn from this source. Kenneth Hansen (*pers.comm.*) describes the example sentences from coming from a range of sources (explicit definitions of words, stories, other Pintupi-Luritja texts), from a range of ages (both older and younger), and from a range of Pintupi-Luritja speaking communities (mostly from Papunya, Mt. Liebig, and Kintore); moreover, there was no attempt to homogenise the language into aligning to any one prescriptive form. This last point is clearly seen in the examples– dictionary sentences more than any other source show greater variability in their form, more so than the materials from Papunya that make up the majority of the corpus otherwise drawn on here.[31] This can be seen for example in patterns of case allomorphy, verbal inflectional forms, and some lexical choices. The examples are clearly more idiomatic and natural in their subject and form than elicited or translated material. For these reasons I consider them to be a quite accurate reflection of contemporary Pintupi-Luritja. I draw on these examples liberally throughout the thesis, with information about the entry under which the examples are drawn from. Example sentences in the dictionary are often long– sometimes whole paragraphs– so the interested reader may in some cases wish to track down the original context of a sentence if I have taken only a single clause or two out of a broader discussion. Occasionally where the previous discussion is important for the comprehension of the text, but the actual forms less so, I have included– but greyed out– surrounding material.

In addition to the new dictionary, I have also drawn some examples from the Luritja Picture Dictionary (Hansen et al., 2011). Entries in this text include drawings, a headword, and an example sentence. The dictionary's foreword discusses how the examples in this dictionary arose from a great number of Luritja and Pintupi speakers (listed in the book) as verbal responses to the picture prompts.

The Luritja Bible

The use of the Luritja Bible (Bible Society of Australia, 2006) as a source for examples requires some discussion and justification. The use of Bible translations in linguistic work for various purposes has varying degrees of acceptance in the linguistic literature (Heider, Hatfield, & Wilson, 2011; Dryer, 2013). As a translated work there are concomitant concerns about the naturalness of the language in the text– that it relies too heavily on the syntax and style of the source material. Dryer (2013: 2) has a range of arguments to justify using a Bible translation to inform his sketch of Kara-Lemakot (Oceanic), which I believe broadly carry across to the current justification. The main point is the greater involvement of first-language speakers in the final product of a Bible translation, as opposed to purely fieldwork-based descriptions. Bible translations in general will be checked over more often by more people in greater detail than linguistic field notes (as a general rule). This should hopefully help discover any errors in

[31] Note that this could be a result of differences due to the literacy texts being primarily written texts; the influence of the written/spoken medium on linguistic form in the language has not been investigated.

the text; however whether this holds for any particular Bible translation is dependent on the process of translation used for that text.

Luckily, Hansen (1983) discusses the approach to the translation into Pintupi and Luritja taken for the Bible in some detail.[32] Hansen worked with longer and more idiomatic translations of the text, rather than translating overly literally. The goal is cited as naturalness of language and conveying of underlying meaning, at the expense of a sentence-for-sentence translation of the text. For this reason, in examples in this thesis, the Pintupi-Luritja sentences may bear little translational resemblance to the source sentence– usually they are a single sentence taken out of a much longer paragraph in context.

Hansen (1983: 21) describes the process of translation as involving the following steps:

1. *The translator satisfies himself of the meaning of the text, and produces a rough draft in language.*
2. *The translator and the Aboriginal translation-assistant rephrase and express that meaning in clear idiomatic language.*
3. *That version is then taken and read by, or read to, another Aboriginal translation-assistant.*
4. *The translator asks content questions, to expose that assistant's understanding of the text. Further changes are usually made at this stage.*
5. *Another translator with experience in Aboriginal language translation is called in as a consultant. He asks further questions concerning the language version, of yet another Aboriginal translation-assistant. The translator usually interprets for the consultant in these sessions. The consultant checks for a) exegetical accuracy, b) communication of the message into the receptor language.*

Hansen states that he himself would draft a rough version in Pintupi-Luritja; this is troublesome for taking the Bible as source material as I have done here. However the following steps involve several rounds of discussion and reworking the text with Pintupi-Luritja speakers. It is an assumption that any outright ungrammatical structures would have been removed and reworked in these stages. The stated goal of idiomatic and natural language in the text is emphasised in Hansen (1983), so it is to be assumed that care was also taken in this area as well, although examples may still not be completely appropriate for e.g. information structural or discourse-based investigations. Hansen notes the wide use and praise of this version and its language among Indigenous pastors in the region; Myers (2010) also notes the continuing use of the translated Bible as one of the 'pillars' of Pintupi Christianity.

For these reasons I do use Bible examples throughout the thesis. When citing English verses, I have used the New Revised Standard Version Updated Edition (NRSVue) throughout.[33]

[32]Thanks to David Moore for help tracking this source down. Note that Hansen (1983) speaks of translating for the Pintupi, and into Pintupi; however the resulting Bible in its 2006 published form is named the Luritja Bible.

[33]For translation into Pintupi-Luritja, the TEV (Today's English Version) was used as a basis, but other versions and commentators were also referred to (Kenneth Hansen *pers.comm.*).

Audio-visual material

There is increasingly more video and audio in Pintupi-Luritja for an Aṉangu audience on the internet, on sites like Youtube, Vimeo, and ICTV.[34] I have occasionally drawn on these for examples here; where I have done so, I include a link to those videos. As of the time of writing, all are still online. These videos can be broadly split into those that have clearly been translated from an English text, and those that are more naturally spoken. The translated texts usually come from government or health agencies; these are attempts to reach Aṉangu with health information. For example, accurate and timely COVID-19 messaging was essential during the beginning of the pandemic in 2020, and this information was translated into a number of Australian Indigenous languages including Pintupi-Luritja (Holcombe & Nampitjinpa Anderson, 2021; Gaborit, Robinson, & Sutherland, 2022; Glennie et al., 2022). Other health examples include information about renal dialysis, trachoma, and other health issues that disproportionately affect Aboriginal people in Central Australia. Legal issues are also discussed in these kinds of videos– arts law, issues around voting in elections, etc. They have in general obviously been translated from English texts (which form the basis of the translations into various Indigenous languages), and are spoken by and for Pintupi-Luritja speakers. These are often quite technical topics; this is a different genre to other types of texts here (e.g. story telling, game playing, dialogues), and undoubtedly less natural. What is interesting for present purposes is to see how certain grammatical constructions in the English text have been translated into Pintupi-Luritja. This is particularly important in the realm of modality– what one *must* do if you get COVID-19 for example– part III of this thesis looks into these questions. These kinds of environments appear less often in natural speech, so these videos contain good indications of how these English constructions are translated.

The other kind of videos are not scripted like the health messaging videos; these are videos with natural speech: story telling or dialogue. Many of these kinds of videos are put out by arts centres, where artists describe their artworks, personal histories, or *Tjukurrpa*/Dreaming connections to country and/or stories. Although these are not necessarily created (only) for an Aṉangu audience (surely these are also aimed at potential buyers of art further afield than Central Australia) these videos involve people speaking at ease in their own language. These videos are essentially always subtitled into English for the target non-Aṉangu audience.

There is a third type of media that I have by and large not included here, namely contemporary music. Aboriginal Central Australia has a vibrant music scene largely dominated by desert reggae. Most of these artists– such as the Tjupi Band, from Papunya– sing in their first languages. Papunya is also home to the well-known rock band the Warumpi Band, who likewise have many songs in language. I have not targeted contemporary song lyrics for exclusion; I have simply not organised any corpus based on them, as they are less readily available and would require transcription.

[34] Indigenous Community Television: https://ictv.com.au/

1.3 Some questions and assumptions

This thesis attempts two main objectives. The first is a stand-alone deeper description of the phenomena at hand in Pintupi-Luritja; particularly negation, focus sensitive elements, and modality. I hope for these to contribute to a generally more detailed understanding of how these systems work in Pintupi-Luritja, with extended significance for understanding the phenomena more generally (i.e. in Western Desert languages/Australian languages/natural language). This involves questions like "How does sentence position of elements like *kutju* ('only') or *wiya* (negation) affect the meaning of the sentence?" That is the first and arguably main goal of this thesis.

The second goal is to not only describe the phenomena on their own terms, but to start to see them through a layer of abstraction. We of course begin to do this as soon as we move beyond individual utterances and start to speak of particular constructions, or of position-meaning correspondences when we make claims like 'focus particles must right-adjoin to their focus associate.' Beyond this though, we also start to look for a general organisational system in the grammar at an ever greater level of abstraction. Ultimately these are used for triangulating conclusions on the syntactic structure of the language. Claims like 'Language *x* is non-configurational' are of this level of abstraction– depictions not of individual utterances, not of particular constructions, but of a more fundamental organisation of the language. The second goal of this thesis then asks the questions 'What do these phenomena suggest about the syntactic structure of Pintupi-Luritja?' and 'What is the relation between sentence position and interpretation in Pintupi-Luritja?' These questions cannot be answered as thoroughly as questions about the phenomena themselves, but detailed description of phenomena is an important first step towards them.

To investigate questions of the second goal– questions about syntactic structure and its relation to interpretation– we need to briefly consider a few issues. The main ones are non-configurationality and scope; these sections follow. Issues relating only/primarily to the phenomena themselves are discussed in those relevant chapters.

I am happy to remain relatively agnostic on most aspects of the theoretical framework adopted here, beyond a few fundamental assumptions. I will primarily make reference to approaches in the family of minimalist/principles and parameters approaches (i.e. Chomsky, 1981, 1995 and associated work) and Lexical Functional Grammar (e.g. Bresnan, Asudeh, Toivonen, and Wechsler, 2016). I think however that most of the finer points that separate most theoretical approaches are based on questions that at this point are premature in the context of Pintupi-Luritja. I am interested in the direction that the data suggest, and what this suggests about the best approach, particularly surrounding questions of the syntax-semantics inferface. At this stage however the insights are such that they can be profitably expressed in a range of frameworks.

1.3.1 (Non-)configurationality

Linguistic description has long shown that languages can encode various parts of their grammars in very different ways; work over the last half century or so in particular has worked to bridge descriptions of the various systems to more general linguistic theories. One of the debates that has grown out of this involves a proposed property of some languages dubbed non-configurationality; this debate questions the limits of variability that natural languages can exhibit at a deep structural level, namely in the degree of hierarchy in phrase structure that languages can or must have, and the role that it plays in the grammatical system. This thesis is not about configurationality *per se*, but it is situated in the larger context surrounding the issue.

Most of the central early data that fed the debate originates in Central Australia, through the work by Ken Hale and colleagues on Warlpiri (Hale, 1982b, 1982a, 1983; Nash, 1980; Laughren, 1989, 2002; Simpson, 1991; Hale, Laughren, & Simpson, 1995). A number of features of Warlpiri were noted for their divergence from more 'well-known' (and chiefly European) linguistic systems; Hale (1982a, 1983) demonstrated that Warlpiri exhibits 'free' word order, discontinuous expressions, and free/frequent omission of arguments (or null anaphora). These were taken together to be representing a different category of language, parameterised as the non-configurational type, to be distinguished from configurational languages (Chomsky, 1981).

The core of non-configurationality is the nature of syntactic structure of the language, namely in the degree of (asymmetric) hierarchy in structure, and what role it plays in the grammar. Non-configurational languages tend towards a 'flat' structure; that is, without asymmetric relations between syntactic units. Configurational languages on the other hand are hierarchical. This distinction leads directly to proposed differences in the way to determine grammatical functions in the clause, among other grammatical systems. In configurational languages, grammatical functions are generally determined structurally, whereas this is determined by other means in non-configurational languages.

The possibility of languages having a flat syntax, and thereby delegating various grammatical functions (like determination of grammatical roles) to other types of grammatical machinery (especially morphology) is a foundational aspect of theories like Lexical Functional Grammar (LFG). Theories of this general approach split information that is elsewhere associated with only phrase structure into different levels of representation (e.g. in the Australianist tradition see particularly Simpson and Bresnan, 1983; Simpson, 1991; Austin and Bresnan, 1996; Nordlinger, 1998b; see also Nordlinger, 2023; Andrews, 2023 for recent discussion). This allows a de-coupling of certain types of linguistic information from phrase structure, and allows other levels of representation to play a role.

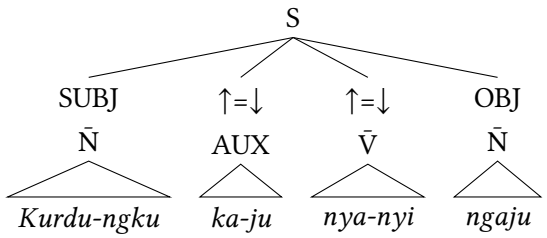
Under this view, sentences like the Warlpiri example in (8a) can be be represented with the flat c-structure (constituent structure) in (8b).

(8) a. Warlpiri (cf. Simpson, 1991: 99)

Kurdu-ngku	ka-ju	nya-nyi	ngaju.
child-ERG	PRS-1SG.Obj	see-NPST	I(ABS)

The child sees me.

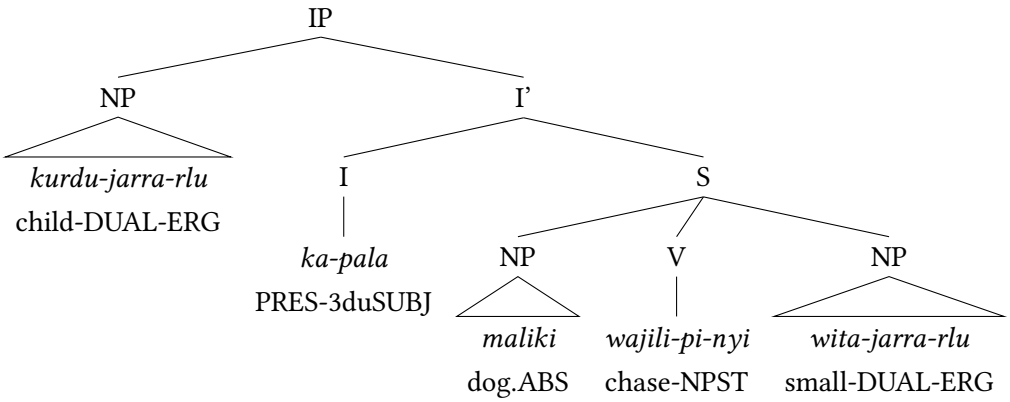
b.



Hierarchical or flat structure is not a binary property however, and in fact many analyses of languages arguing for non-configurationality in certain languages often assume particular syntactic domains to be flat (generally encompassing the 'lower' part of the structure– typically at least the verb phrase), while assuming other domains to be hierarchical (typically 'higher' domains, mainly associated with information structure; noun phrases are also often assumed to be hierarchically structured to some degree). This kind of approach can be seen in various analyses developed later in LFG which take information structure into account; in the Australian context this can particularly be seen in Austin and Bresnan (1996) and Simpson (2007).

(9) Warlpiri (cf. Austin and Bresnan, 1996: 225)

'The two small children are chasing the dog'



This aims to reflect the role of information structure in the general clause initial positions; the continuing flatness of the lower structure shows the complete lack of evidence for a VP in various languages investigated (e.g. Laughren, 1989; Simpson, 1991), and by extension the lack of correlation between phrase structural position and grammatical function (Nordlinger, 1998b).

The term 'non-configurationality' is therefore used in two slightly different ways in the literature; (i) to categorise a language based on linguistic phenomena observed in the language, such as very free word order and discontinuous expressions; and (ii) to describe an analysis of (parts of) the syntactic structure of a language, generally based on those kinds of observations (a point also made by Snijders, 2015: 106). Whether a language is configurational or not is then at least sometimes a matter of analysis; indeed it has been argued that the non-configurational language *par excellence*, Warlpiri, is completely configurational, with a fully-specified hierarchical phrase structure (Jelinek, 1984; Speas, 1990; Laughren, 1989, 2002; Legate, 2001, 2002).[35] Such a state of affairs is only possible by splitting our understanding of the term 'non-configurational' into a description of phenomena as separate to an analysis of it.

Investigations of further languages from the beginning made it clear that there was variable applicability of the characteristics seen in Warlpiri to the category of non-configurationality generally (Hale, 1982b); not every characteristic has to be present for a language to be classed as non-configurational. Not only this, but there is variation and degrees to which the characteristic manifests, which suggests that non-configurationality is not a uniform phenomenon/category (Nordlinger, 1998b; Baker, 2001; Pensalfini, 2004; Snijders, 2015).

Further work has led to changes in how to think about some of the features of non-configurationality; freedom of word order in particular has been the subject of much discussion, and has been cast not as complete freedom, but instead as freedom of word order from the burden of having to determine grammatical functions (e.g. Simpson, 1991; Nordlinger, 1998b).[36] In contrast to grammatical functions, the role of word order in determining– or at the very least being associated with– pragmatic/discourse considerations has been demonstrated in languages across Australia (e.g. Swartz, 1988; Austin, 2001; Rose, 2001; Laughren, 2002; Mushin, 2005b, 2006; Simpson, 2007; Simpson and Mushin, 2008; Bowern, 2012, *i.a.*). It is therefore important that 'free' word order does not mean stochastic word order; only that position does not define clausal arguments.

Freedom of word order for purposes other than information structure in these languages is much less well understood– and even for information structure the picture is quite incomplete. The state of research on further semantic functions like determining scope relations is by and large still in its infancy in Australian languages; some important exceptions include published and unpublished work

[35] As in other languages; e.g. Baker (1991), Pensalfini (2004).

[36] In truth it would be somewhat of a straw-man to take the phrase 'free word order' at face value; it was never understood to mean 'random.' Some representative clarifications: Hale (1983) notes that "In claiming that Warlpiri word order is 'free', I do not intend to deny that word order influences the interpretation of sentences. The role of word order in interpretation is an aspect of Warlpiri still very much in need of investigation." Nordlinger (2014): "There is no intention to claim that word order plays no interpretative role in understanding the full meaning of an utterance, and in fact it is well accepted that the ordering of clausal elements in such languages is pragmatically-driven." Mushin (2006): "This ['free' word order] is usually taken to mean that the ordering of core constituents is motivated by principles of information packaging rather than grammatical function. These are languages in which the permutation of constituents does not change the propositional content of the clause but rather reflects different contexts of utterance." Similar sentiments are found throughout the literature on the topic. Still, we can't just say that word order is determined by discourse and call it a day; recent studies have confirmed that there is enduring variability in word order in controlled contexts in Murrinhpatha and Pitjantjatjara (Nordlinger, Garrido Rodriguez, & Kidd, 2022; Wilmoth et al., forth.); a range of factors are noted in those studies to be relevant. This kind of variation suggests a complex picture of word order variability.

by Mary Laughren (1982, 2002, 2017a, 2018), discussion in Evans (1995), and some discussion in Heath (1986). Scope is another type of grammatical machinery that is clearly affected or restricted by word order (see the following discussion in section 1.3.2). These kinds of questions– freedom of word order where and for what purpose– will similarly be kept in mind in this thesis.

A fundamental aspect of non-configurationality then involves questions about the presence and absence of hierarchical syntactic structure.[37] A major question is what 'counts' as good evidence for syntactic structure; this is more generally a fundamental question about the syntax of natural language(s), and where the limits of variability are. Syntactic structure is proposed based on the behaviour of strings and interpretations; hierarchy (rather than e.g. linear precedence) as being the deciding factor determining linguistic behaviour is then always based on an analysis, since we never actually 'see' syntactic structures. The existence of structure is distilled and triangulated based on how word order interacts with other grammatical systems, although what counts here depends on more general theoretical assumptions– these can include the determination of grammatical roles, binding configurations, possible/impossible configurations of elements in the clause, correlations of position with information structural notions, etc.

No one test is conclusive for deducing syntactic structure; only with various types of evidence is there an argument in favour of deciding whether a particular string reflects syntactic constituency or a deeper organisation of elements. Failure of any one test for constituency does not let us conclude a lack of constituency. This is a complex and fundamental question in syntactic theorising, as there are sub-questions that are themselves complex: about what sort of linguistic information is stored where, and how is it structured; what role syntactic position plays in determining certain types of information in the clause, what is contributed lexically, etc. None of these are trivial questions, and different approaches have all led to different bodies of analysis. These kinds of differences in theoretical assumptions are behind some of the variation in analyses (see some discussion in Nordlinger, 2014). For example, whether binding facts in a language count as illuminating evidence for syntactic structure will depend very much on more general assumptions of the researcher and the theory assumed.

What is clear is that a detailed description of the phenomenon at hand is necessarily prior to an analysis of it. Therefore, description remains the main concern throughout this thesis; however in many places I suggest the kind of analysis that the data itself suggests. We will reconsider this again in a moment, in section 1.3.3.

1.3.2 Scope

We will be interested in a range of functional elements in this thesis; scope is an important issue for these. Szabolcsi (2001) characterises scope as follows.

[37] Although arguably the real question is not about structure *per se*, but what languages do with it– chiefly with regards to assigning grammatical functions; the two are often conflated.

(10) The scope of an operator is the domain within which it has the ability to affect the interpretation of other expressions.

An empirical question of interest is whether/to what extent this domain is reflected in, correlates with, or is defined by syntax. Reinhart (1978) was among the first to equate scope with purely syntactic structure, whereby the scope of an operator is to be equated with its c-command domain.[38]

(11) a. α takes scope over β iff α c-commands β

b. A syntactic constituent α c-commands a syntactic constituent β iff β is α's sister or contained by α's sister

This view is natural in the interpretative approach to grammar associated with 'mainstream' generative grammar, which assumes the primacy of syntax (Chomsky, 1957, 1965 *et seq.* and *etc*). Under an 'inverted Y' theory of grammar,[39] syntax creates structures which are then interpreted by other systems– specifically by a phonological and a semantic component. In a system like this, the output of syntax is the input for semantic interpretation. With this assumption, it is clear that syntax must play a fundamental role in establishing semantic notions like scope. Theories that distribute the roles that syntax plays in mainstream generative grammar to other domains of the grammar (like LFG) do not assume that syntactic structure is the deciding factor of scope determination (Halvorsen, 1983; Dalrymple, Lamping, Pereira, and Saraswat, 1997; Cook and Payne, 2006; Gotham, 2019).

The literature on the syntax-semantics interface has long had to contend with a range of natural language phenomena that are difficult to account for by a purely syntactic mechanism as it stands; this has resulted in a number of ways to tamper with a purely syntactic characterisation of scope (see Szabolcsi, 2001 for an overview of issues and related proposals; some others have abandoned c-command as the relevant notion at all, e.g. Webelhuth, 2022). In particular, inverse scope readings (where scope-taking elements lower in the structure semantically scope above a higher scope-taking element[40]) are common in natural language, and clearly are not covered by an approach to scope where these relations are simply read directly off the syntax. This has been handled in different ways; some approaches (like Quantifier Raising; May, 1978 *et seq.*) assume that syntax does uniformly determine scope, but that the surface syntax may differ from the configuration at the level of representation that is responsible for determining scope relations (i.e. LF, Logical Form). Differences between languages in the extent to which they exhibit scope ambiguities are a problem (e.g. Huang, 1982; Aoun and Li,

[38] This characterisation is from Hackl (2013), but cf. similar formulations by Reinhart (1978, 1983) and many others. Note other approaches advocating for c-command (or something like it) at roughly the same time as Reinhart (1978), especially Klima (1964); the mechanics of Montague (1973) also give very similar results in the relation between scope and syntactic position. Throughout I will also assume that the discussion in this section covers scope-taking elements generally; e.g. quantifiers, *wh*-operators, negation, intensional operators, etc. (É. Kiss, 2006).

[39] I.e. one in which syntax creates structures which are sent to be interpreted by the phonological system, and semantic interpretation. The 'inverted Y' refers to this split towards those respective systems.

[40] For example one hears on London tube trains conductors announce that *All doors will not open at the next station*, and we interpret it (correctly) that *Not all doors will open* ($\neg > \forall$), rather than that *None of the doors will open* ($\forall > \neg$).

1993 i.a.).[41] The role of syntax as the determiner of scope is therefore probably best characterised as a conjecture– albeit one very widely accepted– for which empirical evidence can provide evidence for or against.[42] In the face of problems like inverse scope readings, various explanations have been invoked to maintain the role of syntax as determining scope.

It does appear clear that syntax has to play a role in scope determination in a number of languages; there are a number of languages for which scope phenomena is very predictable from the surface orderings alone. This has been most extensively discussed in the literature on Hungarian syntax and its relation to scope (É Kiss, 1986, 1992; Kenesei, 1986; Hunyadi, 1986; Szabolcsi, 1997. a.o.).[43] Often an inverse correlation has been observed between freedom of word order in a language and the availability of inverse scope readings (e.g. as noted by Bobaljik and Wurmbrand, 2012)– that is, free word order is correlated with scope rigidity, whereas strict word ordering in a language/construction allows greater freedom in inverse scope readings. This could be cast as the assumption that languages value isomorphism between the syntactic and semantic ordering of scope bearing elements, although many factors play a role in the extent to which deviations are possible in particular configurations (Bobaljik & Wurmbrand, 2012; Fanselow, Zimmermann, & Philipp, 2022). The picture cross-linguistically is however not completely clear, and the question of how scope rigid 'free' word order languages are is still an active area of investigation; Fanselow et al. (2022) give a brief recent overview of work in this field.

The idea that syntactic structure is in some way involved in scope determination has consequences for syntactic constituency and hierarchy in the language under investigation. This was already noted by Reinhart (1983: 25): "The fact that the domains defined by c-command are always constituents makes these domains natural candidates for linguistic rules to operate on." McCawley (1996) makes the same point, noting that if the positioning and interpretation of *only* is regulated by c-command, then interactions in this area can provide evidence for and against constituency. The case of Hungarian is again interesting in this regard; É Kiss (1986, 1992) assumes the c-command requirement for scope determination, in addition to a flat VP; but since all scope taking elements must sit in the rich (hierarchical) left periphery of the clause, c-command relations can continue to determine scope. What this research shows is that c-command for scope determination and non-configurational/flat syntax are not necessarily mutually exclusive, as long as there are asymmetrically hierarchical positions for scope bearing elements. Other work, like Kenesei (1986) and Hunyadi (1986), assumes a more generally flat syntax for Hungarian, but that linearity in word order is taken to be a major determiner of scope interpretation rather than a structural definition.

[41] There are a range of other issues that play into scope determination. What I haven't and won't discuss is the effects of intonation and information structure on scope readings (Jackendoff, 1972; Büring, 1997; Krifka, 1998; Bobaljik and Wurmbrand, 2012, among many others). See also some discussion of the phenomena in the Hungarian sources cited below.

[42] It is certainly true that it is widely held that a structural analysis is a preferable analysis; e.g. Huang (1982: 110): "We will also indicate that an optimal theory should refer to the hierarchical structure of a given string in determining its scope properties, rather than at its linear structure."

[43] Although the correlation is not complete, and factors like intonation and information structure also appear to play a role; see cited works for details.

This brings up another point in the relation of syntax and scope determination. Sometimes scope is spoken about in terms of linear precedence, rather than c-command (like Kenesei, 1986 and Hunyadi, 1986 for Hungarian). Note that in the types of theories I assumed here, linear order is derived from more articulated structures; i.e. sentences as strings represent a loss of information with respect to the syntactic structures they represent. Linear order and hierarchical structure are therefore related in so far that the former is constructed from the latter, although the exact details of how linearisation happens might be contested. This is seen in the previously mentioned work on Hungarian. The two analyses are not always easy to tease apart, and indeed assumptions of a consistently right branching hierarchical structure will map directly onto linear order. In these cases, if α scopes over β, then α will also precede β (see particularly Bobaljik and Wurmbrand, 2012 for in depth discussion of this correspondence, and violations thereof). This subtle distinction is worth keeping in mind.

Most of the classic issues won't be investigated here; our aims will be comparatively much more modest. Whether there is likely a syntactic aspect to scope determination in Pintupi-Luritja at all is the empirical question. The empirical domain is also relatively restricted; as of writing we know too little about essentially all quantifiers in Pintupi-Luritja, for example, to be investigating scope taking behaviours (although we will briefly consider some examples in section 8.1.2). Instead we will concentrate on just a handful of elements: negation, exclusive phrases (like English 'only'), modals, and a little discussion of indefinite noun phrases. Of these, negation is the most pervasive, as we will investigate how it interacts with the other phenomena.

A final note on terminology; we will speak of *wide*/*narrow* scope– when two scope-taking elements establish scope relations between them, the element x with the higher scope takes wide scope with respect to the lower element y; in that same configuration we can say that y takes narrow scope with respect to element x. Scope relations will be read from left to right throughout, either with or without an angled bracket ($x > y$).

1.3.3 Guiding questions

This thesis focuses on a range of phenomena that on first glance do not obviously lead into one another (negation, association with focus/focus sensitivity, modality). While I also want to examine these as standalone phenomena, there are some general characteristics that are relevant in each case and link them together. I see this issue as the nature of the syntax-semantics interface in Pintupi-Luritja; or, whether/how/the extent to which sentence position and interpretation influence and relate to one other.[44] This question ties these investigations together, as all three raise fundamental questions about this topic.

[44]Cf. the characterisation by Hackl (2013): "The empirical goal of research on the syntax–semantics interface is to determine the extent to which the meaning of an expression depends on its syntactic properties and the extent to which its syntactic properties are a function of its meaning. The theoretical goal is to give a principled account of these interactions…" Since the empirical goals are necessarily prior to the theoretical ones, we will be focusing on the former throughout.

"What is the nature of the relation between syntax and semantics (in Pintupi-Luritja)" is a big question. Like all big questions, it cannot really be answered in its current form; the way to approach it is by answering sub-questions, which in turn are composed of sub-questions.[45] I hope that the phenomena investigated here might be illuminating on relevant issues for ever increasingly bigger questions like this, by bringing data from a linguistic area that is both (i) understudied and (ii) historically of central relevance for these questions (Hale, 1982b, 1982a, 1983; Simpson, 1991, 2007; Laughren, 1989, 2002; Legate, 2002; Bowe, 1990, etc).

The guiding question throughout then is: "To what degree does word order correlate with or influence other grammatical systems in Pintupi-Luritja?" The question of whether a language has free word order is really better phrased as a series of subquestions:

(12) **Word order is free/restricted:**

a. In which domains?

b. To what extent?

c. To what purpose?

More generally the questions in (12) will lead us through the relation between syntax and semantics in the language– how much is interpretation affected by word order in a sentence? These questions also maintain a level of generality such that we can apply them to the various phenomena investigated here– for example, whether scope is determined by syntax (and if so, where or with which elements, and to what extent?); or, whether the placement of focus particles is syntactically constrained (and if so, with which elements, to what extent, and what effect does it have?), etc.

This thesis will examine some of these questions in greater detail. We will shortly see that the answer to these questions is not complete freedom in word order.[46] For example, ordering possibilites in the nominal domain are much less free than in the verbal domain, both in Western Desert languages (see chapter 2.2) as well as in a number of Australian languages more generally (Louagie & Verstraete, 2016; Louagie, 2020; Louagie & Reinöhl, 2022). The presence of phrase structure in these domains has also been accepted by approaches that otherwise assume flat structure elsewhere in the clause (e.g. Bresnan et al., 2016: 4). Similarly, the placement of pronominal clitics is very restricted (see chapter 2.3). At least some non-finite clauses appear to be syntactically subordinate to the main clause, and themselves form complex constituents. Nonetheless, clauses maintain a great deal of variability in word ordering possibilities. These kinds of questions focus on more purely syntactic issues, and are considered in chapter 2.

We are however more greatly interested in the extent to which syntax correlates with different types of meaning in Pintupi-Luritja, and how the position of particular elements in the clause affects

[45] Really it's sub-questions all the way down.

[46] In the Western Desert context, Bowe (1990) in particular is an important prescursor for demonstrating this point in Pitjantjatjara.

meaning. To do this, we will look at negation (chapter 3), focus particles comparable to English 'only' and 'also' (part II), and modal elements (part III). These topics are threaded together as operators and functional elements in the clause.[47] Throughout we will also see how these elements interact with each other– particularly with negation. By describing these interactions between meaning and the ordering of words in the clause, we can see the domain, extent, and purpose of word order variations. These questions are crucial in working towards a characterisation of the syntax of the language, and how it interfaces with semantics.

[47] Seen through this lens, the topics investigated here are not as much of a mixed bag as they may seem; studies in Jackendoff (1972) overlap to large degree with the topics throughout this thesis, and compare the following discussion by Kenesei (1986), who also focuses on these topics in Hungarian: "As is clear... whatever the grammatical function of a constituent may be, its position is free in a marked sentence, provided it has no logical function. How do we know if an expression has logical function? Let us approach the answer from the perspective of LF, and stipulate that any expression whose interpretation contains a logical operator (negation, modality, etc.) or a variable will be said to carry a logical function. In this sense, all quantifiers, numerals (including the indefinite article) will have logical functions, in addition to expressions containing the Hungarian equivalents of only, even, etc."

Chapter 2

Grammatical overview

This chapter serves to provide the necessary background on important aspects of grammatical structures of Pintupi-Luritja. It is by no means an exhaustive description of Pintupi-Luritja grammar– neither in depth nor in topics covered. Many important aspects of grammar will not be discussed at all here. Instead, it is a brief overview of only what is needed for the reader to follow the examples throughout the rest of this dissertation. This chapter is split into the following sections: phonology, the nominal domain (particularly case and pronouns), the clitic (or bound pronoun) system, and an overview of the verbal domain (verbal inflection, and an overview of some important clause types).

This chapter owes a large intellectual debt to existing work, particularly Hansen and Hansen (1969, 1978) and Heffernan and Heffernan (2000) for Pintupi and Pintupi-Luritja, and others for comparisons within Western Desert. I will cite them as the appropriate sources throughout the text. The interested reader is directed to these sources for greater detail on the grammatical systems. It is worth noting that in my own experience, and for the vast majority of texts drawn on for this dissertation, the language contemporarily spoken in (at least) Papunya aligns to a greater extent with the language as described in Heffernan and Heffernan (2000) than the language in Hansen and Hansen (1978). This is true of many topics in the grammar, including conditions on case allomorphy, the most common verbal inflectional forms, and pronominal forms. This makes sense considering both the time in which the two descriptions were written in relation to the corpora relied on, as well as the circumstances– Hansen and Hansen (1978) were describing the language of the Pintupi who had at that stage only recently come east to Papunya (recall section 1.1 on this recent history). As noted in section 1.2.2, some of the grammatical structures described by Hansen and Hansen (1978) can however be seen most prominently in the examples of the latest edition of the Pintupi-Luritja dictionary (Hansen & Hansen, 2022), which suggests more general and enduring variability throughout the Pintupi-Luritja speech community.

As with every natural language, there is still so much of the grammatical system of Pintupi-Luritja that is as yet undescribed in the academic literature, both in breadth and depth. Hopefully further work– ideally led by Aṉangu– will continue to lay out the rich and complex structures of the grammatical

system. Unfortunately this chapter can only serve as a blueprint for issues directly relevant to discussions in this thesis.

Pintupi-Luritja on the whole exhibits a range of grammatical phenomena familiar from other languages of the area, which we will be examining in this chapter. These include agglutinating morphology, dependent marking, a person-based split-ergative case marking system, a series of second position clitics that cross-reference clausal arguments, common (although not unrestricted) omission of clausal arguments, and comparatively quite free word order (at least in some domains). For example, the ordering of subject, object, and verb in a simple declarative sentence is unrelated to grammatical function.[1]

(13) a. **SOV**

Wati paluru malu kutju kunti-nu.
man DEM kangaroo one shoot-PST
(Source translation:) He shot one kangaroo, …

Wati kukaku yankukitja (Morris, 1983c)

b. **SVO**

Ngayulu nya-ngu linga watiya-ngka.
1SG.ERG see-PST lizard.type tree-LOC
I saw a lizard [Central Netted Dragon] in a tree.
(Source translation:) Yesterday I went to get some wood and I saw a big red lizard.

Yanytjarilakutu ngayulu anu mungatu ngayulu anu (Wheeler, 1975)

c. **OSV**

Miinpa pipirri-ngku kuunytja-nkupayi.
fuchsia child-ERG suck-HABIT
(Source translation:) The children suck secretion from the native fuchsia.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *kuunytjananyi*

d. **OVS**

Ngalypuru kultju-nanyi pipirri-ngku.
wild.honey suck-PRS child-ERG
(Source translation:) The child is sucking the wild honey.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *kultjunanyi*

[1] This property of word order being unrelated to grammatical function has been long discussed in Western Desert languages. Variability in this domain has been shown for Pitjantjatjara both in corpus studies (Bowe, 1990; Langlois, 2004) and more recently experimentally (Wilmoth et al., forth.). These studies suggest robust and enduring variability in word order. Differences in how often certain orderings occur are consistently recorded (i.e. not all orderings are equally as likely), but those questions will not be investigated in this thesis for Pintupi-Luritja.

e. **VSO**

Nya-ngu nganaṉa walypala tjuṯa.
see-PST 1PL.ERG white.person many
We saw many white people.
(Source translation:) We watched them coming.

Ngayulu kuliṉu mamu (Wararrngula Tjupurruḻa, 1988)

f. **VOS**

Ngurri-ṉu watiya palu-nya tjana.
search-PST tree DEM-ACC 3PL.ERG
(Source translation:) They searched that tree.

Nyaangku tjananya wakaṉangi? (Napurruḻa & Nakamarra, 1987b)

Due to this behaviour, and the relative freedom to omit referential expressions (see section 2.3 for nuance), Pintupi-Luritja aligns to a great extent with the language type that Hale (1982a, 1983) described as non-configurational (recall discussion in chapter 1.3.1). Not all of the characteristics of non-configurationality apply to Pintupi-Luritja– for example discontinuous noun phrases are marginal if possible at all– but as discussed, not every language classed as non-configurational shows all of the characteristics associated with the classification.

2.1 Phonetics, phonology, and phonotactics

This section is largely based on descriptions in Hansen and Hansen (1969) and Hansen and Hansen (1978), and is similar to descriptions of the phonetics and phonology of other Western Desert languages (Douglas, 1955, 1964; Platt, 1972; Goddard, 1985; Burridge, 1996; Langlois, 2004; Jones, 2011; Tabain & Butcher, 2014; Wilmoth, 2022). Although essentially every description includes phonological descriptions of the languages under investigation, until now only Pitjantjatjara has been the subject of detailed phonetic investigations (Tabain and Butcher, 2014; Tabain et al., 2014; Tabain and Butcher, 2015b, 2015a; Tabain et al., 2016b, 2016a, 2020, a.o.), investigations into phonetic/phonological variation and change (Langlois, 2004; Minutjukur et al., 2019; Wilmoth et al., 2021; Wilmoth, 2022), and intonation (Tabain & Fletcher, 2012; Defina et al., 2020). There has also been renewed interest in revisiting and reexamining older metrical and prosodic analyses of Western Desert languages (e.g. Wilmoth et al., 2021; Wilmoth and Mansfield, 2021; Wilmoth, 2022). Greater depth of description of the phonetics and phonology of the relevant languages can be found in those references.

Pintupi-Luritja has a comparable phonological inventory to other Western Desert languages. It has three vowels, /a/, /i/, and /u/. There is a contrastive length distinction, with long vowels orthographically represented by <aa>, <ii>, and <uu>. There is some slight variation in their phonetic realisation depending on environment; see Hansen and Hansen (1969) for details.

The language has seventeen consonants, which do not show voicing distinctions. These are distributed across bilabial, apical alveolar, apical post-alveolar, laminal alveo-palatal, and velar places of articulation.[2] These are represented in the following table, followed by their orthographic representation in angled brackets if different from the IPA symbol.

	Bilabial	**Apical alveolar**	**Apical post-alveolar**	**Laminal alveo-palatal**	**Velar**
Stops	p	t	ʈ <t̲>	c <tj>	k
Nasals	m	n	ɳ <n̲>	ɲ <ny>	ŋ <ng>
Laterals		l	ɭ <l̲>	ʎ <ly>	
Tap/trill		r <rr>			
Glides			ɻ <r>	j <y>	w

Primary lexical stress occurs on the first syllable. Usually, Western Desert languages are described as having secondary stress on odd numbered syllables following primary stress (with no stress on final syllables); however phonetic investigations into the closely-related Pitjantjatjara have concluded that there is no evidence for secondary stress, *contra* wide-spread claims to the contrary (Tabain et al., 2014).[3]

Syllable structure is of the form CV(V)(C). There is variation in whether speakers allow a word-initial vowel, or whether all words must begin with a consonant. This means that there are a range of words that can begin with either a vowel or a glide, for example *ananyi* and *yananyi* 'go.PRS', or *uḻa* and *wuḻa* 'boy.' Some speakers allow both options, and use both variants of a word. This is not totally universal though; there are a number of words in Pintupi-Luritja with an obligatory initial consonant, but for which cognates in other languages allow an initial vowel; for example *yuwa* 'yes' is never *uwa* in Pintupi-Luritja, as it is in Pitjantjatjara.[4] This variation has been described as regional: that traditional Pintupi does not allow vowel-initial words, but that more eastern varieties do (e.g. Hansen and Hansen, 1969: 169, Miller, 1971b: 64, Heffernan and Heffernan, 2000: 21).[5] However it is unclear the extent that this phonotactic restriction is subject to general synchronic variation for Pintupi-Luritja speakers– at least impressionistically, both variants are produced by individual speakers.[6] This suggests that the

[2]These descriptions of these places of articulation are taken from neighbouring Pitjantjatjara as described by Tabain and Butcher (2014); Hansen and Hansen (1969) in fact describes the places of articulation in Pintupi as bilabial, apico-alveolar, apico-domal, lamino-alveolar, and velar.

[3]As Wilmoth (2022) notes though, there are morphological complexities surrounding stress placement that were not taken into account by Tabain et al. (2014).

[4]See Heffernan and Heffernan (2000: 22) for a short list of such words.

[5]This variation in possible consonantal/vowel onsets can be seen across various Western Desert varieties, e.g. Goddard (1985: 13). Pintupi only allowing consonantal onsets aligns it with the more northernly Wangkajunga and Yulparija (Jones, 2011: 34; Burridge, 1996: 15). This is perhaps less surprising considering that traditional Pintupi country is further west/north-west of communities like Papunya, and is geographically closer to these more northern varieties.

[6]As an example, in the book *Kungka wiima* (Nakamarra, 1997b), the verb (*y*)*uwa* 'give.IMP' has a consonantal onset in some cases and a vowel in others.

distribution of this constraint is subject to variation more generally in the language, rather than different speakers adopting different phonotactic systems. This point awaits further research.

There are a series of constraints for consonant positioning in the word and in clusters; these can be found in Hansen and Hansen (1969). One important constraint is that words must end with a vowel. There are two main repair strategies used to avoid a word final consonant: the addition of an epenthetic morpheme *-pa* (Hansen & Hansen, 1969: 160) or *-nga* (Hansen & Hansen, 2022), or the free addition of a vowel. These kinds of phonotactic constraints also apply to borrowings from other languages, including English borrowings, which are adapted to fit the Pintupi-Luritja sound system; some examples can be seen in section 2.2.1 below.

2.2 The nominal domain

The nominal domain is worth investigating as separate from the verbal domain, as it is here that constituency plays a much more obvious role, and word order is restricted to a much greater extent than some areas of clausal syntax. Noun phrases (NPs) are clearly syntactic constituents in Pintupi-Luritja. Three main kinds of evidence will be shown for this in the following chapter: the fact that case marking attaches to the right edge of an NP; the fact that an NP can precede second-position clitics; and the greater restriction of word ordering in this domain. These three characteristics are discussed by Louagie and Verstraete (2016) as common markers of NP constituency in Australian languages.

Orderings with case marking and positioning with clitics are discussed in the following sections; here let us briefly consider the ordering of elements within the NP. The characteristics of nominals in Western Desert languages have to be considered when teasing apart the internal structure of the NP; elements that would be translated into languages like English as either a noun or an adjective are distributionally very similar in many Australian languages (cf. discussions of similar issues in Goddard, 1985; Simpson, 1991). More adjective-like elements can appear more noun-like, from an English perspective. For example *wiima* ‘small, little’ can either modify another element (like an adjective; example 14a), or stand alone as a nominal in the clause (in which case it usually means ‘child’, cf. English phrases like ‘little one’; example 14b).[7]

(14) a. Kungka **wiima** yanu maama palumpa-kutu.
girl **little** go-PST mother 3SG.DAT-ALL
A little girl went to her mother.

Kungka wiima (Nakamarra, 1997b)

[7] Goddard (1985: 17, 21) characterises this behaviour as in (14b) as ellipsis of the head noun; I don’t know what tests could distinguish this analysis from one where more adjective-like nominals can simply act as the head of an NP.

b. Ulkumanu tjuṯa yunytju-rri-nganyi **wiima** tjuṯa ninti-ntjaku tjukarurru
old.lady many desirous-INCH-PRS **little** many learn-PURP correct
kami-ku luwu wana-ntjaku; anta kuultitji tjuṯa-ṯarra ninti-ntjaku.
grandmother-DAT law follow-PURP CONJ school.teacher many-also learn-PURP
The older ladies want the little ones to learn to follow (their) grandmothers' law correctly; and for the school teachers also to learn.

Anytjaki anutja (Poulson, 1997)

Distinguishing between these elements involves distinguishing their role in the NP, rather than their distributional or morphological properties– whether an element is modifying another element is more telling than whether it can bear case marking, for example.

Taking this into account, we can describe what complex NPs look like in Pintupi-Luritja. In doing so we see an ordering like the following (but see below for discussion of the greyed-out possessors, and variation of demonstratives; note too the variation in readings available for *tjuṯa*, including 'many', 'all', or just 'a plurality of').

(15) POSSESSOR$_1$ ● HEAD NOUN ● ATTRIBUTE ● POSSESSOR$_2$ ● DEMONSTRATIVE ● QUANTIFIER

Although it is rare to see all elements present within a single NP, this ordering emerges when comparing relative ordering of the elements. Case marking sits on the right edge of the NP, following the final element.

(16) a. POSSESSOR$_1$ ● NOUN ● ATTRIBUTE ● POSSESSOR$_2$ ● DEMONSTRATIVE ● QUANTIFIER
[**Pipirri wiima tjuṯa-ngku**]=ya tjapi-ṉi aṉangu kuultitji kutju,
child little many-ERG=3PL.Subj ask-PRS Aṉangu school.teacher one
Ngana-nya ngurra ngaatja?
who-NOM country DEM
***All the little children** ask the Aṉangu school teacher "Which country is this?"*

Aturunyatjarra Yara/Narlie's Yara (Nakamarra, 1997a)

b. POSSESSOR$_1$ ● NOUN ● ATTRIBUTE ● POSSESSOR$_2$ ● DEMONSTRATIVE ● QUANTIFIER
[**Pipirri ngayu-ku tjuṯa**] yuriḻṯa yinkangara-nyi.
child 1SG-DAT many outside play.around-PRS
*(Source translation:) **My children** are playing outside.*

Rumiya warringka rumiya kuḻingka (Brown Napurrula, 1986)

c. POSSESSOR$_1$ ● NOUN ● ATTRIBUTE ● POSSESSOR$_2$ ● DEMONSTRATIVE ● QUANTIFIER

[**Kungka paluru kutjarra**] wati wiya nya-ngu palu-nya kutjarra wana-n̲i-ngka.
girl DEM two man NEG see-PST DEM-ACC two follow-PRS-LOC

***Those two girls** didn't see the man, following them.*

(Source translation:) Those two girls didn't see that a man was following them.

Warumpinya Ngurrara Kuulaku Piipa: Papunya school paper (April 1986 p.18)

d. POSSESSOR$_1$ ● NOUN ● ATTRIBUTE ● POSSESSOR$_2$ ● DEMONSTRATIVE ● QUANTIFIER

Paapa palumpa-ngku u-ngu **kungka wiima palu-nya**.
father 3SG.DAT-ERG give-PST **girl little DEM-ACC**

*Her father gave (some money) to **that little girl**.*

Kungka wiima (Nakamarra, 1997b)

e. POSSESSOR$_1$ ● NOUN ● ATTRIBUTE ● POSSESSOR$_2$ ● DEMONSTRATIVE ● QUANTIFIER

[**Nganampa walytja tju̲ta-nya**] nyina-ngu palya-lingku. Tjana wiya
1PL.DAT family many-NOM sit-PST good-INTENS 3PL.NOM NEG
miinta-rri-ngkupayi.
sick-INCH-HABIT

*(Source translation:) **Our people** were very healthy. They weren't always getting sick.*

Papunya news: Warumpiku tjakulpa kuwarritja (June 1994, p.6)

f. POSSESSOR$_1$ ● NOUN ● ATTRIBUTE ● POSSESSOR$_2$ ● DEMONSTRATIVE ● QUANTIFIER

[**Ngayu-ku kangkuru wiima palatja**] ngalya kati, ngayulu palu-nya
1SG-DAT older.sister little DEM hither bring.IMP 1SG.ERG 3SG-ACC
nyunytju-ntjaku.
kiss-PURP

*(Source translation:) Bring **my small older sister** here so I can kiss her.*

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kanguru 1*

This is broadly comparable to descriptions of NP ordering in some other Western Desert languages (e.g. Pitjantjatjara Bowe, 1990; Wilmoth, 2022),[8] and less like others; Jones (2011: 235ff) for example shows greater variation in the ordering of elements within the NP in Wangkajunga, suggesting a connection to the discourse status. Such variation is not immediately obvious in Pintupi-Luritja.

[8]Bowe (1990) lists Pitjantjatjara NP ordering as *head–demonstrative–attribute–quantifier–case marker*; Wilmoth (2022) argues instead for *head–demonstrative–attribute–intensifier–quantifier–definite palu-*, with *palu-* being one of the particular determiners.

The NPs listed above show that word ordering within the NP is not completely rigid however. The most conspicuous point of variation in the NP is the positioning of possessors, which can either precede the head noun, or follow it. The following give examples in the context of full sentences.[9]

(17) a. Ngana-lu **ngayuku kulaṯa** kilytjunta-nu?
who-ERG **1SG.DAT spear** break-PST
Who broke my spear?

Kanyaḻa maṉkurrpa (Beattie, 1988)

b. **Pipirri ngayuku** tjuṯa yuriḻṯa yinkangara-nyi.
child 1SG.DAT many outside play.around-PRS
(Source translation:) My children are playing outside.

Rumiya warringka rumiya kuḻingka (Brown Napurrula, 1986)

Bowe (1990: 39) and Wilmoth (2022) demonstrate that similar variation in positioning is also present in Pitjantjatjara.[10] Wilmoth undertakes a detailed study of this variable positioning of possessors and concludes that there are a number of factors that influence the likelihood of relative ordering.

There are also some issues with the above characterisation of the position of demonstratives within the NP. Issues with these elements have also been noted by previous descriptions of Western Desert NPs (Goddard, 1985; Bowe, 1990; Wilmoth, 2022). In some of these descriptions, demonstratives have been argued as generally occurring immediately following the head noun, but that slight manipulations of ordering are possible with a corresponding change in semantics; for example, note Wilmoth's category of *definite palu-* as distinct from *demonstrative*. Bowe (1990) describes even more variation in the positioning of the demonstrative in Pitjantjatjara– preceding the head noun, immediately following, and later in the NP complex– again correlated with a differing semantics: emphatic demonstrative, non-emphatic demonstrative, and contrastive uses. Such differences in meaning have not been investigated in detail here, but we can note similar variation in positioning.

Firstly, although generally following the head noun in the Pintupi-Luritja NP, demonstratives can also in some cases precede it.[11]

[9]Note though that in some cases, dative-marked elements can be ambiguous between possessors and ethical datives, i.e. the use of the dative case to signal uses including benefactive and malefactive relations (e.g. Browne, 2021). This makes particularly examples like (17a) ambiguous. Thanks to Jane Simpson for pointing this out.

[10]These authors refer to this marking as genitive rather than dative, as these cases involve possession; however since dative and genitive are syncretic across the entire paradigm I've kept the dative label, but note that the phenomena between the languages are entirely comparable.

[11]Note the number and placement of clitics in this example; although I cannot explain examples like this according to the descriptions of clitic placement in section 2.3, it is possible that intonational factors may be at play– that pauses throughout the clause can 'reset' the domain for clitic placement. Hansen and Hansen (1978: 114) do note that "[t]here seems to be no restriction on repeating the pronoun cluster once or twice later in the sentence" in Pintupi, so this may be a more general feature of the language. This point requires further work.

(18) Ngalya-nu=ya **ngaatja waru** kutja-ra-lpi=ya warri-ngka-lpi=latju
hither.come-PST=3PL.Subj **DEM fire** light-MV-then=3PL.Subj cool-LOC-then=1PL.excl.Subj
mangarri-lpi=latju ngalku-n̲angi.
food-then=1PL.excl.Subj eat-PST.CONT
*(Source translation:) After coming, they finally made **this fire**, and finally, then, we were all eating food in the late cool afternoon.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ngaatja*

The immediately post-nominal demonstratives can also be found; in some cases, the demonstratives even co-occur with other demonstratives/determiners.

(19) Tjinguru piyuku=n̲a watja-lku [tjuuri **ngaa palu-nya**].
maybe again=1SG.Subj say-FUT story **DEM DEM-ACC**
(Source translation:) Maybe I will say a little more about that story.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ngaa 2*

This suggests that there is similar variation in positions for demonstratives in Pintupi-Luritja. This type of variation in position is not possible for any other elements in the NP, with the exception of possessors. It is also not clear from these examples the extent to which there is a semantic correlate of variable positioning.

There are some other characteristics of demonstratives that position them as comparatively atypical elements of NPs. For example there are a few examples where they follow the head noun, but are split from it by clitics; this is not otherwise possible for elements within the NP.[12]

(20) Mamat̲ura=**n̲i** **ngaanya** pikatjarra, put̲u ya-nkupayi=n̲a.
big.toe=**1SG.Obj DEM** sore-COMIT in.vain go-HABIT=1SG.Subj
(Source translation:) This big toe of mine is sore, and I tried to walk in vain.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ngaanya*

Also complicating the picture is the double life that some of the elements involved lead. For example *panya*, described by all mentioned descriptions of Pitjantjatjara as a demonstrative, is also used as a sentential particle (meaning something like 'which you know', or 'as mentioned') and in tag questions (asking for affirmation: 'right?').[13] When this occurs immediately following an NP, it is unclear whether it forms part of the NP constituent or not– the positioning outside of case marking in the following examples suggests not in this case.

[12]Note the unusual use of an object clitic instead of dative for the possessor in sentence (20); this behaviour is briefly discussed in section 2.3.1 below.

[13]See e.g. example (92a) for an example of *panya* as a sentential particle.

(21) a. Kala **pitjataṉpa wiima-nya panya** ngulu tjalkaḻu-ngu piṯi-kutu.
PRT **rabbit little-NOM PRT** fearfully run.off-PST hole-ALL
(Source translation:) But, the little rabbit ran away back to his burrow.
Pitjataṉpa wiimanya (Brown, 1987b)

b. Context: Text accompanying a picture of a local Aboriginal man addressing the Minister for Education on a visit to Papunya.
Ngaatja Minitja tjapi-ṉi Marupi-lu **mani-ku panya** kuula-ngka
DEM minister ask-PRS Murphy-ERG **money-DAT PRT** school-LOC
warrka-rri-payi tjuṯa mani ngalya-nkunytjaku.
work-INCH-HABIT many money hither.come-PURP
Here Murphy is asking the minister for that money to come for the school workers.
(Source translation:) This is Murphy asking the Minister about the pay for the School Workers because their pay often doesn't come on time.
Tjakulpa kuwarritja (December 1986, p.13)

Later work will be needed to tease apart the fine structure of noun phrases in the language and flesh out the characterisation sketched here.

2.2.1 Case marking

Case marking of grammatical relations can be broadly characterised as split ergative. That is, for common and proper nouns, transitive subjects are morphologically case-marked differently to intransitive subjects and transitive objects, which are marked similarly; but for pronouns, transitive and intransitive subjects are marked similarly, and unlike the transitive object. This pattern therefore broadly aligns with patterns associated with the Silverstein hierarchy (Silverstein, 1976).

I will assume an analysis of how morphological case marking patterns interact with the broader case system in line with that put forward by Goddard (1982b). There, Goddard argues that these kinds of case systems are an example of tripartite marking in combination with syncretisms across some parts of the system.[14] In other words, the split ergativity of languages like Pintupi-Luritja is the result of three main grammatical cases: ergative case (which covers transitive subjects only), nominative case (which covers intransitive subjects only), and accusative case (for transitive objects), morphologically distinguished to different degrees in particular environments. I will use these terms (ergative, nominative, accusative) to refer to these cases throughout. The patterns observed can be drawn back to syncretisms between these cases in particular parts of the case marking system. Apparent 'ergative-absolutive' marking among common and proper nouns is due to syncretisms of the nominative and accusative case forms in those environments. The ergative, not being syncretic with any other case marker in this environment,

[14] Western Desert generally, and Pintupi specifically, are discussed in the paper, although the analysis is not restricted to these languages.

stands in opposition to the other two. Similarly, the apparent 'nominative-accusative' marking in the pronominal system is due to syncretism between ergative and nominative cases in those environments; again, the accusative, not being syncretic, is marked differently.

This can be represented in the following table; greyed out cells represent syncretism. This identity of morphological form in certain environments is what leads to apparent 'nominative/accusative' and 'ergative/absolutive' case patterns.

(22)

	ERG	NOM	ACC
Tripartite marking:			
'Nom/Acc' pattern:			
'Erg/Abs' pattern:			

Pronoun case forms will be discussed in the following section 2.2.2. Both common and proper nouns align to an ergative system, i.e. the intransitive subject and transitive object are marked similarly, and differently to the transitive subject. The status of an NP as a proper or common noun is a pervasive influencing factor in the Pintupi-Luritja case system, as in some other Western Desert languages.[15] The ergative case form for proper nouns[16] is *-lu*, and for common nouns it is *-ngku*. For proper nouns, both accusative and nominative cases are *-nya*, whereas for common nouns these cases are both null.[17]

(23) **Proper nouns**

a. **Ergative *-lu***

Nangala-**lu** kamu Nungarrayi-**lu** mangarri yuṉmi mungu-ṉi.
skin.name-**ERG** CONJ skin.name-**ERG** veg.food ripe eat-PRS
Nangala and Nungarrayi are eating ripe (vegetable) food.
Kungka tiṉa tjuṯa yanu Iniṉṯilakutu (Anon., n.d.)

b. **Nominative *-nya***

Napanangka-**nya** kamu Nangala-**nya** ngara-nyi tjaputjapu-tjarra.
skin.name-**NOM** CONJ skin.name-**NOM** stand-PRS ball-COMIT
Napanangka and Nangala are standing with a ball.
Kungka tiṉa tjuṯa yanu Iniṉṯilakutu (Anon., n.d.)

[15] But not all; neither Ellis (2007) nor Jones (2011) note this factor as being an important factor for case forms in Ngaatjatjarra/Ngaanyatjarra or Wangkajunga respectively. I should also note that Goddard (1985: 25) concludes from the role of common/proper noun status that case markers are in fact portmanteau morphemes, encompassing both case and name status; I will characterise this instead as name status being a relevant conditioning environment for case allomorphy.

[16] Including subsection/'skin' names, as in (23a) and (23b). *Wh-* words relating to people, like *ngana-* 'who' exhibit proper name allomorphy; relating to non-humans like *nyaa* 'what' follow common nouns.

[17] Note the lack of ergative case on the subject in example (24c); I do not know why it is missing. This kind of slight variance in 'expected' form is occasionally seen in texts, and I leave it to future work to decide its significance.

c. **Accusative *-nya***

Tjana ya-nkula nya-ngu Tjayimitja-**nya** Tjaana-**nya**, kaaka-rarra=pula.
3PL.ERG go-MV see-PST James-**ACC** John-**ACC** brother-pair=3DU.Subj

Going along, they saw James and John, two brothers.
(Source translation:) As he went a little farther, he saw James son of Zebedee and his brother John, who were in their boat mending the nets.

Maakakuṉu/Mark 1:19 (Bible Society of Australia, 2006)

(24) **Common nouns**

a. **Ergative *-ngku***

Wati tjuṯa-**ngku** naanytja kaḻpatju-nanyi ikunytji-la.
man many-**ERG** horse load.up-PRS Haasts.Bluff-LOC

(Source translation:) The men at Haasts Bluff are loading horses. [i.e. onto a truck]

Ikunytjinya (Morris, 1983b)

b. **Nominative *-ø***

Minyma a-nanyi, rumiya-ku.
woman go-PRS goanna-DAT

(Source translation:) The woman is going for goanna.

Nyaaku ananyi? (Nelson, 1985)

c. **Accusative *-ø***

Kungka paluru kutjarra **wati** wiya nya-ngu palu-nya kutjarra wana-ṉi-ngka.
girl DEM two **man** NEG see-PST DEM-ACC two follow-PRS-LOC

Those two girls didn't see the man, following them.
(Source translation:) Those two girls didn't see that a man was following them.

Warumpinya Ngurrara Kuulaku Piipa: Papunya school paper (April 1986 p.18)

Several other Western Desert languages have been described to have this kind of phonologically conditioned case allomorphy, sensitive to place of articulation (e.g. Goddard, 1985; Burridge, 1996; Ellis, 2007; Jones, 2011; Wilmoth, 2022). This kind of allomorphy is by and large not a feature of Pintupi-Luritja.[18] The conditioning factor for allomorphy is instead only the lexical properties of the NP the case attaches to, namely their common/proper noun status. Instead of phonological assimilation, consonant-final loan words and names receive an extra epenthetic vowel between the final consonant

[18] Although it has been described as a feature of Pintupi (Hansen & Hansen, 1978: 43); Heffernan and Heffernan (2000: 47) do note that this kind of consonant assimilation does exist with some older speakers in Pintupi-Luritja. This is similar to how Langlois (2004: 56ff) describes case allomorphy in Areyonga teenage Pitjantjatjara. This variety in fact appears to mirror Pintupi-Luritja in many respects; see for example comparisons of negative strategies in chapter 3.4.

and the case marker; Heffernan and Heffernan (2000: 48) describe this vowel as an /a/; this can be seen in (25a), but examples like (25b) show that this epenthetic element can more generally have a range of vowel qualities.[19] The general ban on consonant-final words means that these epenthetic vowels are not only needed for case marking, but would be included even when no case marking follows (as in the first words in example 25b).

(25) a. Ngayulu palya-ṉu ngali **Tjiipana-lu** mungatu=litju palya-ṉingi palatja
1SG make-PST 1DU **Steve-ERG** recently=1DU.excl make-PST.CONT DEM
raka-pala waaḻa-ngka tjiḻpi tjuṯa-ku...
five-CARD house-LOC old.men many-DAT...
*(Source translation): I built them– **Steve** and me, we built them a while ago, by the five houses for the old men...*

Tjakulpa kuwarritja (June 1987, p.7)

b. **Tjatalayiti tiitji kaanytjala**-ngku ngalya-kati-ngu-tju yaṉangu tjuṯa-ngku
satellite dish council-ERG hither-bring-PST-NMLZ people many-ERG
nya-kunytjaku tiipiyi ngaa-ngka **tawunu**-ngka nguwanpa.
see-PURP tv here-LOC **town**-LOC SEMBL
(Source translation): The satellite dish that the Council has bought means that people can watch television programs here like in Alice Springs.

Tjakulpa kuwarritja (October 1987, p.2)

While this characterisation of the proper/common distinction in case allomorphy generally holds, there is some variation amongst speakers in the conditions that trigger the allomorphy of ergative case forms. Heffernan and Heffernan (2000: 35) note that some speakers "with a strong Pintupi background" only use *-lu*, and are not sensitive to the common/proper name distinction. This can be seen in (26), examples taken from the Pintupi-Luritja dictionary, which show *-lu* instead of *-ngku* ergative allomorphs on common nouns.

(26) a. Pipirri tjuṯa-**lu** mantji-ra ngalku-ṉingi putipulawu aani nguwanpa-tjarra.
child many-**ERG** get-MV eat-PST.CONT flower honey SEMBL-COMIT
(Source translation:) The children were getting and eating the honey like secretion from the grevillea flowers.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *aani*

[19] Langlois (2004: 58) reports the addition of an extra vowel between consonant final nominals and case markers in Pitjantjatjara in Areyonga, with the similar effect that the phonologically conditioned ergative allomorphs are not used; like the Pintupi-Luritja situation, ergative forms are consistently *-lu* and *-ngku*. Langlois similarly describes this additional vowel as an /a/.

b. Iinytjina kuya-**lu** wuyila ngalku-n̲i.
engine bad-**ERG** oil consume-PRS
(Source translation:) A worn engine consumes oil.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *iinytjina*

c. Mayi-wiya tjul̲pu-**lu** kutju ngalku-payi.
food-NEG bird-**ERG** only eat-HABIT
(Source translation:) It [the ngarrawara shrub] has no food on it for people, only the birds eat it.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ngaranyi 2*

There appears to be general variation in choice of allomorph in some cases; in the following sentence for example, *yan̲angu* 'person' takes the *-lu* in one sentence, and *-ngku* in the next. Future work may uncover the conditioning factors for this kind of variation.

(27) Yan̲angu-**lu** nya-kula kuli-lpayi "Uu tjul̲pu tjut̲a kaput̲u-rri-nganyi." ...
person-**ERG** see-MV think-HABIT oh bird many together-INCH-PRS

Yan̲angu-**ngku** palu-nya tjut̲a nya-nganyi tjiki-ntja-ngka, ...
person-**ERG** DEM-ACC many see-PRS drink-NMLZ-LOC ...

(Source translation:) People see them and think, "Oh, the birds are gathering over there." ...People see them when they're drinking.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *kaput̲urrinyi*

While these allomorphs for ergative case (*-ngku*/*-lu*) are seen in some other Western Desert languages, these allomorphs are not universal across the family. Miller (1971b: 64) for example notes variation in ergative forms at Warburton Mission, and associates the *-ngku* form with eastern varieties, and *-lu* with western. This similarly aligns with descriptions in Jones (2011: 100), who notes that only the *-lu* allomorph exists for the northern Western Desert languages (Yulparija, Wangkajunga, Kukatja, Manyjilyjara, and Pintupi), as well as the more westerly Ngaanyatjarra, but that allomorphy between *-lu* and *-ngku* exists in the more southerly Pitjantjatjara, Yankunytjatjara,[20] and Gugada. Jones doesn't mention Pintupi-Luritja, but the data given here shows it to align more with the eastern/southern varieties in having the two allomorphs.

Some elements, like the quantifier *tjut̲a* 'all, many, a plurality of',[21] or demonstratives like *ngaatja*, appear at first glance to exhibit optional case marking (McGregor, 2010), in that the nominative/accusative case *-nya* is variably present.

[20] Goddard (1985: 25f) notes that for some older Yankunytjatjara speakers there is variation in allomorphy, in that *-lu* forms are generalised, similar to the description here of Pintupi-Luritja.

[21] Cf. descriptions of Warlpiri *panu* (Bittner & Hale, 1995; Bowler, 2017).

(28) a. ***Tjuṯa* with overt nominative case *-nya***

Nganampa walytja **tjuṯa-nya** nyina-ngu palya-lingku. Tjana wiya
1PL.DAT family **many-NOM** sit-PST good-INTENS 3PL.NOM NEG
miinta-rri-ngkupayi.
sick-INCH-HABIT

(Source translation:) Our people were very healthy. They weren't always getting sick.

Papunya news: Warumpiku tjakulpa kuwarritja (June 1994, p.6)

b. ***Tjuṯa* with zero-marked nominative case**

Irriṯi-kunyu yaṉangu **tjuṯa** nyina-ngu. Tjanampa ngurra ngara-ngu paṉṯu-ngka
long.ago-PRT person **many** sit-PST 3PL.DAT country stand-PST salt.lake
ila.
near

(Source translation:) A long time ago there lived some people near a lake.

Waṉampi (Tjungarrayi Stockman, 1987)

(29) a. ***Tjuṯa* with overt accusative case *-nya***

Yirriṯi kuultitji kutjarra-ngku kati-ngu wiima **tjuṯa-nya** Aturu-lakutu
long.ago school.teacher two-ERG take-PST little **many-ACC** Aturu-ALL
nya-kunytjaku naanytja-ku.
see-PURP horse-DAT

Long ago two school teachers took the children to Aturu to look for horses.

Aturunyatjarra Yara/Narlie's Yara (Nakamarra, 1997a)

b. ***Tjuṯa* with zero-marked accusative case**

Tjana rumiya **tjuṯa** pu-ngkupayi a-nkupayi waṉma-lingku.
3PL.ERG goanna **many** kill-HABIT go-HABIT far-INTENS

They would kill many goannas (and) go very far.

Anytjaki tjananya katingutja (Phillipus, 1998)

Although this could be described as optional case marking, I think it is better seen as variation in what system of conditional case allomorphy the speaker abides by. This can be seen by the ergative forms *tjuṯa* has; impressionistically the most common ergative marking is *-ngku*, but *tjuṯa* can also bear *-lu*. If *tjuṯa* is similarly subject to the kind of variation in allomorphy conditions described for ergative above, then this would naturally extend to nominative and accusative as well.[22] This patterning can be seen in examples like the following.

[22] Although note that Goddard (1985: 25f) explicitly states that while there is some variation for some Yankunytjatjara speakers whether they abide by name-status *-ngku*/*-lu* ergative allomorphy, or extend the *-lu* form to all forms, that this

(30) Wangka kuṉpu puḻka wangka-rra nyinakati-ngu katja-**nya**.
word strong great speak-MV sit.down-PST son-**NOM**
(Source translation): After speaking that powerful word my son sat down.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *kuṉpu*

For *tjuṯa*, a nominative and accusative form *-nya* aligns with *tjuṯa* patterning with the proper noun set of forms/conditions, whereas the null form aligns with those associated with common nouns. The kind of variation in (28) and (29) is therefore likely not variation in whether *tjuṯa* is case-marked or not (i.e. not optional case marking), but rather depends on which system of conditional allomorphy the individual speaker is relying on (at the time of utterance– the degree of intra-speaker variability is yet unknown). It is unknown at present how much the variation in the case marking system is due to general variability, and how much due to mixing or targeted use of different systems of conditional allomorphy.[23]

Aside from these three core cases (ergative, nominative, accusative), Pintupi-Luritja boasts a series of other cases. The dative case has the form *-ku* with all nominals (but cf. discussion of the pronominal system in section 2.2.2). Other cases begin to venture away from marking core verbal participants, and begin to locate NPs in time and space, or associate them with other clausal elements, etc. These are what are sometimes called *semantic* cases, in opposition to the grammatical cases mentioned above (Hale, 1982b; Simpson, 2023).

Like core cases, the locative[24] case is sensitive to the common/proper noun distinction; common nouns are marked *-ngka*, whereas proper nouns are marked *-la*. This sensitivity is likewise reflected in the other spatial cases: allative (motion toward), ablative (motion from), and perlative (motion along).[25] Common nouns have the allative form *-kutu*, whereas proper nouns and pronouns build this form onto the locative, giving *-lakutu*. Common noun ablatives have the form *-nguru*, while proper nouns and pronouns have *-languru*.[26] Common noun perlative case has the form *-wana*, while proper nouns and pronouns take *-lawana*.

Aside from case markers that primarily reference temporal and spatial location, other cases have more complex semantic contributions. The avoidance case marker is also built on the locative: *-ngkamarra* for common nouns and *-lamarra* for proper nouns; a sentence of the form *x-ngkamarra*

variation applies to ergative case only. Nominative and accusative case marking is not affected by the same allomorphy. Example (30) shows this sensitivity in Pintupi-Luritja.

[23]There are in fact other conceivable factors at play here, like the semantics of the nominal in question.

[24]The locative case not only covers location in space and time, it is also used as an instrumental, and on nominals that mark the reason that an action takes place; i.e. *x*-LOC can mean 'on account of *x*.'

[25]These cases have other uses as well; e.g. ablative can also indicate cause or origin, and perlatives can also indicate an accessory function: 'doing action *y* *x*-*lawana*' (perlative) indicates doing action *y* together with, or in association with *x*.

[26]Recall that ablatives encode both motion from, and cause/origin. There is another form of the case, *-tjanu*. Whereas Heffernan and Heffernan (2000: 45f) say that Pintupi speakers use *-tjanu* for both of these meanings, some others use *-nguru* for both, and some use *-nguru* for motion and *-tjanu* for cause.

indicates that an action was undertaken to avoid *x*. Finally,[27] Pintupi-Luritja also has comitative and privative cases. The comitative *-tjarra* indicates that the marked element is in some sense possessed or accompanies another entity; privative *-wiya* indicates non-existence, and is discussed in much greater detail throughout chapter 3.

See (387) in the appendix for an overview of case morphology, keeping the discussions on variation throughout this section in mind.

In terms of syntactic distribution, case markers appear at the right edge of the nominal they mark; if it is a complex noun phrase, then elements inside that noun phrase are not additionally marked.

(31) a. [Yuṉtalpa wiima]-**ngku** yurra-ra tju-nanyi turali-ngka.
daughter little-**ERG** gather-MV put-PRS trolley-LOC
(Source translation:) The little daughter collected them and put them in the trolley.
Kantina puutjingka (Brown, 1987a)

b. [Pipirri wiima tjuṯa]-**ngku**=ya tjapi-ṉi aṉangu kuultitji kutju,
child little many-**ERG**=3PL.Subj ask-PRS Aṉangu school.teacher one
"Ngana-nya ngurra ngaatja?"
who-NOM country DEM
All the little children ask the Aṉangu school teacher "Which country is this?"
Aturunyatjarra Yara/Narlie's Yara (Nakamarra, 1997a)

The placement of the case marker can therefore be seen as a test for constituency in the nominal domain, as case morphology demarcates the right edge of the complex. The sentences in (31) for example demonstrate that adjectives (like *wiima* 'little'), and quantifiers (like *tjuṯa* 'all, many, a plurality of') follow the head noun, and form part of a complex NP constituent with it.[28]

Besides marking clausal referents, ergative case also appears on modifiers (like manner adverbs) associated with the transitive subject.[29]

[27] I draw the line at what elements count as a case marker here, although there are some other candidates that one could plausibly include as well. The cases listed here are those most commonly discussed in Australianist literature, so these are the ones that I have included.

[28] We can note that although case marking demarcates the right edge of the NP, other elements can still build further constituents with that NP; i.e. the edge of the NP does not always mean the end of constituency. This is seen for example with elements like *kutju* 'only' (discussed in detail in chapter 5), or verb-object constituents in some non-finite clause types, discussed below in section 2.4.

[29] I don't have a lot of data about the allomorphy of ergative marking on adverbials. Example (214) in chapter 5.2.2, discussed in footnote 20, suggests that allomorphy on adverbials does not track the proper noun status of the nominal it relates to; in that example, the proper noun is marked with *-lu* as expected, but the adverbial with *-ngku*. It is unclear at the moment how robust this generalisation is however.

(32) a. Maama tjuṯa-**ngku** purinypa-**ngku** pipirri tjuṯa kanyi-nytjaku pilkaṯi-ngkamarra.
mother many-**ERG** careful-**ERG** child many care.for-PURP snake-AVOID
(Source translation:) All the mothers should watch their children carefully lest they get bitten by a snake.
Tjakulpa kuwarritja (December 1985, p.9, 16)

b. **Nganaṉa** nya-ngangi ingka palu-nya purinypa-**ngku**.
1PL.ERG see-PST.CONT foot DEM-ACC careful-**ERG**
(Source translation:) We cautiously examined the feet [i.e. tracks]
Mamulama ngalyananyi (Napurruḻa & Nakamarra, 1987a)

When the subject is intransitive, these manner adverbials remain unmarked.

(33) Ngayuku tjitji ngaatja **purinypa** katu-rri-nyi.
1SG.DAT child**.NOM** DEM **slowly** upwards-INCH-PRS
(Source translation:) This child of mine is slowly getting taller.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *purinypa*

In the case of ergative marking (32), it is not assumed that the case marks the right edge of a nominal constituent, as is assumed for NPs; instead, ergative case here is linking or agreeing with the subject in case. As (32b) shows, the manner adverb does not need to be linearly contiguous with the subject, but can appear separately, later in the clause. Ergative marking on the subject is not sensitive to what the actual form of the ergative marking is on the subject either; in (32b), the subject form *nganaṉa* '1PL.ERG' is syncretic with the nominative form– there is no overt ergative case here as for nominal forms; nonetheless, the adverbial is marked with the overt ergative *-ngku*.

2.2.2 Pronouns

We can divide pronominal forms according to case, person, number, and clusivity. Some of these distinctions are more transparently identifiable in the morphology than others. To begin, I give here the pronominal forms organised by person, number, and core cases.

(34)

SG	1	2	3
ERG	*ngayu-lu*	*nyuntu*	*palu-ru*
NOM	*ngayu-lu*	*nyuntu*	*palu-ru*
ACC	*ngayu-nya*	*nyuntu-nya*	*palu-nya*
DAT	*ngayu-ku*	*nyuntu-pa*	*palu-mpa*

(35)

DU	1	2	3
ERG	*ngali*	*nyupali*	*palu-ru kutjarra*
NOM	*ngali*	*nyupali*	*palu-ru kutjarra*
ACC	*ngali-nya*	*nyupali-nya*	*palu-nya kutjarra*
DAT	*ngali-mpa*	*nyupali-mpa*	*palu-mpa kutjarra*

(36)

PL	1	2	3
ERG	*nganaṉa*	*nyurrangarri*	*tjana*
NOM	*nganaṉa*	*nyurrangarri*	*tjana*
ACC	*nganaṉa-nya*	*nyurrangarri-nya*	*tjana-nya*
DAT	*ngana-mpa*	*nyurrangarri-mpa*	*tjana-mpa*

Accusative case uniformly has the case form *-nya* across the entire paradigm, syncretic with the accusative case form for proper nouns. Nominative and ergative forms are consistently syncretic across the paradigm; generally this form is null. The two exceptions are with 1.SG and 3.SG/DU, where the forms are *-lu* and *-ru*. The splitting of these forms from the stem can be justified by the fact that it is the stem without these markers that other cases attach to (e.g. *ngayu-nya*, and the absence of **ngayulu-nya*), and the fact that at least for 1.SG, the case form is the same as the ergative for proper nouns, *-lu*. Note though that I will tend to gloss these forms here as a single form (i.e. as *ngayulu* instead of *ngayu-lu*), partly for consistency with other pronominal forms, which are generally not split, and partly to avoid unnecessary divisions in the gloss. What the actual analysis of these forms may be is a different question. For example, the argument that the split between pronoun base and case marking depends on which form other cases attach to is also not watertight. 1.PL forms for example are consistently *nganaṉa*, and all other semantic cases attach to this form– except for datives, which attach to the base form *ngana–*. Despite this, it would not be attractive to analyse the 1.PL pronominal base as *ngana–*, as this would open issues with the identity of the *-ṉa* that appears elsewhere for all other case forms. In being less exact with the glossing of pronominal elements in this thesis I attempt to sidestep any great obligations to any one synchronic analysis.

Other case forms are more straightforward. Dative is split between *-ku* for 1.SG, which is the same form for nominals, and *-pa*/*mpa* for the rest of the pronouns. Case forms for other semantic cases have the allomorphs of proper nouns, as discussed above (e.g. *-lawana*, instead of *-wana* for perlatives). These other cases attach to the pronominal bases where a split is indicated in the tables above;[30] i.e. allative forms are *ngayu-lakutu*, *nyuntu-lakutu*, *palu-lakutu*, etc.

We see that number is embodied in the morphology, which generally has suppletive forms (i.e. unrelated stems correlating with number), with the exception of third person dual, which is transparently the 3rd person form *paluru* with the addition of *kutjarra*, which is the cardinal form of the number 'two.'

[30]Note that 1.PL forms attach to *nganaṉa*, not to *ngana-* like dative marking does.

(37) Wati **paluru kutjarra**-ngku nya-ngu Ritakinga-nya kapi tjiki-nytja-ngka.
man **DEM two**-ERG see-PST Red.King-ACC water drink-NMLZ-LOC
Those two men saw Red King drinking water.
(Source translation): The men saw Red King drinking.
Yara wati kutjarratjarra naantja yini Ritakinganya (Morris, n.d.)

In fact the 3rd person form *palu-* plays a double role, as a demonstrative. As such, it can form part of a complex noun phrase, as we saw for example in example (24c). Dixon (1980: 357) notes that 3rd person pronoun forms in Western Desert languages, and Australian languages more generally, often have transparent relations to demonstratives, which can make uses of these elements difficult to tease apart from each other, especially with questions of definiteness and specificity (see Louagie and Verstraete, 2015 for discussion). It is therefore likely that both forms in *paluru kutjarra* are assembled from lexical items with a more general suitable semantics (i.e. extending the cardinal number 'two' to duality in the pronoun system). This extension of more general elements is arguably also seen for the 2.PL form *nyurrangarri*, as the form *nyurra* can be seen in the clitic system (see section 2.3 below), and *-ngarri* is a more general marker that indicates a plurality of associated individuals.

(38) a. Walypala tju̲ta=ya ngalya a-nu walypala Tjuunytji-nya-**ngarri**
white.person many=3PL.Subj hither come-PST white.person Jones-NOM-**ASSOC**
kamula tju̲ta-t̲arra, …
camel many-also …
Many white people came, Jones and all that lot, and camels too, …
(Source translation:) Then the whitefellas came, Jones's mob. They came on camels, …
Ngayulu kuli̲nu mamu (Wararrngula Tjupurru̲la, 1988)

b. Yilta Katutja-lu-**ngarri** tjana-nya pu-ngkula wiya-lku.
truly God-ERG-**ASSOC** 3PL-ACC strike-MV NEG-FUT
Truly, God and his company will, striking them, destroy them.
(Source translation): These are demonic spirits, performing signs, who go abroad to the kings of the whole world, to assemble them for battle on the great day of God the Almighty.
Tjukurrpa Nyangutja/Revelation 16:14

However, this element is integrated into the pronoun form to a greater degree than the *kutjarra* of third person forms, since case markers attach to the right edge of *-ngarri*, but split *kutjarra* from *paluru*.[31]

[31] At least for accusative *-nya*, dative *-mpa* etc. The case of ergative marking is more subtle; example (37) shows ergative marking on the right edge of the NP *wati paluru kutjarra*. This is obviously difficult to align with analysing the *-ru* of *paluru* as an ergative case marker. In (37), ergative *-ngku* does not split *paluru* and *kutjarra*, but again, this usage is clearly as a demonstrative within a complex NP, and not as a pronoun. This kind of behaviour might suggest different distributions that can help tease the two uses of pronoun and demonstrative apart.

Clusivity is not indicated in these tables; it can be indicated by the addition of the exclusive morpheme *-tju*: *ngalitju, nganaṉatju*, etc. See also its use in the clitic system in section 2.3 below.

2.2.3 Case marking in peripheral constructions

Australian languages differ in how/whether/to what degree case marking patterns differ in dependent or subordinate clauses as compared to main clauses (see Austin, forth. for a typology of strategies). In Pintupi-Luritja, case marking strategies for clausal arguments remain constant regardless of clause type.[32] This means that the language does not exhibit case alternations dependent on particular syntactic configurations– for example there is no apparent case-marking behaviour similar to ECM (Exceptional Case Marking) or ACI (*Accusativus cum Infinitivo*), where embedded subjects bear case marking associated with the object of the matrix clause (cf. '*I want him.*$_{\text{ACC}}$ *to leave*' and similar constructions). Embedded and non-finite subjects and objects receive the same case marking as they would in matrix or finite clauses.

(39) a. **Subordinate nominative subject**

Ngayulu	unyju-rri-nganyi	**tjana**	ninti-rri-ngkunytjaku	maama
1SG.NOM	desirous-INCH-PRS	**3PL.NOM**	knowledgable-INCH-PURP	mother

tjana-mpa-nguwaṉpa.
3PL-DAT-SEMBL

I want them to learn like their mothers (did).
(Source translation:) I think they should learn to sing and dance as their mothers did long ago...
Warumpinya ngurrara kuulaku piipa: Papunya school paper (September 1985 p.14)

b. **Subordinate ergative subject**

Ngayulu	yunytju-rri-nganyi	**Katutja-lu**	nyurrangarri-nya	alṯuru-rri-ngkula
1SG.NOM	desirous-INCH-PRS	**God-ERG**	2PL-ACC	compassion-INCH-MV

yaṉṯayaṉṯa-ntjaku ...
care.for-PURP

I want God to care for you, being compassionate.
(Source translation:) Grace be with all who have an undying love for our Lord Jesus Christ.
Yipitjalakutu/Ephesians 6:24 (Bible Society of Australia, 2006)

[32] This is apparently not a constant strategy across the Western Desert family however; Burridge (1996: 25f) describes altered case marking for core arguments in some non-matrix clauses in Yulparija for example.

c. **Subordinate accusative object**

Papunya Tjupi Arts Centre-alu yunytju-rri-nganyi welcom-mila-ntjaku
Papunya Tjupi arts centre-ERG desirous-INCH-PRS welcome-LOAN-PURP

nyurrangarri-nya, ...
2PL-ACC

Papunya Tjupi Arts Centre would like to welcome you, ...

Video: Papunya Tjupi Arts would like to welcome you! (Papunya Tjupi Arts, 2020, 00.00–00.06)

Examples which superficially appear to exhibit ECM-like behaviour, such as those in (40), are instead readily analysable as cases where the object of the matrix clause is to be identified with the subject of the non-matrix clause, but due to general pro-drop properties of the language, it is the subject of the non-matrix clause that is non-overt, rather than the object of the root clause; that is, analysed as (41a) rather than (41b). As discussed in section 2.4.2, these kinds of 'circumstantial' clauses are best analysed as adjuncts.

(40) Wati paluru kutjarra-ngku nya-ngu Ritakinga-**nya** kapi tjiki-nytja-ngka.
man DEM two-ERG see-PST Red.King-**ACC** water drink-NMLZ-LOC
(Source translation): The men saw Red King [the horse] drinking.

Morris (n.d.)

(41) a. Wati paluru kutjarrangku nyangu Ritakinga**nya**$_{i}$ [_$_{i}$ kapi tjikinytjangka.]

b. Wati paluru kutjarrangku nyangu [Ritakinga**nya** kapi tjikinytjangka.]

Some cases of apparent altered case marking appear to be related to particular verbs acting as complex predicates. The verb *palya-* 'do, make' can be found in a particular causative construction, as in the examples in (42). Here, it is likely that *palya-* with the result state (*miiṉṯa* 'sick', *rama* 'mad', and *tuunlayiki* 'don't like' respectively[33]) together form a kind of complex predicate that takes the affected party as an object.[34]

[33]The nature of *tuunlayiki* is interesting; its source is clearly the English 'don't like', but the Pintupi-Luritja dictionary describes *tuunlayiki* as a noun meaning 'hateful person.' They include examples of it bearing ergative case, but it is unclear whether it is acting as the subject or as an adverbial. I'm treating it here as a result state like the other examples, but whether it maintains any of the argument structure from its English source is not totally clear. Similarly, the role of the dative-marked nominal *yulkupa* 'vomit' in (42a) is also unclear.

[34]Cf. a remarkably similar example to (42a) from Mpwarnte Arrernte in Wilkins (1989: 362). This might suggest a more general areal connection in how verbs like *palya-* 'make, do' behave syntactically in central Australia. One possibility is that it is a grammatical calque from English (cf. e.g. '*Make **them** sick*'); its attestation since at least the 1980s shown here, and similar structures in Arrernte suggest that it is at least quite an integrated construction.

(42) a. Tabulata-ngku nyuntu-**nya** miin̲t̲a palya-n̲i.
tablet-ERG 2SG-**ACC** sick make-PRS

Phosphate tabuleta-ngku nyuntu-**nya** yulkapa-ku palya-n̲i.
phosphate tablet-ERG 2SG-ACC vomit-?DAT do-PRS

The tablet makes you (feel) sick. Phosphate binder tablets can make you vomit…

Cf. English text on the screen: 'Sometimes tablets can make you feel sick.'

Video: Phosphate story Pintupi Western Desert Dialysis (2015); 4.29–4.37

b. Tjana yilu-payi pina-wiya nyi-nanyi, tjana-**nya** tjurratja-ngku rama palya-n̲u,
3PL.NOM die-HABIT ear-NEG sit-PRS 3PL-**ACC** alcohol-ERG mad make-PST

tjana pina pati-n̲i.
3PL.NOM ear close-PRS

(Source translation:) They really don't sit down and listen. They go mad from the grog. They close their ears.

Lit. 'The grog makes ***them***$_{ACC}$ *mad.'*

Tjakulpa Kuwarritja (September 1986, p.3)

c. Pika-ngku palu-**nya** tuunlayiki palya-lpayi.
Sickness-ERG 3SG-**ACC** don't.like make-HABIT

(Source translation:) The sickness makes him hate people.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kurrarunytju*

Another area where apparent unexpected case marking occurs involves some subordinate or adjunctival clauses. Occasionally, an intransitive matrix subject can bear ergative case instead of nominative if the non-matrix clause is transitive, and the subject of the two clauses is identical. For example in (44a), the verb *yunytjurrinyi* 'want' is an intransitive verb; nonetheless, the subject *wati paluru kutjarra* 'These two men' is ergative marked.[35]

[35]Similar ergative marking of intransitive subjects in the presence of subordinate transitive clauses has been noted in other Western Desert languages as well, including Wangkajunga (Jones, 2011: 70, 278ff), and Pitjantjatjara (Wilmoth, 2022).

(43) Wangkajunga
Tuju-rti-**lu**=ya ya-nku Derby-kutu nya-ku-kitja parntany-parntany-ku.
woman-PL-**ERG**=3PL.Subj go-FUT Derby-ALL see-IRR-INTENT woman-RDP-DAT

The women will go to Derby because they want to see the old women.

Jones (2011: 279) (Gloss slightly adapted)

(44) a. Wati paluru kutjarra-**ngku**$_{i}$ yunytju-rri-nyi [_$_{i}$ witi-ntjaku naantja].
man DEM two-**ERG** desirous-INCH-PRS catch-PURP horse
(Source translation): Two men were wanting to catch a horse.
Yara wati kutjarratjarra naantja yini Ritakinganya (Morris, n.d.)

b. Ulkumanu tjuṯa-**ngku**$_{i}$ yunytju-rri-ngangi [_$_{i}$ yara watja-ntjaku] pipirri tjuṯa-ngku
old.woman many-**ERG** desirous-INCH-PRS story tell-PURP child many-ERG
kuli-ra ninti-rri-kunytjaku.
listen-MV knowledgeable-INCH-PURP
The old women want to tell a story for the children, having listened to it, to learn.
Anytjaki anutja (Poulson, 1997)

c. 1970-ngka yaṉangu tjuṯa-**ngku**$_{i}$ [_$_{i}$ waarrka palu-nya palya-ntjaku]
1970-LOC person many-**ERG** work DEM-ACC do-PURP
yunytju-rri-ngu…
desirous-INCH-PST…
In the 1970's people wanted to do this work…
Warumpiku tjakulpa kuwarritja: Papunya newspaper (November 1994, p.4)

d. Papunya Tjupi Arts Centre-**lu**$_{i}$ yunytju-rri-nganyi [_$_{i}$ welcom-mila-ntjaku
Papunya Tjupi Arts Centre-**ERG** desirous-INCH-PRES welcome-LOAN-PURP
nyurrangarri-nya]…
2PL-ACC…
Papunya Tjupi Arts Centre would like to welcome you…
Video: Papunya Tjupi Arts (2020) 0.00–0.06

In a small number of cases the matrix subject is ergative marked even though the subordinate clause is intransitive, like *yinkangara-* 'play around'; due to the relative rarity of this kind of construction it is unclear how productive this strategy is.

(45) Wiima kuula-ngurrara tjuṯa-**ngku** yunytju-rri-nganyi yinkangara-nytjaku
little school-DENIZ many-**ERG** desirous-INCH-PRS play.around-PURP
kapatjayita-rri-payi-ngka.
upside.down-INCH-HABIT-LOC
(Source translation:) Many of the school children like playing with the Gym mat and springboard.
Warumpinya ngurrara kuulaku piipa: Papunya school paper (April 1987, p.4)

On the whole then, distribution of case marking is entirely determined by grammatical function of the case-marked element in question. This does not depend on whether the argument is in a matrix, subordinate, or adjunct clause. Instead, there is a consistent relation of grammatical function to case marking (cf. Simpson, 1991; Nordlinger, 1998b).

2.3 Clitics

The term 'clitic' in this thesis will generally refer to a particular and important subtype of clitic that occurs in Pintupi-Luritja.[36] The language has a series of generally Wackernaglian[37] agreement-like clitics that encode person, number, and in some cases an inclusive/exclusive distinction. These are also often described as bound pronouns in the Western Desert literature. There is a separate subject and object series, and these are organised on a nominative/accusative basis (i.e. there is no ergative system in the clitic system; both ergative and nominative noun phrases are cross-referenced by the same subject form of the clitic). I will be glossing nominative/ergative clitics as *Subj.* and accusative clitics as *Obj.*, but note that this convention is my shorthand of bundling them together. They are not obligatorily present in the clause; generally, a referential expression that is not a third person singular will be represented in the clause– either by a nominal, by one of these clitics, or by both.

(46) a. **Sentence participants encoded by nominal; no clitic**
Wati tjuṯa-ngku naanytja kaḻpatju-nanyi ikunytji-la.
man many-ERG horse load.up-PRS Haasts.Bluff-LOC
(Source translation:) The men at Haasts Bluff are loading horses. [Onto a truck]
Ikunytjinya (Morris, 1983b)

b. **Sentence participants encoded by clitic; no nominal**
Wiya=**n̪a=nta** nya-ngu ruutiyuwu-ngka kaḻpa-nytja-la.
NEG=**1SG.Subj=2SG.Obj** see-PST rodeo-LOC climb.on-NMLZ-LOC
(Source translation:) I didn't see you at the rodeo climbing on a horse.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *-kunyu*

[36] There are a number of other clitics that are less consequential for our purposes, such as *=lpi* and *=lta* (see e.g. Hansen and Hansen, 1978: 214ff for a list of others). These two have a different semantic contribution to the clitics discussed in this section; for example, *=lpi* indicates something akin to a change of state, or the cessation and inception of events, and appears to be quite similar to the element *=lku* found in Warlpiri and Warlmanpa (Simpson, 2005; Browne, 2020). These do not exhibit the same syntactic behaviour as person/number clitics, such as a Wackernaglian positioning (i.e. in second position). In general then, discussion of 'clitics' in this thesis refers only to those discussed in this section. Boundaries to these other types of clitics will not be glossed as such throughout; instead of marking the boundary with = they will be glossed like suffixes, i.e. with –. It should be kept in mind that this is a glossing convention employed here to draw attention to the pronominal clitics discussed in this section, and is not an analysis of other types of clitics. There are also the questions of how to determine clitichood, which elements can be considered clitics, etc.; I allow myself to not dwell on these here.

[37] That is, second position; see below. Such second-position clitics are found elsewhere in Australia too; see e.g. Mushin (2006).

(47) **Sentence participant encoded by both nominal and clitic**

a. **Nyuntu-nya-**ṯarra=**ṉa=nta** wiya nya-ngu.
2SG-ACC-also=**1SG.Subj**=**2SG.Obj** NEG see-PST
I didn't see you either.

JAG1-Elicitation-20201207_MAHGDG; 22.09–22.12

b. **Ngayulu=ṉa** katu-ṉi taaya ngaatja tju-nkukitja-lu.
1SG.NOM=1SG.Subj raise-PRS tyre DEM put-INTENT-ERG
(Source translation:) I am lifting this tyre to put it (back on the car).

Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *katuṉi*

It is often noted in discussions of these elements and their cognates in Western Desert languages that clitics will generally be used over full nominals when the referent is already introduced, or is understood. This does not however appear to be a hard constraint on their use. Cases where both clitics and full pronouns have been used together have been described as indicating emphasis or focus, e.g. Goddard (1985) for Yankunytjatjara, and Bowe (1990) for Pitjantjatjara; although examples throughout this thesis don't seem to strongly suggest that this is necessarily the case.[38]

These clitics are worth investigating in a little more detail here, since they play an important role in the language generally, but will also be a key diagnostic for constituency.

2.3.1 The morphology of clitics

The forms in (48) are as reported in Hansen and Hansen (1978: 114f) and Heffernan and Heffernan (2000: 68f), and correspond directly with those encountered in my own field work. Where variation is noted, I have aligned with Heffernan and Heffernan (2000), since the language there generally more closely tracks the language in the corpora used for this thesis (community texts, my own field recordings).[39]

(48) a.

SUBJ	Singular	Dual	Plural
1	*-ṉa*	*-li* (incl.)	*-la* (incl.)
		-litju (excl.)	*-latju* (excl.)
2	*-n*/*-nu*	*-pulan*	*-nyurra*
3	ø	*-pula*	*-ya*

[38] A typology of these clitics across Western Desert is also lacking at present; even a cursory glance at other descriptions shows morphological deviations between languages. Syntactically speaking, Jones (2011: 9) notes that the clitic complex is in fact obligatory in a number of Western Desert languages; she lists a number of northern Western Desert languages including Wangkajunga, Kukatja, Manyjilyjarra, Yulparija, Pintupi and Ngaanyatjarra; but that it is not obligatory in the more southern Pitjantjatjara or Yankunytjatjara. As (46) shows, they are not obligatory in Pintupi-Luritja.

[39] For example of such slight variation, Hansen and Hansen (1978: 117) mention variation in the 3SG.OBJ form between *-ø* and *-lu*.

b.

OBJ	Singular	Dual	Plural
1	*-ṉi*	*-linya* (incl.)	*-lanya* (incl.)
		-linyatju (excl.)	*-lanyatju* (excl.)
2	*-nta*	*-ntapula*	*-nyurranya*
3	*-ø*	*-pulanya*	*-tjananya*

More than one clitic can be present in a clause; they generally represent up to two sentence participants.[40] In these cases, they occur directly following one another. Ordering is determined by the person values of the arguments; regardless of grammatical function, any first person clitic will precede any second, which will precede any third person.

(49) a. $\mathbf{1}_{\text{Subject}} > \mathbf{2}_{\text{Object}}$

Tala yaalytjirru=**ṉa=nta** yu-ngkuku?
dollar how.many=**1SG.Subj=2SG.Obj** give-FUT
(Source translation:) How much do I owe you?

Kantina puutjingka (Brown, 1987a)

b. $\mathbf{1}_{\text{Object}} > \mathbf{2}_{\text{Subject}}$

Nyuntu=**ṉi=n** ngayu-nya tjarrpatju-nkula papatatji-mila-lku, yilta?
2SG.ERG=**1SG.Obj=2SG.Subj** 1SG-ACC dunk-MV baptise-LOAN-FUT PRT
You will baptise me, putting me (into the water), right?
(Source translation:) Look, here is water! What is to prevent me from being baptized?

Tjakultjurinkunytja/Acts 8:37 (Bible Society of Australia, 2006)

Two of the exceptions to this[41] are the 2.SG.SUBJ and the 3.PL.SUBJ clitic, which are placed at the end of the clitic complex regardless of other person values in the clitic complex. This means that in the case of both a third person subject and object, the 3.PL.SUBJ clitic attaches to the end of the clitic complex.

(50) Minyma tjuṯa-ngku=**tjananya-ya** nyina-rra nya-ngu wati warrmaḻa.
woman many-ERG=**3PL.Obj=3PL.Subj** sit-MV see-PST man revenge.party
(Source translation:) The women, while sitting, saw a revenge group.

Yara tjuṯa: *-tjananya* (Phillipus Napurruḻa, 1986)

There is also a series of dative clitics (cf. Heffernan and Heffernan, 2000: 70).[42]

[40] Hansen and Hansen (1978: 123ff) discuss some rare exceptions.

[41] There is variation in these combinations across Western Desert; Heffernan and Heffernan (2000) suggest there is a little variability within Pintupi-Luritja as well, compared with forms listed in Hansen and Hansen (1978).

[42] A slight variation; Hansen and Hansen (1978: 118f) have the second person singular and dual forms as *-ngku*, and *-ngkupula*.

(51)

DAT	Singular	Dual	Plural
1	*-tju*	*-limpa* (incl.)	*-lampa* (incl.)
		-limpatju (excl.)	*-lampatju* (excl.)
2	*-nku*	*-nkupula*	*-nyurrampa*
3	*-ra*	*-pulampa*	*-tjanampa*

These are generally used in place of dative-marked nominals, whether these are representing indirect objects, possession, or as a kind of ethical dative (benefactive/malefactive). Sometimes object clitics are used in place of datives (e.g. the object series clitic in (49a) is actually the indirect object; see the same in (20) above, where a possessive form is marked with the object clitic instead of the expected dative). This alternation is not well understood, but is not limited to Pintupi-Luritja; see recent work by Ennever and Browne (2023) who show the spread of this phenomenon.

The person-based ordering of multiple clitics remains regardless of whether the clitics are subjects, objects, datives, etc. For example in (52), there is a dative 1.PL.DAT clitic– a benefactive dative– followed by a 2.PL imperative clitic (see below). It is only the person values that are relevant for ordering.

(52) Kuka=**lampa**=**ya** karrulypu-wa, ngaatja-nya tjunta kutjarra kapu
meat=**1pl.DAT**=**2PL.IMP** break.leg.joint-IMP DEM-ACC thigh two instead
tjiilypa-ka=la kati-ku.
floppy-now=1PL.Subj carry-FUT
(Source translation:) ***You all*** *should break the leg joints of the meat animals* ***for us*** *so that instead (of us carrying them with stiff legs) we can carry them with the two legs flopping loose.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *karrulypunganyi*

There are a few further variations of these clitics; Heffernan and Heffernan (2000: 72,74) discuss a series of clitics used in imperatives, and reflexive/reciprocal clitics; Hansen and Hansen (1978: 119) discuss a series of avoidance clitics (which "seem to be used only by speakers of the western dialect of Pintupi"). I have included these in the appendix.

The form of these clitics across much of the system has obvious morphological connections to other elements in the case marking system, e.g. the isomorphic use of the accusative marker *-nya* in the object series, the dative marker *-mpa* in the dative series, and the use of *-tju* as a marker of exclusivity.[43] Some of the clitic forms are identical to the respective full pronouns (*tjananya, tjanampa*), or are morphologically very close to them (*nyurra*). It is very possible to imagine that these clitics can be further broken down into smaller meaning-form correspondences (e.g. *lanyatju* into *la-nya-tju*), but here I will continue to gloss them as single units, while separating within a clitic cluster (i.e. glossing subject and object clitics separately).

[43]It is as least possible that this marker originated as a contracted form of the exclusive particle *kutju* 'only', which we will investigate in detail in chapter 5; this possibility is also noted in Bowern (forth.). Aside from the obvious semantic similarity between the two, we can note elsewhere in the language variation in the presence of an initial *ku–*, e.g. Hansen and Hansen (1978) note the form *-nyu* as a variant of the reportative *kunyu*.

2.3.2 The syntax of clitics

It is the syntax of these clitics that will involve us the most. In the overwhelming majority of cases,[44] these clitics appear directly following the first syntactic element. These therefore represent a kind of Wackernagel clitic (Wackernagel, 1892/2020), that is, one that occupies second position in the clause.[45] Elements of this type have been described or a number of languages across Australia (McConvell, 1980, 1996; Mushin, 2005a, 2006). Clitics follow the first syntactic element regardless of its size, showing that there is no phonological aspect to their placement in the clause.[46]

(53) a. [Ngurra-ngka nyina-nytjaku]=**latju** puṯu marrku-ra nyinatju-nanyi, paluru
home-LOC sit-PURP=**1PL.Subj.excl** in.vain persuade-MV stay.put-PRS 3SG.NOM
winturrma-nanyi.
slip.away-PRS

(Source translation:) In vain we're trying to persuade him to stay at his home, he's slipping away.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *nyinatjunanyi 1*

b. [Ngaatja piipa warra-lkitja]=**ya** tjungu-rri-nganyi.
DEM hymn sing-INTENT=**3PL.Subj** together-INCH-PRS

(Source translation:) Here people are coming together to sing hymns.

Haasts Bluff (Morris, 1983a)

c. [Katutja-ku wangka watja-lpayi nyuntu-nya nguwanpa nyina-nytjakitja]=**n̪a**
God-DAT word speak-HABIT 2SG-ACC SEMBL sit-INTENT=**1SG.Subj**
yunytju-rri-nganyi.
desirous-INCH-PRS

I want to be a speaker of God's word like you.

2 Kings/Kiinga 2:1-12 (Bible Society of Australia, 2006)

[44] There will be a slight rephrasing of this in chapter 3.3.3; see also below for some nuance.

[45] It's worth remembering that 'second' position is strictly descriptive, and is terminological shorthand for deeper organisation. As Goldstein (2016) notes: " 'Second' is not a linguistic category: it has no status in any syntactic, morphological, or phonological ontology. As a result, Wackernagel's Law– that is, what we pretheoretically refer to as second-position distribution– is an epiphenomenon that results from the syntactic and prosodic organization of the clause."

[46] There has been discussion about the role of phonology versus syntax in determining placement of similar elements both in languages of the region (particularly Warlpiri; cf. Hale, 1983; Hale et al., 1995; Legate, 2008a a.o.), as well as in second position elements further afield (e.g. Classical Greek; Goldstein, 2016). In Pintupi-Luritja the placement is clearly syntactically determined.

This behaviour, of following the first syntactic constituent,[47] is one of the more important indications of constituency in the language. As the examples above show, a variety of elements can precede clitics, including nominal phrases, finite verbs, and a number of non-finite clauses. Nominal constituents and non-finite examples are scattered throughout the thesis; finite verbs are less common but also possible.

(54) a. Ya-**nu**=**latju** ngurra kutjupa-kutu, wilurarra.
go-**PST**=**1PL.excl.Subj** place other-ALL west

We went to (visit) another place, out west.
Tjamu Tjamu PBC exchange with Murujuga and Yindjibarndi (Tjamu Tjamu (Aboriginal Corporation), 2021)

b. Tjarrpa-**ngu**=**latju** tjitji tjuṯa maama palumpa tjuṯa-ṯarra, miita tjuṯa
enter-**PST**=**1PL.excl.Subj** child many mother 3SG.DAT many-also spouse many
tjarrpa-ngu=latju.
enter-PST=1PL.excl.Subj

(Source translation:) And so we children, and the mothers and wives, got into our hiding places.
Mamu Malpa Muṯu (Nakamarra, 1988)

Interestingly, and in line with discussions of the syntactic systems of neighbouring languages like Warlpiri (Laughren, 1989; Simpson, 1991; Hale et al., 1995 a.o.), a finite verb and its object cannot together occur preceding clitics. This kind of behaviour has been a key argument for other languages that the verb and object do not form a constituent, and that there is no asymmetrical hierarchical verb phrase (VP) that syntactically groups the verb and object together to the exclusion of the subject. The relevance of that evidence for that argument is valid here as well, at least for finite clauses.[48]

The position of the clitics in the clause is not restricted to matrix clauses, but they can also be found in subordinate non-finite clauses and adjunct clauses as well. Here, they can realise arguments of those non-matrix clauses. This is explicitly described as impossible in some other Western Desert languages like Pitjantjatjara (Bowe, 1990: 72f; Wilmoth, 2022: 261).

[47] This characterisation is also slightly misleading; clitics can follow entire non-finite clauses– which we can argue is a test for constituency– but these clauses themselves have constituents within them (NPs, for example). Clitics then do not target the first constituent in the string, but are sensitive to higher-level syntactic orderings– entire subordinate clauses, rather than the elements within them.

[48] Although this cannot be conclusive evidence for the lack of a hierarchical VP in Pintupi-Luritja; the issue appears to be related explicitly to finiteness, although I won't follow the argument here.

(55) a. Tjamu-lu tjawa-ra paḻtju-ra aḻti-ngu tjana-nya [kapi=**ya**
grandfather=ERG dig-MV expose-MV call-PST 3PL-ACC water=**3PL.Subj**
tjiki-ntjaku].
drink-PURP

Grandfather, having dug, having exposed it, called them to drink the water.
(Source translation:) Grandfather dug and exposed the soakage water then called them to come and drink there.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *aḻtinyi*

b. Kaatputa=ṉi yu-wa, [mirrka=**ṉa** kati-nytjaku ngurra-kutu].
cardboard=1SG.Obj give-IMP food=**1SG.Subj** take-PURP home-ALL
(Source translation:) Give me a cardboard box so I can carry my food home.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *kaatputa*

c. Yalatji=ṉi watja-ṉu, [ngaparrtji=**ṉa**=**nta** pu-ngkunytjaku].
thus=1SG.Obj say-PST [in.turn=**1SG.Subj**=**2SG.Obj** hit-PURP]
It [the voice of Abel's blood] told me to now strike you.
(Not translated directly from any line in Genesis 4)

Genesis/Yurruntitja 4:8–10 (Bible Society of Australia, 2006)

d. Ngayulu=ṉa yunytju-rri-nganyi [Katutja-lu=**nta** nyuntu-nya
1SG.NOM=1SG.Subj desirous-INCH-PRS God-ERG=**2SG.Obj** 2SG-ACC
yaṉṯayaṉṯa-ntjaku].
keep.safe-PURP
I want God to care for you.
(Source translation): God be gracious to you my son!

Genesis 43:29/Yurruntitja 43:16–34 (Bible Society of Australia, 2006)

e. Ngarri-ngu=ṉa kuli-ṉu [kapi-ngku=**ṉi** pu-nganyi-ngka].
lay-PST=1SG.Subj feel-PST water-ERG=**1SG.Obj** strike-PRS-LOC
(Source translation:) I lay outside and felt the rain falling on me.

Luritja Picture Dictionary (Hansen et al., 2011: 99)

f. Kuwarri=ya yunytju-rri-nganyi [ngayu-nya-lpi=**n̲i**=**ya** mirri
now=3PL.Subj desirous-INCH-PRS 1SG-ACC-then=**1SG.Obj**=**3PL.Subj** dead
pungku-nytja-kitja].
strike-NMLZ-INTENT
Now they want to strike me dead.
(Source translation): …and they are seeking my life, to take it away.
1 Kings 19:14/1 Kiinga 19:9–18 (Bible Society of Australia, 2006)

These examples show clitics in a range of environments: adjunct purpose clauses, complement purposive clauses, indirect speech, circumstantial clauses, and intentive clauses (see section 2.4.2 below for details on these clause types).

Occurring in subordinate clauses can result in superficially non-'second position' behaviour; for example, if a clitic occurs in a subordinate clause with little material in it, then this clitic may sometimes end up at the end of the sentence. However it remains second-position within the clause it is in; as (56c) shows, this is not restricted to subordinate clauses.

(56) a. Ngan̲tanykari=n̲i mantji-la u-wa [ngalku-nytjaku=**n̲a**].
food=1SG.Obj get-IMP give-IMP eat-PURP=**1SG.Subj**
(Source translation:) Get some food and give it to me to eat!
i.e.Give it to me$_i$ [_$_i$ to eat]
Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *Ngan̲tanykari*

b. Paluru tjana-nya mangarri ilkari ngurrara kutu yu-ngkupayi
3SG.ERG 3PL-ACC food heaven DENIZ continually give-CHAR
[ngalku-nytjaku=**ya**].
eat-PURP=**3PL.Subj**
(Source translation): He gave them bread from heaven to eat.
John/Tjaanakun̲u 6:31 (Bible Society of Australia, 2006)

c. Ngayulu mayutju tin̲a nyini-npa, [kuli-ntjaku=**n̲i**=**nyurra**].
1SG.NOM boss big sit-PRS listen-PURP=**1SG.Obj**=**2PL.Subj**
(Source translation:) I'm an important boss here, you all should listen to me.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *-n̲i*

Generally clitics treat non-finite clauses themselves as constituents– clitics can follow entire clauses. This was shown in the examples in (53) for purposive and intentive clauses, but applies to other clause types, like medial verb clauses (see section 2.4.2 below for discussion).[49]

[49]Hansen and Hansen (1978: 66) also give the following Pintupi example (gloss slightly adapted):

(58) a. [Wanngaṯi nya-kula]=**latju** kurrpi-lpayi kapi waru-ngku tju-nkula,
native.pine see-MV=**1PL.excl.Subj** dampen-HABIT water hot-LOC put-MV
purrtju-tjarra paltji-lpayi.
rash-COMIT wash-HABIT
(Source translation:) After seeing native pine leaves, we would put them in hot water and sprinkle the liquid on a rash, and wash it with the liquid.
Luritja Picture Dictionary (Hansen et al., 2011: 116)

b. [Aranpa nya-kula]=**n̲a** tjawa-n̲u ruumiya-ku.
burrow see-MV=**1SG.Subj** dig-PST goanna-DAT
(Source translation:) After seeing a burrow I dug for the goanna.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aranpa*

c. [Tjul̲pu nya-kula]=**n̲a** kaanta-mila-n̲u ayit antaṯa-pala.
bird see-MV=**1SG.Subj** count-LOAN-PST eight hundred-CARD
Seeing the birds, I counted eight hundred of them.
(Source translation:) I was watching the birds and I counted eight hundred of them.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kaantamilan̲i*

However at least for some clauses– and most noticeably for medial verb clauses– clitics do not always appear to treat the entire clause as a single unit for determining their positioning; they can instead target the second position within that clause.

(59) a. Taapa=**latju** yal̲a-**ra** kapi tjiki-lpayi.
tap=**1PL.Subj** open-**MV** water drink-HABIT
Having opened the tap, we would drink water.
(Source translation:) We open a tap and drink water from it.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *kapi*

b. Yaka! Tjuwita=**n̲a** tjiki-**ntjaku**, yunytju-rri-nganyi.
oh sweet.drink=**1SG.Subj** drink-**PURP** desirous-INCH-PRS
Oh! I would like to drink a soft drink.
Stolen Drink storyboard (Gray, 2019b); JAG1-Storyboard-20200306_MA1; 1.10–1.14

(57) [Waal̲a-ngka tjarrpa-nytjaku]=**n̲a** ngalya pitja-ngu.
house-LOC enter-PURP=**1SG.Subj** hither come-PST
I came so I could come inside your house.
Hansen and Hansen (1978: 66)

These sentences however could represent a number of different structures; this initial position opens up a few possibilities for analysis, depending on which clausal arguments the clitics are representing. Firstly, we could say that instead of treating *taapa yaḻara* 'opening the tap' or *tjuwita tjikintjaku* 'to drink a soft drink' as a unit for determining placement, the clitic attaches directly to the first element *taapa* 'tap', or *tjuwita* 'sweet drink.' These non-finite clauses then do not have to be taken in whole for the purposes of determining clitic placement, but subunits of the clauses can also be transparent for these purposes as well. As discussed later in the chapter, there are other reasons to argue that medial verb clauses like those in (58) and (59a) are in some sense more syntactically integrated into main clauses than other clause types.

Another possible analysis is that the clitics are realising the arguments within those subordinate clauses, and that these clitics are then co-referential with non-overt matrix subjects. The fact that Pintupi-Luritja allows clitics to realise arguments in non-finite clauses means that examples like those in (59)– where a non-finite clause is clause-initial and involves clitics– remain string ambiguous between the two analyses.[50]

This is interesting in comparison to some data from other Western Desert languages. At least some types of non-finite clauses cannot be split by clitics like those in (59) in languages like Pitjantjatjara.

(61) Pitjantjatjata (Bowe, 1990: 73)[51]

a. Paluṟu paka-nyangka=**n̤a** nya-ngu.
3SG.NOM jump.up-ANT.DS=**1SG.Subj** see-PST
I saw him when he jumped up.

[50] In fact there are more than two analyses possible; besides the two discussed (i.e. (i) the clitics in examples like (59) are matrix clitics that do not consider the subordinate clause to be a single unit for the purposes of clitic placement; and (ii) the clitics are realising the subordinate clause arguments, which are co-referential with the non-overt matrix clause arguments), we could also imagine (iii) an analysis whereby the objects have moved out of the subordinate clause, and find themselves in the clause-initial position, which makes them visible for matrix clitic placement; they happen to remain string adjacent to the clause they have moved out of. We could schematically represent these analyses something like the following, whereby bolded clitics represent matrix arguments and non-bolded represent subordinate arguments.

(60) a. [_$_i$ Tjuwita=**n̤a**$_i$ tjiki-ntjaku] yunytju-rri-nganyi.
b. [Tjuwita=n̤a$_i$ tjiki-ntjaku] _$_i$ yunytju-rri-nganyi.
c. Tjuwita$_i$=**n̤a** [t_i tjiki-ntjaku] yunytju-rri-nganyi.

Some tantalising examples of purposive clauses discussed in section 2.4.2 suggest that configurations like (60c) are in fact in principle possible. Crucial examples would have sentences where the subjects are not coreferential between the two clauses, and whether in these cases the matrix subject clitic could appear in the medial clause. This awaits confirmation for Pintupi-Luritja, but note that the examples in (61) are examples of exactly this structure in Pitjantjatjara. It is interesting that the matrix clitic cannot split the clause there, i.e. rules out a structure like that in (60a). These structures require further work.

[51] Glossing slightly adapted here.

b. *Paluṟu=**ṉa** paka-nyangka nya-ngu.
3SG.NOM=**1SG.Subj** jump.up-ANT.DS see-PST
(Intended:) I saw him when he jumped up.

There are a number of moving parts here however, and I don't have enough data to tease apart questions of co-referentiality of arguments between clauses, their encoding by clitics where in the clause, and differences in clause type. For the moment we will have to endure a certain level of ambiguity as to their syntactic structure.

There are some slight qualifications to the description of the placement of these clitics as 'second position.' Some adverbs, and other less fundamental clausal elements can on occasion not count for clitic placement; see chapter 3.3.3 for some more discussion on this phenomenon and its implications.[52]

(62) a. Puḻi ila-wana nya-ngu=**ṉa** arrkinki tjuṯa.
hill near-PERL see-PST=**1SG.Subj** bloodwood.tree many
(Source translation:) I saw some bloodwood trees around near the hills.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *arrkinki*

b. Palunyatjanu piḻkati nya-kunytjaku=**la** a-nu parra nya-ngangi=latju
after.that snake see-PURP=**1PL.Subj** go-PST around see-PST.CONT=1PL.excl.Subj
tjuṯa-lingku.
many-INTENS
After that we went around to see the snakes, we saw a great many.
(Source translation:) Then after the camel ride we went to see the snakes.
Tjakulpa Kuwarritja (June 1996, p.8f)

c. Kaputa-ngka nya-ngu=**ṉa** liṯu kutju.
head-LOC see-PST=**1SG.Subj** louse one
(Source translation:) I saw one louse on her head.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kaputa*

What is missing from these examples and others like it is intonational information, which may account for at least some cases like these. These types of elements are typically less syntactically integrated in the clause, tending instead to be adjunctival additions.

Some other cases of clitics shifting further to the right are however less explainable by turning to lesser syntactic integration.

[52]This behaviour of shifted clitics is also noted elsewhere in the Western Desert literature, e.g. Bowe (1990: 233ff).

(63) Kiriki wangka-payi tjuṯa wangka kutjupa=**ya** wangka-nyi, puṯu=n̪a
Greek speak-HABIT many language other=**3PL.Subj** speak-PRS in.vain=1SG.Subj
kuli-n̪i.
listen-PRS
(Source translation:) The ones who speak Greek talk another language; I don't understand.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kiriki wangkapayi tjuṯa*

It is possible that cases such as these may be related to issues of topichood ('*As for the Greeks, …*'); that is to say that information structure may play a role in cases such as these (for more on this possibility and how syntax could play a role, see chapter 3.3.3). Bowe (1990: 46, 114) similarly suggests a role of information structure in comparable apparent shifted positioning of clitics in Pitjantjatjara. In the absence of detailed investigation however, these examples remain difficult to understand. However, these kinds of examples are very rare; overwhelmingly, syntactic constituency is directly and transparently behind clitic placement, and will continue to be a key diagnostic throughout this thesis.

2.4 The verbal domain

Verbs are inflected in an agglutinating fashion: inflectional markers are realised as suffixes that attach to the verb stem. Pintupi-Luritja verbs fall into one of four classes. Membership in a verb class determines inflectional forms for a range of different clause types. The classes are named by their imperative forms, since these are maximally distinct; these are the *-la* class, the *-ø* class, the *-rra* class, and the *-wa* class. Whereas the imperative forms are maximally distinct between the four classes, there is sporadic syncretism between classes for other inflections. This is even clearer in some areas of the paradigm, where (what I will be glossing as) a single inflectional marker can in fact be broken down further, into a verbal class marker (glossed as AUG 'augmentation') and the tense/etc. marker itself. For example, compare the present tense forms of the *-ø* class verb *nyina-nyi* 'sit-PRS' with the *-wa* class verb *pu-nganyi* 'strike-PRS'. The present tense marking of the latter clearly involves the element *-nyi* that is also seen in *nyinanyi*, which has been split from the stem by the addition of *-nga-* between them. This is a more general pattern, whereby some extra augmenting element is added between verbal root and inflectional marking, depending on the verb class and inflection. These augmentations take a range of forms; see the paradigms in the appendix for details. If we take the augmentations into account, there is more syncretism in the paradigm; they occur in a large number of both verbal inflections and deverbal nominalisation forms. I will however almost always ignore these elements in glossing, unless important for analysis.

Although verbal class membership is lexically determined,[53] some derivational morphology can determine the class membership of the derived word, overriding the previous class. I will not be

[53]This characterisation is admittedly simplified, as membership is by no means random; Goddard (1985), and particularly Wilmoth and Mansfield (2021), have argued for prosodic structure as playing a strong role in determining verbal class membership in Pitjantjatjara and Yankunytjatjara.

discussing derivational morphology here; see Hansen and Hansen (1978: 135ff). For reasons of space, complete paradigms for the verb types as described by Heffernan and Heffernan (2000) are listed in the appendix.

2.4.1 Finite and non-finite clauses

The category of (non-)finiteness generally is ill-defined (Cristofaro, 2007; Nikolaeva, 2007, 2010; Lowe, 2019, a.o.). Nikolaeva (2010) notes that finiteness as a verbal property is typically correlated in language descriptions with (i) tense marking, (ii) subject agreement, and (iii) ability to be used exclusively/predominantly in main clauses. Only the first and third properties are relevant for Western Desert languages, but neither completely identify a standalone class of verb or clause types. Other types of criteria– like the restriction of nominative-marked subjects to finite clauses– are likewise not applicable to Pintupi-Luritja, as we saw in section 2.2.3.

In contrast to finiteness, non-finiteness is typically seen as 'defective' in some sense– syntactically, morphologically, or semantically (Lowe, 2019). For example, these clause types prototypically lack tense or subject agreement, or require subjects to either be non-overt, or oblique-marked. Again, a barrage of counterexamples in the literature make (non-)finiteness as a cross-linguistically robust binary feature of clauses fuzzy at best.

Taking (morphologically determined) temporal anchoring as a factor, we could conclude that Pintupi-Luritja has finite verb forms for past, present, and future tenses, as well as a past continuous (also called past imperfective in the literature). A verb marked with any of these forms can stand alone as the only verb in a sentence.

(64) Wati, kungka, wu̲la wiima kuka-ku **ya-nu**.
man woman boy little meat-DAT **go-PST**
A man and his wife and their small son went out for meat.
Kukaku yanu (Raggett, 1982)

However this diagnostic of clausal independence is not completely watertight. Some verb forms can form complete sentences while not having the temporal anchoring of present, past, etc. For example, as in many languages imperatives stand alone in the clause, as can a small range of other related verb forms (e.g. future/imperfective imperative; not discussed here, but see appendix for forms).

(65) Maama, ngayulu yunytju-rri-nganyi pura-ku. Ngayu-ku manytji-**la**!
mother 1SG.NOM desirous-INCH-PRS bush.tomato-DAT 1SG-DAT get-**IMP**
(Source translation:) Mummy, I want some bush tomatoes. Get me some please.
Kantina puutjingka (Brown, 1987a)

Similar cases can be seen with main clause insubordinated uses of purposive clauses (see chapter 12 and Gray, 2021) and some negative clauses (discussed in chapter 3). These also lack a morpho-syntactically determined temporality. Copula clauses similarly show that being able to form a main clause alone is not a watertight diagnostic for finiteness, as no overt verb is required at all.[54]

(66) Wilypa mayi palya.
bush.banana food good
(Source translation:) Bush bananas are good food.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kuḻurrpa*

Another interesting example is what is called the habitual marker (sometimes called the 'characteristic' marker). This indicates that the subject habitually or by definition does the action of the marked verb. As Goddard (1985: 98) notes on the cognate form in Yankunytjatjara, this verb ending does not refer to an individual event, but instead describes a habit or custom. The habitual is not temporally specified, but is often used to speak of times long past, or sets the scene in stories set in the past.

(67) a. Yuwa, nanikuuta miilka-mila-**lpayi**.
yes goat milk-LOAN-**HABIT**
Yes, (in the old days, we) used to milk goats.
JAG1-Story-20200314_LNRNA; 01.18–01.20

b. Tjilpi kutju nyina-**payi** ngurra-ngka palumpa walytja tjuṯa-wana.
old.man one sit-**HABIT** camp-LOC 3SG.DAT family many-PERL
(Source translation:) One old man used to stay back at the camp with his relations.
Mamutjarra (Ferguson, 1987c)

This marker has been shown to have a complicated distribution in Western Desert languages, having both verbal and nominal properties. Sometimes these clauses are clearly nominals: they clearly refer, and can take case marking. This can be seen in the following, where in (68a), the habitual marked *paatja turapamilalpayi* 'bus driver' is ergative-marked; and where in (68b) *nyakupayi* 'see.HABIT' is the name for binoculars, and bears comitative case.

[54]Copula clauses can also be expressed using some posture verbs– most usually *nyina-* 'sit', *ngara-* stand and *ngarri-* 'lie.' See e.g. example (68a) below.

(68) a. Walypala-ngku **paatja turapa-mila-lpayi-ngku** watja-ṉu kunyu,
white.person-ERG **bus drive-LOAN-HABIT-ERG** say-PST PRT
Amunturrngu-nya wiima tjuṯa kaangku-rri-payi-lingku nyina-ngu
Mt.Liebig-NOM little many obedient-INCH-HABIT-INTENS sit-PST
paatja-ngka.
bus-LOC
The white bus driver said that all the Mt. Liebig kids were extremely well behaved on the bus. (Source translation:) The Greyhound bus driver said that the outstation school children were the best group he has ever taken on the bus.
Tjakulpa Kuwarritja (October 1984, pp. 17, 18)

b. Wati kutju ngalya a-nu ngurra ngayu-kuṉu-kutu **nya-kupayi-tjarra**.
man one hither come-PST camp 1SG-ASSOC-ALL **see-HABIT-COMIT**
A man came to my camp with a pair of binoculars.
Scene from the Binoculars story (Gray, 2019a); JAG1-Storyboard-20200306_MA2; 00.43–00.49

On the other hand, the habitual marker exhibits more verbal/clausal properties, like the marked verb being able to be split from its object by clitics.

(69) a. Kaḻaya=**latju** ngalku-**payi**, kuka palya-lingku.
emu=**1PL.excl.Subj** eat-**HABIT** meat good-INTENS
(Source translation:) We eat emus, they are very good meat.
Luritja Picture Dictionary (Hansen et al., 2011: 104)

b. Pipirri=**latju** yulka-rra nyunytju-**lpayi**, yampu-ra.
child=**1PL.excl.Subj** love-MV kiss-**HABIT** cradle-MV
(Source translation:) We lovingly hug and kiss our children.
Luritja Picture Dictionary (Hansen et al., 2011: 126)

Behaviour such as these has led some to propose that *-payi* is ambiguous between two homophonous forms, one a verbal inflection, the other a nominalisation (Goddard, 1985: 77); Wilmoth (2022) however argues for a single form that consistently produces nominalised verbs that maintain some verbal properties. That is, in the same way that *paatja turapamilalpayi* in (68a) is the 'bus driver,' *nanikuuta miilkamilalpayi* in (67a) could be understood not as a verbal clause ('(we) used to milk goats'), but as a nominalisation (something like '(we) were goat milkers'). For this thesis I will assume *-payi* can represent both nominal and verbal marking, but I have no strong theoretical attachment to either position. Again, the possibility of clitic positioning like in (69) demonstrates the mixed verbal and nominal properties of this marking/clause type.

What cases like this show is that various clause types exhibit a range of properties, some more verbal, and others more nominal. While the habitual marker is probably best characterised as non-finite, it has properties more aligned with finiteness, i.e. the ability to stand alone in the clause.[55]

Another issue related to finiteness and clausal position is the question of subordination. We will look at non-finite complementation in the following section in discussion of purposive and intentive clauses. Less clear is the question of finite subordinate clauses. This is a contested issue in descriptions of Central Australian languages, most discussed for Warlpiri (Hale, 1976; Hale et al., 1995; Legate, 2011). Generally it is assumed that languages of the region do not allow finite subordinate clauses, or if they do, in only a very limited fashion. While we do find examples of this in Pintupi-Luritja, it appears to be generally restricted to verbs of speech and thought (cf. discussion in McGregor, 2021).

(70) a. Government-angku **watja-n̪i** yaṉangu wiya kunyu yunytju-rri-**nganyi** pipirri tjuṯa
government-ERG **say-PRS** yaṉangu NEG PRT desirous-INCH-**PRS** child many
wangka walytja-ku ninti-ntjaku.
language own-DAT learn-PURP
(Source translation:) It [the government] says that Aṉangu do not want their children to learn their own language at school.
Tjakulpa kuwarritja Warumpi kuulaku: Papunya school news (June 1999, p.4, 6)

b. Tjinguru paluru **kuli-n̪i** nyuntu wiya palumpa walytja nyina-**nyi**.
maybe 3SG.NOM **think-PRS** 2SG.NOM NEG 3SG.DAT family sit-**PRS**
Perhaps they think you are not (part of) their family.
(No real translation in James 2:18)
Tjayimitjakuṉu/James 2:18 (Bible Society of Australia, 2006)

There are however a range of important subordinate clause types; we will examine some of the most important in the following section.

2.4.2 Some important clause types

Pintupi-Luritja boasts an array of various non-finite clauses, which are integrated into the clause in various ways. We will work through some of these here. Not all clause types are discussed here, only those that are more important for this thesis. Note that I will use the names of these elements to refer both to the verbal marking and the related clause. Other clause types (including e.g. imperative continuous, future continuous, counterfactuals, apprehensionals, and deprivatives, *modulo* naming conventions) for Pintupi-Luritja are discussed in Hansen and Hansen (1978), Heffernan and Heffernan (2000), and more generally in other descriptions of various Western Desert languages.

[55] But again, there are disagreements in the literature; Bowe (1990: 106) explicitly classes the habitual as finite for exactly this reason.

Subordinate clauses are often described as relatively restricted in their behaviour relative to matrix clauses– e.g. that word order possibilities are greatly reduced, or that elements like clitics or negation are less or not at all possible in subordinate clauses. This often results in analyses of these clause types in Australian languages as less verbal and more like nominalisations (Nordlinger, 2002; e.g. Simpson, 1991 analyses Warlpiri non-finite infinitives as complex nominalisations). In this sense, Pintupi-Luritja subordinate clauses retain a quite robustly verbal character; word order permutations can also be found within subordinate clauses, as can more verbal elements like second position clitics or negation. This makes them appear more verbal than some of the other Western Desert languages– recall from section 2.3.2 that clitics are banned from these clause types in Pitjantjatjara for example.

Medial verb clauses

Medial verb clauses are a very common type of clause across Western Desert languages. These clauses have different names in the Western Desert literature– typically 'serial' verbs (Goddard, 1985, 1988; Heffernan & Heffernan, 2000; Langlois, 2004; Jones, 2011), but also a subtype of 'anterior' verbs (Bowe, 1990)– but I will here be following Defina (2020), Wilmoth (2022) in nomenclature. These clauses are involved in clause chaining, where a series of actions are described. In these cases, typically several medial verb clauses (in fact these typically consist of the verb only, or the verb together with its object) are strung together, with one other finite verb in the clause. Generally the subject is co-referential with the subject of the finite verb, since these constructions depict a series of events. The verbal inflection for these clause types differs based on verb class membership; see the appendix for the paradigm.

(71) Piyuku karru-wana a-nu. Ya-**nkula** nya-ngu katilyka kutju. Nya-ngu, manytji-**ra**
again creek-PERL go-PST go-**MV** see-PST maggot one see-PST get-**MV**
kuḻtju-n̪u.
swallow-PST

Again (he) went along the creek. Going along (he) saw a maggot. (He) saw (it), taking (it, he) swallowed (it).

(Source translation:) Again he went out along the creeks. On the way he saw a maggot. He looked at it, and he picked it up and swallowed it.

Pangkaḻangunya uḻa wiimanya (Raggett, 1981)

These are non-finite constructions, and do not appear to be syntactically subordinated, at least in some cases. Goddard (1985), Bowe (1990), Defina (2020) list various reasons to see a these clause types as less self-contained in the respective Western Desert languages investigated:[56] for example, case marking

[56]It is not clear whether all of these hold in all Western Desert languages, or whether only a subset do; either way, these show a clustering of syntactic tests that set this clause type apart from other clause types which suggest syntactic subordination more clearly. These tests similarly show that clauses involving medial verbs are not all of one type– there are likely several different syntactic constructions that involve medial-marked verbs. For the sake of space, I won't investigate these differences here. Thanks to Rebecca Defina for discussion on this point.

patterns of main clause subjects is– at least in a subset of cases– affected by elements within the medial verb clause, in that an intransitive main verb subject can be ergative marked if there is a transitive medial verb in the clause; arguments of medial constructions can be cross-referenced by clitics in the main clause; the scope of negation includes the matrix verb and the medial verb clause; the intonational study of these clauses by Defina et al. (2020) show that these clause chains are produced within a single Intonational Phrase. We have also seen above in (58) and (59) in section 2.3.2 that clitic placement is variably sensitive to the medial clause as a syntactic constituent (although recall the ambiguities in determining where the clitic actually sits); this likewise suggests a different syntactic integration into the clause. Differing possibilites of focus particle placement around medial clauses will be discussed in chapter 5.3.

More depth of description of these clauses in other Western Desert languages can be found in Goddard (1985), Bowe (1990), Jones (2011), Defina (2020), i.a.

Purposive clauses

The purposive marking is really a dative-marked nominalised verb; morphologically it consists of *verb stem–(augment)–nominalisation–dative*.

(72) pu-ngku-nytja-ku
strike-AUG-NMLZ-DAT
'strike.PURP'

Together, all but the stem will be glossed as a single -PURP. This type of verbal inflection is common not only in Western Desert languages, but more generally in the region (Blake, 1999). In Pintupi-Luritja, this verbal marking and the associated clause has three main uses: (i) marking a purpose clause; (ii) marking a subordinate non-finite complement; (iii) a main clause modal use. Main clause uses of this suffix and related modal readings will be examined in greater detail in chapter 12; see also Gray (2021). The first two uses we can briefly cover here.

Firstly, the namesake use of this marking is to mark purpose clauses. These are adjunctival clauses that specify the purpose or reason for the event/situation described in the main clause.

(73) **Purpose clauses**

a.	Ngayu-ku	kangkuru	wiima	palatja	ngalya	kati,	[ngayulu	palu-nya
	1SG-DAT	older.sister	little	DEM	hither	bring.IMP	1SG.ERG	3SG-ACC

nyunytju-**ntjaku**].
kiss-**PURP**

(Source translation:) Bring my small older sister here so I can kiss her.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kanguru 1*

b. Ngurra kutjupa-nguru yaṉangu tjuṯa ngalya-nu [puuta-rri-**ngkunytjaku**].
place other-ABL person many hither.come-PST vote-INCH-**PURP**
(Source translation): Some aboriginal people came from other places to vote here.
Tjakulpa kuwarritja (April 1987, p.16)

c. Irriṯi wulkumanu tjuṯa-ngku kaṉi-lpayi mangarri [tjana ngalku-**ntjaku**].
long.ago old.woman many-ERG yandy-HABIT food 3PL.ERG eat.**PURP**
(Source translation:) A long while back the older women used to yandy (the grass seed) food so the others could eat (the damper they made from it).
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kaṉiṉi*

d. Ngurra-ngka nyina-rra paluru a-nu karru-kutu [kapi manytji-**nytjaku**].
camp-LOC sit-MV 3SG.NOM go-PST creek-ALL water get-**PURP**
After staying at the camp, he went to the creek to get water.
(Source translation): One day after staying in the camp for a while, he went to get some water.
Mamutjarra (Ferguson, 1987c)

e. Kala nganaṉatju a-nu [nya-**kunytjaku** kuula kutjupa-kutu].
PRT 1PL.excl.NOM go-PST see-**PURP** school other-ALL
So we went to see another school.
Tjakulpa Kuwarritja (July 1989, p.11)

These examples demonstrate the variability in whether purposive arguments are overt or not inside the purposive clause, and the variability of word order within the clause (namely SOV, V, SV, OV, VO).

This use of the purposive suffix is a natural extension of one of the uses of dative case more generally in the language, where goals are dative marked.

(74) Wati, kungka, wuḻa wiima kuka-**ku** ya-nu.
man woman boy little meat-**DAT** go-PST
A man and his wife and their small son went out for meat.
Kukaku yanu (Raggett, 1982)

The second use is to mark non-finite subordinate clauses, as complements to a small number of predicates.

(75) a. Wati paluru kutjarra-ngku **yunytju-rri-nyi** witi-**ntjaku** naantja.
man DEM two-ERG **desirous-INCH-PRS** catch-**PURP** horse
(Source translation): Two men were wanting to catch a horse.
Yara wati kutjarratjarra naantja yini Ritakinganya (Morris, n.d.)

b. …tjana **layiki-rri-nyi** puutji-tjanu mingkul̲pa ngalku-**ntjaku**.
3PL.NOM **like-INCH-PRS** bush-ABL tobacco consume-**PURP**
(Source translation:) …but they like to chew bush tobacco.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *layikirrinyi*

c. Ngan̲ti-lpi yan̲angu tjuṯa wangka-ngu puuṯa-mila-**nytjaku** tjana
after-then people many say-PST vote-LOAN-**PURP** 3PL.NOM
nguḻu-rri-ngu.
afraid-INCH-PST
(Source translation): However many people were saying afterwards that they were too frightened to vote.
Tjakulpa kuwarritja (June 1987, p.4–5)

Indirect speech is similarly marked by purposives.

(76) Palulanguru Payilata-lu **watja-n̲u** Parapatja-nya pakaltjinga-**ntjaku**.
after.that Pilate-ERG **say-PST** Barabbas-ACC release-**PURP**
After that, Pilate said to release Barabbas.
(Source wording): So he released Barabbas for them…
Maatjuwukun̲u/Matthew 27:26 (Bible Society of Australia, 2006)

This complement marking behaviour is similarly completely analogous to how nominal complements of these verbs are dative-marked.

(77) a. Ngayulu ngaa tjuṯa-**ku** **yunytju-rri-nganyi**.
1SG.NOM DEM many-**DAT** **desirous-INCH-PRS**
(Source translation:) I love these people.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ngaa tjuṯa*

b. Maama, ngayulu **yunytju-rri-nganyi** pura-**ku**. Ngayu-ku manytji-la!
mother 1SG.NOM **desirous-INCH-PRS** bush.tomato-**DAT** 1SG-DAT get-IMP
(Source translation:) Mummy, I want some bush tomatoes. Get me some please.
Kantina puutjingka (Brown, 1987a)

In fact these complements do not need to necessarily be verbal predicates; purposives also mark the complement of non-verbal predicates like *palya* 'good' and *yaalytji yaalytji* 'how to.'

(78) a. Maringka-nya watja-n̲i palu-nya "piinta **palya** tju-**nkunytjaku**."
Maringka-NOM say-PRS 3SG-ACC paint **good** put-**PURP**
(Source translation): Maringka said to her "That paint is good to put on."
Warumpinya ngurrara kuulaku piipa: Papunya School paper (September 1986, p.8)

b. Kantumi **palya** ngalku-**nytjaku**.
fruit.mixture **good** eat-**PURP**
The pulverised mixture is good to eat.
(Source translation:) . . . but they like to chew bush tobacco.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kantumi*

c. Context: Title of an instructional list
Yaalytji yaalytji tjupi ngurri-**nytjaku**.
how **how** honey.ant seek-**PURP**
How to find honey ants.
(Source translation): Finding honeyants.
Warumpinya ngurrara kuulaku piipa: Papunya School paper (December 1986, p.13)

These two uses are then natural ways to extend particular uses of the dative case into the verbal domain. In order to be dative-marked, the verbs must first be nominalised. We can question the extent to which these purposive-marked verbs are then actually nominalisations, despite the fact that they morphologically are built on nominalised verbs; in fact I will treat them as *bona fide* verbal inflection. These clauses have many more verbal characteristics: word order is not fixed within them, and many permutations of ordering can be found in purposive clauses throughout this thesis. Other verbal properties like second position clitics and negation can also be found in these clauses (recall examples in section 2.3.2). Similar possibilites of overt/covert arguments can be seen in purposive clauses as for main clauses, for both subjects and objects. The case marking in purposives (i.e. the dative) is always marked on the head (the verb) regardless of its position in the clause, rather than at the right edge, as is the case for nominals. These would all be very odd behaviours for nominals; as discussed in section 2.2 above on the nominal domain, NPs are much more restricted in these ways.

The purposive clauses are themselves constituents. This can be seen by clitic placement, which treats these clauses as a single syntactic unit. Note that the purposive clauses do not have to be clause final; like nominal objects can be pre- or post-verbal, so can purposive clauses occur preceding or following the verb.

(79) 1970-ngka yaṉangu tjuṯa-ngku [waarrka palu-nya palya-ntjaku] yunytju-rri-ngu…
1970-LOC person many-ERG [work DEM-ACC do-PURP] desirous-INCH-PST…
In the 1970's people wanted to do this work…
Warumpiku tjakulpa kuwarritja: Papunya newspaper (November 1994, p.4)

This means that matrix clause orderings of [subject – verb – [subordinate clause]] and [subject – [subordinate clause] – verb] are possible, as if the subordinate clause were any other object. This would suggest that subordinate clauses are syntactically self-contained, and elements within the subordinate clause cannot 'escape' into the matrix clause.

However some preliminary evidence suggests that this is not entirely true; there exist examples where the purposive object appears outside the purposive clause. It's worth taking a short detour to examine these constructions briefly, as these types of constructions are rarely discussed in the literature. Note how the objects in (80) are separated from their purposive verbs, both bolded.

(80) a. PROMPT: I wanted to buy a sandwich and a cold drink, but I didn't quite have enough money; I could only afford a cold drink.
Ngayulu **mangarri kuultaringka** yunytju-rri-ngu **mantji-ntjaku**,
1SG.ERG **food** **cold.drink** desirous-INCH-PRS **get-PURP**
kanya ngayulu mani wiima-tjarra, ngayulu kala mantji-ṉu triingki kutju.
but 1SG.NOM money little-COMIT 1SG.ERG in.the.end get-PST drink only
I wanted to get (some) food and a cold drink, but I didn't have a lot of money, so I just got a drink.
JAG1-Elicitation-20200317_MANG; 8:14–8:29

b. CONTEXT: MA: You ask me, you might ask me "You wanna come to the shop and get– you wanna come and get food, or *wiya* [no]?"
Nyuntu **mangarri** yunytju-rri-nganyi **mantji-ntjaku?**
2SG.ERG **food** desirous-INCH-PRS **get-PURP**
Do you want to get (some) food?
JAG1-Elicitation-20201209_MANG; 06.48–07.04

This appears to be an intermingling of clausal arguments, similar to what Bowern (2012: 637) describes as the 'interweaving' of arguments in Bardi,[57] or like more familiar patterns of syntactic movement/filler-gap dependencies. In (80a), the object of *mantjintjaku* 'get.PURP' is *mangarri kuultaringka* 'food (and) a cold drink', and in (80b) it is *mangarri* 'food'; however these objects find themselves

[57] Although not completely alike; Bowern describes this interweaving as parts of the *subject* rather than the object.

outside of the purposive clause, on the other side of the subordinating verb *yunytjurringu* 'wanted.' This could be represented as following:[58]

(81) Ngayulu$_i$ [mangarri kuultaringka]$_k$ yunytju-rri-ngu [_$_i$ _$_k$ mantji-ntjaku].

This type of syntactic structure is very under-researched for Australian languages generally; aside from the mentioned Bardi cases, Austin (2001: 318) provides a possible example in Jiwarli. The phenomenon is arguably different to discontinuous elements; discussions on that topic have exclusively focused on nominal, not clausal domains.

Further Pintupi-Luritja examples can be seen in the following; note that this construction can also involve intentive clauses as well as purposive clauses (as in 82a).

(82) a. Yitjipi-nya ngurrara tjuṯa=**lampatju**=ya yunytju-rri-nganyi mirri
Egypt-NOM denizen many=**1PL.excl.DAT**=3PL.Subj desirous-INCH-PRS dead
pu-ngkukitja.
strike-INTENT

The Egyptians want to strike us dead.
(Source translation:) You have brought us into bad odor with Pharaoh and his officials and have put a sword in their hand to kill us.

Yanutja 5:15–21/Exodus 5:21 (Bible Society of Australia, 2006)

b. **Puritjina yini ngana-nya** ngayulu watja-lku tjana pakaltjinga-ntjaku?
prisoner name which-ACC 1SG.ERG say-FUT 3PL.ERG release-PURP

The prisoner with which name will I tell them to release?
(Source translation:) Whom do you want me to release for you, Jesus Barabbas or Jesus who is called the Messiah?

Maatjuwukuṉu/Matthew 27:17 (Bible Society of Australia, 2006)

[58] A note on conventions in this example; as elsewhere, subscript indices represent coreference between arguments and argument positions, e.g. that the overt subject of the main clause is coreferential with the subject of the subordinate clause; the _ lines are ambiguous between an unrealised argument like the coreferential subordinate subject (here, _$_i$), and the gap in a filler-gap dependency or as the trace of movement (here, _$_k$). I think these gaps are to be distinguished as they are clearly instances of different phenomena, but I have decided not to include this as extra detail in the example here, both for simplicity, as well as not wanting to prematurely lean too heavily into any particular analysis. The same ambiguity holds for example (84) below as well.

c. **Nyuntupa tjaatji-ku** ngayulu puntura yunytju-rri-nganyi tjukarurru
2SG.DAT church-DAT 1SG.NOM greatly desirous-INCH-PRS correct
kanyi-lkitja-ngku.
keep-INTENT-ERG
I greatly want to care for your church correctly.
(Source translation:) Zeal for your house will consume me.
Tjaanakuṉu/John 2:17 (Bible Society of Australia, 2006)

A brief explanation of why these examples are important; in (82a), the dative clitic in the matrix clause is cross-referencing the object of the intentive clause (i.e. '*kill **us***'); whereas it would bear accusative case in the intentive clause, the clitic in (82a) is dative.[59] In (82b), the object of *pakaltjingantjaku* 'release.PURP' is *puritjina yini ngananya* 'which prisoner'; it occurs clause initially and is marked accusative, as it would be within the purposive clause. In (82c), *nyuntupa tjaatji* 'your church' is the object of *kanyilkitjangku* 'keep/care.for.INTENT.ERG.' Again, it is outside this clause and is dative-marked. As the examples in (82) show, these external objects bear dative or accusative case. It is not totally clear what governs this alternation, but see below for some speculation on the role of the dative.[60]

Some examples are ambiguous as to what clause which elements belong to. Take (83) for example.

(83) Nyaa-mpa government-angku palya-ntjaku yunytju-rri-nganyi?
what-Q government-ERG do-PURP desirous-INCH-PRES
(Source translation:) What does the government want to do?
Tjakulpa Kuwarritja (June 1999, p.4, 6)

It is clear that *nyaa* 'what' is the object of *palyantjaku* 'to do', but it is not clear whether *governmentangku* 'government.ERG' is the subject of the purposive, or of the main clause.[61] Example (83) could then represent at least the following two structures.

(84) a. [Nyaampa governmentangku$_i$ palyantjaku] _$_i$ yunytjurringanyi?
b. Nyaampa$_k$ governmentangku$_i$ [_$_i$ _$_k$ palyantjaku] yunytjurringanyi?

In (84a), the purposive clause is syntactically self-contained, and all arguments are overt; the subject of the purposive is then co-referential with the non-overt subject of the main finite clause. In (84b) however, the ergative-marked subject belongs to the main clause, and it is in the purposive clause that the subject is non-overt; in this case, the *wh-* object *nyaampa* no longer finds itself in the purposive clause. At the moment, there are not easy ways to distinguish these analyses, so we have to conclude that some of these examples are string ambiguous.

[59] Although I should note the substantial ambiguity in analysis; datives have wide-ranging uses in the language, including malefactives. The data here suggests only a sketch of a possible analysis.
[60] Note that in Austin's (2001) example, the displaced object also bears dative case.
[61] Recall that matrix intransitive subjects can be ergative-marked if co-referential with a subordinate transitive subject.

There are a few examples suggesting that this feature occurs in other Westen Desert languages as well; Wilmoth (2022) states that this kind of 'interleaving' is impossible in Pitjantjatjara, but only with subjects (i.e. like Bowern's 2012 description of Bardi; therefore not really to be compared with the Pintupi-Luritja examples). However shifted objects appears to be possible in Pitjantjatjara as well; in Papunya I came across a photograph of children holding a sign at a rally– probably for bilingual education in Alice Springs. The sign they are holding has exactly this construction on it, given as follows:[62]

(85) Pitjantjatjara

Wangka	**kutjara-ku**=la	muku-ri-nganyi	nganampa	tjitji	ninti-ri-ngkunytjaku.
language	**two-DAT**=1PL.Subj	desirous-INCH-PRS	1PL.DAT	child	know-INCH-PURP

(Source translation:) We want our kids to learn both languages.

Sign held in a rally, on a photograph seen in the Papunya school archive

The dative marking is likely key to understanding this structure, as a kind of control. We have just discussed that verbs like *yunytjurringanyi* 'want' (and the Pitjantjatjara equivalent *mukuringanyi*) can take nominal complements, which are dative marked (cf. 'to want *for* something' in English). As we will show in section 2.4.3 below, dative-marked elements in the main clause are able to control subordinate purposive subjects; it is likely that these are cases where they control subordinate purposive objects.

(86) Wangka kutjara**ku**$_i$=la mukuringanyi [nganampa tjitji $\__i$ nintiringkunytjaku].

This cannot be the story however for the accusative-marked objects in (82), and even some of the dative-marked examples. It is reasonable to see *wangka kutjara* 'two languages' as being 'wanted' in (85), but it can hardly be said in (82a) that the Egyptians stand in a 'wanting' relation to 'us', and happen to also want to kill us.

Glimpses of this construction can also be seen in another Western Desert language: Burridge (1996) gives an example of this in Yulparija, where the object of the purposive verb *kangkuraku* 'take.PURP' has been fronted before the finite main verb; here however, the purposive object is not dative-marked. This is to be contrasted with cases in which the object remains inside the subordinate purposive clause, where "core arguments typically take DAT," (Burridge, 1996: 25) as in (87b).[63]

(87) Yulparija (Burridge, 1996: 26)

[62] This is likely Pitjantjatjara because (i) it uses Pitjantjatjara orthography (a single <*r*>, rather than <*rr*> for the alveolar trill); (ii) lexical choices (*mukuringanyi* for 'want', instead of *yunytjurringanyi* for example), and (iii) because the poster has the Areyonga school emblem in the corner (thanks to Sasha Wilmoth for this sharp-eyed observation). However we can also note that Areyonga Pitjantjatjara appears to pattern with Pintupi-Luritja in a number of ways, more so than the Pitjantjatjara spoken in communities further south (see discussion throughout this dissertation); it would be an interesting question as to whether the Pitjantjatjara spoken in South Australia also allows these kinds of structures.

[63] Note throughout that most of the English translations of Yulparija sentences in Burridge (1996) are followed by question marks; I've kept these in here, but I am unsure what they refer to, as they are not clearly questions.

a. **Waru**$_{i}$ waja-nu-lu nyarra-karti ngurra-karti [_$_{i}$ ka-ngku-ra-ku].
wood tell-PST-3SG.LOC DEM-ALL camp-ALL take-IR-OPT-PURP
He told him to take the wood to the camp?

b. Japirr-nu-jara [waru-**ku** ka-ngku-ra-ku] ngurra-karti.
ask-PST-1SG.LOC wood-**DAT** carry-IR-OPT-PURP camp-ALL
He asked me to take the wood to the camp.

This construction in Western Desert languages– its general availability, syntax, and case marking patterns– requires further work.[64]

Another important point of variation for Pintupi-Luritja purposive clauses is the question of switch reference; in some other Western Desert languages the use of the purposive (in opposition to the intentive *kitja*; see below) has been described as encoding a difference in switch reference, where the purposive indicates a different subordinate subject to the main clause subject, while the intentive indicates same subject.[65] The examples above show this not to the be the case in Pintupi-Luritja; while some examples are different subject (73c), others are same subject (73a). These differences in the (non-)encoding of switch reference are also noted by Hansen and Hansen (1978: 65f).

Intentive clauses

So-called intentive clauses are in many respects similar to purpose clauses. They are typically described as indicating that the subject is 'intending' to undertake the subordinate intentive-marked verb; in practice, there is a great overlap between these and purposives.

In many other Western Desert languages, the distinction between intentives and purposives is much more important, as it encodes switch-reference. Since this is not true in Pintupi-Luritja they overlap to an even greater extent than in other languages.[66] Like purposives, intentive clauses can either be more adjunct-like, similar to purpose clauses (88a); or act more like the complement of a verb (88b).

[64] I had an informal discussion with Ngaatjatjarra linguist Elizabeth Marrkilyi Ellis about sentences like these in Ngaatjatjarra; she rejected examples where the shifted object was not dative marked. This stands in contrast to discussion in a recording about Pintupi-Luritja where a dative-marked shifted object was rejected, and only unmarked (accusative) as accepted (JAG1-Elicitation-20201209_MANG; 01.40–02.10 and surrounding discussion). This suggests that dative is a key ingredient across the languages, and that the accusative-marked objects are more restricted in this construction. The question of case marking could inform the direction of analysis– either a movement-based account where the subordinate accusative-marked object is generated in the subordinate clause and is moved to a higher position in the matrix clause, or something resembling control, where (particularly dative-marked) elements are generated in their surface position and relate in other ways to an empty element in the subordinate clause. This is all complete speculation on my part, since so little about this construction is described in any of the languages, including in Pintupi-Luritja. Thanks to Lizzie Ellis for the interesting and informative discussion on the Ngaatjatjarra data!

[65] E.g. Bowe (1990: 74ff), Langlois (2004), and Wilmoth (2022: 265ff) for discussion and variation in Pitjantjatjara; Goddard (1985: 80ff) in Yankunytjatjara; Glass (1980: 49f, 66) for Ngaanytjarrra. This is sometimes encoded in glossing too— e.g. Bowe (1990) glosses the purposive as PURP.DS (= 'different subject').

[66] E.g. Hansen and Hansen (1978: 78) give an example of an intentive clause with a different subject in main and intentive clauses.

(88) a. Nganaṉa-tju waru tiṉa palya-ṉi mangarri kutja-**lkitja**.
1PL.ERG-EXCL fire big make-PRS veg.food cook-**INTENT**
We are making a big fire, intending to/in order to cook food.
Kungka tiṉa tjuṯa yanu Iniṉṯilakutu (Anon., n.d.)

b. Palunya-lu watja-ṉu piyuku tjananya, "Nyurrangarri **yunytju-rri-nganyi**
3SG-ERG say-PST again 3PL.ACC 2PL.NOM **desirous-INCH-PRS**
ngayu-lawana ngalku-**kitja**?"
1SG-PERL eat-**INTENT**
Watja-ṉu=ya, "Yuwa, yuwa! **Yunytju-rri-nganyi**=latju nyuntu-lawana
say-PST=3PL.Subj yes yes **desirous-INCH-PRS**=1PL.Subj 2SG-PERL
miyi ngalku-**kitja**."
food eat-**INTENT**
(S)he said again to them "Do you all want to eat with me?" They said "Yes, yes! We want to eat food with you."
Luukinya [The little red hen] (Phillipus Napurruḻa, 1981)

Unlike purposives however, intentives do not as readily act as a main clause verb; that is, it is very rare for a root clause with a single verb to be intentive-marked. Intentive clauses do not then have an extra modal reading as is associated with purposives in those constructions (see Gray, 2021 and chapter 12).

One of the less verbal characteristics displayed by this suffix is the fact that it can be ergative-marked, namely when the main verb is transitive (see also 47b for an example). This is parallel to adverbials, which also bear ergative case in these environments (recall section 2.2.1 above).

(89) a. Wati-**lu** kuli-ṉu kuḻaṯa palya-kitja-**ngku**. Paluru ilta palya-ṉu.
man-**ERG** decide-PST spear make-INTENT-**ERG** 3SG.ERG truly make-PST
The man decided to make a spear. He (then) really did make it.
Kuka mangarriwiya nyinapayi (Roberts, 2000)

b. Kuka maḻu-ku ya-nkukitja-**ngku** wati ngaa-**ngku** kuli-ṉi.
meat kangaroo-DAT go-INTENT-**ERG** man DEM-**ERG** think-PRS
(Source translation:) This man is thinking about going to hunt a kangaroo.
Luritja Picture Dictionary (Hansen et al., 2011: 91)

As also reported in Pitjantjatjara (Langlois, 2004; Wilmoth, 2022), there is variation in Pintupi-Luritja regarding whether speakers attach the intentive marker onto a nominalised verb, or directly onto the verbal stem (plus class augmentation for verb classes that have them). This can be seen in the following.

(90) a. Piyuku tjiṉṯu kutjupa-ngka aṉangu tjuṯa tjaputjapu nya-ku-**nytja-kitja**
again day other-LOC person many football see-AUG-**NMLZ-INTENT**
tjungu-rri-ngu.
together-INCH-PST
The next day again, people gathered together to watch the football.
Tjakulpa kuwarritja (July 1989, p.2)

b. Yaṉangu tjuṯa=ya paka-ra ya-nu tjuni yulṯu-rri-ngku-la kuka
person many=3PL.Subj rise-MV go-PST stomach empty-INCH-AUG-LOC meat
ngalku-kitja kuula-ngka.
eat-INTENT school-LOC
All the people, getting up, went, with bellies having become empty, to eat some meat at the school.
(Source translation:) After the service all the people went to the school for a bar-b-que.
Yirriṯi tjaatji nyuwana winganpungutja (Phillipus Napurrula, 1982)

Interestingly, Hansen and Hansen (1978: 76ff) have no examples of *-kitja* attaching to a nominalised verb in Pintupi; all examples have attachment directly to the verb stem plus class marker (like 90b). I won't discuss synchronic or diachronic variation for this element in Pintupi-Luritja, but cf. the work on Pitjantjatjara (Wilmoth, 2022: Ch.5).

Circumstantial clauses

This clause type is what Heffernan and Heffernan (2000) call reason clauses; *modulo* some slight morphological differences, these are what Goddard (1985, 1988), Clendon (1988), Wilmoth (2022) describe as circumstantial clauses in Yankunytjatjara, Manjiljarra, and Pitjantjatjara respectively. Morphologically this clause type consists of present/past tense marking (with allomorphy according to verb class), on a verb stem which is further marked with the locative case *-ngka*. Heffernan and Heffernan (2000) call this a 'reason clause' because they note that these clauses often describe the rationale for the events described by the main clause verb. They can be thought of more generally as a kind of stative non-finite adjunctival addition to the clause; Clendon (1988) describes these clauses in Manjiljarra as "providing the background or conditions in the light of which the events of the main clause are to be understood."

(91) a. Nganaṉa-tju nya-ngu Maḻukuru tjuṯa ngara-**nyi-ngka** yiwarra-ngka.
1PL.ERG-EXCL see-PST desert.pea many stand-**PRS-LOC** road-LOC
We saw a lot of Sturt's Desert Pea standing on the road.
Kungka tiṉa tjuṯa yanu Iniṉṯilakutu (Anon., n.d.)

b. Ya-nkula=pula nya-ngu kuka ma̲lu kutju wilytja-ngka ngarri-**nyi-ngka**.
go-MV=3DU.Subj see-PST game kangaroo one shade-LOC lie-**PRS-LOC**
Going alone, the two (men) saw a kangaroo lying in the shade.
Pititja̲li̲likamu Kanparrka (Phillipus, 1985a)

c. Mungamunga-rri-**nganyi-ngka** ngurra-ngka=latju nyina-rra wangka-payi yara.
predawn-INCH-**PRS-LOC** camp-LOC=1PL.excl.Subj sit-MV talk-HABIT story
(Source translation:) Just before sunrise we sit up in our camps and talk stories to each other.
Lit. 'As it is beginning to come into predawn...'
Luritja Picture Dictionary (Hansen et al., 2011: 98)

It is important to note that I am classing these as non-finite despite the fact that they morphologically encode (finite) present/past tense.[67] The fact that this tense marking tracks verb class allomorphy shows that it is not merely a fossilised element in the inflection. The locative case marking situates the circumstantial clause as an adjunct in the context of the main clause.

For past tense forms, the circumstantial inflection includes the past or the past continuous tense suffix on the verbal stem (which tracks allomorphy for verb class), followed by a nominaliser *-tja*,[68] which is then similarly followed by the locative *-ngka*. Descriptions of this clause type noted above all describe considerable variation in morphological form for this clause, including what form the locative and nominalisation takes. They suggest a stronger geographic/language-specific background to this variation (Goddard, 1985 attributes differences in form to Pitjantjatjara and Yankunytjatjara forms respectively, and Heffernan and Heffernan, 2000 speak of the variation as dialect-mixing).

(92) a. Kala, munga-ngka nyiinyi tju̲ta=ya yula-ngi panya, wati nyiinyi paluru
so night-LOC finch many=3PL.Subj cry-PST.CONT PRT man finch DEM
ku̲la̲ta-tjanu ilu-**ngu-tja-ngka**.
spear-ABL die-**PST-NMLZ-LOC**
So, that night, all the finch people were crying, with that Zebra Finch man having died from the spear (injury). OR: *Because he died.*
(Source translation:) The other finch people saw blood coming from his thigh and felt sorry for him and cried.
Wati lirrunya wati nyiinyi (Phillipus, 1985b)

I will tend to split this verbal inflection into its composite parts (tense and locative case) in glossing, rather than gloss it as a single unit. Marking the locative in particular emphasises the stative contribution

[67] This is restricted only to present and past tense; circumstantial markers cannot be built off a future inflection, for example.

[68] I characterise this as a nominaliser; it can be noted that it is often on elements that we would translate into English as an adjective. For example the Papunya newsletter with the most issues was called *Tjakulpa kuwarri**tja*** 'news now-*tja*' i.e. contemporary, of the present.

in the clause, as this is a more general use of the case in the language.[69] This clause in general is also more compositional than others, both in the contribution of the locative, as well as in the distribution of the morphology. For example, Wilmoth (2022: 98, 323) notes that when a circumstantial clause is negated in Pitjantjatjara, the negative element *wiya* intervenes between the nominalisation and the the locative marker. This also suggests a synchronic distinction between the two elements that together make up this marking.

2.4.3 Notes on control

Finally, some brief notes on control, i.e. patterns of inter-clausal co-reference. We have examined above patterns of overtness and covertness of arguments in (particularly) purposive clauses, and their case marking. This is relevant because it contrasts with descriptions of the system of control in neighbouring Warlpiri, which abounds in restrictions of coreference (Nash, 1980; Hale, 1982b, 1983; Simpson & Bresnan, 1983; Laughren, 1989, 2017b).

Pintupi-Luritja purposive clauses are compatible with a range of grammatical relations between the matrix and embedded arguments, in a way not restricted by case marking alignment; subjects (i.e. both nominative and ergative-marked elements) can be referential with other subjects regardless of differences in nominative/ergative case marking. Objects can also be co-referential with elements in other clauses as well. There appear to be no asymmetries of this sort.

Matrix intransitive subjects can be identified with a non-overt intransitive subject in the embedded clause.[70]

(93) **S_i[_S_i]**

Kala tjana$_i$ a-nu [_$_i$ ngurra kutjupa-ngka nyina-nytjaku].
So 3PL.NOM go-PST [_ camp another-LOC sit-PURP]

So they$_i$ went [_$_i$ to stay at another camp].
(Source translation): Then the old man told the people to go to another lot of hills and make a new camp, so they did.

Mamutjarra (Ferguson, 1987c)

The same goes for matrix intransitive subjects being co-referential with embedded non-overt transitive subjects.

[69] This can be seen as a natural conceptual extension from location in space to location in a point of time to location in a point of time characterised by the situation or event described by the verb. The use of the locative on a nominal is more generally used to indicate this stative reading; a good example can also be seen in (114b) in chapter 3.3.1. This type of marking appears analogous to the contribution of the locative in circumstantial clauses. Cf. also some comparable uses of the locative in Warlpiri discussed by Hale (1982b: 270ff).

[70] Throughout: purposive/intentive clauses are enclosed in square brackets; co-referentiality is marked with subscript indices; underscore indicates empty argument.

(94) **S_i[_A_i]**

a. Ngurra-ngka nyina-rra paluru$_i$ a-nu karru-kutu [_$_i$ kapi manytji-nytjaku].
camp-LOC sit-MV 3SG.NOM go-PST creek-ALL [_ water get-PURP]
(After) staying at the camp, he$_i$ went to the creek [_$_i$ to get water]
(Source translation): One day after staying in the camp for a while, he went to get some water.
Mamutjarra (Ferguson, 1987c)

b. Nganaṉatju$_i$ a-nu Waḻungurru-lakutu [_$_i$ kuula nya-kunytjaku.]
1PL.excl.NOM go-PST Kintore-ALL [_ school see-PURP]
We went to Kintore [_ to see the school].
Tjakulpa Kuwarritja (July 1989, p.11)

Objects can be co-referential with purposive objects.[71]

(95) **O_i[_O_i]**

a. Ngayulu=ṉa nyuntupa kamula tjuṯa-ku kapi$_i$ yinti-lku [tjana _$_i$
1SG.ERG=1SG.Subj 2SG.DAT camel many-DAT water give.water-FUT [3PL.ERG _$_i$
tjiki-ntjaku].
drink-PURP]
I will give your camels water to drink.
(Source translation): I will draw for your camels also, until they have finished drinking.
Genesis 24:19/Yurruntitja 24:15–27 (Bible Society of Australia, 2006)

b. Kuultitji kutjarra-ngku mangarri$_i$ manytji-ra ngalya-nu Waḻungurru-lakutu
school.teacher two-ERG food bring-MV hither.come-PST Kintore-ALL
[pipirri tjuṯa-ngku _$_i$ ngalku-nytjaku].
[child many-ERG _ eat-PURP]
The two teachers came to Kintore, having gotten food for the children to eat.
Warumpinya ngurrara kuulaku piipa: Papunya School paper (April 1986, p.14)

However objects and subjects can also be co-referent across clauses.

[71] Although note that in (95b), *mangarri* 'food' is the object of the medial clause, not the matrix clause.

(96) a. **S_i[_O_i]**

Karatji-ngka mutukayi tjuṯa$_i$ ngara-nyi paṯa-ra [_$_i$ palya-nytjaku].
garage-LOC car many stand-PST wait-MV _ fix-PURP
(Source translation): In the garage at the moment there are a number of Community vehicles awaiting repair.

Tjakulpa kuwarritja (September 1986, p.13)

b. **O_i[_S_i]**

Nganaṉa-tju pipirri wiima tjuṯa$_i$ kati-ngu [_$_i$ yuru-ngka tjurrpi-nytjaku].
1PL-EXCL child little many take-PST [_$_i$ water-LOC swim-PURP]
We took all the children to swim in the water.

Warumpinya ngurrara kuulaku piipa: Papunya School paper (December 1986, p.7)

Matrix objects can control purposive transitive subjects; although there is occasionally ambiguity in these cases if the matrix object cannot have agency (as in 97b, where the object is *waru* 'fire') whether the subject of the intransitive clause is really the matrix object, or the matrix subject by proxy (i.e. is the fire keeping them warm, or are they keeping themselves warm by having lit a fire?).[72]

(97) **O_i[_A_i]**

a. Nganaṉa-nya$_i$ ninti-ningi Maureena-lu Kathleena-lu [_$_i$ piitji waka-nytjaku].
1PL-ACC teach-PST.CONT Maureen-ERG Kathleen-ERG _ picture draw-PURP
Maureen and Kathleen were teaching us to draw pictures.

Tjakulpa kuwarritja (July 1989, p.11)

b. Kala, tjana$_i$ waru$_k$ tiṉa-lpi palya-lpayi [_$_{??i/k}$ tjana-nya umpi kanyi-nytjaku].
so 3PL.ERG fire large-then make-HABIT _ 3PL-ACC warm keep-PURP]
So they would make a big fire to keep them warm.
(Source translation): After that they would make a big fire to keep themselves warm.

Warumpinya ngurrara kuulaku piipa: Papunya School paper (September 1985, p.22f)

Matrix indirect objects (98a) and benefactive datives (98b) can also control subordinate subjects.

[72] Presumably binding data would be relevant here; for example in (97b), if it is the main clause subject that is understood as the subordinate subject, we might expect the subordinate object to need to be reflexive. Unfortunately not enough is known about binding in Pintupi-Luritja at present.

(98) a. **indO$_i$[_S$_i$/A$_i$]**
Kungka-lu-lpi wangka-ngu "Yu-wa=ṉi$_i$ [_$_i$ nya-kunytjaku]!"
woman-ERG-then say-PST give-IMP=1SG.Obj [_ see-PURP]
Then the woman said "Give it [a pair of binoculars] to me to have a look."
From the Binoculars storyboard (Gray, 2019a); JAG1-Storyboard-20200306_MA2; 2.37–2.41

b. **Ben.Dat$_i$[_S$_i$/A$_i$]**
Nganaṉa-tju palya-ṉu tjana-mpa$_i$ [_$_i$ ngalku-nytjaku].
1.PL-EXCL make-PST 3PL-DAT [_ eat-PURP]
We made (food) for them to eat.
(Source translation): We got all the things ready for them to eat.
Warumpinya ngurrara kuulaku piipa: Papunya School paper (April 1986, p.14, 16)

There are also cases where the controller is not in fact present in the preceding clauses at all, but is instead filled by general context.

(99) Context: Note this is accompanied by a picture of local Aboriginal boys building.
Kala, walypala-ngku$_i$ yu-ngu-lpi [_?i/k/?*arb* waaḻa palya-nytjaku].
so white.people-ERG give-PST-then [_ house make-PURP]

[Uḻa tjuṯa-ngku]$_k$ palya-ṉu.
boy many-ERG make-PST

Tjana$_k$ waarrka-rri-rra ninti-rri-ngu.
3PL.NOM work-INCH-MV knowledgeable-INCH-PST

(Source translation): Then finally the white fellows gave some things to make a building, The boys built it, they came and learnt how to build it.
Warumpinya ngurrara kuulaku piipa: Papunya School paper (April 1986, p.14, 16)

These brief remarks should suffice to show the great freedom in co-referential patterns that are possible with Pintupi-Luritja purposive clauses.

This chapter has briefly covered most of the points of Pintupi-Luritja grammar that should help a reader to follow the discussion in this thesis: the phonetics and phonology of the language; Noun Phrase structure; the case marking system, its morphology, and marking patterns in different syntactic configurations; the morphology and syntax of (pronominal) clitics; inflectional verb morphology, including a range of finite and non-finite verb forms; different types of clauses and some points about their syntax; and some notes on control. I also refer the reader to the appendix, which includes tables of verb inflections, the morphology of clitics, and other information. I want to reiterate that this chapter only represents the grammar of Pintupi-Luritja in broad strokes. It should be clear that all of these

phenomena could be investigated in much deeper length; my aim here has been to equip the reader with the necessary background for the topics discussed in the remaining chapters.

Chapter 3

Negation

This chapter describes the syntax and semantics of negation in Pintupi-Luritja, focusing almost exclusively on the particle *wiya*. Understanding the behaviour of *wiya* is important in light of later chapters, which examine how negation interacts with other elements in the clause. This chapter will also have a much greater comparative approach than most of this dissertation, explicitly contrasting *wiya* in Pintupi-Luritja with *wiya* in other Western Desert languages. This description is important in the context of the Western Desert family, as we will see that the syntax of *wiya* in Pintupi-Luritja varies subtly but considerably from how the same element functions in other closely-related Western Desert languages like Pitjantjatjara and Yankunytjatjara as described by Goddard (1985), Wilmoth (2022), and others. This represents an important step in investigating syntactic variation within the Western Desert family.

Firstly we will discuss relevant aspects of negation as a phenomenon of natural language, with reference to both its syntax and semantics in section 3.1. We will then turn our focus to *wiya* more specifically in section 3.2, focus on issues of syntax in 3.3, before finally discussing it from a comparative perspective within the Western Desert language family in section 3.4.

3.1 Negation preliminaries

Negation is a very clear example of a functional element in language; its contribution to the clause is best characterised by what it *does* to the clause as a whole. Semantically, the contribution of (arguably the main use) of negation is uniform: if you take a true proposition and negate it, you will have a false proposition; if you take a false proposition and negate it, you will have a true proposition.

(100) a. A TRUE PROPOSITION: (True for argument's sake)
Augustin is sleepy **true**

b. THE ADDITION OF NEGATION:
Augustin is not sleepy ⇝ **false**

Under pretty standard assumptions, negation is a propositional operator in the sense that (semantically) both its input and output are propositions; it flips the truth value of the proposition it is applied to.[1] While this semantic contribution is quite uniform, the morphology and syntax of negative elements in natural languages on the other hand are not (Horn, 1989/2001; Horn & Wansing, 2022). Typologically, negation is expressed in a wide variety of ways, and its inclusion in the clause often triggers a range of morphosyntactic deviations from the corresponding positive sentences (Dahl, 1979; Payne, 1985; Miestamo, 2005, 2007; see Phillips, 2023 for strategies in Australian languages). The complexities of expression that negation triggers in natural language and how to represent it is the basis of its enduring interest in studies of language and cognition.

Negation as a property of natural language has been discussed since at least Aristotle; as such, there has been too much discussion about it to cover all facets of how it functions here. We will be discussing negation as a propositional operator, how to tease this apart from other, more quantificational uses; and in particular how it is syntactically and morphologically expressed through the Pintupi-Luritja negative element *wiya*. It will be the interaction between clause position and possible semantic consequences that will be our concern. As such there are many uses of negation that won't be investigated here; see especially Horn (1989/2001) for an overview of some of them. We will however revisit whether we should think of negation as a focus sensitive element later in chapter 7.2.

3.1.1 The sentential/constituent distinction

There is a long and relatively well-established tradition in the study of negation to recognise a distinction between what we will be calling sentential negation and constituent negation. The terminological distinction can be traced back to Klima (1964), but the idea of negation targeting variously smaller and larger sections of a sentence was discussed by Aristotle, with another important early modern discussion of the idea being found in Jespersen (1917). The general intuition is that sentential negation has scope over the entire proposition, whereas constituent negation only has scope over some smaller part of the clause. The question of how to relate the syntax and semantics of negation has played a large role in this discussion. The sentential/constituent terminology is used in slightly different ways in the literature, depending especially whether this is defined as a syntactic notion (as it ultimately will be here), or as a semantic one.[2] Syntactic approaches emphasise the position of the negative marker in the clause, and will tend to equate the scope of negation with structural, syntactic properties; semantic approaches on the other hand emphasise the semantic effect– what is actually negated. Various tests

[1] This idea of negation as a unary operator stems directly from its treatment in classical propositional logic. There is perennial debate about how appropriate this operator is to model the negation of natural language, which takes a wide variety of forms (Phillips, 2021; Horn & Wansing, 2022). Negation as the operator $\neg$ has been often described as insufficient to capture negative phenomena in natural language; as Hintikka (2002) frames it, "Logicians' coarse-grained treatment of negation means that linguistics [sic] have so far not been in a position to expect much help from them." I'm happy to adopt $\neg$ as a stand-in for negation at least descriptively to describe scope relations, but nothing I describe hinges on the necessity of negation being identified in this way.

[2] See e.g. Horn (1989/2001), De Haan (1997), Zeijlstra (2004), Miestamo (2005) and De Clercq (2020) for discussion on the variation in how these terms have been used.

have been proposed to tease these apart, with Klima (1964) and Jackendoff (1972) being among the most influential. These two approaches to the constituent/sentential distinction (syntactic or semantic-centred) therefore signify slightly different notions, which greatly affects how linguists talk about sentential and constituent negation in a given language.

This distinction is relevant for us because of how I want to characterise the way that the Pintupi-Luritja negator *wiya* works. Looking ahead somewhat, I want to argue for a sentential/constituent distinction in the language, and I will argue that this distinction makes the most sense as a question of syntax: where the negative element *wiya* attaches, and what concomitant differences in interpretation we can observe. Section 3.3 justifies this distinction in detail for Pintupi-Luritja.

Let's briefly capitalise on this difference in how to view the constituent/sentential distinction, and examine why it is legitimate to see a *syntactic* distinction between constituent and sentential negation, while arguing that there is no such correlating *semantic* distinction. That is, constituent negation can have the same negating effect on a proposition that sentential negation does.[3]

Hungarian for example has a clear syntactic difference between what Laczkó (2014) is calling predicate and constituent negation.

(101) Hungarian (Laczkó, 2014)

a. **Predicate negation**
Péter nem hívta fel a barátjá-t.
Peter not called up the friend.his-ACC
Peter didn't call up his friend.

b. **Constituent negation**
Péter NEM a BARÁTJÁ-T hívta fel.
Peter not the friend.his-ACC called up
It wasn't his friend that Peter called up.

There is clearly a pragmatic difference between the two, but semantically (i.e. truth conditionally) they are difficult to tell apart: in neither sentence is it true that 'Péter called his friend', i.e. both sentences can be equated with '¬ *Péter called his friend*.'[4] Pragmatic differences suggest instead a strong connection to focus (see discussion in chapter 7.2). There is then no *semantic* (i.e. truth conditional) difference

[3]This has been often noted. Horn (1989/2001: 468) for example has some citations from the literature to this effect; for example Geach (1980: 75): "negation is almost always applied primarily to some part of a statement, though this often has the effect of negating the statement as a whole"; also Cooper (1984: 25): "English uses the negation of constituents other than sentences to achieve the effect of what would be sentence negation in a predicate calculus-like representation."

[4]Thanks to Flóra Lili Donáti for discussion about these sentences and their meanings. I should also note that the Hungarian data here cannot be directly compared to Pintupi-Luritja negation; I'm not sure if there is evidence of actual syntactic constituency with the negation in (101b). The point however stands that there is a syntactic difference between the two sentences that does not carry across to a truth-conditional one.

between the two; constituent versus sentential/predicate negation is here instead a question of syntax (with concomitant pragmatic differences).

In cases where negation is the only operator/scope-bearing element in the clause, the notion of negating only part of the clause is less meaningful, as we don't see scope effects.[5] Here, a semantic distinction is not particularly telling, although a syntactic distinction may hold (i.e. as in 101). The interesting cases then are sentences with additional scope-bearing elements, as it is only here that we see relations between syntactic position and relative scope orderings. We will investigate cases like this in later chapters; for now, let us focus on simpler cases of negation in Pintupi-Luritja.

3.2 The Pintupi-Luritja negative particle *wiya*

The rest of this chapter will be dedicated to examining the main negative element in Pintupi-Luritja, the particle *wiya*.[6] First we will examine its semantics and range of uses, also in comparisons with negation in other Australian languages in section 3.2.1. Then we will examine evidence and justification for a syntactic divide in how *wiya* negates clauses in 3.3. There I will make a basic distinction between sentential negation, which sits near the beginning of the clause (first or second position), and constituent negation, which attaches to an element and forms a syntactic constituent with it. Finally, we will place the syntactic behaviour of *wiya* investigated in this chapter in the context of other Western Desert languages in more detail in section 3.4. Here we will see that negation is an area with quite some variation in how it is encoded across the Western Desert family.

3.2.1 The semantics of *wiya*

It is worth contextualising negation in Pintupi-Luritja among Australian languages more generally. Surveys of negation in Australian languages (Dixon, 2002; Phillips, 2021) suggest dividing the negative semantic space in the Australian context into four categories, based on patterns of lexicalisation: (i) negative imperatives/prohibitives, (ii) clausal/standard negators, (iii) nominal negators, including specialised negative existentials and a commonly occurring 'privative' category, and (iv) negative

[5]The following quote from Hunyadi (1986) is here relevant: "...[in the example under discussion, the subject] Péter is in focus-position and it precedes the negative particle. Nevertheless it is still included in the scope of negation because Péter by itself is not an operator which, preceding the negative operator, could have wide scope (or any).... Thus, Peter, not being by itself an operator, cannot express wide scope over negation even if it precedes the negative particle; rather, it is included in the scope of negation." Not being a scope-bearing element, the subject's syntactic position (outside the *syntactic* scope of negation) does not affect its interpretation being *semantically* within its scope. The same can be said of (non-quantificational) subjects in e.g. English, which also precede negation but remain in its scope. The point is that 'wide scope' only makes sense when there is another scope-bearing element to take wide scope with respect to.

[6]I'll be calling *wiya* a particle, but it in fact has somewhat of a mixed character. As we will see throughout this chapter, it can bear case marking and be verbalised. Wilmoth (2022) in fact refers to *wiya* as a nominal for this and other reasons (see discussion below). I will maintain the term particle, but it should be noted that it shows behaviour unlike other particles in the language; I am happy to be relatively agnostic on its nature here, as I don't think it makes a huge difference for our purposes.

interjections.[7] Australian languages lexicalise these categories to different degrees; all of them are realised in Pintupi-Luritja with *wiya*.

(102) a. **Negative imperative/prohibitive**
Paapa kanyaḻa-ngku watja-ṉu "**Wiya** yula-nytjaku."
father kangaroo-ERG say-PST **NEG** cry-PURP
Father kangaroo said "Don't cry."
Kanyaḻa maṉkurrpa (Beattie, 1988)

b. **Clausal/standard negator**
Ngayulu **wiya** yunytju-rri-nganyi palu-nya nya-kunytjaku.
1SG.NOM **NEG** desirous-INCH-PRS DEM-ACC see-PURP
I don't want to see him/her.
No clear source translation
2 Tjamiyula/Samuel 21:15–22 (Bible Society of Australia, 2006)

c. **Negative existential/privative**
Ngaa tjuṯa aapwayi iwarra-ngka nyina-ngi kapi-**wiya**.
DEM many half.way road-LOC sit-PST.CONT water-**NEG**
(Source translation:) These ones stayed there on the road without water, before they got to their destination.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aapwayi*

d. **Negative interjection**
Nyuntu nyina-nyi? **Wiya**, ngayulu a-nanyi.
2SG.NOM sit-PRS **NEG** 1SG.NOM go-PRS
Are you sitting? No, I'm walking.
Nyuntu nyinanyi? (Abbott [Illustrator], 1988)

The category of negative existential/privative subsumes both negative existentials and privatives; whereas privatives tend to be more adjunct-like (as seen in 102c), *wiya* as a negative existential can also function as the main predicate, as in (103) below.

(103) Naanytja-**wiya**, tangkiyi-**wiya** ngara-ngu.
horse-**NEG** donkey-**NEG** stand-PST
There were no horses and no donkeys (in earlier times).
(Source translation:) There were no horses or donkeys around either.
Yirrkunytjilu Tjampitjinpa tjuṯa witiṉu (Anon., 1988)

[7] I've taken the phrasing of these categories from Phillips (2021), but cf. similar wording in Dixon (2002).

Wiya is used in a further variety of ways, beyond those listed above.[8] One of these is functioning as a verbal stem. As an intransitive verb with an inchoative suffix it means something like 'to become nothing'– this can either mean to finish, run out, as a euphemism for dying, or related concepts in combination with other verbs like to disperse.

(105) a. Alatjapuringi-languru tjana ngalya a-nkula pitula **wiya-rri**-ngu.
Alice.Springs-ABL 3PL.NOM hither come-MV petrol **NEG-INCH**-PST
(Source translation:) While coming from Alice Springs their petrol ran out.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *alatjapuringi*

b. Yaṉangu tjuṯa kuka tjuṯa-ṯarra **wiya-rri**-ngu.
person many meat many-also **NEG-INCH**-PST
Many people and also animals died.
(Source translation:) … through which the world of that time was deluged with water and perished.
2 Piitakuṉu/Peter 3:6 (Bible Society of Australia, 2006)

As a transitive verb it means something like 'to finish/make become nothing', e.g. to finish a drink/food, or again euphemistically to mean to kill.

(106) Mingkuḻpa=ya arrkatju-nkula ngalku-ra **wiya**-lpayi.
bush.tobacco=3PL.Subj hide-MV eat-MV **NEG**-HABIT
(Source translation:) Those ones hide bush tobacco (from us) they keep chewing it and finish all of it.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *arrkatjunanyi*

Wiya can also take on a small number of case markings, resulting in conventionalised meanings, in particular locative *wiya-ngka* ('if not', or perhaps 'in the case of it not being so'), and perlative[9]

[8]For example there are in fact a few ways to form negative imperatives, and all of them utilise *wiya*. Example (102a) is an example of *wiya* together with a purposive-marked verb; this change in verb form corresponds to a modal reading along the lines of 'should not', which overlaps with negative imperatives in usage. We will explore this construction in more detail in chapter 12.2; see also Gray (2021) for how negation interacts with the modality in these constructions. Other constructions involve using the verb *wanti* 'leave/discard'.

(104) Yalatji watja-ntja-wiya wanti!
thus say-NMLZ-NEG leave.it.IMP
Without speaking thusly, leave it!
(Source translation:) You should not speak like that, stop it!
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *nuu*

[9]It's possible that this is not a perlative case marking at all, but the homophonous attributative marking *-wana*, from English 'one'; cf. e.g. *nyuwana* 'new (one).' Nominals built from this *-wana* differ from perlatives in that they can e.g. bear case marking.

wiya-wana ('in a wrong fashion'). Many of these various uses, including as a verbal stem, are also described across Western Desert languages including Yankunytjatjara and Pitjantjatjara (Goddard, 1985; Wilmoth, 2022).

Any attempt at a unified semantics of *wiya* will have to take these uses into account; we can note that only the clausal negation of (102b) resembles closely the description of negation introduced in the previous section, i.e. a functional element that flips truth values. This range in meanings and uses has led Wilmoth (2022) to propose two basic meanings for *wiya* in Pitjantjatjara: a negative function (including standard negation), and negative quantification. This range of meanings appears sensibly applicable to the range of meanings that *wiya* exhibits in Pintupi-Luritja as well. We have seen both the standard propositional negating properties of *wiya* as well as its use as a negative existential. There is an obvious semantic relation of all of these uses to each other, but what this exact relation is, and the question of whether they can be reduced to a single underlying semantics, is left for later work.[10]

We should also note that although *wiya* functions as the main form of negation in the language, it is not the only negative element. Other elements with more restricted distributions exist as well, for example the suffix *-munu*, which Hansen and Hansen (1978) call the 'reverser', and Goddard (1985) calls the 'contrary' suffix in Yankunytjatjara.

(107) Palanya-nga-mpa kapurayita kuya, mutukayi palya-**munu**.
DEM-SPEC-maybe carburettor bad car good-**NEG**
(Source translation:) It seems that car might have a bad carburettor, the car's no good.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aalytjikutu*

There are other lexical items that involve negation in their semantics, like *puṯu* 'can't; unsuccessful; in vain' (see section 11.2 for discussion of this particle), the verb *wanti* 'leave alone; discard', which is often used in constructions for negative imperatives, *kaan* 'can't' (see section 11.1), *naata* 'not', *nuu* 'no', *-tjirratja* 'for want of', *-ngkamarra*/*-lamarra* 'to avoid', among a few others. These are used to varying degrees and for different purposes in the language. I also won't address what Hansen and Hansen (1978: 78) call "the most common way of negating a phrase" in Pintupi, the suffix *-paṉi*, which I do not have any examples of in my corpus, nor have otherwise come across. This chapter instead will only deal in detail with *wiya*, and more particularly will mostly be concerned with the syntax of *wiya* as a standard/clausal negator.

3.3 Justifying a constituent and sentential *wiya*

I noted above that I will be defending a distinction between *wiya* as constituent negation and sentential negation, and that I will characterise this in syntactic terms, rather than as a question of semantics. Doing this allows us to co-opt the sentential/constituent distinction as a description of the syntax of

[10] See e.g. Phillips (2021: Ch. 6) for a relevant formulation of a unified semantics for clausal and existential negation.

wiya: as sentential negation, *wiya* is attached to the clausal spine without forming any syntactic unit with other elements, whereas constituent negation attaches directly to some sub-clausal constituent. This is then a strictly syntactic distinction; it is important to note that both of these constructions can be used to negate a proposition.[11] Recall that researchers either tend towards a syntactic or a semantic understanding of the sentential/constituent distinction. This is important here, because whereas I am making the distinction in Pintupi-Luritja based on syntactic facts, if we were to instead take a semantic view of the constituent/sentential distinction (e.g. Jackendoff, 1972), both of these constructions in Pintupi-Luritja would then count as sentential negation, as they both have wide semantic scope over the entire proposition (i.e. they can both negate a proposition). This is true at least when no other scope-taking element is present in the clause (more on this to come), and when the negative element is not constrained within an adjunct or some other syntactic configuration that limits negation's domain.[12] Having propositional scope, these patterns therefore also correspond to the term standard negation (Payne, 1985), defined by Miestamo (2005) as "the basic way(s) a language has for negating declarative verbal main clauses."

With that in mind, let's examine *wiya* in the clause. Broadly speaking, there are two positions in the clause that *wiya* can occupy: near the beginning of the clause (first or second position), and right-adjoined to some element in the clause. This right-adjoining of *wiya* has a few different readings; this positioning is particularly typical of privatives, as seen in example (102c), although as we will discuss in section 3.3.1, constituent negation similarly right-adjoins to elements as well. There is sometimes a particular ambiguity between these two readings. Heffernan and Heffernan (2000: 120f) warn about this kind of ambiguity between privative and plain negation readings in their learner's guide, showing how an example like (108a) can have two distinct readings which they orthographically disambiguate with spacing (I have marked this here with a hyphen, to mark the presence/absence of an orthographic space). This ambiguity can also be seen in the community corpus example in (108b).[13]

[11] The relation between the semantic scope of negation and various syntactic realisations thereof is a foundational question in the study of negation generally. Entailment patterns between them have similarly long been discussed; as always, see Horn (1989/2001) for details, particularly chapter 7.

[12] Jackendoff's (1972) tests crucially test for cases where other scope-taking elements outscope negation; for Jackendoff, as soon as negation is out-scoped, it is no longer sentential negation. A bird's eye view of the sentential/constituent distinction then ultimately must take scope interactions with other elements in the clause into account. We will be doing this in some detail in the following chapters; however I want to stress that we won't consider negation being outscoped as fundamentally changing the category of negation. Here, constituent negation is those constructions whereby *wiya* right-adjoins and creates a constituent with another element, and sentential negation is the non-constituent-forming positioning of *wiya* in the clause. This is a purely syntactic definition.

[13] Hansen and Hansen (2022) also distinguish these orthographically, which they furthermore justify through: (i) the bound *wiya* is "phonologically and grammatically connected to the previous word", as it does not receive primary stress and can be followed by case marking, and (ii) the independent *wiya* receives primary stress but cannot bear case marking (see discussion under *wiya 2*). The issue of stress distinguishing these is clearly important for the discussion here and throughout, and awaits detailed study. If there is a difference in stress between a privative and constituent negation as claimed, then this would be a great diagnostic for teasing them apart, aside from those mentioned in section 3.3.1 below.

(108) a. Mutukayi (-) **wiya** ngara-nyi.
car **NEG** stand-PRS
There is no car standing (outside).
OR: (He is) standing without a car.

Heffernan and Heffernan (2000: 121)

b. Irriṯi nganampa walytja tjuṯa nyina-ngu miiṉṯa **wiya**.
long.ago 1PL.DAT family many sit-PST sick **NEG**
Long ago, our families were not sick.
OR: Our families were without sickness.
(Source translation:) In the old days our ancestors had a good life. They had healthy bodies and had no sickness.

Warumpinya ngurrara kuulaku piipa: Papunya School paper (September 1985, p. 22f)

However there is another common position for *wiya* to sit in when acting as sentence negation, namely near the beginning of the clause– generally either in second position, or clause-initially. These can be seen in (109). This is what I will be classing sentential negation.

(109) a. Ngayulu **wiya** kanyi-ṉi raypula.
1SG.ERG **NEG** have-PRS rifle
I don't have a rifle.

Kuka Mangarriwiya Nyinapayi (Roberts, 2000)

b. **Wiya** tjira-ngku kutja-lpayi waru ipa-ngka kutju.
NEG fat-INSTR cook-HABIT fire coal-LOC only
(They) didn't cook with fat, only in the coals.
(Source translation:) They didn't have butter with it after cooking it on the fire.

Warumpinya ngurrara kuulaku piipa: Papunya School paper (April 1986, p.5)

There appears to be a slight difference in the discourse environments that first/second position *wiya* can occur in; this is discussed below in section 3.3.3. Despite this subtle use-conditional difference between the positioning of *wiya*, I will continue to class both constructions like those in (109) as sentential negation throughout.

In terms of its distribution, we can note that clausal negation is clause-bound in its negating effect. The examples in (109) for example are negated matrix clauses, where *wiya* sits in that main clause. But *wiya* can also occur in non-matrix clauses, such as purposive clauses (110). In these cases, the effect of negation remains within those clauses.

(110) a. Palulanguru Katutja-lu Kayina-nya maakatju-nu,
after.that God-ERG Cain-ACC mark-PST

[kutjupa-lu nya-kula **wiya** palu-nya mirri pu-ngkunytjaku].
other-ERG see-MV **NEG** 3SG-ACC dead strike-PURP

After that, God put a mark on Cain, so that seeing him, others would not strike him dead.
(Source translation:) And the LORD put a mark on Cain, so that no one who came upon him would kill him.

Yurruntitja/Genesis 4:15-16 (Bible Society of Australia, 2006)

b. Ngayulu=n̲a yunytju-rri-nganyi, [Katutja-lu **wiya** tjana-nya kuru
1SG.NOM=1SG.Subj desirous-INCH-PRS God-ERG **NEG** 3PL-ACC eye

watja-ntjaku].
say-PURP

I want God not to blame them.
(Source translation:) At my first defense no one came to my support, but all deserted me. May it not be counted against them!

2 Timitjiyiku/Timothy 4:16 (Bible Society of Australia, 2006)

Wiya in sentence (110a) for example only negates the content within the purpose clause; paraphrasable as '*He marked him for the purpose of it not being so that others kill him.*' It of course is not saying that '*God did not mark Cain…*' That is, the scope of negation is restricted to the clause it finds itself in. Negation's effects being clause-bound like this extends more generally also to adjuncts and other assorted non-matrix clauses.

Broadly then, there are two syntactic positions for *wiya*: right-adjoined to some constituent, and near the beginning of the clause (the first or second element).[14] One of the claims of this chapter is that examples of second position *wiya* like (109a)– repeated below in (111)– are in fact syntactically ambiguous between these two syntactic configurations; we cannot tell from the string alone in (109a) whether *wiya* is right-adjoined to the initial element (i.e. *ngayulu*, as in 112a), or is just a clausal element with no particular syntactic relation to the initial element (as in 112b).

(111) (=109a)
Ngayulu **wiya** kanyi-n̲i raypula.
1SG.ERG **NEG** have-PRS rifle
I don't have a rifle.

Kuka Mangarriwiya Nyinapayi (Roberts, 2000)

[14]The difference between the two positions is discussed below in section 3.3.3.

(112) a. [Ngayulu wiya] kanyiṉi raypula.

b. Ngayulu [wiya] kanyiṉi raypula.

The difficulty in distinguishing the two is compounded by the overwhelming preference for this kind of clause-negating constituent negation to attach to the clause-initial element. I will be referring to the first option of right-adjoining negation as constituent negation, and the second as sentential negation. I will also claim that all clausal negation in Pintupi-Luritja is a variation of one of these two possibilities. The point of this section is to justify these classifications in some detail.

Another of the main threads in this chapter is the claim that this distinction is purely syntactic– the constituent/sentential division is characterised by where *wiya* attaches (i.e. at the right edge of a constituent; or appearing attached to the clause near a clause initial position). Although there are differing semantics for whether *wiya* is acting as a clausal negator or a privative, the constituent/sentential distinction appears to be purely syntactic; both are interpreted as the negation of the entire proposition.[15] It is possible that there are pragmatic or information structural differences related to focus that come into effect with constituent negation– for example that constituent negation will be more likely to be used with a focused element– we will consider this question in chapter 7.2. Most of the evidence for this structural ambiguity comes from variation in clitic placement; this will be investigated in section 3.3.2. Further evidence related to scope readings with other elements will be shown later in this thesis; particularly in chapter 8.

3.3.1 Teasing the privative apart from constituent negation

Let's briefly consider the differences between the different types of right-adjoined *wiya*, particularly between privative and constituent *wiya*. Although sentential negation sits in a relatively fixed clausal position, both constituent negation and privative uses of *wiya* attach to the right edge of various elements in the clause. This means that (at least) syntactically and morphologically in Pintupi-Luritja, constituent negation can be difficult to tease apart from privative marking. I have suggested that they have a differing semantics, but a closer look at the two blurs the distinction in some cases. Phillips (2022) and Koch (forth.) discuss the diachronic relation between privatives and standard negators in Australian languages; in light of those discussions, and particularly considering the morphological and syntactic identity of the privative and constituent negation in Pintupi-Luritja, it looks likely that this overlap in use and semantics between these uses of *wiya* forms part of a more general diachronic trajectory in the negative domain. In this section I will consider the synchronic overlap in semantics between cases of right-adjoined *wiya*, and how/to what extent we can tease the two apart where possible.

We have seen that constituent negation acts to negate the clause it finds itself in, and represents a form of standard negation. Privatives in comparison are typically described as predicating the non-existence, absence, or lacking of some entity, kind, or property (e.g. Ephraums, 2021; Phillips, 2021).

[15] At least in the absence of other scope-taking operators, which can take wide scope with respect to negation; these cases will be our focus in later chapters.

The most obvious difference between constituent negation and privative negation is then semantic; constituent negation will negate the clause (¬), whereas a privative predicates the non-existence of that entity or property it is attached to ($\neg\exists x$). There is usually a relatively sharp distinction between which reading is possible where. This is by and large a useful diagnostic, and can be seen in the following examples.

(113) a. **Right adjoined *wiya* as constituent negation**

Yiṯunypa mirrka-**wiya** ngalku-ra mirri-rri-ngkupayi.
poison.berry food-**NEG** eat-MV corpse-INCH-HABIT

Yiṯunypa is not food, having eaten it one dies.

(Source translation:) Yiṯunypa, 'poison berry' is not edible; if a person eats it they die.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kampurarrpa*

b. **Right adjoined *wiya* as a privative**

Munga-ngka ya-nanyi tjina puuta-**wiya** tinamiita-kuṉu kantu-ṉi, pinitji,
night-LOC go-PRS foot boot-**NEG** tin.of.meat-ASSOC tread.on-PRS finish
kirinypu-ngu.
feet.crack-PST

In the darkness, he walked without shoes and he trod on the lid from the tin of meat, okay then it cut him (splitting his heel).

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kantuṉi*

Here, the sentence in (113a) is clearly saying that yiṯunypa is *not-food*, and certainly not that it is *food-less*. This is then constituent negation. Example (113b) on the other hand is talking about walking *without boots*, and is not saying that something is *not a boot*. This is a privative. These examples are relatively clear. Constituent negation and privative marking are then in principle distinct and can be semantically teased apart.

There are a few distributional differences between them that can also help to divide them. Recall that privatives tend to have an adjunctival character; the privative element is adding additional information about the event or situation, without fundamentally altering the clause or contributing to the event structure of the main proposition. As such, privatives can host ergative case and act as a manner adverb (114a). Other case markings are possible as well, such as locatives (114b), which contribute a stative, situational reading, locating the (adverbial) contribution of the privative-marked element in time and/or space.

(114) a. Puṉu rungka-ra waru palya-lpayi maatji-**wiya-ngku**.
wood rub-MV fire make-HABIT matches-**NEG-ERG**
(They) would, rubbing wood, make fire without matches. *(i.e. match-less-ly)*
(Source translation:) They didn't have matches - they used rubbing sticks to make fire.
Yirrkunytjilu Tjampitjinpa tjuṯa witiṉu (Anon., 1988)

b. Naanytja-**wiya-ngka** nganaṉa ngunṯiwaṯawara-ngka kalpa-payi.
horse-**NEG-LOC** 1PL.NOM camel-LOC mount-HABIT
When we didn't have horses we would ride on camels.
lit. In (times of) horse-less-ness, we would ride on camels.
Ngayuku Yara Irriṯitja (Ferguson, 1986b)

In both cases the main event described in these sentences would still hold true without the privative-marked nominals– it would still be true that 'They would make fire by rubbing wood', and that 'We would ride on camels.' These are also not clausal negators, since they predicate only the non-existence of the entity they attach to (here, matches and horses respectively). Constituent (clausal) negation in contrast does not host case marking. We can therefore say with some confidence that case-marked examples of right-adjoined *wiya* will therefore be privatives.

Another case where privatives can be clearer to diagnose are cases where it is being explicitly contrasted with a comitative (115a), or when the positive version of the example would otherwise require a comitative (115b).

(115) Context: The following examples are from rounds of the game *Guess Who?*

a. Mukaṯi-**tjarra** or mukaṯi-**wiya**?
hat-**COMIT** or hat-**PRIV**
(Does your person) have a hat or no hat?
JAG1-Storyboard-20200305_MANG; 03.42–03.44

b. Tjinguru nyuntu kanyi-ṉi... wati... mukaṯi-**wiya**.
maybe 2SG.ERG have-PRS man hat-**PRIV**
Maybe you have.... a man... without a hat.
JAG1-Storyboard-20200305_MANG; 13.32–13.37

Sometimes however *wiya* follows the comitative marking. In these cases, it can be difficult to tell whether this is the negation of the comitative, or a complex type of privative.

(116) a. Yilyulpa wata ngara-nyi, mayi-**tjarra-wiya** wata kutju.
Yilyulpa tree stand-PRS veg.food-**COMIT-NEG** tree only
(Source translation:) Yilyulpa is a shrub which has no berries on it, it's just a tree.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *karrpiṉi karrpiṉi*

b. Kipara nyalpi-tjarra, wipiya-**tjarra** **wiya**.
bush.turkey feather-COMIT emu.feather-**COMIT** **NEG**
(Source translation:) A bush turkey has normal feathers, not emu feathers.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kipara*

So there are some distributional behaviours that indicate whether *wiya* is acting as a privative or constituent negation. However in some cases it becomes less clear what role *wiya* is playing. The nature of nominals in the language for example occasionally blurs the distinction. Like many languages of Australia, there is no robust difference between nouns and adjectives; these are typically both put under the umbrella term of 'nominal' (Dixon, 1980; Hale, 1983; Nordlinger, 2002, 2014), and share a number of distributional parallels. In these cases, it can be unclear whether *wiya* is contributing clausal negation or is predicating the absence of its host. Particularly relevant here is the usage of *wiya* that Goddard (1985) calls the 'contrary' suffix. In Yankunytjatjara, this is expressed with *-munu*, and we saw above in example (107) that this suffix exists in Pintupi-Lurijta as well. Some cases of *wiya* mirror this usage as well, as in (117) below.

(117) Tjamu-lu kata witu palya-ṉu miiṉṯa-**wiya** nyina-nytjaku.
grandfather-ERG head strong make-PST sick-**NEG** sit-PURP
Grandfather made (her) well (lit. strong head) to not be sick/without sickness.
(Source translation:) Grandfather made her well so she would not be sick.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kata witu*

Due to the inherent ambiguity of nominals between more noun-like and adjective-like interpretations, it is impossible to say whether this is '*make her not-sick*', or '*without sickness*.' The first would mirror the prototypical use of the contrary suffix, and is in effect identical to what I'm here calling constituent negation. The second would be a privative reading. These show that the inherent ambiguity of nominals in comparison to English examples can make these constructions with *wiya* ambiguous.

There are also some distributional restrictions that apply to both constituent and privative *wiya*; the fact that these restrictions apply to both types of *wiya* also results in ambiguities in the verbal domain. It appears that *wiya* can not right-adjoin to finite verbs; occasionally some examples appear to show exactly this scenario (118), but can quickly be shown not to be relevant examples.

(118) Yirriṯi=n̪a=nta watja-**n̪u** **wiya** ngalku-ntjaku.
long.ago=1SG.Subj=2SG.Obj say-**PST** **NEG** eat-PURP
Long ago I told you not to eat (of that tree).
(Source translation:) Because you have listened to the voice of your wife and have eaten of the tree about which I commanded you, 'You shall not eat of it,' …
Yurruntitja/Genesis 3:14–21 (Bible Society of Australia, 2006)

This is not constituent negation, but rather sentential negation within the subordinate clause; this can be seen by the scope of negation, which in (118) does not negate the 'saying' (main clause verb), but rather the (allowing of) 'eating' (the subordinate verb). Note that (118) could also be seen as direct speech; these kinds of examples are ambiguous between the two possibilities.

Instead, in order to be targeted by right-adjoining *wiya*, verbs typically[16] must first be nominalised before being negated. Orthographically, *wiya* is typically integrated with the nominalised verb.

(119) a. Kutu=nyurra nyina-nyi ngayu-nya kuli-**ntja-wiya**, an̪piri pati tjuṯa.
continuously=2PL.Subj sit-PRS 1SG-ACC think-**NMLZ-NEG** ear closed many
(Source translation:) All you stupid ones continue to live without thinking about me.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *an̪piri pati*

b. Paluru kutju ilu-**nytja-wiya** kana kutu nyina-malpa.
3SG.NOM only die-**NMLZ-NEG** alive continually live-FUT.CONT
Only he will continue to live, without dying.
(Source translation:) It is he alone who has immortality…
1 Timitjiyiku/Timothy 6:16 (Bible Society of Australia, 2006)

c. Yan̪angu-ngku palu-mpa wangka kuli-lpayi kuru-ngku nya-**kunytja-wiya**-ngku.
person-ERG 3SG-DAT word listen-HABIT eye-INSTR see-**NMLZ-NEG**-ERG
People listen to his word without seeing with their eyes.
(Source translation:) Not that anyone has seen the Father except the one who is from God; he has seen the Father.
Tjaanakun̪u/John 6:46 (Bible Society of Australia, 2006)

Wiya attaching to nominalised verbs is known in other Western Desert languages, and is most extensively described for Yankunytjatjara and Pitjantjatjara (Goddard, 1985; Wilmoth, 2022), but is present in other languages as well. In section 3.4 we will see that this is in fact the standard way to negate clauses in some of those languages.

[16] Although cf. the discussion immediately following.

Goddard (1985) calls Yankunytjatjara constructions parallel to those in (119) Stative Verbal Negation. In those languages, no finite verb is added in these clauses, leaving negated clauses essentially stripped of tense and aspectual information. This is generally not the case in Pintupi-Luritja, where a finite verb is in the great majority of cases maintained in the clause. Since these nominalised and negated verbs in Pintupi-Luritja are not main clauses, they too receive a more adjunctival reading, as can be seen in the examples in (119) above. These are therefore not exactly the same constructions as Goddard's stative verbal negation, which tend instead to negate the clause. The adjunct-like behaviour of this construction in Pintupi-Luritja is further shown by the fact that the negated element can take ergative case (119c), showing that it is used like a manner adverb similar to the privative examples above.

Goddard (1985) and Wilmoth (2022) also discuss a minimally different type of verbal negation, which Goddard calls Active Verbal Negation, in contrast to stative verbal negation. In these cases, *wiya* attaches not to a nominalised verb, but directly onto a bare verbal stem, which has been augmented with a verbal class marker (recall discussion of inflectional class markers in chapter 2.4).[17]

(120) Yankunytjatjara (Goddard, 1985: 124)

a. Kuka-ku ya-**nku-wiya**, yul̲ta nyina-nyi.
meat-DAT go-**AUG-NEG** in.camp.NOM sit-PRS
(We're) not going for meat, (but) sitting in camp.

b. Kaa muurpungku-la ngapul-**wiya**-ngku palu̲ru tjana tjiwa-ngka
CONJ crush.up-MV eat.powder-**NEG**-ERG DEF.ERG 3PL.ERG flat.rock-LOC
tjunku-la r̲ungkal-payi.
put-MV grind-HABIT
And after crushing (the dried tobacco leaves), without eating any of the powder, they put it on a flat rock and grind it.

Pintupi-Luritja also uses this active verbal negation construction, where *wiya* similarly right-adjoins to a verbal stem together with its verbal class marker.[18]

[17] Glossing has been slightly adapted here.

[18] Note in example (121b) that the verb 'see' *nya-* is one of the few irregular verbs in the language; it is a *-wa* class verb, but the verb class marker is *-ku-* instead of the expected *-ngku-* (Hansen & Hansen, 1978: 193).

(121) Pintupi-Luritja

a. Kanya ninu paluru piṯi-ngka-lpi tjarrpa-ngu.
CONJ bandicoot DEM hole-LOC-then enter-PST

Yuṉngu ngarri-ngi paka-**l-wiya**.
inside lie-PST.CONT rise-**AUG-NEG**

But the bandicoot had gone into the hole. It was lying inside, without rising up (out of the hole).
(Source translation:) *The next day the sleepy lizard-man and the goanna-man got up and tracked and tracked until they saw where* *the bandicoot had gone into his hole and was lying there down under and not coming out.*

Rumiyakamu Lungaṯa (Phillipus Nupurrula, 1987)

b. Nganaṉa palu-nya nya-**ku**-**wiya**-ngku yalatji kuli-ṉi, …
1PL.ERG 3SG-ACC see-**AUG**-**NEG**-ERG thus think-PRS

We think thusly, without having seen him…
(Source translation): …for we walk by faith, not by sight.

2 Kurinytjiyalakutu/Corinthians 5:7 (Bible Society of Australia, 2006)

Goddard discusses a semantic difference between stative and active verbal negation; he states that stative negation is used when "a certain event simply hasn't occurred (or doesn't occur)," whereas active negation indicates "that an actor deliberately or actively avoided a certain thing", or "deliberate non-performance of an action" (1985: 123f). Unlike stative negation, where no other finite verbs are in the clause, active negation always occurs in sentences where there is another finite verb.

These distinctions are less clear in Pintupi-Luritja than they appear to be in Yankunytjatjara. The overwhelming tendency to always include a finite verb in the clause in addition to the negated nominalised one means that almost all Pintupi-Luritja examples are secondary predicates. Essentially, this reduces this difference in Pintupi-Luritja to one of morphology: sometimes *wiya* attaches to a nominalised verb, and sometimes to a verb stem plus a verbal class marker. In neither case is this generally a main clause negation, and differences in agency are difficult to tease apart.

This overwhelming tendency to include another, finite verb in both of these types of clauses means that these quite consistently have adjunctival or secondary-predication readings. These are as a result quite semantically similar to privatives, but as applied to properties (of the nominalised verbs) rather than entities. This can be difficult to tease apart from standard negation in Pintupi-Luritja, unlike the Yankunytjatjara and Pitjantjatjara examples. The case of nominalised verbs is therefore another area where right-adjoined *wiya* blurs the distinctions between constituent negation and its use as a privative.

There are then a small number of environments in which a right-adjoined *wiya* is ambiguous in Pintupi-Luritja. The distinction between clausal negation and a privative reading becomes less clear

particularly with some nominals that can be translated as either nouns or adjectives into English, and with the secondary-predicate-like readings of nominalised verbs. Despite these cases, most examples of right-adjoined *wiya* are typically clearly either constituent or privative negation.

3.3.2 Clitics and constituency with *wiya*

Let's again restrict our attention to examples where *wiya* represents negation proper (¬). This section presents the main evidence that sentences in which *wiya* sits in the second position of the clause are in fact syntactically ambiguous between constituent and sentential negation. Recall that clitics attach to the right edge of the first constituent.[19] Clitic placement therefore is one of the most useful tools that we will use to investigate constituency in Pintupi-Luritja, and this clause-initial position is a crucial testing ground. The question is particularly important when *wiya* is in the second position of the clause, since this construction is string ambiguous between constituent negation following the clause-initial element, and sentential negation, as in both cases *wiya* occurs directly following the first syntactic constituent.

When *wiya* follows a clause-initial constituent, we find two patterns of clitic placement; sometimes negation precedes the clitic complex (122), and sometimes negation follows the clitic complex (123).

(122) **Clitics follow second position *wiya***

a. Ngayulu **wiya=ṉa** ninti nyina-ngu nyuntu nyina-ngi-tjangka.
1SG.NOM **NEG=1SG.Subj** knowledgeable sit-PST 2SG.NOM sit-PST.CONT-CIRC
I didn't know that you were living (there).
(No source translation)

Watikamu tjuḻpu (Phillipus, 1989)

b. Wati palya tjuṯa-ngku **wiya=ya** wana-ra waka-ṉu wati kuya tjuṯa-nya.
man good many-ERG **NEG=3PL.Subj** follow-MV spear-PST man bad many-ACC
(Source translation:) The good men didn't follow and spear the bad men.

Wati Lungkangalku (Phillipus, 1987)

[19] With some slight qualifications– recall the discussion in section 2.3.2; also the following discussion in section 3.3.3. Note too that although I am not discussing privative uses of *wiya* in this section, I predict that it patterns like constituent negation with regards to clitic placement.

c. Kantina-**wiya=ya** palya-ṉu kaṯiya-lu yaṉangu tjuṯa-lu
canteen-**NEG=3PL.Subj** make-PST white.people-ERG Aboriginal.person many-ERG
palya-ṉu kurrkapi.
make-PST desert.oak
(Source translation:) The whites didn't build any store, but Aboriginal people built one out of desert oak poles.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kantina*

d. Nyuntu-nya **wiya=nta=ya** aṉangu tjuṯa-ngku warrki-nyi.
2SG-ACC **NEG=2SG.Obj=3PL.Subj** person many-ERG tell.off-PRS
(Source translation:) They are not swearing at you.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aalytji aalytjirrinyi*

(123) **Clitics precede second position *wiya***

a. Munga-ngka=**latju** **wiya** palya-ṉu.
dark-LOC=**1PL.excl.Subj** **NEG** fix-PST
We didn't fix it in the dark.
(Source translation:) We didn't fix it because it was too dark.
Tjakulpa Kuwarritja (December 1987, p.25)

b. Mangarri ngaa-ku=**ṉa** **wiya** yunytju-rri-nganyi, mangarri kutjupa=ṉi
food DEM-DAT=**1SG.Subj** **NEG** desirous-INCH-PRS food other=1SG.Obj
yu-wa!
give-IMP
I don't want this food, give me a different food!
(Source translation:) Whenever you enter a town and its people welcome you, eat what is set before you; …
Luukaṉu/Luke 10:7–8 (Bible Society of Australia, 2006)

c. Waru=**lampa**=**ya** **wiya** kati-rra wirrupu-nganyi
firewood=**1PL.DAT**=**3PL.Subj** **NEG** bring-MV throw.down-PRS

kanginykanginypa=lampalura=ya parra ya-ninpa.
rejection=1PL.avoid=3PL.Subj around go-PRS

(Source translation:) They are not bringing firewood and throwing it down at our houses; they're showing 'kanginykanginypa', "strong rejection" toward us, going around the community avoiding us.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kanginykanginypa*

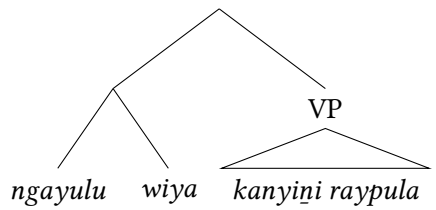
The argument in this thesis is that examples like (122) represent cases of constituent negation, and examples like (123) are examples of sentential negation. This assumption makes sense of this variation in positioning keeping completely in line with our assumptions about both the syntax of *wiya* and the behaviour of clitic positioning. With constituent negation, *wiya* right-adjoins to the element in question, forming a syntactic constituent with it. Clitics therefore follow it because clitics in general follow the first syntactic constituent. However with sentential negation, *wiya* is not right-adjoined to the clause-initial element, but rather attaches to the clausal spine; since it does not form a constituent together with the first element, clitics will split them. Examples without clitics, such as those in (124) below (repeated from above) are therefore in fact string ambiguous between these two structures– in the absence of clitics we cannot tell whether a second position *wiya* is constituent or sentential negation.

(124) (=109)
Ngayulu **wiya** kanyi-ṉi raypula.
1SG.ERG **NEG** have-PRS rifle
I don't have a rifle.

Kuka Mangarriwiya Nyinapayi (Roberts, 2000)

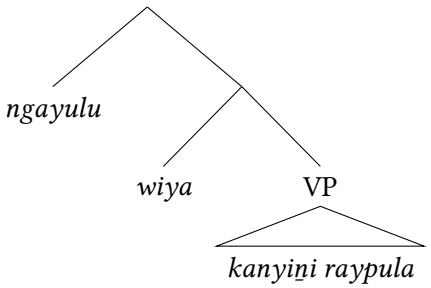
This string ambiguity is between the following two structures, represented schematically: constituent negation in (125) and sentential negation in (126).[20]

(125) **Example (124) as an example of constituent negation**



[20]These trees are only vague sketches of constituency, lacking labelling and details.

(126) **Example (124) as an example of sentential negation**



Proposing structures like these explains the variation in clitic placement we saw in (122) and (123), and does so in a way consistent with what we have previously seen about how *wiya* behaves. We know that *wiya* can right-adjoin to various elements in the clause and scope over them; we would expect clitic placement to reflect the constituency. We would not expect sentential negation to form a constituent with another element, so clitics should split them. Therefore, in the absence of clitics to disambiguate the structures, many cases of clausal negation in Pintupi-Luritja are string ambiguous. Semantically however there is no difference; both structures express the negation of the proposition as a whole.[21]

3.3.3 Issues with clause-initial *wiya*

Note in example (109) that *wiya* can also occur clause-initially. Clitic placement in these cases is therefore also an interesting question. I classified these types of examples as sentential negation; as such, they do not form a constituent with the element that follows them. What this would predict then is that we should have clitics directly following this clause-initial *wiya*; the clitics should split *wiya* from the element that follows it. Generally this is the case; note how in (127) the clitics attach directly to *wiya*.

(127) a. **Wiya=ṉa=nta** nyuntupa maama. Maa ya-rra!
NEG=1SG.Subj=2SG.Obj 2SG.DAT mother away go-IMP
I'm not your mother. Go away!

Yaalytji ngayuku maama? (Nangala, 2000)

[21] I should note here that there is of course another possible analysis: that there is more generally variation in clitic placement. While it is true that some cases of clitic placement are difficult to account for (see e.g. chapter 2.3.2 and a small number of examples scattered throughout the thesis), correlating clitic placement in its relation to *wiya* in second position in the clause is attractive because it gels with our understanding of the syntax of both the clitics and *wiya*, and we have discussed evidence for why we should not see a semantic difference between the two structures. For these reasons I think an appeal to this kind of analysis should be preferred over one that sees this as general variation in clitic placement surrounding *wiya*, assuming that both have the same level of explanatory adequacy.

b. **Wiya=nyurra** pipirri tjuṯa Yiitju-lakutu kati-nytjaku, wanti=ya!
NEG=2PL.Subj child many Jesus-ALL take-PURP leave.alone=2PL.IMP
You shouldn't bring the children to Jesus, stop it!
(Source translation:) Then children were being brought to him in order that he might lay his hands on them and pray. The disciples spoke sternly to those who brought them, …
Maatjuwukuṉu/Matthew 19:13 (Bible Society of Australia, 2006)

c. **Wiya=latju** tjana-nya nya-ngu.
NEG=1PL.excl.Subj 3PL-ACC see-PST
(Source translation:) We didn't see them.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ilaka ilaka tjapiṉi*

Although this is the most common pattern, it is not what always happens; sometimes in sentences with a clause-initial *wiya*, clitics right-adjoin to the element that follows *wiya*. This can be seen in (128).

(128) a. **Wiya** tjana=**ya** ngaatja nyina-nyi, wiya.
NEG 3PL.NOM=**3PL.Subj** DEM sit-PRS NEG
(Source translation:) But they don't live here, no.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *iiriya*

b. **Wiya**-mpa puntu-lu=**ṉi=ya** wanaṉi-n. Ya-nku=ṉa.
NEG-puzzled man-ERG=**1SG.Obj=3PL.Subj** follow-PRS go-FUT=1SG.Subj
(Source translation:) No. Other Aborigines are not following me. I will keep going.
Walimpirri (Walimpirri, n.d.)

c. **Wiya** ngayulu=**ṉa=nta** ngaparrtji-ngku yu-ngku.
NEG 1SG.ERG=**1SG.Subj=2SG.Obj** in.turn-ERG give-FUT
I won't give to you in return.
(No clear translation from James)
Tjayimitjakuṉu/James 5:12 (Bible Society of Australia, 2006)

At first glance this speaks against the constituent/sentential syntactic explanation for the clitic variation encountered above in examples (122) and (123); we have previously stated that clitics can only be preceded by a single syntactic constituent, and also that sentential negation does not form a constituent with other elements in the clause (unlike constituent negation does). The examples in (128) in comparison look like either sentential negation forming a constituent with the other pre-clitic element,

or like clitics appearing in a different position than second-position.[22] These examples therefore require an adjustment in our assumptions about either: (i) the syntactic aspect of the constituent/sentential division, whereby constituent negation forms a syntactic constituent with another clausal element but sentential negation does not; or (ii) the strictness of describing clitic placement as being second-position, or as following the first syntactic constituent. One of these assumptions must be reexamined in order to account for the patterns in (128). I would argue that there is good evidence that we need to reexamine how we describe clitic placement– about what it means to be in 'second position.' Arguing for this point allows us to continue to see a syntactic basis of the constituent/sentential negation division, as well as additionally account for a small number of other cases of non-second-position placement of clitics.

One good reason to reexamine the generalisation that clitic placement in Pintupi-Luritja should be described as 'second position' or 'following the first constituent' comes from the fact that these patterns of clitic placement are not restricted to clause initial *wiya*. Although it almost always holds true descriptively, there are a small number of environments that suggest a slight rephrasing of this generalisation is necessary, beyond the cases of negation above. We in fact see some variation as to whether particular adverbials 'count' or not for the purposes of clitic placement. We saw examples of this earlier in chapter 2.3.2, which included particularly spatial adverbials (locative and perlative-marked nominals). This variation can also be seen in (129) and (130), with a range of different elements.[23]

(129) **Adverb directly followed by clitic(s)**

a. **Tjinguru=la** nyinakati-ku pala-ngka, tjinguru wiya.
maybe=1PL.Subj sit.down-FUT DEM-LOC maybe NEG
Maybe we will sit down there, maybe not.
Tjakulpa kuwarritja Warumpi kuulaku: Papunya school news (December 1999, p.24)

b. **Tjaamtayimi=la** iwarra-ngka nya-kupayi ngaa tjuṯa-nya.
sometimes=1PL.Subj road-LOC see-HABIT DEM many-ACC
(Source translation:) At times we see these birds on the road.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *inura*

[22]These constructions need to be differentiated from sentences where the initial *wiya* is a negative interjection; in cases of interjections, we would expect *wiya* not to be taken into account for purposes of clitic placement, leading to an (orthographic) third position clitic. The difference between the two constructions is however easily discerned by whether the predicate is negated or not. Take (128a) for example; the translation makes it clear that *They don't live here*; if this were a negative interjection (something like '*No, they live here*'), then the speaker would be saying that it is true that they *do* live here. Although these two constructions can look similar (at least in the absence of intonational information), checking whether the predicate is negated or not is a simple test.

[23]This behaviour is not restricted to Pintupi-Luritja or Australian languages; see e.g. Goldstein (2016) on comparable data for 'shifted' clitic placement in Classical Greek, and particularly Kaufman (2010) for an extended discussion of similar effects cross-linguistically, with in-depth discussion of Tagalog. This topic in Pintupi-Luritja warrants more in-depth investigation than I can present here.

c. **Tjinguru=n̲i** nyarra-ngku ngayu-nya initju-nanyi.
maybe=1SG.Obj DEM-ERG 1SG-ACC curse-PRS
(Source translation:) Maybe that person is sorcerising me.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *initjunanyi*

d. Wiya, **tjinguru=n̲i** wanan̲i-n tjamutjingi-lu. Tjamutjingi-lu=n̲i
NEG **maybe=1SG.Obj** follow-PRS something-ERG something-ERG=1SG.Obj
wanan̲i-n.
follow-PRS
(Source translation:) Nothing there. Maybe something is following me. Something is following me.
Walimpirri (Walimpirri, n.d.)

(130) **Adverb shifting clitic placement further to the right**

a. Tjulkura-rri-nganyi, tjinguru tjan̲pa-ngku=**lanya** initju-nu.
white-INCH-PRS maybe kadaicha-ERG=**1PL.Obj** curse-PST
(Source translation:) The Luritja people look to the west (after the sun has just gone down) and they say "It is white (around the setting sun) maybe a kadaicha has cursed us."
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *initjunanyi*

b. Aaptatjata kalyu-ku-lpi=**n̲a** a-nkupayi purrka-lingku-lpi ngalya
after.that water-DAT-then=**1SG.Subj** go-HABIT tired-INTENS-then hither
a-nkupayi.
come-HABIT
(Source translation:) After that I would finally go for water, and I would come back with it, very tired.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kalyu*

c. Yunngu-lingku tjaamtayimi=**ya** tjawa-lpayi.
deep-INTENS sometimes=**3PL.Subj** dig-HABIT
(Source translation:) They sometimes dig very deep for them.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kapi tayimi*

Note that some of this placement could be explained by appealing to an explanation in which particles like *tjinguru* 'maybe' or adverbials like *aaptatjata* 'after that' are syntactically integrated to a lesser extant than actual clausal participants (e.g. Laughren, 1982), and therefore can distort clitic

placement; this will however not help with examples like (130c). This variation in clitic placement is therefore not restricted to clause-initial *wiya*, but instead appears with a particular range of elements, particularly those less integral to the argument structure of the verb. Apparent third position with clitic placement is not only a property of clause-initial *wiya*.

In this context there are direct parallels to similar patterns and concomitant analyses in Warlpiri which are worth drawing; in particular in discussions in Laughren (2002), Legate (2002), and Simpson (2007). Warlpiri also has a series of clitics that encode person, number, and a few other features of clausal participants. These generally attach to an auxiliary base/complementiser that marks tense, mood, and aspectual distinctions; this auxiliary can be seen in the following examples variously glossed as IMPF, POSS and CENTR. Unlike Pintupi-Luritja, these clitics are generally obligatory (with a few qualifications; see Hale, 1973; Hale et al., 1995 a.o.).

(131) WARLPIRI Hale et al. (1995)

Ngajulu-rlu	**ka-rna-ngku**	nyuntu	nya-nyi.
1SG-ERG	**IMPF-1SG.Subj-2SG.NSubj**	2SG	see-NPST

I see you.

Similarly to the variability in clitic-placement with particular adverbs/particles in Pintupi-Luritja as shown in (129) and (130), similar patterns have been described in Warlpiri (Laughren, 1982, 2002; Legate, 2002, 2008b; Simpson, 2007). Here, these propositional particles[24] vary as to whether the clitic complex (in bold in the examples) directly follows them (132a), or whether there is another intervening element between the particle and the clitic complex (132b).

(132) WARLPIRI Laughren (2002: 110)

a.

Kula-nganta	**kaji=npa**	nyuntu	pantu-rnu.
contrary-to-expectation	**POSS=2SG.S**	2SG	spear-PAST

I thought (wrongly) that you must have speared it.

b.

Kari-nganta	miyi-wangu	**ka=rna=lu=jana**	yarnunjuku	nyina.
fact	food-WITHOUT	**CENTR=1.S=PL.S=PL.NS**	hungry	sit:NPAST

Isn't it obvious that we are waiting for them (here) hungry without any food.

In addition to these particles, some particular discourse contexts involving topics and foci can similarly lead to apparent 'third-position' patterns of clitics (Simpson, 2007, see also Legate, 2002), as the following example shows.

[24] See Nash (1980), Laughren (1982) for investigations into these particles in Warlpiri. Note that I've kept Laughren's glossing conventions in (132).

(133) Warlpiri Simpson (2007: 409)

(Preceding sentence: 'Let's dig with a shovel?')

Pangurnu=ju	nyarrpara=wiyi	**ka=nkulu**	marda-ni?
shovel=KN	where=before	**PRES=222S**	hold-NPST
TOPIC	FOCUS		

Where have you got a shovel?

In fact the role of information structure in distorting clitic placement plays an even greater role; Simpson shows that even three elements can precede the clitic complex in very particular discourse contexts. The fact that these contexts are related to information structure will be relevant for our comparison with Pintupi-Luritja clause-initial *wiya*.

For Laughren and Legate particularly, these patterns are good evidence for more than one syntactic position preceding the clitic complex/auxiliary.[25] Considering we see the same patterns in Pintupi-Luritja for a small range of elements (129 and 130; previous examples in chapter 2.3.2), the same reasoning holds; the apparent third positioning of clitics in Pintupi-Luritja likely stems from a more articulated structure before and above where clitics sit in the clause. Like in Warlpiri, there are only a small set of restricted conditions that allow more than one position to be filled, leading to third position clitics: these include the addition of some propositional particles (130), and with clause-initial negation. Interestingly for comparing analyses, there is in fact an apparent link to information structure with clause-initial *wiya*, as discussed below. Even more relevant for Pintupi-Luritja, Bowe (1990: 114f) also briefly examines some cases of third position clitics in Pitjantjatjara, and likewise correlates this with particular information structural configurations (namely topicalised objects).

What this analysis means is a subtle shift in the description of clitic positioning in the clause from being in 'second position', to sitting in some dedicated syntactic position[26] in the clause, which is (almost always) preceded by a single constituent; in a small number of cases though, this leads to the clitics sitting in third position.

It's worth highlighting the importance of this type of analysis to the question of clitic placement with clause-initial *wiya*, while at the same time tracing out the limits in the context of this study. What analyses like Laughren (2002), Legate (2002) and Simpson (2007) suggest for the Pintupi-Luritja data is the availability of (potentially more than one) higher syntactic positions, which are associated with very particular information-structural functions.[27]

This means that we should want to see information structural effects with clause-initial *wiya* if we want to argue that they play a role in manipulating clitic placement. Although a full analysis is outside

[25] Although as Simpson (2007) points out, the data is complicated and is in need of more detailed investigation.

[26] Or alternatively, a small array of dedicated syntactic positions, as Laughren (2002) and Legate (2008b) argue for in Warlpiri. I would also include in this type of analysis those that argue for a single syntactic position, with small phonologically driven adjustments in clitic placement, like Austin and Bresnan (1996).

[27] The approach in Bowe (1990) for Pitjantjatjara is less developed than the Warlpiri studies; Bowe notes that topicalised objects are outside the core domain of the sentence for the purposes of clitic placement. This is of course compatible with an articulated left periphery like that in Laughren (2002), Legate (2002), Simpson (2007).

the scope of this chapter, it is striking that clause-initial *wiya* does in fact have a slightly different meaning contribution than second position *wiya*; namely one related to so-called *verum focus* (Höhle, 2018/1992)– often described as the focusing of the truth value of the proposition.[28] What this suggests is that although the two positions for negation near the beginning of the clause function identically semantically (i.e. they are both propositional negators), they are not in free variation. Clause-initial *wiya* is often found in a discourse context that second position *wiya* is not. Often with clause-initial *wiya*, the question of whether p or $\neg p$ is relevant in the discussion; clause-initial *wiya* is then used to confirm that indeed, it is the case that $\neg p$. This is not always explicit, but it often appears that the truth or falsity of the proposition in question is relevant, raised, and is needing to be answered in the discourse.[29] This can be seen for example in the musing and response pair in (134), during a game of *Guess Who?*

(134) a. Tjinguru nyuntu kanyi-n̲i kungka.
maybe 2SG.ERG have-PRS girl
Perhaps you've got a girl.

b. **Wiya** ngayulu kanyi-n̲i kungka.
NEG 1SG.ERG have-PRS girl
I don't have a girl.

JAG1-Storyboard-20200305_MANG; 11.08–11.13

Similarly, compare use of clause-initial *wiya* in the following situation, where two speakers are acting out characters in the Stolen Drink storyboard (Gray, 2019b). Here, the first speaker accuses the second of stealing their drink; the second speaker denies the accusation with a clause-initial *wiya*.[30]

(135) a. Ngayulu puntura-lpi kuli-n̲ingi, tjinguru tjil̲pi nyarra-ngku tjiki-n̲u,
1SG.NOM greatly-then think-PST.CONT maybe old.man DEM-ERG drink-PST
ngayuku.
1SG.DAT
I then thought hard, maybe that old man there drank it on me.

[28] It has been argued by a number of authors that verum focus isn't really *bona fide* focus (see e.g. Gutzmann, Hartmann, and Matthewson, 2020 for discussion of why not and an overview of assumptions for or against this position). This is not a serious issue for us either way; the debate is about its relation to focus as a technical phenomenon, but the fact that there is a particular meaning associated with these constructions is unquestionable.

[29] Although in truth negated sentences often require this in general, and are otherwise often odd if uttered out of the blue. Thanks to an anonymous examiner for this point.

[30] It's a litte ambiguous what the dative-marked pronouns are functioning as in these examples; it's possible that they are part of the noun phrase connecting to drink/water, i.e. the possessor in *my drink*. However I think it is more likely that these are malefactive readings of ethical datives, reflected in the translations I have decided to use. See discussion of similar constructions in the Yapa languages Warlpiri and Warlmanpa in Simpson (1991) and Browne (2021).

b. Ngayulu wiya! Ngayulu ngurrpa! **Wiya** ngayulu nyuntupa nguku-ṉu, kapi.
1SG.NOM NEG 1SG.NOM ignorant **NEG** 1SG.ERG 2SG.DAT consume-PST water
Not me! I don't know anything about it! I didn't drink it on you, the water.
Stolen Drink storyboard (Gray, 2019b); JAG1-Storyboard-20200306_MANG1; 3.26–3.41

Similar corpus examples can be seen below in (136). In all cases, the question of whether p or $\neg p$ is either explicitly or implicitly present in the flow of discourse.

(136) a. Kutjumaṯa mutukayi ngara-nyi, **wiya**=ṉa=nta tjala-mila-lku, wiya.
only.one car stand-PRS **NEG**=1SG.Subj=2SG.Obj sell-LOAN-FUT NEG
(Source translation:) A person who has enough money on him comes and asks to buy the car. The owner says, "This is the only car here for me (so) I will not sell it to you, no."
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kutjumaṯa*

b. Ngayulu Katutja-ku tjukarurru nyina-nyi, **wiya**=ṉa kuya palya-ṉi.
1SG.NOM God-DAT correct sit-PRS **NEG**=1SG.Subj bad do-PRS
I live correctly according to God, I don't do evil.
(Source translation:) If we say that we have no sin, we deceive ourselves, and the truth is not in us.
1 Tjaanakuṉu/John 1:8 (Bible Society of Australia, 2006)

c. **Wiya**=ṉa=nta watja-ṉu pika-wayi, ngayulu ngurrpa.
NEG=1SG.Subj=2SG.Obj say-PST agressive-way 1SG.NOM ignorant
(Source translation:) "You spoke to me in an aggressive way." The other person says, "I did not speak to you in a provocative way, I don't do that."
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aṉangu watjaṉi*

This therefore makes clause-initial *wiya* appear similar in its effect to descriptions of verum focus.[31] A number of properties of verum focus that Gutzmann and Castroviejo Miró (2011) note seem applicable to clause-initial *wiya*, for example: (i) that it has no effect on truth conditions (in comparison with standard negation that is)– this also applies here when contrasting clause-initial *wiya* to the other sentential negation discussed (*wiya* in second position)– the difference appears to be purely pragmatic (or perhaps rather use-conditional); and (ii) verum focus cannot be uttered out of the blue, and requires a particular discourse situation in which the answer settles whether p or $\neg p$. In order for this to come

[31] Although perhaps given the negative import of *wiya* it could make more sense to speak of what Repp (2006) calls *falsum* (in contrast to *verum*). To keep simplicity here, I use 'verum' to subsume these negative contexts.

about, the question whether p or $\neg p$ has to already be in the air[32]– this appears to be a prerequisite for the use of clause-initial *wiya* in the examples above.[33]

Although we won't investigate the nature of these constructions and their likely very subtle readings in detail for Pintupi-Luritja, these examples suggest that clause-initial *wiya* has an extra pragmatic/use-conditional, verum focus-like import that separates it from other cases of sentential negation. This difference in reading and the concomitant syntactic alternation would fit well among analyses that assume multiple syntactic positions sensitive to these kinds of notions. The occasional third-position placement of clitics in these contexts would also fit in an analysis in this vein. In this thesis I will stop short of mapping out detailed left-peripheral syntactic positions in Pintupi-Luritja, but analyses of this type open up a serious path forward towards understanding the patterns of clitic placement with clause-initial *wiya* in (128).

From a comparative viewpoint it is also worth noting that the data described here lines up with what Langlois (2004) detailed in her study of Areyonga teenage Pitjantjatjara, where a clause-initial *wiya* is used "in sentences denying someone else's assertion" (2004: 109). This also appears reminiscent of the requirement suggested for Pintupi-Luritja, where the question of whether p or $\neg p$ must be at stake (either overtly in the discourse or suggested by context).

The final issue here is to compare these kinds of analyses with the fact that clitics can also attach directly to a clause-initial *wiya* (as seen in 127). This is completely in line with a syntactic approach like the one sketched out (or at least alluded to) in this section. *Wiya* is able to sit in a higher, information-structurally relevant position, and clitics can sit in their usual position as well; if no element intervenes between these positions, then they will be linearised in this way, with clitics immediately following *wiya*. The question about the variation in these forms is passed on to the question of what motivates other elements to appear in this pre-clitical position. Although it is likely that this is motivated by information-structural or more generally discourse-relevant factors (see more discussion on this in section 4.2), a detailed analysis of this question is beyond the scope of this work. These factors are in general poorly understood. In any case, examples where clitics immediately attach to a clause-initial *wiya* are therefore not a hurdle to an analysis that resembles those proposed for Warlpiri (Laughren, 2002; Legate, 2002, 2008b; Simpson, 2007), in which several syntactic positions potentially exist above clitics, which can (under particular circumstances) be filled, occasionally leading to clitics sitting in 'third position.' There are different ways to implement this idea (e.g. the clitics are always in a single syntactic position, and different elements occupy pre-clitical positions in particular circumstances; or, elements occupy varying clause-initial positions in particular circumstances); I leave arguing for a detailed analysis to later work.

[32]I'm paraphrasing very liberally from Gutzmann and Castroviejo Miró (2011) here; they in fact phrase this through the lens of a Question Under Discussion (QUD) account– see the paper for details.

[33]Although further work is required to confirm whether this always holds for clause-initial *wiya*, or whether there is a degree of optionality. It would also have to be shown that non-clause-initial *wiya* would not be felicitous in these contexts. Investigation of this topic requires very subtle manipulation of context and felicity testing. The examples shown here suggest to me however that something of this nature might be on the right track.

Having re-examined the claim that clitics sit in 'second position', we are again in a position to maintain the structural constituent/sentential ambiguity described in the beginning of section 3.3. Under this analysis, variation in clitic placement and second position *wiya* is due to whether *wiya* forms a constituent with the immediately preceding element or not. When they form a constituent, clitics follow, and when they do not form a constituent, clitics intervene. Deviations from this pattern (with clause-initial *wiya*) are associated with particular linguistic environments, which are arguably what is behind the perturbation of clitic placement.

3.4 Comparison with negation in other Western Desert languages

The syntactic behaviour of negation in Pintupi-Luritja as described in this chapter is striking when compared to how negation works in neighbouring Western Desert languages, both in form and syntactic integration. We have already encountered some descriptions earlier in this chapter. In this section we will briefly further compare the behaviour of negation across some other Western Desert languages, based on published material. Although the same negative element *wiya* is widespread in the family, we will see that this is an area where the languages greatly diverge in how this element is syntactically integrated into the clause. These kinds of comparisons between languages allow us to start to see syntactic and semantic variation between Western Desert languages beyond a phonological, lexical, or morphological basis.

3.4.1 Comparing Western Desert languages

As discussed in chapter 1.1, the linguistic situations of speakers of Western Desert languages have undergone radical changes over the last century, and particularly since the second half of the twentieth century. In this time, settlement and community life has largely become representative as the dominant existence for Yaṉangu, substantially replacing the highly mobile pre-community era (Myers, 1986). These changes in situation have in turn had an effect on the forms of Western Desert languages, and the types and degree of variation within and between them.

What this variation looks like is however barely mapped out in the literature;[34] explicitly contrastive studies between languages have been few. Sociolinguistic perspectives on this variation are likewise underrepresented (Mansfield, 2023), even though any attempt to tackle synchronic variation within the Western Desert family cannot ignore sociolinguistic aspects of this variation; some of this is discussed and recognised by Hansen (1984) and Bell (1988), but in-depth studies remain to be undertaken. Within a single language/speech community however there has been some work, largely focusing on intergenerational differences, language stability, and change (Langlois, 2004; Wilmoth et al., 2021; Wilmoth, 2022).

[34] I contrast the (mostly non-Indigenous) linguistic literature on Western Desert with Aṉangu knowledge of variation between languages and varieties, which is extremely nuanced (recall discussion in chapter 1.1.2, and especially Hansen, 1984).

Aside from the studies mentioned above, most of the remaining comparative work within the Western Desert family has been primarily morphological (comparing case allomorphy and the conditioning environments, variations in the form of verb inflection, and the like), lexical, or phonetic in nature. There are a number of factors that make comparisons between the continuum-like Western Desert languages complex. The discussions in Miller (1971a, 1971b), Douglas (1971) helped set the scene for appreciating the inherent difficulties in trying to differentiate Western Desert varieties through various linguistic features, and particularly on a geographic basis. Miller (1971b) examined a mix of phonetic variables, case and verbal morphology, and various functional lexical items (demonstratives and pronouns). The mapping out of variation in that study was hindered by a number of factors: speakers adapting speech to align more closely with the speech of the area they arrived in; high mobility of speakers between areas leading to enduring variation in their speech patterns; the general lack of clear geographic or linguistic boundaries between the languages; and *kumanytjayi* practices– word taboo or avoidance speech associated with names of and similar to those of the recently deceased (Nash & Simpson, 1981). The latter is also noted by the study undertaken by Hansen (1984), who tested communicability between speakers of Western Desert varieties from nine settlements. *Kumanytjayi*, along with the great abundance of synonyms used, makes potential lexical generalisations about any one Western Desert language difficult. Aside from testing mutual intelligibility between speakers of various communities, Hansen (1984) also investigated some variation in morphology and function words between speakers in different settlements, extending some preliminary comparisons in Hansen and Hansen (1978).

There are also very few comparisons of points of syntactic or semantic variation between languages, although some do exist. Bell (1988) discusses not only morphological differences in the verbal systems of Western Desert languages but also concomitant variation in their semantics, with an emphasis on temporal, mood, and aspectual variation. Bednall (2011, 2020) discuss variation in mood, modal and aspectuo-temporal properties of some morphological elements, including the suffix *-ma*. In Gray (2021) I discussed that there are a range of modal flavours associated with the purposive clause in Pintupi-Luritja, that are conspicuously absent (or present to a much lesser degree) in other Western Desert languages, as far as the literature describes. The remainder of this chapter aims to continue in this vein, of laying out variation in the syntax and semantics among Western Desert languages within the area of negation.

3.4.2 Comparing negation

Although information about other Western Desert languages is relatively sparse on the topic of negation, it appears that there is general variation in how *wiya* interacts with other elements in the clause.

Let's first draw on the recent detailed description of negation in Pitjantjatjara in Wilmoth (2022). Like other Western Desert languages, Pitjantjatjara also utilises the negative element *wiya* in many of the same ways as in Pintupi-Luritja (Wilmoth lists negative reply, ascriptive negation, meaning 'nothing' or non-existent, as negative quantification, negation of adjectival modifiers, a privative suffix, existential negation, as the basis of derived verbs, negative imperatives, and standard negation; many

of these uses have parallels with examples in this chapter). Standard negation is what we will focus on, since it is the main point of difference.

Wilmoth shows that *wiya* can only modify nominals; what this means is that the equivalent of sentential negation in Pintupi-Luritja must be realised in Pitjantjatjara in a form that (from the perspective of this chapter) looks like constituent negation of a nominalised verb.[35] Unlike the analogous Pintupi-Luritja examples we encountered in section 3.3.1, there is no other finite verb in the clause. Correspondingly, all negated sentences in Pitjantjatjara are stripped of any tense information.[36] Compare the following sentences; the first is a positive sentence, which utilises a finite verb, and the second its negated counterpart, which utilises a nominalised verb.

(137) Pitjantjatjara (Wilmoth, 2022: 305)

a. **Positive; finite verb**

Tjinguṟu	tjana	ninti-ri-nga-**nyi**	school-angka
maybe	3PL.NOM	knowledgeable-INCH-AUG-**PRS**	school-LOC

Maybe they're learning (Pitjantjatjara) at school.

b. **Negative; nominalised verb**

Tjinguṟu	tjana	ninti-ri-ngku-**nytja**	**wiya**	school-angka
maybe	3PL.NOM	knowledgeable-INCH-AUG-**AC.NMZ**	**NEG**	school-LOC

Maybe they don't learn (Pitjantjatjara) at school.

This construction is not restricted to Pitjantjatjara, but is seen in a number of Western Desert languages. Similar patterns are seen in Yankunytjatjara for example; verbs are nominalised and negated by *wiya*, and no other finite verbs have to be present in the clause. This can be seen with clausal negation and negative existentials (Goddard, 1985).[37]

(138) Yankunytjatjara (Goddard, 1985: 123f)

a.

Ngayulu	kati-**nytja**	**wiya**,	Anti-lu	kati-ngu.	
1SG.ERG	take-**NMLZ**	**NEG**	Andy-ERG	take-PST	

I didn't take it. Andy took it.

[35] Recall discussion from section 3.3.1.

[36] Although Wilmoth discusses two different nominalisations that correspond to an aspectual difference.

[37] This example can be explicitly compared with the Pintupi-Luritja construction in (103), where *wiya* is similarly attached directly to a nominalised verb. Note too that both Goddard (1985) and Wilmoth (2022) discuss an anomaly with posture verbs that function like copulas in Yankunytjatjara and Pitjantjatjara, whereby all posture verbs must be nominalised like other verbs with the exception of *ngaṟa-* 'stand'. See particularly Wilmoth (2022) for discussion. Since these verbs do not have to be nominalised in Pintupi-Luritja, the discussion is less relevant here.

b. Partja̱ta kuwari nyina-**nytja wiya**.
quoll now sit-**NMLZ NEG**
There aren't any quolls these days.

Also Ngaanyatjarra appears to use this strategy; Laughren (2017a) gives several relevant examples based on notes from a linguistic fieldwork course with Elizabeth Marrkilyi Ellis at the University of Queensland; this can be seen in (139).[38]

(139) Ngaanytjarra Laughren (2017a)
Palunya-nya kakarrara ya-nku-**ntja-wiya**.
3SG-NOM east go-AUG-**NMLZ-NEG**
She is not going east.

This strategy also very occasionally occurs in Pintupi-Luritja as well, although it is by no means the usual construction.[39]

(140) Pintupi-Luritja

a. Kamanta-lu yu-ngku-**nytja-wiya**.
government-ERG give-AUG-**NMLZ-NEG**
The government doesn't give (anything).
(Source translation:) The government does not give us anything now.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kamanta*

b. Kapi-ngku pu-ngku-**nytja-wiya**-lpi ata̱npirri.
water-ERG hit-AUG-**NMLZ-NEG**-finally windless
(Source translation:) The rain has stopped finally and there is no wind.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kapi*

Wilmoth notes that the behaviour of negation in Pitjantjatjara (and some other Western Desert languages discussed here by extension) has a series of typologically quite rare factors– particularly that negation only marks nominals, that no tense marking is therefore present in negated sentences, and

[38] I've slightly adapted the gloss here. Examples in the Ngaanytjarra and Ngaatjatjarra dictionary (Glass et al., 2003) and the collection of texts in Glass and Hackett (1979) suggest that *wiya* is not the most common negator in these contexts, which is instead *-maalpa* or *-maaltu*. This also aligns with earlier descriptions by Douglas (1964). Bell (1988: 40f) lists three 'negativizing suffixes' in Ngaanyatjarra, *-tjarra*, *-maal*, and *-munu*. Regardless of these differences, the structure is the same as in (139), i.e. suffixed to a nominalised verb with no other tense or aspectual information in the clause. Bell also notes that the Ngaanyatjarra and Pitjantjatjara negative strategies are of the same structure if not form (1988: 158).

[39] All examples I have are from the Pintupi-Luritja dictionary, which may suggest a greater Pintupi influence on the extent to which these constructions are used. This suspicion is purely based on the fact that the majority of the texts collected by me come from the far eastern borders of where Pintupi-Luritja is spoken.

that the negator itself is a nominal.[40] Together, these mean that negated sentences differ in a number of ways from their positive counterparts (they are *asymmetric* in Miestamo's 2005, 2007 terminology); this is not the case in Pintupi-Luritja, in which none of these asymmetries hold– the only morphosyntactic difference between positive and negative sentences in Pintupi-Luritja is the inclusion of the negator *wiya*.

Pintupi-Luritja is however not an isolate within the Western Desert languages in allowing *wiya* to negate finite clauses. Jones (2011) includes some Wangkajunga examples where *wiya* combines with a finite verb (141);[41] this pattern is analogous to the Pintupi-Luritja strategies, and unlike the more southernly Pitjantjatjara and Yankunytjatjara.

(141) Wangkajunga (Jones, 2011: 314, 203)

a. **Wiya** yungka-**rnu**
NEG shoot-**PST**
He didn't shoot it.

b. **Wiya**=laju dinner ngala-**ngu**
NEG=1PL.Subj dinner eat-**PST**
We didn't have dinner.

Examples from the Kukatja dictionary (Valiquette, 1993) also appear to mirror this negative strategy, whereby a preverbal *wiya* can negate a finite verb.

(142) Kukatja (Valiquette, 1993)

a. Kintirrpungi-npa=rni kurrunpa, murlkurrpa=rna, **wiya**=rna ngala-**ngu**.
cause.shake-PRS=1SG.Obj spirit hungry=1SG.Subj **NEG**=1SG.Subj eat-**PST**
[Hunger] is causing my spirit to shake. I'm hungry. I haven't eaten.

b. Warta **wiya** ngaanymani-**npa**, …
tree **NEG** breathe-**PRS**
A tree does not breathe.

Comparing the more southerly Pitjantjatjara, Yankunytjara, and Ngaanyatjarra patterns with the more northernly Pintupi-Luritja, Wangkajunga, and Kukatja may suggest a rough geographic divide between languages that allow *wiya* to combine with a finite verb (northerly), and those that do not (southerly).

[40] In the Australianist sense (e.g. Nordlinger, 2002), i.e. it distributionally patterns together with noun phrases in a number of ways, including being able to bear case marking.

[41] I've slightly altered the glossing.

An interesting case is the more Pintupi-Luritja-esque patterns of negation described by Langlois (2004) for Areyonga teenage Pitjantjatjara. Here, negation is preverbal and is compatible with finite verbs, just like the patterns we've seen for Pintupi-Luritja, Wangkajunga, and Kukatja. Langlois describes these patterns in direct comparison with the traditional pattern of Pitjantjatjara negation formation, in line with descriptions by Wilmoth (2022) above.

(143) Areyonga teenage Pitjantjatjara (Langlois, 2004: 108)

a. Paluṟu **wiya** ula-**ngu**.
DEF.NOM **NEG** cry-**PST**
He did not cry.

b. Ngayulu **wiya** unyju-ri-**nyi** anku-ntja-ku taunu-kutu.
1SG.NOM **NEG** like-INCH-**PRS** go-NOM-PURP town-ALL
I don't like going to town.

Langlois (2004)[42] suggests that this pattern of marking might be a result of influence from how negation is encoded in English. However in light of the patterns of negation in other Western Desert varieties discussed here, there may be another explanation. The existence of these patterns in Areyonga may either indicate the geographic edge of this apparent divide between negative strategies among Western Desert languages (Areyonga being the most northernly Pitjantjatjara speaking community, located in the Northern Territory), and/or direct influence from Pintupi-Luritja (as is argued by Wilmoth, 2022), as the patterns of negative marking in (143) are identical to the constructions we have investigated in detail in this chapter.

More detailed information on other Western Desert languages is difficult to include here for want of detailed descriptions. There are however another three cases I want to discuss, all on the geographic fringes of where Western Desert languages are spoken.

Platt (1967, 1968, 1972) discusses some aspects of the grammar of two Western Desert languages further to the south, traditionally in central and central-southern South Australia: Kukata/Guguda and Kukatja.[43] Platt does not mention any form like *wiya* in his description of negation; instead his 1972 grammar mentions a pre-verbal /*maga*/, an affix /*ga꞉dja*/,[44] and a "post-nominal" negative /*juḍu*/. This range of negative elements appears (based on the very little information given) to align with the four negative categories for negation in Australian languages discussed in section 3.2.1. Based on Platt's examples, only *-ga꞉dja* appears to encode clausal negation. In comparison, almost all examples including

[42]Note that *unyju-* in example (143b) is likely a typo and should be *unytju-* (cf. Pintupi-Luritja *yunytju-* throughout).

[43]This language is to be strictly distinguished from the other Western Desert language called Kukatja spoken in Balgo, WA. These varieties have different ISO 639-3 codes; the Kukatja in Balgo is `[kux]`, while the Kukatja of South Australia is `[ktd]`. The language Platt investigates is also commonly known as Kokata or Kukatha. Platt's distinctions between Kukata and Kukatja are in fact not entirely clear, and the degree to which his arguments are based on lexical or phonetic variation is difficult to judge.

[44]Platt (1968) lists the form as -/*a꞉tja*/.

maga in Platt (1972) are negative imperatives,[45] and *juḍu* is quite clearly a privative. All other cases of sentential negation use the right-adjoined *-ga:dja*.[46]

(144) Gugada (Platt, 1972: 28)

ŋajulu guga ŋal-**ga:dja**
1SG.ERG meat eat-**NEG**
I'm not eating meat.

So although this language does not appear to use *wiya* to mark negation, the strategy for encoding clausal negation remains the same.[47] This is comparable to the situation in Ngaanyatjarra, in which *-wiya*, though possible, does not appear to be the most common negator (see footnote 38). Similarly in both of these languages then, despite the actual form of the negator, they are both right adjoined to a non-finite verb, and no temporal information is encoded in the clause.

The next language I would like to mention is Wangkatja, based on the description of negation in the learner's guide by Vaszolyi et al. (1979).[48] The Wangkatja in this book is described as spoken in Cundeelee, in the Goldfields–Esperance region of Western Australia. Wangkatja is interesting because it combines two points of variation discussed in this chapter: a right-adjoined (constituent) negation, with negation of a finite verb. Here, *wiya* right-adjoins directly to the finite verb to negate the clause (145a).

(145) Wangkatja (Vaszolyi et al., 1979: 161)

a. Ngayulu wangka-**nyi**-**wiya**.
1SG.NOM speak-**PRS**-**NEG**
I don't talk.

b. Ngayulu marlu nya-ngu-**wiya**-**ngku**.
1SG.ERG kangaroo see-PST-**NEG**-**ERG**
I didn't see a roo.

[45] Negative imperatives using *maga* can be found in Platt (1972) on pages 28, 30, 54, and 67. However he also includes examples where it is functioning as a clausal negator; these can be found on pages 32 and 54. Platt (1968) states that the strategies are apparently in free variation.

[46] I've retained Platt's orthography and have added glossing myself.

[47] A note on the particle *maga*/*maka* that Platt describes. He notes in Platt (1968) that it is a borrowing from the neighbouring Thura-Yura language Wirangu. Luise Hercus' grammar of Wirangu likewise suggests that Kukuta borrowed *maga* (Hercus, 1999: 11), and that Wirangu in turn borrowed the privative *-yudu* (cf. Platt's form *juḍu*) from Kukata (Hercus, 1999: 57). Hercus shows that in Wirangu, *maga* is used for the full range of negative constructions; as a negative response/interjection, as a negative imperative, a privative, and in standard negation constructions. However in Kukata it appears to primarily be used in negative imperatives, with a few examples of it encoding standard clausal negation (see footnote 45 above). It appears then that the Kukata negative construction with a free negative particle and a finite verb is due to borrowing from Wirangu (both the particle itself and how it is syntactically integrated into the clause). This suggests that the original Kukata standard negation construction was like that of Pitjantjatjara, Yankunytjatjara, etc., namely suffixation of the negative element to a non-finite verb (in this case, directly to the verbal stem).

[48] Thank you to David Nash for finding this source for me.

c. Wangka-ku-**wiya**=**rna**.
speak-FUT-**NEG**=**1SG.Subj**
I won't talk.

Similar to manner adverbs built using a right-adjoined *wiya* in other Western Desert languages like Pintupi-Luritja, these negated verbal forms take an ergative case marking when transitive, as seen in (145b). Aside from case marking, we can see that clitics also treat this combination as a constituent (145c). Wangkatja includes then all of the ingredients we have discussed in this section (whether negation is right-adjoined to the verb; whether clausal negation affects finite verbs), but in a unique combination.

The final language I will mention is Yulparija, spoken at Bidyadanga (La Grange), as briefly described in Burridge (1996). Yulparija appears to differ subtly from the other languages discussed. Like other Western Desert languages, Yulparija uses *wiya* as a negative element.[49]

(146) Yulparija (Burridge, 1996: 45)
Puntu-rti-lu-jananya-ya pu-ngku-marra **wiya** yina.
person-pl-ERG-3plACC-3plNOM hit-IRR-SUBJ **NEG** father
The people should kill them– not dad?

For standard negation of clause however, Burridge (1996) describes the use of the privative *-parni*, in optional combination with or without *wiya*.[50]

(147) Yulparija (Burridge, 1996: 40f)

a. Ju-nku-**parni**.
put-IRR-**PRIV**
He did not put it?

b. **Wiya**-rna-nta kuli-l-**parni**.
NEG-1sgNOM-2sgACC hear-IRR-**PRIV**
I didn't hear you/I didn't understand you?

c. **Wiya**-raka-laju ma-nku-**parni** yurta-nga.
NEG-EMPH-1plexclNOM get-IRR-**PRIV** fish.ABS
We really didn't catch any fish.

[49] I repeat that I am uncertain why the Yulparija sentences include question marks, as they do not appear to be questions.
[50] Cf. *-paṉi* described as the most common negator for Pintupi by Hansen and Hansen (1978), mentioned earlier in this chapter.

Burridge calls the verb forms in these cases irrealis; they look cognate with the class augmentation markers elsewhere in Western Desert languages. This would make these clauses look like what Goddard (1985) calls Active Verbal Negation in Yankunytjatjara, where *wiya* attaches directly to the verb stem plus class marker. The difference in Yulparija is that the privative has the form *-parni* rather than *-wiya*, and that *wiya* as a negative particle appears optional. This strategy is then familiar in the elements involed (use of *wiya* as a negative particle, privative marking, active verbal negation), while being different in how they combine (form of the privative, optionality of *wiya*).

Bringing these descriptions together, we see two major points of variation between languages: (i) whether *wiya* can occur as a free particle in the clause, or must be right-adjoined to the matrix verb; and (ii) whether the verb in the clause is finite, or is a non-finite nominalised verb. We have seen that almost all combinatorial possibilities are attested in the literature.[51]

Negation:	**Acts on non-finite verb**	**Acts on finite verb**
Is right-adjoined	Pitjantjatjara, Yankunytjatjara, Ngaanyatjarra	Wangkatja
Is a free particle	(Yulparija)	Pintupi-Luritja, Wangkajunga, Areyonga teenage Pitjantjatjara, Kukatja

These initial investigations have shown that negation is a fruitful area for inquiry into inter-Western Desert syntactic variation. Based on limited published data it appears there is a rough geographic correlation to this variation, in that negation as a free particle can act on finite verbs in more northernly languages, but not in more southernly ones.[52] This therefore also roughly aligns with claims in Jones (2011: 11ff) that the north-western Western Desert languages[53] share a number of "structural similarities that set them apart from the southwestern languages Ngaanyatjarra, Pitjantjatjara and Yankunytjatjara." This suggests that negation is another variable with a rough geographic aspect to patterns in how it varies across the Western Desert family. However more detailed work (both language-specific and comparative within the Western Desert family) is needed to confirm the extent to which this spread is reflected geographically.

3.5 Conclusions on negation

This chapter has served a number of purposes in the context of this dissertation. Firstly, we have investigated negation in Pintupi-Luritja, mostly as it is lexicalised through *wiya*. We have looked at its

[51] Whereby Yulparija is not a perfect fit in its cell, as it is the only one that is co-opting the privative to such an extent. Note too as discussed the different morphological forms that negation takes between the languages.

[52] Although Wangkatja, in the far south west, does not align to this characterisation.

[53] Jones names these as Kartujarra, Kukatja, Manyjilyjarra, Yulparija and Wangkajunga, and notes that Pintupi aligns with them in a number of ways.

semantics (as a propositional negator, a privative, etc.), as well as its syntactic properties (particularly the differences between and evidence for a split between constituent and sentential negation). This also has allowed us to compare the syntax of clausal negation in Pintupi-Luritja with descriptions of other Western Desert languages. These comparisons demonstrate variation within the family as to whether *wiya* can target finite verbs, and whether it appears as a free particle in the clause. As we saw, there is a broad north/south correlation in this variation within the family.

As well as describing negation as a phenomenon in the language, this chapter is also important in light of the following chapters, where we will be investigating scope interactions of negation with other scope-taking elements. Understanding how the scope of negation is reflected syntactically is therefore important. We will see that this constituent/sentential analysis proposed here will be illuminating for understanding the syntax of scope relations in later chapters– that constituent negation right-adjoins to an element and forms a constituent with it, whereas sentential negation sits higher in the clause.

This chapter has also highlighted some areas in need of further inquiry in the study of negation in Pintupi-Luritja. We have not for example investigated in detail the negators *nuu* and *naata* (from English 'no' and 'not' respectively), and how their scope-taking behaviours differ from *wiya*.[54] We have not looked at any intonational or stress differences between constituent negation (or right-adjoined *wiya* more broadly) and sentential negation. We have also not considered the significance of the patterns throughout our comparative Western Desert investigations for diachronic pathways for how negation is encoded (Phillips, 2021, 2022; Koch, forth.). Questions like these would be relevant and important for achieving a fuller picture of negation in Pintupi-Luritja, but for now will have to wait for further study.

[54]Laughren (1989, 2017a) shows for example that *nuu* and *nati* in Warlpiri differ from the negative element *kula*.

Part II

Focus sensitivity

Chapter 4

Focus preliminaries

The next several chapters investigate focus sensitivity in Pintupi-Luritja, by investigating the syntax and semantics of two main focus sensitive expressions: the exclusive particle *kutju*, which roughly corresponds to English 'only'; and the additive suffix -*ṯarra*, roughly equivalent to English 'too', or 'also.' A few other elements will also be investigated, in less detail. Investigations into these elements rely on two main properties, their semantics and their syntax; these will be dealt with in turn.

Focus particles and other focus sensitive elements (FSEs) remain relatively understudied in Australian languages. As such, this chapter contributes not only to a deeper understanding of this aspect of Pintupi-Luritja and Western Desert, but to Australian languages more generally. The discussion of the syntax of these particles is also important in light of a more general understanding of the role syntax plays in the language.

Investigations into FSEs play a crucial role in broader investigations into focus generally as a phenomenon, and we will be relying on ideas and terminology from that literature to talk about them. In particular, we will be looking at these through the lens of ideas discussed in *Alternative Semantics* (Rooth, 1985, 1992 *et seq.*). Chapter 4 will be devoted to laying that groundwork– about focus, what alternatives are, and association with focus. These will give us a theoretical grounding to approach the Pintupi-Luritja data. Chapter 5 will investigate the exclusive particle *kutju*; we will look at both its syntax and semantics, and in particular we will focus on what sorts of alternatives it can associate with, where it sits in the clause relative to the focus associate, and issues of particle placement when the focus associate involves a finite VP. In chapter 6 we will be examining how *kutju* interacts with negation, and how the two elements establish scope relations with each other. The next chapter, 7, will then investigate the syntax and semantics of a number of additive suffixes in the language (particularly -*ṯarra*), and compare them to the behaviour of *kutju*. Finally in chapter 8, we will come back to and discuss in more detail the kinds of more general implications this data has for our understanding of syntactic relations in Pintupi-Luritja.

4.1 Focus, alternatives, and association

Let us start by considering what contribution to an utterance a word like *only* introduces in English.

(148) Only Ella saw the horses.

We might paraphrase this as something like *Ella, but no one else, saw the horses.* It's generally assumed that we can split the meanings of sentences like (148) into two parts: the part that expresses that *Ella saw the horses* and the part that expresses that *No one other than Ella saw the horses.* Typically these two parts of the meaning are given a different status; most analyses assume that *Ella saw the horses* is a presupposition in examples like (148), and that *No one other than Ella did* is an assertion (see discussion below). We can say then that a sentence of the form '*only* ϕ' presupposes the sentence without *only* (i.e. ϕ, the 'prejacent'[1]), and that *No one else did* is asserted. Example (148) is contrasting Ella to other people in this context; we will be thinking about these other people who didn't see the horses as *alternatives* to Ella. An alternative to x is intuitively something else we could have said instead of saying x. We could phrase the assertion of *only* in (148) then as contributing that there are no alternatives x to Ella such that it is true that *x saw the horses.*

In this light, let us consider the semantic contribution of additive particles like *too.*

(149) Augustin was sleeping too.

What does *too* contribute? Again, the most prominent reading seems to convey that it is true that *Augustin was sleeping*, and that some other relevant person or people were sleeping in addition to Augustin. We might phrase this as saying that there exists at least one alternative x to Augustin for whom the sentence *x was sleeping* is true.

What we've done here is split the meanings of sentences using these elements into two parts: the prejacent (i.e. bare proposition) and the contribution of the elements themselves. I noted above that that these are generally given a different status with regard to what is presupposed and what is asserted. Additives like *too* are in fact generally assumed to work a little differently to exclusives like *only*. For additives it is the prejacent that is asserted, while the meaning contribution of the additive (i.e. that there is another alternative for which the prejacent is true) is presupposed. This is the reverse of what is assumed for exclusives. Analyses along these lines have been assumed in writing since at least Horn (1969), who himself attributes this approach to earlier (unpublished) sources. Although not uncontroversial (e.g. Ippolito, 2007), the presuppositional status can be seen by standard tests such as projection when in the scope of negation, among others (e.g. Beaver and Clark, 2008). For example, *Not only Ella saw the horses* still presupposes that *Ella saw the horses*– the prejacent itself is not negation. Additives in English seem to like to change their form to *either* under negation, but taking this into account, we can say that a sentence like *Augustin was not sleeping either* entails that *Augustin was*

[1]This term denotes the 'bare' proposition, without *only* etc. We will encounter the term again in part III on modality, to similarly refer to the bare proposition, unmodified by operators.

not sleeping– i.e. negation does target the prejacent, unlike the case with exclusives. This isn't totally without controversy, but more on this in chapter 6, where we will see that this distinction is relevant in Pintupi-Luritja as well.

The semantics of elements like English *only* and *too* broadly seem to carry across to the Pintupi-Luritja expressions under discussion in the following chapters: *kutju* and *-ṯarra*. That is, we will be classing these two elements as exclusive and additive elements respectively.

(150) a. ***Kutju* as an exclusive particle**

Irrpanga wangka tjana-mpa, tjana **kutju** wangka-payi.
fish word 3PL-DAT 3PL.NOM **only** say-HABIT

*'*Irrpanga*' is their word, only they say it.*

(Source translation:) Irrpanga *is their word meaning fish;* ***only those people*** *use that word.*

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *irrpanga*

b. ***-ṯarra* as an additive suffix**

Papa tjuṯa-ngku kuka tarrka munguḻtja-nanyi.
dog many-ERG meat bone scavenge-PRS

Kaaṉka-ngku-**ṯarra** munguḻtja-ngkupayi.
crow-ERG-**also** scavenge-HABIT

(Source translation:) Dogs scavenge for the last pieces of meat on bones. ***Crows as well*** *scavenge.*

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kaaṉka*

Like *only*, the contribution of *kutju* in (150a) is that these other people (from Haasts Bluff) use the word *irrpanga* to mean fish, but that no-one else does (i.e. *x uses the word 'irrpanga'* is true of no relevant alternatives). Similarly like *too*, the contribution of *-ṯarra* in (150b) is to say that scavenging behaviour is true of crows, in addition to it being true of another relevant alternative (i.e. dogs).

Immediately, examples such as these show the importance of the notion of alternatives, as they play a central role in how we describe the semantic contribution of the particles. Considering more examples, we notice very quickly that a range of elements can invoke alternatives, as some sentences that include these particles can have a number of very different readings. Take (151) for example.

(151) Peter only suggested that he bakes bread on weekends.

The interpretation of this sentence can vary wildly, depending on which element is emphasised or stressed.[2] The greyed-out text represents some of the sorts of meanings that one might understand when hearing the sentence above it.

[2]Small caps in the example indicates a pitch accent on that word.

(152) a. Peter only SUGGESTED that he bakes bread on weekends.
⇝ He didn't actually say so

b. Peter only suggested that HE bakes bread on weekends.
⇝ Apparently Joseph doesn't

c. Peter only suggested that he BAKES bread on weekends.
⇝ He probably eats it during the week

d. Peter only suggested that he bakes BREAD on weekends.
⇝ Cake must be for weekdays

e. Peter only suggested that he bakes bread on WEEKENDS.
⇝ Bread-baking sounds like a weekend pasttime

What (152) shows is that different placement of the pitch accent in an English sentence indicates differences in which alternatives that *only* operates on. The pitch accent is a pointer to show us which element evokes alternatives, and *only* then conveys that all the other alternatives to that element are not true if substituted into that sentence (and perhaps that this fact is pragmatically relevant).[3] We might wonder what those alternatives are. In our first example (148), we said that the alternatives to Ella were people *x* that we could have swapped out for Ella in a sentence of the form *x saw the horses*. The alternatives to the sentences in (152) are not people– intuitively, the alternatives are other things that one could have said in place of the element that was focused. This is therefore a more generalised notion. There does however need to be a congruence between what alternatives are evoked, and what is focused: they need to be of the same semantic type. If a verb was focused, then the alternatives need to likewise be verbs, and so on. This is why when we stress *bakes* in (152), we wonder what else Peter could do to bread (eat it, sell it, etc.), and when we stress *weekends* we think about other times that Peter could bake bread.

We will be saying that the element for which alternatives are invoked is *focused*, or *in focus*. Focus in English is primarily marked with a pitch accent, like in (152), but as a semantic notion (the element for which alternatives are invoked), we will be marking it like $[\text{this}]_F$. The element between the square brackets is what is focused (i.e. the alternative-evoking element), and what is marked by SMALL CAPS is the *focus realisation* (or focus *marking*); i.e. what is intonationally marked. The reason for making this distinction between focus marking/realisation (in English, pitch accent) and a semantic focus (the element that alternatives are compared to) will be discussed with more justification in section 4.1.2.

The term 'focus' is used for a wide range of phenomena in linguistics, so I need to be explicit. I will be using the term following a widely-cited quote from Krifka (2008):

[3] I should note that there is some variation in the literature as to what exactly the term 'alternative' refers to; I'm using it here to refer to the element targeted for substitution, but often it refers to the alternate propositions that result from swapping out the focused element. For our descriptives purposes, I don't think this distinction affects us greatly.

(153) Focus indicates the presence of alternatives that are relevant for the interpretation of linguistic expressions.

Indicating to a listener that something is relevant for interpretation places focus in this approach at first glance as a clearly pragmatic phenomenon. As a result, differences in the placement of focus do not have a truth conditional effect; however it has been acknowledged that some cases of focus can in fact have truth conditional consequences, as in (154).[4] This suggests that the interpretation of focus sometimes crosses the nebulous borderlands between pragmatics and semantics (cf. similar examples in e.g. Rooth, 1985).

(154) a. They only sell ANTIQUES.
⇝ *False in situations where they sell antiques and modern art.*
⇝ *True in situations where they both buy and sell antiques.*

b. They only SELL antiques.
⇝ *True in situations where they sell antiques and modern art.*
⇝ *False in situations where they both buy and sell antiques.*

Indicating that alternatives are relevant not only happens with focus particles like *only*, as we have been discussing. Focus marking by way of changing location of the pitch accent is in fact a very common indication that a speaker of English wants to indicate that some alternatives are relevant.

(155) a. YOU saw the dog with the sore leg.
⇝ But I didn't

b. You saw the DOG with the sore leg.
⇝ The cat that limps wasn't there

c. You saw the dog with the SORE leg.
⇝ The sprightly dog was not around
etc.

These examples have no focus particle like *only*; they indicate relevant alternatives with intonation alone. Unlike the cases with *only* in (154) however, there are no truth-conditional differences here; sentences that differ like those in (155) will always have the same truth conditions (e.g. Rooth, 1985).

The use of intonation (and other means) to somehow emphasise, highlight, or contrast certain elements (i.e. what we are calling focus) has a long and turbulent history in the literature; its relevance in modern linguistics has been discussed since at least Paul (1880), but Féry and Krifka (2008) trace the phenomenon back to the medieval Arab grammatical tradition. Linked with notions of newness, givenness, contrast, etc., this falls under the topic of *information structure*– how languages organise the form of sentences in response to ever-changing information and context in the discourse (Halliday,

[4] Note that these are not the exhaustive truth conditions but rather compatible situations with the sentences in (154).

1967; Jackendoff, 1972; Chafe, 1976; Prince, 1981; Rooth, 1985; Lambrecht, 1994; Büring, 1997, 2016; É Kiss, 1998; Krifka, 2008; van der Wal, 2016; Kratzer and Selkirk, 2020; a.m.o.). This is an enormous topic, so it's worth highlighting what the main relevant details and questions for our discussion are. There are two main issues about focus that will be directly relevant for our investigations into *kutju* and -*ṯarra* in Pintupi-Luritja: (i) the size of the focus and related ambiguities; and (ii) what syntactic relation focus particles (can) have to the semantic focus (what we will call their focus associate). These issues will be investigated in the following sections.

There are many aspects of information structure generally and focus specifically that I won't address here, including purported different subtypes of focus (É Kiss, 1998; Gussenhoven, 2007), the effect of givenness on manipulating and shifting focus realisation (Schwarzschild, 1999; Wagner, 2012; Rochemont, 2016), among others. I will also assume that there is a unifying aspect to focus by way of alternatives, therefore assuming that it is justified to talk about this as a unified phenomenon at all (*pace* Matić and Wedgwood, 2013; Ozerov, 2018, and related approaches). I will stress though that although we will be talking about the phenomena here using ideas from approaches like Alternative Semantics (Rooth, 1985, 1992), many of the actual finer details of those approaches are not relevant here.[5] This chapter is at heart descriptive, and many of the conclusions we will go into detail to argue for (e.g. the role of syntax in this domain) are generally just assumed by many approaches. This chapter is borrowing from theory to inform description– in the hopes that more in-depth and wide-ranging descriptions can inform theoretical approaches to be sure, but our focus here is how the elements work in Pintupi-Luritja. As most of the finer formal details are not relevant here then, I will not spend too much space on them. The following sections delving into issues surrounding focus marking are however crucial to the more general view of the grammatical system (and syntax especially) of Pintupi-Luritja that we are developing over the course of this dissertation.

4.1.1 The realisation of focus

Until now we have only really considered English data in which intonation marks focus in a sentence. Intonation is however not the only way that languages mark focus– in fact, it has been claimed that some languages do not appear to have any (prosodic) marking of focus at all (Zerbian, 2006; Hartmann & Zimmermann, 2007). Morphological and syntactic means are very commonly employed to mark focus, both in combination with and in the absence of particular intonation (Büring, 2010; Zimmermann & Onea, 2011).[6] Languages differ in how they realise (or 'expone') focus. This is obviously important to note when investigating focus for the first time in a language. Although we are mainly investigating focus sensitive expressions in Pintupi-Luritja here (and not a full-scale investigation of focus marking

[5] E.g. issues of seeing *only* as a propositional operator, and what is required for it to exhibit its various syntactic and semantic characteristics as an operator that quantifies over alternative propositions. This kind of question goes beyond our aims here.

[6] Pitch accents are also not the only intonational way to mark focus, which can also be marked by e.g. the insertion of prosodic phrase boundaries– see Büring (2010) for some examples.

in general in the language), we need to understand that focus is not only an intonational issue; there are a number of ways that languages indicate the presence of focus.

Firstly, syntactic means are a very common way to mark focus; this involves a particular (re)ordering of elements in the clause, typically so that the focused element in question is at the left or right periphery of the clause. A very influential approach in this vein is syntactic cartography (Rizzi, 1997; Cinque, 1999 *et seq.*), which aims to map out fine-grained syntactic positions; for effects like focus, research has focused in on the left periphery– i.e. clause initial positions high in the syntactic tree, splitting what in earlier approaches had consisted of a single CP projection. We will note the application of these ideas to Western Desert languages in section 4.2, but we can note that this approach has also been used to describe and tease apart clause-initial positions in Warlpiri (Laughren, 2002; Legate, 2002). Although cartographic approaches typically assume movement to these positions from base-generated positions lower in the tree, syntactically articulated left peripheries have also been proposed to prove useful in theories like LFG, which do not assume syntactic movement; information-structural (or more generally discourse-relevant) information can likewise be associated with these clause-initial positions (Choi, 1997; King, 1995, 1997; Butt & King, 1996; Dalrymple & Nikolaeva, 2011; Booth, 2021).[7] These approaches have likewise seen productive insights into ordering of elements in Warlpiri (Austin & Bresnan, 1996; Simpson, 2007). Regardless of how diverse the analyses are, they (more or less) agree on the relevance of clause-peripheral positions for– and therefore a syntactic aspect of– information-structural or discourse-relevant functions.

Secondly, some languages appear to have morphology that indicates focus, although the use of morphology as the sole indicator of focus is comparatively less-attested in the literature. Büring (2010) for example discusses Chickasaw (Western Muskogean) as a possible example of dedicated focus morphemes (see also some further examples in Assmann, Büring, Jordanoska, and Prüller, 2023).[8]

(156) Chickasaw (Büring, 2010)

a. hat:ak-at koni(ã) pisa.
man-SUBJ skunk sees
The man sees the skunk.

b. hat:ak-**akot** koni(ã) pisa.
Man-**FOC.SUBJ** skunk sees
[The man]$_F$ sees the skunk.

[7] Not all LFG analyses assume that the clause-initial positions that are associated with information structure are syntactically asymmetric; some approaches like Gazdik and Komlósy (2011), Gazdik (2012) assume a flat c-structure, with focus (etc.) associated with the clause-initiality of elements defined *linearly*, rather than structurally.

[8] Particles or suffixes glossed as a 'focus' morpheme are extremely common in language descriptions (also in Australia), but it is generally unclear the extent to which these align with the notion of focus we've assumed here; the same holds for particles glossed as 'emphasis' and similar terms. The lack of a unified approach to investigating these elements and phenomena makes cross-linguistic comparisons in this field extremely difficult.

c. hat:ak-at koni-**akõ:** pisa.
man-SUBJ skunk-**FOC.OBJ** sees
The man sees [the skunk]$_F$

Rarely is focus realised by singular means though, and there are usually several factors at play in determining how focus is indicated in a language. That focus is not only marked intonationally is important in investigating it as a phenomenon; we can see the effects of the notion of focus as described in the previous section in varying ways: aside from intonation, (at least) morphology and syntax often play a part. The range of variation in how these interact cross-linguistically is an important research question.

4.1.2 The size of focus

In a previous section I noted a distinction that we should draw between focus realisation (in these English examples, a pitch accent– marked by small caps), and a pragmasemantic notion of focus (what alternatives are invoked for– marked with square brackets and a subscript F[9]). We should be clear about why– after all, in many cases such as (157), this distinction appears unnecessary as they both target the same constituent.

(157) QUESTION: Who paid for the tickets?
[LUCY]$_F$ paid for them.

In this case, the realisation of focus completely overlaps with the element whose alternatives are relevant. But this is not always the case– this relation between focus realisation and focus domain often results in mismatches. Consider the following example from Selkirk (1995), in which the final word in the sentence is accented.

(158) Mary bought a book about BATS.

What is the focus domain here? Can we tell from the realisation alone? The realisation of focus in (158) is in fact compatible with a number of different focus sizes. There is a many to one relationship of focus size to focus marking– that is, (158) is ambiguous. We can see this by considering what sorts of possible questions (158) could serve as a felicitous answer to; different questions require different focus domains as answers.[10]

[9]This F notation comes from Jackendoff (1972), who proposed it as an abstract feature marking focus. This feature's existence *qua* syntactic feature has been debated ever since on various grounds (Donati & Nespor, 2003; Szendrői, 2004; Aboh, 2010; Büring, 2015; Kratzer & Selkirk, 2020). I use it here for expository purposes, without arguing too strongly on what it actually is– it is very useful for us to mark the focus.

[10]It is generally accepted that *wh-* questions and their answers are a sure way of establishing focus sizes (e.g. Krifka, 2008; van der Wal, 2016). Aside from semantic argumentation (i.e. that *wh-* questions introduce variables for which the speaker is asking information, relating the asked-for information to focus alternatives), evidence such as fragment answers and ellipsis also suggest that answers to *wh-* questions are a good indication of focus size (Büring, 2016). Since it will be discussed in

(159) a. What did Mary buy a book about?
Mary bought a book about [BATS]$_F$

b. What kind of book did Mary buy?
Mary bought a book [about BATS]$_F$

c. What did Mary buy?
Mary bought [a book about BATS]$_F$

d. What did Mary do this afternoon?
Mary [bought a book about BATS]$_F$

e. Hey, what's news?
[Mary bought a book about BATS]$_F$

What this shows is that a single focus realisation (the pitch accent on BATS) is compatible with a number of increasingly larger focus sizes. As we continue through the examples in (159), we see the alternative-denoting part of the sentence grow. This is a crucial point in investigating focus: from the form of a sentence alone, you cannot tell what is focused. You can rule out a number of possibilities to be sure, but since there is no one-to-one match up of focus realisation to focus size, more often than not there will be ambiguities of the sort seen in (159). This phenomenon is known in the literature as *focus projection* (Höhle, 2018/1982),[11] a term particularly associated with analyses whereby the focus projects upwards, targeting ever higher syntactic nodes (e.g. Selkirk, 1995). A single example of focus realisation (158) can be ambiguous between a number of different focus domains (159).[12] This is why a distinction between focus and its realisation is necessary; the two are distinct and are not always equivalent.[13]

So we see there can be substantial ambiguity in determining focus size based on focus realisation. Focus projection is however not unconstrained– one focus realisation does not allow just any reading.

relative detail later, it is worth noting that there exists various kinds of evidence that suggest that larger focus sizes are *bona fide* linguistic objects. One example involves possibilities of ellipsis; Büring (2016: 33) for example notes that a question like *Who was Kim going to kiss?* can be answered with a full sentence along the lines of *Kim was going to kiss* ALEX, or with the fragment answer ALEX. A *wh-* question relating to a VP in comparison, like *What was Kim going to do?* can, alongside a full answer like *Kim was going to kiss* ALEX, also be answered with *Kiss* ALEX; it cannot however be answered by just ALEX. He also notes that making *kiss* given does not change the possibilities; after asking *What was Kim going to do, after kissing Sam?*, one cannot reply with just ALEX; instead a fragment answer must still include the full VP: *kiss* ALEX. Büring argues that this shows that focused elements cannot be elided, and that this holds even when elements are given (a factor which greatly manipulates how focus is marked by intonation). What it shows us is that (i) *wh-* questions are suitable methods for determining focus sizes, and (ii) that these differing focus sizes are indeed relevant for some processes of the grammar (not just determining the relevant alternatives).

[11] Also commonly focus *ambiguity* (Jacobs, 1991), occasionally focus *syncretism* (Assmann et al., 2023). The issue of ambiguity in these contexts has been recognised in the literature since at least Chomsky (1971); see Arregi (2016) for a recent overview of approaches to focus projection. Note that I use the term divorced from any particular analysis of the phenomenon.

[12] Taking a number of restrictions into account– see works cited for discussions of which marking where licenses what ambiguities.

[13] There is a slight complicating factor of how this marking and our interpretation of it interacts with stress patterns in non-focus marked intonation, because clause-final elements are often marked in this way; however focus projection is not restricted only to sentence-final focus marking, but can arise in e.g. clause-initial subjects as well. See Büring (2016: 31) for some examples.

There are for example a number of conceivable relevant questions to which (158) is not a felicitous answer.

(160) a. Who bought a book about bats?
#Mary bought a book about BATS.
(Cf. MARY bought a book about bats.)

b. Did Mary write a book about bats?
#No, Mary bought a book about BATS.
(Cf. Mary BOUGHT a book about bats.)

Why are these infelicitous answers to the questions when so many focus domains were possible in (159)? The short answer (in broad strokes) is because the focus realisation needs to be included within the focus. This hypothesis has been formulated in various ways; e.g. Arregi (2016) states it as follows (notably subsuming only intonational focus marking).

(161) *Focus Prominence:* The focused constituent in a certain domain (typically, the sentence), must contain some kind of prosodic peak.

Other formulations exist, but in their essence they separate the focus from its realisation, and state that the realisation has to be contained somewhere within the focus.

These issues are directly relevant to sentences including FSEs as well. The same ambiguities exist within the focus associate of particles like *only* and *also*. The expression with the pitch accent (162) is compatible with a range of readings (163).

(162) I only read the article about intonation.

(163) a. I only read the article about $[\text{INTONATION}]_F$
$\rightsquigarrow$ ...but not the article about relative clauses

b. I only read the $[\text{article about INTONATION}]_F$
$\rightsquigarrow$ ...but not the book on presupposition

c. I only $[\text{read the article about INTONATION}]_F$
$\rightsquigarrow$ ...but didn't go to the lecture on entailment

The point here is not to investigate focus projection as a phenomenon, nor to shed light on the principles governing it (whether it is best characterised purely intonationally, with reference to syntactic structure, etc.); what is important is that focus marking can be ambiguous in its relation to what is actually focused, and that these ambiguities carry across to FSEs as well.

This section has served to demonstrate the importance of acknowledging that ambiguities exist when attempting to determine focus size based only on focus realisation. An instance of focus marking can be compatible with a number of (increasingly larger) focus sizes. Describing this system in another language will have to take potential ambiguities of this nature into account.

4.1.3 The syntactic relation with focus associates

Let us turn our attention back to FSEs more specifically. Recall the examples from (152), repeated here below in (164) with the (non-exhaustive) semantic focus possibilities also marked.

(164) a. Peter only SUGGESTED that he bakes bread on weekends.
⇝ He didn't actually say so

b. Peter only suggested that HE bakes bread on weekends.
⇝ Apparently Joseph doesn't

c. Peter only suggested that he BAKES bread on weekends.
⇝ He probably eats it during the week

d. Peter only suggested that he bakes BREAD on weekends.
⇝ Cake must be for weekdays

e. Peter only suggested that he bakes bread on WEEKENDS.
⇝ Bread-baking sounds like a weekend pasttime

Note how *only* sits in the same position in the clause, but that the alternative-evoking element changes; these examples show that focus particles like *only* can operate on alternatives evoked by different elements in the clause. Following conventions (leading back to Jackendoff, 1972), we will call this relation between the FSE and the focus *association with focus*, and say that *only* and other FSEs *associate* with focus (Jackendoff, 1972; Rooth, 1985 *et seq.*).[14]

Examples like (164) above show that *only* can associate with focus in various parts of the utterance, without necessarily having to move around within the clause to do so. However there is one conspicuous reading missing from (164); even with placing a pitch accent in the appropriate place, we cannot get the reading that *Peter is the only one who suggested that he bakes bread on weekends* from the string in (164). In other words, *only* cannot associate with the subject (165a); for this, *only* has to precede the subject (165b). This is necessary for *only* to associate with *Peter* in (165).

[14]This relation is sometimes described as the *scope* of the particle; we will stick with *association* largely because we will later be speaking of the scope of these phrases in relation to other elements, which as we will see is a different notion. In general the term is dispreferred also because it conflates the syntactic scope of the particle (commonly equated with what it c-commands) with the element whose alternatives are actually relevant (i.e. what it associates with). Example (164) and further discussion in this chapter shows us that *only* associates with an element *within* its c-command domain, but not necessarily the entire c-commanded domain. For these reasons, we will stick with convention and talk about 'association' rather than 'scope' for this particular relation.

(165) a. #[PETER]$_F$ only bakes bread on weekends.

b. Only [PETER]$_F$ bakes bread on weekends.

This has been taken to be a syntactic restriction on the relationship between *only* and its focus associate.[15] The role of syntax in mediating this connection of FSE to its focus associate has been the topic of debate for decades (Jackendoff, 1972; Tancredi, 1990; Hoeksema and Zwarts, 1991; McCawley, 1996; Beaver and Clark, 2008; Erlewine, 2014, *i.a.*). Immediately, a number of questions present themselves: What is this syntactic relationship? To what extent is this true of other FSEs, like *also* or *even*?[16] Particularly relevant for this chapter is of course whether a syntactic relation holds for the Pintupi-Luritja FSEs. These questions are important here as they crucially hang on the role syntax plays in determining certain relationships more generally in the language.

The question that will occupy us above all is what the nature of this syntactic relationship is. The examples above show that there is a strong relationship between the relative sentence positions of the exclusive particle and its focus associate, since manipulating sentence position determines whether this relationship can be established. A structural relation between these elements has been argued for in many languages, and a general consensus in the literature holds that exclusive particles like *only* must c-command their associates (Jackendoff, 1972; Rooth, 1985; Tancredi, 1990; Hoeksema & Zwarts, 1991; König, 1991; McCawley, 1996; Bayer, 1996; Büring & Hartmann, 2001; Erlewine, 2014, 2017). This is a strictly syntactic description– a structural restriction on the relationship between the FSE and its focus associate.[17] Assuming c-command as the relevant factor here also situates this relationship aside an assumed more general pattern of c-command being relevant for how operators take scope, or more generally have effects on other elements in the clause (recalling discussion in chapter 1.3.2).

Investigations into the sentence position of English *only* and the resulting possible readings have in fact suggested that a further distinction is necessary, and that we need to differentiate between two different *only*s, with ramifications for a typology of these elements. This distinction involves where the particle attaches– the semantics is assumed to be identical. Whereas *only* in (164) sits in a single position in the clause and can associate with anything to its right, Jackendoff (1972) noticed that FSEs like *only* can in fact also appear in other positions around the clause, which in turn has consequences for what they can associate with. The following sentence in (166), based on examples in Jackendoff (1972: 248),

[15] I should note here that I am speaking about the particular syntactic relation in many but not all Englishes; particularly Englishes as spoken in at least India, Singapore, and Hong Kong have differing possibilities for the placement and readings of *only* and some other particles in the clause (Sridhar, 1996; Bhatt, 2000; Lange, 2007; Parviainen, 2012, i.a.). We also have to leave aside any discussion of the (apparently quite limited) cases where *only* can follow its focus associate in many Englishes including Australian English, like in sentences such as *This entrance is for staff only*; I leave these aside since this discussion is in reality leading up to the Pintupi-Luritja data rather than actually being focused on English *only*– discussion of the English patterns is simply because I assume the reader understands English so can recognise the phenomenon. Likewise out of scope is any diachronic or historical discussion of the positioning of *only* etc., where this kind of construction appears to have been more often used in English (e.g. Andrushenko, 2021).

[16] Short answer for 'also', 'even', and others in English: these have a different syntactic relation to their associates than 'only' does (see e.g.Erlewine, 2014 for discussion).

[17] Although an anonymous examiner rightly points out that this does not mean it is a syntactic explanation, as c-command goes hand in hand with the compositional semantics assumed in Rooth's tradition.

has *only* shifted so that it immediately precedes *his daughter*, unlike the preverbal placement in (164).[18] Concomitantly and importantly, *only* can now only associate with elements within that phrase– it can no longer associate with just any element to its right, like we saw was possible with (164).

(166) John gave only his daughter a new bicycle.

a. # [JOHN]$_F$ gave only his daughter a new bicycle.

b. John gave only [HIS]$_F$ daughter a new bicycle.

c. John gave only his [DAUGHTER]$_F$ a new bicycle.

d. # John gave only his daughter a [NEW]$_F$ bicycle.

e. # John gave only his daughter a new [BICYCLE]$_F$.

The fact that *only* is attached to the phrase *his daughter* is argued to be behind this restriction; i.e. when attached directly to a phrase, then it can only associate with elements within that phrase (Jackendoff, 1972; McCawley, 1996). Combining the association possibilites of (164) and those in (166) and similar examples, it becomes clear that the restriction on association possibilities is one of c-command, and is not to be described in terms of linear precedence. This distinction has been compared to sentential and constituent negation, and indeed Erlewine (2017) borrows this terminology to apply here,[19] speaking of *sentential* and *constituent only* (exemplified by 164 and 166 respectively). The examples in (166) show that this distinction between sentential/constituent particles is relevant for what the possible focus associates can be. Whereas we could have characterised this relation until now as something like '*only* can associate with any element that follows it' based on patterns in examples like (164), we see now that this cannot be the right characterisation. Examples like (165b), repeated below, show that *only* must precede the subject in order to associate with it; what we see now though in (168), is that *only* in this position, being constituent *only*, can no longer associate with any other of the elements to its right that it was able to as a sentential particle (cf. examples in McCawley, 1996).

(167) (= 165b)
Only [PETER]$_F$ bakes bread on weekends.

(168) a. # Only Peter [BAKES]$_F$ bread on weekends.

b. # Only Peter bakes [BREAD]$_F$ on weekends.

c. # Only Peter bakes bread on [WEEKENDS]$_F$.

[18] Like examples in (164), these examples ignore several possibilities of association with larger constituents for space.

[19] Although both the necessity of a distinction between sentential and constituent particles and making a connection to negation had been previously noted elsewhere (e.g. Hoeksema and Zwarts, 1991), Erlewine (2017) appears to be the source of this terminology.

The only readings possible with the examples in (168) are those where *only* associates with *Peter*; association with the focus-marked elements is impossible. The possible patterns of focus association in (165b), (166), and (168) stand in stark contrast with the possibilities shown earlier in (164). This difference is explained by assuming differences in where *only* attaches (i.e. as a sentential or constituent particle), coupled with restrictions on what *only* can associate with. Again, this relationship is assumed to be that of c-command, i.e. cast in structural terms.

Other behaviours argue for a constituent/sentential distinction for these particles as well. It has been shown to be relevant for differing scope-taking abilities of the two *only*s; constituent *only* allows for scope ambiguities that sentential *only* does not (Taglicht, 1984). Further evidence for the distinction is the fact that the two constituent/sentential particles appear to be lexicalised differently in some languages, e.g. in Vietnamese (Erlewine, 2017).

Much research has concentrated on the nature of the possible and impossible syntactic relations between FSEs and their focus associates. This relationship has been argued to be one of c-command, where the focus particle c-commands its focus. Later in this chapter we will likewise examine arguments for the same relation between Pintupi-Luritja FSEs and their associates, where I will argue that c-command is the relevant level of description for this relation here as well.

4.2 Focus in Western Desert languages

Since we will be investigating focused constituents in Pintupi-Luritja, we should want to know what focus realisation looks like in the language. This will not be completely answered here, partly for reasons of space, but also because we are not investigating focus realisation *per se*, instead how various focus sensitive elements interact with their focus associates. We can however give an impressionistic overview of focus realisation generally, and can draw on a number of existing studies into how focus is realised in other Western Desert languages. To these we can add some observations from Pintupi-Luritja to understand roughly how the system works in the language.

These existing studies suggest that at least both intonational and syntactic considerations play a role in focus marking in Western Desert languages.[20] The earliest can be found in Douglas (1955, 1964), which includes notes on phonology and intonation in discussion of a range of grammatical topics in the

[20]Morphology on the other hand does not seem to encode focus in general in Pintupi-Luritja, although it is worth noting that there is at least one particle that does appear to be related to focus in some way, namely *kula*. Although morphology may not encode focus *per se*, there are doubtless many particles that have some association with focus in a broader sense. For *kula* in particular, note the relation to the Warlpiri element *-kula* (e.g. the entry in Laughren et al., 2022); thanks to David Nash and Mary Laughren for pointing this connection out. The Pintupi-Luritja dictionary (Hansen & Hansen, 2022) defines *kula* as 'Indeed; note this!'; Heffernan and Heffernan (2000) define it as 'Indeed, affirmation'; the discussion in (393) in the appendix suggests its distribution at least partially mirrors focus environments, as it seems to (optionally) mark e.g. answers to *wh*-questions, and contrastive focus. Although its distribution in Pintupi-Luritja would be very relevant for some of the questions raised in this chapter (e.g. particle placement with larger focus sizes), I leave a detailed analysis of its distribution and other focus-related particles for later work.

Western Desert language.[21] Douglas (1955, 1964) discusses the role of intonation (particularly pitch levels) of 'stressed items', or "items to which the speaker wishes to direct special attention" (1955: 222). The contexts he describes suggest that these examples are comparable to our conception of focus. Note the pitch contour in (169a)[22], which suggests that focused elements receive a higher pitch, followed by a falling contour. Douglas' decision to represent 'rabbit' etc. in caps suggests that these elements should be understood as focused.

(169) Western Desert (Douglas, 1964: 20f)

a. 

Ngayu-ku tjitji-lu nani pu-ngu?
1SG-DAT child-ERG rabbit hit-PST
Did my child hit a RABBIT? (surprise)

b. 

Tjitji-munta nyuntulu pungu?
child-Q 2SG.ERG hit-PST
Did YOU hit the child?

c. 

Nyuntulu kuwari pitja-ngu?
2SG.NOM today come-PST
YOU arrived to-day, did you?

Schematic representations of pitch contours like this, coupled with Douglas' choice to highlight particular English words in the translations, show a link between intonational contours and what he calls 'stressed items'– this looks comparable to our discussions of focus, as these examples look like they are invoking alternatives. The fact that this change in pitch can occur in different parts of the sentence (cf. 169a and 169c) suggest that this is not indicative of default intonation patterns, but that this change in pitch tracks the focus.

[21] The exact languages/varieties targeted by Douglas are not directly comparable with the current-day situation of Western Desert languages. Douglas (1955) calls the language under investigation 'a dialect of the great desert language of South and Western Australia', and based his writings on fieldwork in Ooldea in South Australia. In Douglas (1964), he says the data is based on "material gathered personally at the Warburton Ranges Mission, at Ooldea in South Australia, at Mount Margaret in Western Australia, and from various informants from places as widely separated as Jigalong and Rawlinson Ranges (W.A.), Ernabella (S.A.), and Kalgoorlie (W.A.), during the period between early 1951 until the present time (1957). The Grammar is essentially an introduction to the Western Desert language THROUGH one of the dialects spoken at Warburton Ranges, Western Australia." Aside from the geographical spread of the informants, the relative earliness of the material gathered means that the data may vary to some extent from the languages as represented in those areas today (recall discussion in chapter 1.1 about the recent history of Western Desert languages).

[22] Schematically reproduced, following indicative figures in Douglas (1964: 20f).

Hansen and Hansen (1969, 1978) suggest similar findings in their investigations into Pintupi: "Emphasis may be signalled by contrastive placement of stress which is noticeably louder than other stressed syllables of the same clause. Emphatic stress may occur on any word of the clause" (1978: 42). That any word of the clause can be emphasised in this way again strongly suggests these effects are not due to general default intonational patterns, and instead track information-structural considerations.

The effects of intonation also can be seen in my own recordings, showing that the role of intonation in marking focus is important in Pintupi-Luritja as well. This is often then seen in conjunction with syntactic methods of focus marking; see below for some examples.

Syntax similarly appears to be involved in focus marking in Western Desert languages. Like many languages of the region, Western Desert languages are typically described as exhibiting a high degree of flexibility in word order possibilities, at least with regards to grammatical roles in the clause.[23] However, discourse motivations and information structure have been argued to play a role in determining ordering, particularly in clause-initial positions. Bowe (1990) undertakes a careful analysis of clause-initial syntactic positions in Pitjantjatjara, and investigates the types of elements that can appear in them and under what discourse considerations. Bowe argues that the notions of topic and focus are crucial concepts for understanding Pitjantjatjara word order. Focused elements are argued to be fronted to a focus position in the left periphery of the clause. This can be seen in (170), where the answer to the question *What did Billy give you?* is clause-initial in the answer (170b). See the same relation between question/answer and syntactic position in (171).

(170) Pitjantjatjara (Bowe, 1990: 114)

a. Billy-lu=nta nyaa u-ngu?
Billy-ERG=2SG.Obj what give-PAST
What did Billy give you?

b. **Puṉu**=ṉi paluṟu u-ngu
wood=1SG.Obj 3SG.NOM give-PAST
***Wood** is what he gave me.*

(171) Pitjantjatjara (Bowe, 1990: 133)

a. Billy-lu ngana-nya nya-ngu?
Billy-ERG who-ACC see-PST
Who did Billy see?

[23] Several works have quantified what this variability actually looks like; Bowe (1990) and Langlois (2004) both include analyses of Pitjantjatjara texts looking at frequency of orderings between grammatical roles. Recent work by Wilmoth et al. (forth.) investigates this flexibility experimentally in Pitjantjatjara (see also Nordlinger et al., 2022 for similar methods and confirmation of flexibility in Murrinhpatha), confirming flexibility with regards to grammatical roles, and concluding that a wide range of factors influence ordering elements in the clause; the contexts these were tested in were specifically designed to avoid the kinds of information-structural influences discussed here.

b. **Mary-nya** paluṟu nya-ngu
Mary-ACC 3SG.ERG see-PST
***Mary** is who he saw.*

These *wh-* questions require the answer to be focused, which is reflected in their clause-initial position. The relevance of this clause initial position for these types of meanings is also noted in other Western Desert languages, including at least Yankunytjatjara (Goddard, 1985: 21) and Wangkajunga (Jones, 2011: Ch.12).

This appears to carry across into Pintupi-Luritja as well, as we often see focused elements occurring clause-initially.

(172) a. Nyaa mirri-rri-ngu?
what dead-INCH-PST

"**Tjaṉṯu** tjinguru wiya-rri-ngu, mirri ngarri-nyi ngunytjulpa."
dog maybe NEG-INCH-PST dead lie-PRS bad.smell

*(Source translation:) One says, "Smell that rotten smell with your nose. What has died around here?" The other says "Maybe **a dog** died and is lying there dead with that rotten smell."*

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *mirrirrinyi*

b. Nyaa-tjanu=ya yungka-lpayi?
what-ABL=3PL.Subj spin-HABIT

Raapita **yinyu-tjanu**=ya yungka-lpayi, mawulyarri=ya palya-lpayi.
rabbit **fur-ABL**=3PL.Subj spin-HABIT fur.adornment=3PL.Subj make-HABIT

*(Source translation:) A person separates hair when she wants to spin hair string for a hair belt. You can't spin it when it is bunched up, the hair must be separated and made a small group of fibres to spin it with a spindle. That fur adornment is like a pubic covering. They had fur adornments which they spun from rabbit fur. They used to keep spun fur carrying it around with them. What did they spin it from? They would spin it from **rabbit fur** and make fur adornments.*

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *yungkaṉi*

Crucially, the relevant description is not just 'fronting' in the sense of necessarily being the first element in the clause. Consider the question-answer pair in (173).

(173) Yaalytji-ngka nyina-payi kulyirrtji?
where-LOC sit-HABIT budgerigar

"Kulyirrtji watiya-ngka nyina-payi, iṯara-ngka".
budgerigar tree-LOC sit-HABIT tree.type-LOC

(Source translation:)"Where does the budgerigar live?" "Budgerigars live in river red gum trees."

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kulyirrtji*

As an answer to the question, the focus is *watiyangka*, 'in trees'; this element is not fronted in the sense that it appears first in the clause, as it appears behind the topic, *kulyirrtji* 'budgerigar.' The ordering of topics and foci in the left periphery means that topics precede foci, but this is compatible with speaking of the 'fronting' of focused elements. This ordering carries across particularly to Bowe's (1990) description of Pitjantjatjara clause structure.[24]

However, fronting in these environments is not obligatory; focused elements can sit lower in the clause like non-focused elements. For example, the following sentences represent two environments typically assumed to encode focus– contrastive environments and answers to *wh-* questions, respectively. In neither of these cases is the focused element (in bold) fronted.

(174) a. Context: Playing the game *Guess Who?*
Wiya ngayulu kanyi-n̤i kungka... Ngayulu kanyi-n̤i **wati**.
NEG 1SG.ERG have-PRS woman 1SG.ERG have-PRS **man**
I don't have a woman... I have a man.

JAG1-Storyboard-20200305_MANG; 11.11–11.20

b. Context: From the Binoculars storyboard (Gray, 2019a); a woman has asked a man who has a pair of binoculars what is sitting next to a tree in the distance. After taking a look, the man tells her:
Ngayulu nya-nganyi **papa** nyina-nyi-ngka.
1SG.ERG see-PRS **dog** sit-PRS-LOC
I see a dog sitting there.

JAG1-Storyboard-20200306_MA2; 1.32–1.37

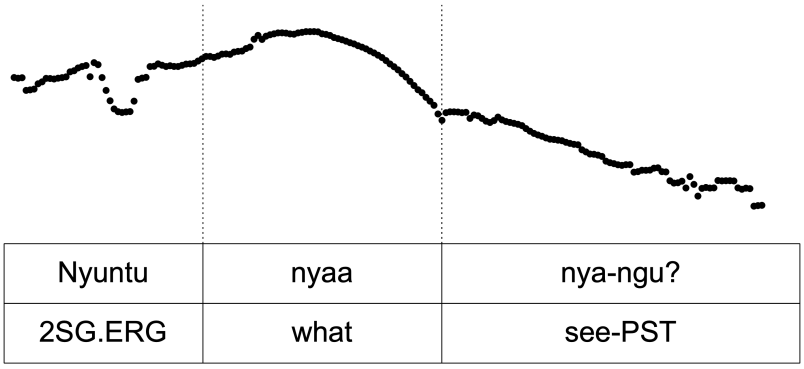
Similarly, note too that the focused examples given by Douglas (1964) in (169) above are also not fronted. *Wh-* words are also not required to be clause-initial– also seen in Bowe's (1990) Pitjantjatjara examples above in (170) and (171), where neither *nyaa* 'what' or *ngananya* 'who.ACC' are in an initial

[24]Cf. also comparable discussions for Warlpiri clause-initial positions (Laughren, 2002; Legate, 2002; Simpson, 2007).

position. *Wh-* words can appear in various places in the clause,[25] but where ever they sit in the clause they attract particular intonation, as shown by the pitch contours in (175).

(175) Prompt: 'What did you see?' *(Elicited)*

a.

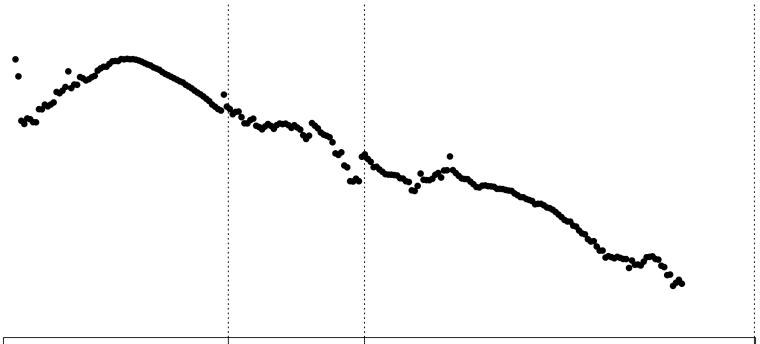


Nyuntu	nyaa	nya-ngu?
2SG.ERG	what	see-PST

JAG1-Elicitation-20200307_NA; 06.29–06.31

b.

[25]We won't be investigating uses of *wh-* words as indefinites (cf. e.g. Bowler, 2017 for Warlpiri), as it is unclear the extent to which this is possible. Some discussion with speakers suggests that they can be used in this way, but I have never seen or heard *wh-* words used as indefinites in texts or speech. As such, this will have to be left for future investigation. A difference to Warlpiri *wh-* words is that in Pintupi-Luritja they do not have to be fronted but can maintain this reading as a *wh-* word.



Nyaa	nyuntu	nya-ngu?
what	2SG.ERG	see-PST

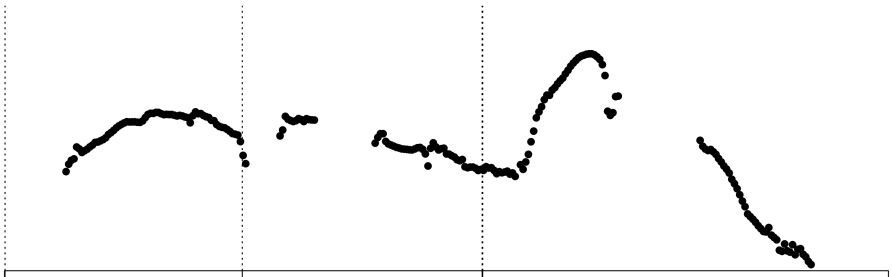
JAG1-Elicitation-20200307_NA; 06.27–06.29

In (175a), *nyaa* 'what' follows the subject, but is marked with a higher pitch; in (175b), *nyaa* is clause-initial, and similarly attracts the higher peak. The speaker produced these clauses one after another to demonstrate that both orderings were possible.

These patterns suggest that focus is realised through a combination of intonation and syntactic ordering in Pintupi-Luritja. This applies not only to *wh-* words, but can be seen with focus marking more generally. In some cases, the marking is primarily intonational, as (176).[26] In (177) however, we see that focus realisation is both syntactic (through fronting), as well as intonational (targeted by higher pitch).

(176) Context: Speaker (MA): If you say *Ngayulu kutjaṉu* ('I cooked')– "What did you cook?" *Ngayulu kutjaṉu wipu!* ('I cooked kangaroo tail!')

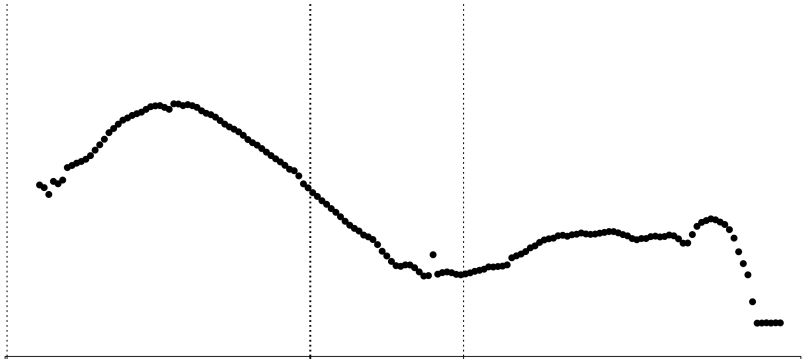
[26]Here, the speaker MA wanted to demonstrate a question-answer pair, and did so with this mini-dialogue that she played out with herself, switching between Pintupi-Luritja and English. Greyed-out sections are my translations of the Pintupi-Luritja.



Ngayulu	kutja-ŋu	wipu
1SG.ERG	cook-PST	tail

JAG1-Elicitation-20200317_MANG; 30.07–30.13

(177) Context: Playing *Guess Who?* Immediately before this utterance, the other player asked (in Pintupi-Luritja) 'What have you got there, a woman?'



Ula	=ŋa	kanyi-ŋi
boy	=1SG.Subj	have-PRS

JAG1-Storyboard-20200314_LNRNA; 00.52–00.53

(178) (= 177)
Uḻa=n̪a kanyi-n̪i.
boy=1SG.Subj have-PRS
I have a boy.
I have [a BOY*]$_F$*

The nature of these interactions between intonation and syntax with respect to information-structural notions is at present not understood at all in Pintupi-Luritja, nor in Australian languages more generally. Syntactic means appear to be in any case not necessary to encode focus.

In a number of ways, the description here for focus marking in Western Desert languages has parallels with focus marking strategies across Australia, as far as current research understands it. For example dedicated syntactic positions for focused (or at least information-structurally relevant) elements is seen elsewhere– both more regionally within Central Australia and further afield. We noted in previous chapters that Warlpiri in particular has been the focus of a number of intense studies into information-structurally relevant clause-initial syntactic positions (Swartz, 1988; Laughren, 2002; Legate, 2002; Simpson, 2007; Simpson & Mushin, 2008). Similar reports of the relevance of information-structural notions (including focus) have likewise been noted as relevant for word ordering in languages right across the continent (e.g. Blake, 1983, 3; Hale, 1983; Austin and Bresnan, 1996; Austin, 2001; Singer, 2005; Mushin, 2005a, 2005b, 2006; Simpson and Mushin, 2008; Bowern, 2012); as Simpson and Mushin (2008) note, the relevance of discourse-related factors for word ordering has been recognised since at least 1840 in discussion of Kaurna (Teichelmann & Schürmann, 1840). Often these word permutations are discussed on the clausal level, but some studies have been restricted to e.g. the nominal domain, showing the relevance of these notions there as well (Louagie & Verstraete, 2016; Reinöhl, 2020; Kapitonov, 2021b). Despite variation in the details of how languages encode information-structural notions, initial (and near-initial) positions are consistently an important factor in these reports, although researchers may disagree on analyses. Likewise the role of intonation (Jepson, 2019) and the interplay of intonation and syntax in the expression of information-structural notions has also been reported elsewhere in Australia (e.g. in Mawng, Singer, 2005), but remains an understudied aspect of many Australian languages.

Although this description of focus realisation in Pintupi-Luritja has been kept brief, we can note at least intonational and syntactic aspects of how focus is realised. We might wonder about its relevance for influencing the form of the focus associates of the FSEs under discussion in this chapter. I have no intonational information about many of the example sentences in this chapter as so many come from written sources; but on the syntactic side, we can say that there is no requirement that these phrases are fronted. *Kutju* phrases (exclusives) and elements with *-ṯarra* (additives) can sit in several places in the clause, and they do not have to appear clause-initially.[27] There is only one apparent implication of

[27]This flexibility of clause-position possibilities for the FSE and its focus associate is interesting to compare with other languages; Nordlinger (1998a: 206) for example notes that the Wambaya clitic *=nima*, which appears to cover an exclusive reading among others, and the element it attaches to (and associates with) is "usually, but not always, clause initial."

the syntactic position of these FSEs and their focus associates, and that has to do in some cases with establishing scope relations with other scope-bearing elements; more on this in section 6.3 and chapter 8.

Chapter 5

The exclusive particle *kutju*

In light of the considerations throughout chapter 4 we will now examine the Pintupi-Luritja particle *kutju* with regards to its semantics, syntax, and how it interacts with negation. There are few dedicated in-depth studies of exclusive particles/elements in Australian languages generally– McConvell (1983) and Evans (1995) being some of the few exceptions,[1] although there is often some shorter discussion of exclusive-like elements in individual grammars.[2] The understanding of how these elements associate with larger focus associates and the concomitant ambiguities will be examined here as well, and also how these phrases interact with negation as a scope-taking element, and how this interaction is encoded syntactically. These issues will be explored in the spirit of the discussions of focus, alternatives, syntactic relations between FSEs and focus association etc. as discussed in the previous chapter.

This chapter is organised as follows: firstly we will examine the semantics of *kutju* and the different readings associated with it. Then we will discuss the syntax of the particle and how it relates to its focus associate. Semantic and syntactic interactions with negation are explored in the following chapter. These chapters paint a complex picture of how *kutju* is integrated into the clause; we will see that placement is syntactically very regular, with concomitant semantic readings that depend on its placement. However we also see that there are a few clause types where this consistency of placement breaks down– for finite verb phrases the position of *kutju* is apparently obligatorily shifted away from what is otherwise expected, and with medial verb clauses the same occurs apparently optionally. We will also see the intricacies of how *kutju* interacts with negation, building on our descriptions of negation generally in chapter 3, as well as some idiosyncrasies that arise in particular configurations.

[1] McConvell (1983: 30f) in fact compares the Gurindji situation with exclusives in some other languages, including three of the more northern Western Desert languages– Manjiljarra, Kukatja, and Wangkajunga. He notes a free particle *yumu* and a suffix *-wiyaju* as taking on exclusive readings; neither of these are familiar to me in Pintupi-Luritja in those forms (although Hansen and Hansen (2022) do list *kutjuwiyatju*, and *yumu* as meaning 'unconcerned; care-free'; one could imagine a relation between this meaning and some uses of exclusives, e.g. English 'just'), but *-wiyaju* looks very similar in form and function to McConvell's examples of how *wiya kutju* works in Pintupi-Luritja– see discussion in chapter 6 and particularly footnote 4 in chapter 6.2.

[2] E.g. Wilkins (1989: 350), Nordlinger (1998a: 205ff), Evans (2003: 600f), Bowern (2012: 583ff), Meakins and Nordlinger (2013: 381ff) Austin (2021: 177ff), Gaby (2017: 103), Kapitonov (2021a: Ch. 6.4.6), Ennever (2021: 624f), Meakins and McConvell (2021: Ch. 10.1.5) a.o.

5.1 The semantics of *kutju*

We saw in the introduction that *kutju* appears to function as an exclusive particle. Here are some further examples corroborating that we should treat *kutju* as such.

(179) ***Kutju* as an exclusive particle**

a. Kuka piitji=latju tiipiyi-ngka nya-kupayi, ngurrpa-lu.
meat fish=1PL.excl.Subj tv-LOC see-HABIT ignorant-ERG

Kuntupuḻapuḻa **kutju** nyina-payi karru puḻka-ngka.
tadpole **only** sit-HABIT creek big-LOC

(Source translation:) We see the meat called fish on the TV, but we don't see them elsewhere. There are only tadpoles (we see) living in the pools of big creeks.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *karru*

b. Mangarri ngaatja pikipiki tjuṯa-ku **kutju**, wiya nyuntupa=nta.
food DEM pig many-DAT **only** NEG 2SG.DAT=2SG.Obj

This food is only for the pigs, not for you.
(Source translation:) He would gladly have filled his stomach with the pods that the pigs were eating, and no one gave him anything.

Luukaṉu/Luke 15:16 (Bible Society of Australia, 2006)

c. Prompt: Only adults can drive a car.
Aṉangu tiṉa-ngku **kutju** mutukayi trayip-mila-lpayi.
person big-ERG **only** car drive-LOAN-HABIT

Only big people drive cars.

JAG1-Elicitation-20200317_MANG; 32.55–33.00

These are clearly exclusive meanings; for these, we will assume that *kutju* is similar to exclusive particles in other languages in that it presupposes the truth of the proposition without the particle, and it asserts that all alternatives to the focus associate are false (e.g. Horn, 1969; Rooth, 1985, 1992). To take an example from (179c), *Aṉangu tiṉangku kutju mutukayi trayipmilalpayi* 'Only adults drive cars' presupposes that *Aṉangu tiṉangku mutukayi trayipmilalpayi* 'Adults drive cars' and asserts that for no relevant alternatives to adults is that also true (i.e. children).

Like the behaviour of exclusives in many other languages, *kutju* also covers some related meanings–aside from functioning as an exclusive particle it also means *one*, and is used both as a cardinal number and in a similar fashion to an indefinite determiner.[3] In this use, *kutju* can either directly follow the noun phrase it relates to (180a, 180b), or can stand alone (180c, 180d).

[3]Unfortunately I do not have enough data to discuss issues of specificity with *kutju* indefinites.

(180) ***Kutju* meaning 'one' or as an indefinite**

a. Kungka **kutju**-ngku nya-ngu waru puyu waṉma-lingku kampa-nyi-ngka.
woman **one**-ERG see-PST fire smoke far-INTENS burn-PRS-LOC
A woman saw smoke burning far off in the distance.
(Source translation:) Then one of the women saw some smoke in the distance.
Maamangku Ngurriṉingi Palumpa Yuṉṯalpaku (Ferguson, 1987b)

b. Wati **kutju**-ngku nya-ngu rumiya kutjarra ngara-nyi-ngka.
man **one**-ERG see-PST goanna two sit-PRS-LOC
A man saw two goannas sitting.
Tjakulpa Kuwarritja Warumpi Kuulaku (June 1999, p. 21)

c. Ngayulu kuli-ṉi, **kutju** ngaa-ngka nyina-nyi mamu-ku walytja.
1SG.NOM think-PRS **one** here-LOC sit-PRS devil-DAT family
I think, (some)one here is (part of) the devil's family.
(Source translation:) Yet one of you is a devil.
Tjaanakuṉu/John 6:70 (Bible Society of Australia, 2006)

d. Paluru ila-rri-ngkula, ila-rri-ngkula, **kutju** kultju-ṉu, kuunyi!
3SG.NOM near-INCH-MV near-INCH-MV **one** swallow-PST poor.thing
(Source translation:) A big hungry snake came along and looked. "Wow! Here are 5 frogs sitting on a log." He moved closer and closer and ate one. Poor thing!
Ngaṉṉgi rakapala pilkaṯingku kultjuṉu (Nakamara Nelson [translator], 1986)

Kutju can also be used as an adverbial meaning 'alone', or 'together' as in the following examples.[4] Like other adverbials, it bears ergative marking if the subject is transitive (181b). It can also host elements like the intensifier *-lingku* (181e). In this use it does not attach to any element, and appears free in the clause.

[4]Also sometimes 'the same.' All of these are clearly related to 'as one', or 'in a singular manner.' This is the aspect of meaning that allows it to cover both 'alone' and 'together.' Note too that *kutju* is not the only word meaning 'alone'; Hansen and Hansen (2022) also list *angaḻu*. The semantics of 'only' and other exclusives overlap to a great deal with an adverbial 'alone', in that both cases involve an exclusion of others/a singularity of the associated element. There has however been some work that has suggested that they can be teased apart in meaning, e.g. Windhearn (2021: Ch. 4). Essentially we can assume that adverbial 'alone'/*kutju* does not associate with focus alternatives like exclusives etc do– it is instead a secondary predicate of manner. As it does not associate with focus, it is not subject to the same syntactic constraints that regulate the placement of other uses of *kutju*. This point will be reinforced throughout the next few chapters.

(181) a. Kungka ngaatja yiwarra-ngka **kutju** ya-nyanyi.
girl DEM road-LOC **alone** go-PRS
(Source translation:) This girl is walking along a track on her own.
Luritja Picture Dictionary (Hansen et al., 2011: 91)

b. Munturrpa wiya-rri-ngku-nytja-ngka paka-ra yun̲tun̲a-ngi **kutju**-ngku, kuunyi.
motor.purring NEG-INCH-AUG-NMLZ-LOC arise-MV push-PST.CONT **alone**-ERG poor.thing
(Source translation:) Because the engine stopped, this man has been pushing the car on his own, the poor fella.
Luritja Picture Dictionary (Hansen et al., 2011: 127)

c. Alatji pirinypa kuli-lku "Wati nyarratja **kutju**."
thus SEMBL think-FUT man DEM **alone**
(Source translation:) The kadaicha will think like this, "That man is on his own."
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *alatji pirinypa*

d. **Kutju**=n̲a ngayulu pitja-la ya-nkupayi.
alone=1SG.Subj 1SG.NOM go-MV go-HABIT
(Source translation:) Like this, I often went alone for tjilkamat̲a. [Echidna]
Tjilkamat̲a/Echidna, from Kuka: Pintupi Animal Foods (Namararri Tjapaltjarri et al., 1989)

e. Irrit̲i ulkumanu kutju nyina-payi. Paluru **kutju-lingku** malpa wiya nyina-payi.
long.ago old.woman one sit-HABIT 3SG.NOM **alone-INTENS** spouse NEG sit-HABIT
Long ago there lived an old woman. She was completely alone, with no spouse.
(Source translation:) A long time ago there lived one old woman. She always lived by herself.
Tjakulpa Wilurarra An̲anguku: NT Western Desert Schools Newsletter (No. 1, November 1988, p.26)

The adverbial 'alone' *kutju* does not have the same syntactic requirements that exclusive and indefinite *kutju* do (to be explored more in section 5.2). This can sometimes lead to ambiguities in which role *kutju* is playing in the clause. In (182) for example, *kutju* immediately follows the subject; the translation suggests that this is the adverbial use of *kutju*, but based on its position in the clause, it could be indefinite or exclusive *kutju* as well ('a child', or 'only the child'). This kind of ambiguity in the

role of *kutju* (as an exclusive particle, an indefinite, or as an adverbial) will be shown to be crucial for predicting the behaviour of *kutju* in the clause.

(182) Pipirri **kutju** nyina-nyi mal̲pa-wiya.
child **alone** sit-PRS company-NEG
(Source translation:) The child is sitting alone without any company.
Luritja Picture Dictionary (Hansen et al., 2011: 132)

The Pintupi-Luritja dictionary (Hansen & Hansen, 2022) lists a number of related forms which are derived from these basic meanings surrounding singularity; for example *kutju iitji* 'one by one' (*lit.* 'one each'), *kutju kutu* 'exactly the same, identical', *kutjukutjungkarrinyi* 'gather together, assemble', *kutjumaṯa* 'irreplaceable, essential', *kutjunngururrinyi* 'become scarce', *kutjungkananyi* 'gather together, heap up', among others. I consider these sorts of examples as ultimately derived from the sorts of semantics of *kutju* we have discussed above, so won't concentrate too greatly on these various forms.

5.1.1 Scalar and temporal readings

It has also been noted that exclusive particles often have a series of related but slightly different uses to just asserting that no other alternatives are true. Aside from the exclusive reading that we have discussed so far, these particles are often associated with so-called scalar readings, such as in (183), where it is understood that the associate is relatively low-ranked in some regard compared to other alternatives (often understood to mean 'not as good', or 'easier to attain'); and a temporal reading, such as (184), where the associate is a point in time, which is likewise considered low-ranked (in terms of perhaps expectation– generally this means that it is considered late), or can be used to emphasise the immediate recency of the sentence.[5]

(183) I only won the bronze medal.
⇝ I won the bronze medal;
⇝ The bronze medal is not as good as other alternatives

(184) a. She only realised the importance of the finding in the mid 1970s.
⇝ She realised the importance of the finding in the mid 1970s;
⇝ The mid 1970s is considered rather late in the context

b. I only finished that book yesterday.
⇝ I finished that book yesterday;
⇝ Yesterday is considered recent in the context

[5]In English this usage is more naturally felt with *just*, which while being an exclusive particle (*I just ordered a coffee, not a whole meal*) lends itself more naturally to these temporal immediacy readings, like *I just arrived half an hour ago.*

There is discussion in the literature about how analyses should capture the relation of readings like these to exclusive readings, the nature and organisation of the alternatives involved, and their relation to the differing behaviours of various exclusive particles besides *only*, like *just* and *merely* (Coppock & Beaver, 2014; Windhearn, 2021). A common thread in these discussions focuses on the types of alternatives that are evoked, and how they relate to each other. These are often questions of mutual exclusivity or entailment; for example, under normal circumstances if you win one of the medals you can't win any of the others as well (i.e. you can't win both bronze and silver in the same race). This factor is particularly strong with numerals. If I tell you *I only have* THREE *children*, alternatives to *three* will be other numerals (i.e. signalling that *I don't have four children*, for example). However it cannot be that *all* other numerals are being negated here, because numerals entail all those lower than themselves– if I have three children, it is necessarily true that I also have two children, and that I have one child. For this reason, the assertion of exclusive particles is in fact not that they negate *all* alternatives to the focus, but that they negate all alternatives that are not entailed by the focus. This means that in our children example, *only* will only negate alternatives higher than three, since those lower than it are entailed by it.

However entailment is not the only relevant notion in these cases– e.g. winning a silver medal does not (in fact cannot) entail winning a bronze medal. Scales are often invoked to help explain these cases, with exclusives negating elements lower than the focus associate on the relevant scale. These scales can be defined by way of entailment (like Horn scales), or by a more generalised rank ordering e.g. of relevance or importance (Beaver & Clark, 2008; Coppock & Beaver, 2014). This would mean that whereas winning a silver medal does not entail winning a bronze medal, it surpasses bronze on a scale of achievement. This in turn then often comes with an evaluative connotation– if you're signalling that the focus associate is low on some contextually relevant scale, then this is often conveyed as meaning that it is not as good.[6] If I tell you that *I only won the bronze medal*, you will presumably know from your world-knowledge of medal ceremonies that I didn't win any of the other medals additionally. The function of *only* here in negating these other alternatives appears redundant; pragmatic signalling of the bronze medal's relative lowness on the scale of medals leads then to a negative evaluation of my winning the bronze.

Languages often lexicalise these readings (exclusive, scalar, temporal) in different ways– it is not at all the case that they are necessarily lexicalised with the same particle as is the case with English *only*. There is slight variation in what these kinds of particles do in various languages. For example Dutch lexicalises exclusive readings with *alleen*, the scalar reading with *maar* or *slechts*, and the temporal reading with *pas* (Hoeksema & Zwarts, 1991; Neeleman & van de Koot, 2021). We therefore cannot assume that an exclusive particle in a given language will necessarily be able to express all the readings that we find with e.g. English *only*, which happens to lexicalise all three readings. As it happens though, *kutju* also appears to lexicalise all three readings, with some reservations (to be discussed).

[6] Or not as bad, depending on what the scale is; e.g. *I'm sorry I won't make it, I'm sick– but don't worry, it's only a cold.* That is, it's a cold but nothing worse– nothing that outranks it on the scale of seriousness for being sick.

Relatively clear for *kutju* are the temporal readings (185), which include both the immediacy readings (185a, 185b) and the relatively late readings (185c, 185d), although they are not always easy to tease apart.

(185) **Temporal *kutju***

a. **Kuwarri kuwarri kutju** kaantji-ngka tjarrpa-ngu.
now now only guernsey-LOC enter-PST
(I) only just today put on the guernsey (for the first time).
JAG1-Story-20200317_MANG2; 3.12–3.15

b. Tjana **ngula kutju** ngayu-nya nya-ku.
3PL.ERG **later only** 1SG-ACC see-FUT
Only later will they see me.
(Source translation:) For I tell you, you will not see me again until you say, 'Blessed is the one who comes in the name of the Lord.
Maatjuwukuṉu/Matthew 23:39 (Bible Society of Australia, 2006)

c. Ngurra tjana-mpa waṉma-lingku, tjana **kuwarri kutju** nya-ngu ngurra ngaatja.
home 3PL-DAT far-INTENS 3PL.ERG **today only** see-PST place DEM
Their home is very far away, they saw this place only today.
(Source translation:) Their place is a long way away and this is the first time they have seen this place.
Warumpinya ngurrara kuulaku piipa: Papunya school paper (September 1986, p.20–21)

d. **Mungarrtji kutju**=latju ngalya a-nkupayi, anta munga-ngka nganaṉa
late.afternoon only=1PL.Subj hither come-HABIT CONJ night-LOC 1PL.NOM
tjarrpa-ngu, ngurra-ngka.
enter-PST camp-LOC
(Source translation:) Only in the late afternoon would we travel back, and we would enter camp when it was dark.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *anta*

In these examples, *kutju* is associating with words that relate to time: *kuwarri (kuwarri)* 'today, now', *ngula* 'later, by and by', and *mungarrtji* 'late afternoon.' However this temporal reading also occurs when the associate is an entire temporal adjunct, with an event whose timing is prominent in the context or an important aspect of the proposition; the use of *kutju* here similarly means something

like *only from the point of this event onwards*, i.e after this event. Examples such as these where *kutju* attaches to a clause describing an event can also be understood as having a temporal reading.

(186) a. Kala, **Puula-nya mirri pu-ngkula kutju** nganana mangarri ngalku, kapi
ok **Paul-ACC dead strike-MV only** 1PL.ERG food eat.FUT water
tjiki-lku.
drink-FUT
*Ok then, **only having killed Paul** will we eat food and drink water.*
(Source translation:) In the morning the Jews joined in a conspiracy and bound themselves by an oath neither to eat nor drink until they had killed Paul.
Tjakultjurinkunytja/Acts 23:12 (Bible Society of Australia, 2006)

b. Katutja-lu yirriṯi watja-ra wanti-rri-ya-ṉu-tja, **Kurayitja-nya nya-kula**
God-ERG long.ago say-MV leave-INCH-?-PST-NMLZ **Christ-ACC see-MV**
kutju, nyuntu=n mirri-rri-ku.
only 2SG.NOM=2SG.Subj dead-INCH-FUT
*Long ago, God, speaking, sent out (the message), you will die **only having seen Christ**.*
(Source translation:) It had been revealed to him by the Holy Spirit that he would not see death before he had seen the Lord's Messiah.
Luukaṉu/Luke 2:26 (Bible Society of Australia, 2006)

Kutju can also associate with words that indicate moments in time without exhibiting a temporal reading in the sense discussed here; they can also have an exclusive reading, as in the following example.

(187) **Irriṯi kutju**=latju a-nkula Patjila tiṉa nyarra-kutu, alinytjarra.
long.ago only=1PL.excl.Subj go-MV Batchelor large DEM-ALL north
(Source translation:) It is now a long time back that we used to go north to the main Batchelor College.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *alinytjarra*

Here, *kutju* is associating with *irriṯi* 'long ago', but is saying that long ago is the only time where they went north to Batchelor college (i.e. as opposed to recently). This is a purely exclusive reading, which just happens to apply to a time-denoting element.

Whether *kutju* by itself allows scalar readings is less clear; some examples do seem to show this reading.

(188) **Scalar examples of *kutju***

a. Context: Discussion about the speaker's first ever game of football. The previous sentence spoken by the other speaker was suggesting he might have been afraid of all the other big

players.
Yuwa, yaṉangu gianta tiṉa tjuṯa-ku, ngayulu wiima-lingku **kutju**. Ngayulu
yes person giant big many-DAT 1SG.NOM little-INTENS **only** 1SG.ERG
nya-ngu, ngayulu nguḻu-rri-ngu.
see-PST 1SG.NOM afraid-INCH-PST
(Free translation:) Yes, (I was afraid of) all those big blokes; I'm only little. I saw (them), I became frightened.
JAG1-Story-20200317_MANG2; 02.26–02.34

b. Ngayulu kutju **kutju** manti-ṉu.
1SG.ERG one **only** get-PST
I only got one.
(Speaker comment:) I only got one! And not three of them.
JAG1-Elicitation-20200317_MANG; 11.11–11.14

c. Kungka paluru mirri-wiya kutu ngarri-nyi, yanku **kutju** ngarri-nyi.
girl DEM dead-NEG continually lie-PRS asleep **only** lie-PRS
That girl isn't lying dead, she's only asleep.
(Source translation:) Go away, for the girl is not dead but sleeping.
Maatjuwukuṉu/Matthew 9:24 (Bible Society of Australia, 2006)

d. Yilyuḻpa waṯa ngara-nyi, mayi-tjarra-wiya waṯa **kutju**.
Yilyuḻpa tree stand-PRS veg.food-COMIT-NEG tree **only**
(Source translation:) Yilyuḻpa is a shrub which has no berries on it, it's just a tree.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *karrpiṉi karrpiṉi*

Here, we see examples like *only little, only one, only asleep*,[7] and *only a tree*. Examples can be ambiguous between exclusive and scalar readings. This can be difficult to tease apart when alternatives are not mutually exclusive– e.g. in (188d), being a tree is compatible with being a fruit-bearing tree, whereas being a fruit-bearing tree entails being a tree. The *kutju* in (188d) then seems to be saying that while *yilyuḻpa* is a tree, it is nothing more (i.e. not a fruit-bearing tree).

However not all evaluative examples were accepted immediately in discussion. Sometimes, like in the following example, uses of *kutju* were clearly understood as only being purely exclusive– that no other relevant alternatives are true. Speaker discussion on this point is enlightening to what the

[7] I.e. only asleep, but not dead. These are not related by entailment of course, but instead are arguably related on a scale of (un)consciousness or the like, where being asleep outranks being wide awake, and death outranks sleep. The girl here is asleep, but not more than that on the relevant scale.

possible readings are. Note that in response to the prompt, the speaker does not use *kutju* at all in the sentence.

(189) PROMPT: They're not men, they're only children.
Tjana wiya wati, tjana pipirri wiima tjuṯa.
3PL.NOM NEG man 3PL.NOM child little many
(lit. They're not men, they're children.)

(JG:) You know how you can go "Oh they're only children, not men."
(MA:) *Tjana wiima tjuṯa, tjana wiya wati* (They're children, they're not men)
(JG:) Yeah. But not *Tjana wiima tjuṯa kutju*? (Attempted: They're **only** children)
(MA:) *Tjana wiima tjuṯa kutju*... If you say, if you wanna say *Tjana wiima tjuṯa kutju*, there is might be groups of kids playing on the road, and you might say "Oh, there's no adults, no bigger people, but there's only kids around." … "No adults, no other teenagers, but only kids."
JAG1-Elicitation-20201207_MAHGDG; discussion from 7.04–9.17

Scalar or evaluative uses of *kutju* instead appear to generally use a slightly modified expression: *wiya kutju*. Although this is a combination of the negative particle *wiya* with *kutju*, this combination does not appear to encode negation at all, but is an evaluative or scalar use of *kutju* (cf. English *merely*). As such, *wiya kutju* does not appear to be compositional, building on the meanings of the two elements involved.

(190) Waru wiima **wiya kutju** ngaatja kampa-nyi.
fire little **NEG only** DEM burn-PRS
(It's) just a little fire burning here.
JAG1-Story-20201205_MA; 00.35–00.39

This phrase is also compatible with temporal readings (191a), and can also co-occur with *kutju* (191b)– in this example, *kutju* means 'one.'

(191) a. Wiima **wiya kutju** Paul Parker ngalya-nkula watja-n̪u VJD panya
little **NEG only** Paul Parker hither.come-MV say-PST VJD PRT
Yalatjupuringi-lakutu wayilatja-ngka.
Alice.Springs-ALL wireless-LOC
Just a little (time later), Paul Parker, coming back, spoke to VJD, you know, to Alice Springs on the wireless.
(Source translation:) A few minutes later Paul Parker came back and called VJD in Alice Springs on the radio.
Tjakulpa (November 1981, p.18)

b. Nganaṉa hotel-angka nyina-ngu munga **kutju wiyakutju**.
1PL.NOM hotel-LOC stay-PST night **one NEG.only**
We stayed at a hotel for just one night.
(Source translation:) We stayed at a hotel for one night.

Papunya news (November 1994, p.3)

This expression is discussed in more detail below in section 6.2, where the role of negation is investigated in more depth, and its status as one unit or two.

Despite the existence of *wiya kutju*, and barring some uncertainties like in (189) above, it seems that *kutju* in general is able to express scalar readings by targeting alternatives that form part of a scale; compare the following example, from the transcription of the recording that (190) above is taken from.

(192) Context: Transcribing the sentence in (190)
Waru wiima **wiya kutju** ngaatja kampa-nyi.
fire little **NEG only** DEM burn-PRS

(JG:) How does it sound if you say– can you say *Waru wiima kutju*?
(MB:) Yeah, *Waru wiima kutju kampanyi*, like, 'There's only a little fire!' …
(JG:) Does it sound the same to say, if I say– I'll say these two ones, *Waru wiima wiya kutju*, and *Waru wiima kutju*.
(MB:) *Waru wiima kutju*.
(JG:) Do they sound the same?
(MB:) Same, yeah, Luritja.

JAG1-Story-20201207_NG; 06.43–07.12

Any variation in how a scalar *kutju* might or might not differ from *wiya kutju* is unclear at the moment.[8]

Finally, there are glimpses that another type of reading is possible with *kutju*, termed minimal sufficiency readings (Grosz, 2012; Coppock & Beaver, 2014; Coppock & Lindahl, 2014; Panizza & Sudo, 2020). Up until now, we have seen examples where the exclusive particle asserts that all other alternatives are false (or at least all relevant/non-entailed alternatives). In minimal sufficiency readings of exclusive particles, the exclusive in fact asserts that at least one other alternative is also *true*. Minimal sufficiency readings are therefore surprising given the semantics we typically ascribe to exclusives. These are most prominent in English with *just*, which is also generally an exclusive particle.

(193) Just a breeze would topple that tower.

[8]Note the speaker in (190) is not the same person as the transcriber in (192). I'm not sure whether the *Luritja* at the end of (192) is meant to contrast Luritja to e.g. Pintupi, or just to agree that that's how it's said in Luritja.

This is not saying that a storm or a good push would *not* topple the tower— it is saying that a breeze would be enough. That is, a breeze will topple it, *and* other things would topple it too– at least one of the alternatives is also true.[9] The focus associate in these cases should be low-ranked in some sense; this can be seen by the infelicity of this example when it is assumed that the associate should be high-ranked.[10]

(194) # Just hitting a massive iceberg at full speed will sink this ship.

Contexts like this basically necessarily revert the reading back to an exclusive reading– that hitting a massive iceberg at full speed is the only thing that will sink the ship (i.e. nothing else will).

Some rare examples of *kutju* also appear to give minimal sufficiency readings.

(195) Palu-mpa kuuta **kutju**=n̲a pampu-ra pika-wiya-lpi=n̲a kuwarri nyina-ku.
3SG.DAT coat **only**=1SG.Subj touch-MV sick-NEG-then=1SG.Subj now sit-DAT
Merely having touched his coat, I will then now be without sickness (i.e. be healed).
(Source translation:) If I but touch his clothes, I will be made well.
Maakakun̲u/Mark 5:27-29

The example in (195) is not saying that touching his coat will heal me but nothing else will; surely him laying hands on me, speaking to me, etc. would similarly heal me as well– this is then not an exclusive reading. It is saying that touching his coat is *sufficient* for the healing to take place, and also that this act would appear to be low-ranked on the scale of healing acts. It appears then that *kutju* also delivers minimal sufficiency readings.

This section showed an overview of the sorts of readings associated with *kutju*. Aside from exclusive readings we saw evidence that it is sometimes used with temporal and scalar readings, although the scalar readings did not always appear to be available. This may be due to the availability of *wiya kutju*, which appears to have an evaluative part in its meaning much more clearly. Minimal sufficiency readings were also discussed. Aside from these uses as a FSE, we saw that *kutju* also means *one* (used both numerically, and like an indefinite article), and as a kind of manner adverb comparable to *alone*. *Kutju* therefore shows a great parallelism to exclusive particles in many languages. In the next section we will investigate how *kutju* syntactically relates to its focus associate.

[9] On the minimal sufficiency reading that is; these examples can also have a (somewhat bizarre) exclusive reading, whereby a breeze is the only thing that could topple it. This reading comes out more strongly with other exclusives like 'only': cf. *Only a breeze would topple that tower.*

[10] This sentence is hashed as a minimal sufficiency reading; of course an exclusive reading here is much better (and perhaps also the expected reading given our world knowledge).

5.2 The syntax of *kutju*

Like in many other languages, there is a syntactic relation between the exclusive particle in Pintupi-Luritja and its focus associate: *kutju* associates with material that directly precedes it, i.e. *kutju* right-adjoins to its focus associate.

(196) Tjinguru nyuntu mitjitjina-ku yuntju-rri-nyi?
maybe 2SG.NOM medicine-DAT desirous-INCH-PRS

tjiṉṯu-ngka **kutju** mantji-ntjaku, wiya munga-ngka.
day-LOC **only** get-PURP NEG night-LOC

Maybe you want medicine? (You) can only get it during the day, not at night.
[tjiṉṯungka]$_F$ kutju
(Source translation:) Please get your tablets during the daytime during the week – not at night or on the weekends.

Tjakulpa (February 1982, p.18)

As a short aside, it's worth noting the existence of another exclusive *uuni*/*yuuni* (from English 'only'), which has a different syntactic relation to its associate than *kutju*– namely it appears to (much like English *only*) precede its associate (197a). This can be seen in the following examples; note too that *uuni* and *kutju* can co-occur (197b), and that like *kutju*, *uuni* appears to also form a constituent with its focus associate, as suggested by the clitic placement in (197c). See arguments below for constituency involving *kutju*.

(197) a. **Uuni** anangu 30 pala art tjinta-ngka tjarrpa-ntjaku.
only person 30 CARD art centre-LOC enter-PURP
Only 30 people can enter the art centre.
(Source translation:) Only 30 people in the art centre at one time.

Photo of sign outside Papunya Tjupi Art Centre; 11 November 2020; see (394) in the appendix

b. **Uuni** kapi-tjarra **kutju** nyina-rra palya nyina-payi.
only water-COMIT **only** sit-MV good sit-HABIT
(Source translation:) It is only when they have water that they keep on living (lit. 'Only when having water do they live well')

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *iimiyu*

c. Wiya, parrka wiya, **uuni** tjiiṯa=**ya** ngalku-payi.
NEG leaves NEG **only** seed=**3PL.Subj** eat-HABIT
(Source translation:) They eat greenery and seeds– not leaves only seeds.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kaḻka 2*

Due to reasons of space and the relative lack of information about *uuni*, the remainder of the discussion here will focus only on *kutju*.

As seen throughout, *kutju* can associate with nominal and adjunctival focus associates; the question of verbal focus associates is a little trickier. Whereas *kutju* readily associates with various non-finite verb forms, as seen in (198), there is a dispreference for *kutju* to attach to finite verbs.

(198) a. **Purposive clause**

Tjuwu tjuṯa Muutja-ku luwu-wana tjukarurru nyina-nytjaku, wiya
Jew many Moses-DAT law-PERL correctly sit-PURP NEG

wati-rri-**nytjaku** **kutju**.
man-INCH-**PURP** **only**

Jews have to live correctly according to Moses' law, and not only become men.
(Source translation:) For a person is not a Jew who is one outwardly, nor is circumcision something external and physical.

Ruumalakutu/Romans 2:28 (Bible Society of Australia, 2006)

b. **Medial verb clause**

Ngula mangka-tjarra nyina-ku, kata-tjarra, tiṉa-rri-**rra** **kutju**.
later hair-COMIT sit-FUT head-COMIT big-INCH-**MV** **only**

(Source translation:) Later it [a baby] will have hair, but it only has hair when it gets bigger.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kata 2*

c. **Circumstantial clause**

Kapi-lu pu-**ngkunytja**-**ngka** **kutju**=latju ya-rra.
water-ERG hit-**NMLZ**-**LOC** **only**=1PL.Subj go-?IMP

(Source translation:) It was only when the rains fell that we would go.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kapingku punganyi*

See section 5.3 below for further discussion of *kutju* associating with non-finite verbs/verb phrases. Although relatively uncommon, there does not however appear to be a total ban on finite verbs serving as the focus associate as occasional examples do occur, such as the following (prompted/elicited) examples.

(199) a. PROMPT: Did you talk to the new shop owner? No, I only saw her.

Ngayulu palu-nya nya-**ngu** **kutju**.
1SG.ERG 3SG-ACC see-**PST** **only**

I only saw her.

JAG1-Elicitation-20201207_MAHGDG; 4.36–4.39

b. Nyuntu ngayu-nya rikuuta-mila-n̲i, or nyuntu ngayu-nya kuli-**n̲i** **kutju**?
2SG.ERG 1SG-ACC record-LOAN-PRS or 2SG.ERG 1SG-ACC listen-**PRS** **only**
Are you recording me, or are you only listening to me?
JAG1-Elicitation-20201207_MAHGDG; 4.57–5.01

However this is rare in texts, and prompts in elicitation were sometimes met with hesitation. The comparative paucity of examples in texts may be related to how often finite verbs generally serve as focus associates, or there may be a more general slight dispreference for other, language-internal reasons.[11] It is not that there are no examples of this, but in the Luritja Bible for example, there are only two examples of *kutju* immediately following a finite verb marking,[12] and both of these involve the verb *kuli̲ni* 'to hear, think, listen, understand, etc.' For comparison, searching for *kutju* immediately following the purposive suffix in the same corpus (as an example of just one non-finite verb form) returns ten examples.

Despite a dispreference for finite verb associates, *kutju* otherwise readily right-adjoins directly to its focus associate.[13] This behaviour of this tight and transparent syntactic relation to its focus associate suggests that exclusive *kutju* functions as a constituent focus particle, and cannot function as a sentential particle. The syntactic relation with its focus associate must always be transparent.[14]

[11] I.e. the issue might be more related to the finiteness of the verb, rather than something in the semantics of *kutju*. McConvell (1983) also notes that Gurindji *-rni*, which seems to include an exclusive reading among its uses, also cannot attach to an inflected verb.

[12] I.e. *-nu*, *-ngu*, *-n̲u*, *-n̲i*, *-nyi*, *-ku*, or *-ngi*; these are the shared endings that past, present, future, and past continuous forms share across the four conjugations. See chapter 2.4 for more details. These examples can be found in *Luukan̲u*/Luke 5:21 and 1 *Tjaanakun̲u*/John 5:9.

[13] At the moment I am using the term *right adjoin* as a linear description of placement; as we will see later, I will recast this in structural terms.

[14] A note to this; in elicitation about *kutju* I also worked with one speaker who is originally from Balgo, W.A., where Kukatja, another Western Desert language is spoken. From this speaker I occasionally heard structures of *kutju* placement that deviated from what I heard from other speakers and throughout the corpus, for whom *kutju* placement is consistently and transparently right-adjoined. This speaker in contrast would sometimes produce what seemed to me like English style placement of *kutju*, i.e. in something like second position; in any case, not right-adjoined to the focus associate. At the time I assumed that this was either influence from English (for this one speaker), or that perhaps I had structured the session badly, with too many similar examples one after the other that had confused the targeted contexts. See for example the following; there are other examples of this pattern in the same recording.

(200) Prompt: There are apparently black, white, and brown horses running around Papunya, but today I only saw black horses.
Ngayulu **kutju** nya-ngu kuwarri naanytja maru.
1SG.ERG **only** see-PST today horse black
Today I only saw black horses.
JAG1-Elicitation-20200317_MANG; 16.52–16.58

However, I checked for entries including *kutju* in the Kukatja dictionary (Valiquette, 1993); here, *kutju* placement indeed appears to be able to shift earlier in the clause to precede the focus associate, in addition to being able to follow it (see examples in (201) below). On the other hand, Kukatja *wiyayitju* (cf. Pintupi-Luritja *wiya kutju*) appears to be right-adjoined, based on only a handful of examples (202). FSE placement in Kukatja awaits deeper investigation, but these examples suggest that it is at least possible that this speaker reflects more Kukatja-style placement. This is speculative, but intriguing (thanks to Tom Ennever for discussion).

Clitic placement shows that *kutju* forms a syntactic constituent with its associate; clitics follow the entire focus associate plus *kutju* constituent.

(203) a. Yaṉangu palya kutju=**ya** ya-nku kakiṯikiṯi-wiya.
person good only=**3PL.Subj** go-FUT dazed-NEG
(Source translation:) Only strong people will go, not those who are feeling dazed.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kakiṯikiṯi*

b. Ngayulu kutju=**ṉa** inytjamitju-nanyi nyuntu wiya-kampa.
1SG.NOM only=**1SG.Subj** spread.blankets-PRS 2SG.NOM NEG-unexpectedly
(Source translation:) Only I am spreading out the blankets, on the contrary you are not (helping me).
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *inytjamitjunanyi*

c. Nyuntu-nya kutju=**ṉa=nta** wanti-nytjaku, palu-mpa miiṯa.
2SG-ACC only=**1SG.Subj=2SG.Obj** leave.alone-PURP 3SG-DAT spouse
Only you I am to leave alone, his spouse.
(Source translation): He is not greater in this house than I am, nor has he kept back anything from me except yourself, because you are his wife.
Yurruntitja/Genesis 39:9 (39:7–18) (Bible Society of Australia, 2006)

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(201) Kukatja (Valiquette, 1993)

a. Paluru **kutju mangarri** kati-ma kuka-parni-ngka, paluru **kutju mangarri**, wiya=n
3SG only veg.food bring-IMPF.IMP meat-PRIV-LOC 3SG only veg.food NEG=2SG.Subj
kuka palipu-ngu, **mangarri kutju** kati-ma.
meat find-PST veg.food only being-IMPF.IMP
(Source translation:) Bring only vegetable food. [Since] you did not find any animals, bring only vegetable food.

b. Wiya **kutju**-lu **nyuntulu**.
NEG **only**-ERG **2SG.ERG**
(Source translation:) Not only you (did it)

(202) Kukatja (Valiquette, 1993)
Wiya ngurlu-kutu, **puntu-ku wiyayitju**.
NEG sacred-ALL **man-DAT only**
(Source translation:) Don't go to a secret and sacred place, it's only for men.

d. Palu-nya kutju=**n** ngalku-nytjaku palya-lingku.
DEM-ACC only=**2SG.Subj** eat-PURP good-INTES
(Source translation:) That is the only thing that you eat; it's very good.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *wayitwana*

This syntactic behaviour of *kutju*– right adjoining to its focus associate, forming a syntactic constituent– is very regular, and holds not only with exclusive *kutju*, but also with indefinite *kutju*.[15] We will see in the following section 5.2.1 that these two uses are not completely syntactically identical in their finer nominal structure, but seen more coarsely at this level of detail, they behave identically. We have seen in previous sections that the adverbial 'alone' use of *kutju* has a different syntactic behaviour, and is much more free in where it can be positioned in the clause.

In terms of its position within the greater context of the clause, the *kutju* phrase itself does not appear to have any particular restrictions on where it sits in the clause. Although we are assuming it is focused, it does not need to be clause initial for example.[16] This is also in line with arguments from chapter 4.2, where we saw that focused elements in general can, but do not need to occur clause initially. The intonational aspects of these clauses and their relation to intonational focus marking in the language, although undoubtedly an important part of understanding this phenomenon, is unfortunately outside the scope of this thesis.

5.2.1 Case marking and constituency

We saw in the previous section that *kutju* right-adjoins to its focus associate and forms a constituent with it. Case marking also marks nominal constituents by attaching at their right edge, so it is worth elaborating on the relative ordering of *kutju* and case marking. Although clitic placement shows that the *kutju* and its associate form a constituent, we see variable positioning between *kutju* and case morphology for several cases. This variability correlates with whether *kutju* is being used as an exclusive or as an indefinite. With exclusive *kutju*, case marking occurs inside the *kutju* phrase, whereas with indefinite *kutju*, case marking right-adjoins to the whole *kutju* phrase. This shows that the two uses

[15] Note too that this analysis whereby *kutju* forms a syntactic constituent with its associate might predict that *kutju* cannot associate with clitics, since it is not clear that clitics are themselves capable of forming more complex constituents. However I have found a single example that suggests that this is possible; although in this case it is difficult to know whether *nyurrampa* is really functioning as a clitic, or as a free pronoun. The fact that pronomial clitics tend to resist focus in general (e.g. see discussion in Cardinaletti and Starke, 1999) might suggest that this is a full pronoun. Further work would be needed to understand association with clausal participants represented by clitics.

(204) Wiya=n̲a=**nyurrampa** **kutju** waru ngaatja mantji-n̲u.
NEG=1SG.Subj=**2PL.DAT** **only** fire.wood DEM get-PST
(Source translation:) I did not get this firewood only for you mob.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kunarrka*

[16] Although it is possible there are tendencies– these aren't investigated here.

differ slightly in how they are syntactically integrated in the clause: indefinite *kutju* being integrated into the noun phrase below case marking, and exclusive *kutju* outside of this layer. After examining the data motivating this, I will propose their respective syntactic structures in (219).

This can be seen with ergative case marking in (205) and (206); we will discuss differences in case allomorphy below.

(205) **Ergative case » *kutju*: Exclusive**

a. Wuukapatu parra ngara-payi tjuṯa-**ngku kutju**, naata waaḻa-ngka nyina-payi
hunting.trip around stand-HABIT many-**ERG only** NEG house-LOC sit-HABIT
tjuṯa.
many
(Source translation:) Earlier they used to eat them and some today eat them. That is, only the ones who go out hunting, not the ones who stay around the community.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *naata*

b. Pipirri wiya-ngku-lpi=ya yangupala tjuṯa-**ngku kutju** yinka-nyi piipa.
child NEG-ERG-then=3PL.Subj young.men many-**ERG only** sing-PRS book
(Source translation:) The children have finished and now only the young men are singing.
Haasts Bluff (Morris, 1983a)

c. Katutja-**lu kutju** yaṉangu-ku kuya waṉi-payi.
God-**ERG only** person-DAT bad throw.away-HABIT
Only God forgives people.
(Source translation:) Who can forgive sins but God alone?
Luukaṉu/Luke 5:21 (Bible Society of Australia, 2006)

(206) ***Kutju* » Ergative case: Indefinite**

a. Wati **kutju-ngku** nya-ngu rumiya kutjarra ngara-nyi-ngka.
man **one-ERG** see-PST goanna two sit-PRS-LOC
A man saw two goannas sitting.
Tjakulpa Kuwarritja Warumpi Kuulaku (June 1999, p. 21)

b. Kungka **kutju-ngku** nya-ngu waru puyu waṉma-lingku kampa-nyi-ngka.
woman **one-ERG** see-PST fire smoke far-INTENS burn-PRS-LOC
One woman saw smoke from a fire burning very far in the distance.
Maamangku ngurriṉingi palumpa yuṉṯalpaku (Ferguson, 1987b)

Note that both orderings with case (i.e. *kutju* » *case* and *case* » *kutju*) remain constituents for the purposes of clitic placement.[17]

(207) a. **Exclusive *kutju***

Irranṯi tjuṯa=ya puutji-**ngka** **kutju**=**ya** nyina-payi.
black.cockatoo many=3PL.Subj bush-**LOC** **only**=**3PL.Subj** sit-HABIT

(Source translation:) The red-tailed black cockatoos live only in the bush, away from people.

Luritja Picture Dictionary (Hansen et al., 2011: 106)

b. **Indefinite *kutju***

Palunyatjanu ulkumanu **kutju**-**ngku**=**ṉi** ngalya watja-ṉu, …
after.that old.woman **one**-**ERG**=**1SG.Obj** hither say-PST

After that an old woman said to me, …
(No source translation)

Tjakulpa kuwarritja (December 1999, p.24)

Similar patterns are seen with dative case placement; compare the exclusive use of *kutju* in (208) with the indefinite use in (209).

(208) **Dative case » *kutju*: Exclusive**

a. Wiya, kungka-**ku** **kutju**.
NEG woman-**DAT** **only**

No, (it's) only for women.
(Source translation:) He knew the corroboree was for women only.

Tjukurrpa Wati Kutjarra Payintja (Roberts, 1975)

b. Kungka kutjupa tjuṯa-ngku=ya yangupala-**ku** **kutju** kuli-lpayi.
woman other many-ERG=3PL.Subj young.men-**DAT** **only** think-HABIT

All the other women only think about younger men.
(Source translation:) May you be blessed by the LORD, my daughter; this last instance of your loyalty is better than the first; you have not gone after young men, whether poor or rich.

Ruutja/Ruth 3:1–18 (Bible Society of Australia, 2006)

(209) ***Kutju* » Dative case: Indefinite**

[17] It's not clear to me why there is a second clitic in example (207a); I can only speculate that there was a pause between the first noun phrase and the rest of the sentence. The lack of intonational information makes these cases difficult.

a. Palunyangka wati **kutju-ku** pukuḻa-rri-ngu, Nuuwa-ku.
therefore man **one-DAT** happy-INCH-PST Noah-DAT
So he became glad of one man, Noah.
(Source translation:) But Noah found favor in the sight of the LORD.
Yurruntitja/Genesis 6:5–8 (6:8) (Bible Society of Australia, 2006)

b. Paluru waarrkana **kutju-ku** waan tjawutjun tala yu-ngku.
3SG.ERG worker **one-DAT** one thousand dollars give-FUT
He will give one of the workers one thousand dollars.
(Source translation:) He summoned ten of his slaves and gave them ten pounds and said to them, "Do business with these until I come back."
Luukaṉu/Luke 19:13 (Bible Society of Australia, 2006)

The same is also seen with locative case, which sits inside the *kutju* phrase for exclusives (210) but outside of it in indefinites (211).

(210) **Locative case » *kutju*: Exclusive**

a. Nganaṉa wiya mutukayi-**ngka** **kutju** ya-nkupayi, nganaṉa tjina-tjarra
1PL.NOM NEG car-**LOC** **only** go-HABIT 1PL.NOM foot-COMIT
ya-nkupayi naanytja-ngka-tarra.
go-HABIT horse-LOC-also
We didn't only go by car, we also would go by foot and on horses.
(Source translation:) We didn't always go in a car, sometimes we went on foot or on horses.
Kuula ngurrara tjuṯalatju yankupayi (Anderson, 1985)

b. Wana-ra=latju tjana-nya pu-ngkupayi tjiṉṯu-**ngka** **kutju**.
follow-MV=1PL.excl.Subj 3PL-ACC kill-HABIT day-**LOC** **only**
Following them, we kill them only in the daytime.
(Source translation:) We follow cats and kill them only in the daytime.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ipiriwayi*

(211) ***Kutju* » Locative case: Indefinite**

a. Tjana-lpi a-nu tawuna-kutu paatja **kutju-ngka** tiṉa-lingku paluru.
3PL.NOM-then go-PST town-ALL bus **one-LOC** big-INTENS 3SG.NOM
Then they went to town in a bus, it was a really big one.
Warumpinya ngurrara kuula piipa: Papunya school paper (June 1986, p.17)

b. Tjuutkiitji **kutju-ngka**=li tjarrpatju-nu mikitji-mila-n̲u-lpi.
suitcase **one-LOC**=1DU.Subj put.in-PST mix-LOAN-PST-then
We put (them) in one suit case, and subsequently mixed them up.
(Source translation:) We two put our clothes in one case and mixed them up.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kaala*

Accusative and nominative cases pattern as expected, but only one pattern emerges. These cases are consistently marked inside the *kutju* phrase, not on its right edge.[18] The resulting readings are exclusive, as expected. Neither the Luritja Bible or the Pintupi-Luritja dictionary contain examples of an accusative case marker attached to *kutju* (i.e. *kutjunya*) analogously to ergative, dative, or locative cases.

(212) **Accusative case » *kutju*: Exclusive**

a. Nyaaku=n̲i=nyurra panypura-nganyi? Ngayu-**nya** **kutju** wiya, mayutju
why=1SG.Obj=2PL.Subj belittle-PRS 1SG-**ACC** **only** NEG lord
Katutja-nya=nyurra panypura-nganyi.
God-ACC=2PL.Subj belittle-PRS
Why do you belittle me? You are not only belittling me but God.
(Source translation:) Moses said to them, "Why do you quarrel with me? Why do you test the LORD?
Yanutja 17:1–7/Exodus 17:2 (Bible Society of Australia, 2006)

b. Nyurrangarri kuwarri wanti-nytjaku, Katutja-**nya** **kutju** wal̲ku-ntjaku.
2PL.NOM now disregard-PURP God-**ACC** **only** raise-PURP
You all are to now disregard (them), and praise only God.
(Source translation:) Put away the foreign gods that are among you, and purify yourselves, and change your clothes.
Yurruntitja/Genesis 35:1–19 (Bible Society of Australia, 2006)

These are exclusive uses in (212); we would expect the opposite pattern for indefinites based on examples from the other cases (i.e. the form *kutjunya*). It is likely to be the conditions on case allomorphy for accusatives that are behind the lack of analogous examples of *kutju*/case ordering. An overt accusative marker (*-nya*) only occurs on pronouns and proper names; being inherently definite, these will simply not occur as indefinites generally. Accusative in these contexts is syncretic with an intransitive nominative case. Since the same allomorphic contexts hold for nominative as accusative, the same reasoning applies to the lack of *kutjunya* forms for intransitive subjects. Nominative and

[18] At least in cases where the accusative and nominative are overtly morphologically marked (i.e. pronouns, proper names); for common nouns, these cases are unmarked, so there is no question of ordering to address.

accusative case ordering with *kutju* and the resulting readings therefore pattern with the other cases, but the distribution is altered by patterns of case allomorphy.

The question of case allomorphy in these environments is interesting for ergative subjects, since these are also sensitive to the proper/common noun distinction; proper nouns take *-lu*, whereas common nouns take *-ngku* (cf. section 2.2.1; the same conditions hold for locative allomorphy but we will restrict discussion to ergative here). Exclusive *kutju* with an ergative subject (205) exhibits this expected allomorphy; i.e. the form alternates between *-lu*/*-ngku* depending on the nominal's proper/common noun status. However examples for indefinite *kutju* (206) are consistently common nouns, for the same reasons discussed in the case of accusative and nominative marked noun phrases above, meaning that all ergative indefinites should take the form *kutjungku*.

However the form *kutjulu* does occasionally arise:

(213) a. Wati kutju-**lu**=nku pitja-la=nku ulytja palya tjuṯa aaramwilyam
man one-**ERG**=3SG.RFLX come-MV=3SG.RFLX thing good many R.M.Williams
payi-mila-ri-nku.
buy-LOAN-moving-?FUT
(Source translation:) One man goes and buys some good R M William clothes around the shop for himself.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aaramwilyam*

b. Yuwa, minyma kutju-**lu** nyina-rra kuli-nma walypala tjuṯa=ya
yes woman one-**ERG** sit-MV listen-PST.CONT white.person many=3PL.Subj
wangka-rranytja.
speak-CONT
(Source translation:) Yes, a woman was sitting there and heard what the white-fellas were talking about.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *katirra tjakultjunanyi*

The existence of the *-lu* allomorph with indefinite *kutju* is probably due to the variation in allomorphy conditions discussed in chapter 2.2.1; some varieties are simply not sensitive to the common/proper noun distinction, and generalise the *-lu* form. For speakers with this generalised case marking system, we would expect to see the forms shown in (213).[19]

[19]Importantly, this variation affects allomorphy environments across the entire case-marking system. We noted above that indefinite *kutju* is not followed by accusative *-nya*, but this is in fact not completely true; the Papunya-based desert reggae band Tjupi Band has a song called *Wati Kutjunya* ('man one-NOM/ACC') on their 2013 album *Kutju ngarala*. I assume that this form similarly arises due to variation in conditional allomorphy. Although not entirely absent, this form appears to be relatively rare, which I think reflects the predominance of the pattern conditioned by proper/common noun status.

5.2.2 Some ambiguities involving case

The question of case is also relevant in contexts where *kutju* is being used as an adverbial meaning 'alone', because as we saw above in example (181), adverbs of manner also bear ergative case marking with transitive subjects (cf. chapter 2.2.1). Although exclusive *kutju* and adverbial *kutju* are semantically difficult to tell apart (if they in fact differ at all), we saw that adverbial *kutju* in fact patterns syntactically differently to exclusive *kutju* (in that it does not right-adjoin to the focus associate), and case marking patterns might also show a difference. We saw in the previous section that case marks the right edge including *kutju* for indefinites, suggesting that *kutju* is integrated into the noun phrase; we also saw that exclusive *kutju* sits outside the noun phrase, outside of the case marking, but is itself not ergative-marked. Despite these differences, clitic positioning treats the phrases containing both indefinite and exclusive *kutju* as syntactic constituents. If *kutju* acts as an adverb, then it will not form a constituent with the subject, and when associated with a transitive subject, it also bears ergative case like other manner adverbs (cf. 181). In this case, both elements (subject and adverbial *kutju*) are case marked. This is what I would argue is behind examples like (214) below.[20]

(214) a. Yiitju-**lu** kutju-**ngku** yaṉangu-ku kuya waṉi-rra kana-lpayi.
Jesus-**ERG** alone-**ERG** person-DAT evil discard-MV revive-HABIT
Jesus alone saves, (through) forgiving people.
(Source translation:) There is salvation in no one else, for there is no other name under heaven given among mortals by which we must be saved.
Tjakultjurinkunytja/Acts 4:12 (Bible Society of Australia, 2006)

b. Tapita-**lu** kutju-**ngku** tjana-nya mirri pu-nganyi-ngka, …
David-**ERG** alone-**ERG** 3PL-ACC dead strike-PRS-LOC
With David having killed them all alone, …
1 Tjamiyula/Samuel 18:6–30 (Bible Society of Australia, 2006)

Here, an adverbial *kutju* happens to be adjacent to the subject, and both elements are case-marked as expected. If this is on the right track, then we should expect some ambiguities with the positioning of *kutju*; exclusive *kutju*, which forms a constituent with its focus associate, will sometimes be string identical to adverbial *kutju* which happens to follow the subject. I would suggest that this ambiguity is behind a small number of examples with case marking patterns which are otherwise difficult to explain through the exclusive/indefinite divide proposed above; the sentences in (215) for example are plausibly exclusive, but case marking appears on the right edge of the *kutju* phrase, unlike comparable examples seen above in (205).

[20] A side note on the allomorphy in (214); the proper nouns bear an ergative marker of the form *-lu*, as expected of proper nouns. The adverb however bears the case form associated with common nouns, *-ngku*. Apparently being associated with a proper noun (while not forming a constituent with it) is not enough for the case form to be influenced by its proper-noun-iness.

(215) a. Paluru **kutju-ngku** yu-nganyi nganaṉa palya ngalku-nytjaku.
3SG.ERG **alone-ERG** give-PRS 1PL.ERG good eat-PURP
He alone gives, for us to eat well.
(Source translation:) Eat whatever is sold in the meat market without raising any question on the ground of conscience, for "the earth and its fullness are the Lord's."
1 Kurinytjiyalakutu/Corinthians 10:26 (Bible Society of Australia, 2006)

b. Ngayulu **kutju-ngku** nyina-rra ngurra kiḻiina-mila-ṉi.
1SG.ERG **alone-ERG** sit-MV house clean-LOAN-PRS
(Source translation:) Only I am cleaning around this house.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kiḻiinamilaṉi*

c. Nyuntu **kutju-ngku** ngalya kati-rra kalpa-rra tju-nkunytjaku.
2SG.ERG **alone-ERG** hither bring-MV climb-MV put-PURP
Only you are to place (it), having brought it climbing up to here.
(Source translation:) No one shall come up with you, and do not let anyone be seen throughout all the mountain, and do not let flocks or herds graze in front of that mountain.
Yanutja/Exodus 34:1–35 (34:3) (Bible Society of Australia, 2006)

Under the current analysis, examples like (215) would be cases of an adverbial *kutju*, which although do not form a constituent with *paluru*/*ngayulu*/*nyuntu*, happen to linearly follow them. Being manner adverb, they receive overt ergative case marking. For all subjects in (215), their morphological forms are syncretic between intransitive nominative and transitive ergative. The prediction would be that if these subjects were instead an element that takes overt ergative case marking (i.e. not a pronoun), then they would also be marked in exactly the same way (214) is; it would be unexpected for them to remain unmarked like the indefinite subjects in (206). The syncretism of nominative and ergative in pronouns obscures this distinction in (215), but these examples are directly comparable to the doubly-marked ergative examples in (214).

Lastly, if adverbial *kutju* can also appear in second position (like we've assumed in (215) above), then we would expect to see some variation in clitic positioning in these contexts. We saw in (203) that clitics treat the *kutju* phrase as a constituent for the purposes of clitic placement, but if *kutju* is an adverb then we would not expect it to form a constituent with the clause-initial element. We would then actually expect clitics to split the clause-initial element from the adverbial *kutju*. Although rare in texts, there are a small number of examples of this.

(216) a. Ngana-nya=lta=**la** **kutju** wa̲ku-n̲i? Mama-nya=**latju** **kutju**
who-ACC=then=**1PL.Subj** **alone** praise-PRS father-ACC=**1PL.Subj** **only**
wa̲ku-n̲ingi, palunya.
praise-PST.CONT 3SG.ACC
(Source translation:) Who is the one and only that we praise? It is only the Father that we have been praising.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kutju*

b. Ngayulu=**n̲a** **kutju** parra ngara-payi, tjangari=n̲atju palya-lpayi.
1SG.NOM=**1SG.Subj** **alone** around stand-HABIT slingshot=1SG.RFLX make-HABIT
(Source translation:) I used to go around on my own and I would make shanghais.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *parra ngaranyi*

c. Ngayulu=**n̲a** **kutju**-ngku u̲la-nya a̲n̲ta a̲n̲ta-ra kanyi-n̲i,
1SG.ERG=**1SG.Subj** **alone**-ERG boy-ACC care.for RDP-MV look.after-PRS
maama-wiya.
mother-NEG
(Source translation:) Only I am continually looking after that boy who has no mother.
i.e. 'I am looking after that boy alone-ly'
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *a̲n̲ta a̲n̲tara kanyin̲i*

Let's assume that the *kutju* in (216a) is an adverbial *kutju*, associated with the object. As discussed in section 2.2.1, manner adverbs associated with intransitive subjects bear no overt case marking, unlike transitive subjects, shown in (216b). We can assume the same holds for associations with objects; that is why *kutju* in (216a) bears no case. This is shown clearly in (216c), where adverbial *kutju* bears ergative

case, and is split from the subject by clitics.[21] The syntax of these kinds of examples will be discussed in more detail later in chapter 8.

The fact that adverbials associated with intransitive subjects do not bear case marking means that certain examples with intransitive subjects result in ambiguities as well. In cases with a common noun, the head noun itself is unmarked, as is the *kutju* that follows it, as in (218a). This string is ambiguous between three interpretations: an exclusive *kutju*, an indefinite *kutju*, and an adverbial *kutju*; although the semantics of the sentence should disambiguate at least whether the reading is exclusive or indefinite (in this case, it is an indefinite). The second type of ambiguity can be seen in (218b), with intransitive proper noun subjects.[22] Here, *kutju* follows a *-nya* nominative-marked noun phrase. This kind of example is only ambiguous between two interpretations: an exclusive reading of *kutju* (in line with previous examples of case ordering with *kutju* in this chapter), and an adverbial 'alone'.

(218) a. Ul̲a **kutju** ngara-nyi kungka kutjarra-wana.
boy **one** stand-PRS girl two-PERL
(Source translation:) One boy is standing with two girls.
Yara tjuṯa -wana (Tjakamarra, 1987)

b. Kakalalya wiima-**nya** **kutju** ya-nu mangarri palya-ku ngurri-ntjaku.
pink.cockatoo little-**NOM** **alone** go-PST food good-DAT search-PURP
Little Cockatoo went alone to search for good food.
Kakalalya Wiimanya (Robinson, 1997)

Examples like (218b) then represent a similar type of string ambiguity to the analogous ergative examples in (215) above.

What these sections have shown is that there are subtle distinctions in the syntax of how *kutju* is integrated into the extended NP, which can be seen when considering ordering variability with case

[21] There is just one example I have found that poses a problem for this view, namely the example in (217). Here, both the ergative marking on *kutju* and the reading suggest that it is an adverbial use; however clitic positioning includes the adverb and negation as a constituent with the subject. This is completely unexpected on the view put forward above. The only explanations I can offer is to appeal to the occasional shifting of clitic positioning that we have seen independently for both adverbs and negation, in chapters 2.3 and 3.3.3; or to see the subject as left dislocated, with negation then acting as the clause-initial element for purposes of clitic placement.

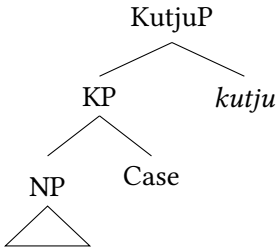
(217) Nyuntu **kutju**-ngku **wiya=n** palya-ra ngaratju-nku tjiṉṯu kutjarra waarrka-rri-ngkula, wiya.
2SG.ERG **only**-ERG **NEG=2SG.Subj** make-MV erect-FUT day two work-INCH-MV NEG
You working alone won't erect (the building) in two days, no.
(Source translation:) The Jews then said, "This temple has been under construction for forty-six years, and will you raise it up in three days?"
Tjaanakuṉu/John 2:20 (Bible Society of Australia, 2006)

[22] This example comes from a children's book; there, *Kakalalya Wiima* 'Little Cockatoo' is a proper name, much like 'Big Bird' etc. can be used as proper names in English.

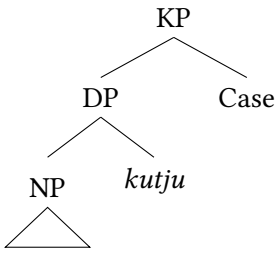
marking and how this correlates with a particular semantics. Clitic positioning with a *kutju*-marked NP shows that regardless of positioning within the NP, a *kutju*-marked NP still results in a syntactic constituent.

Exclusive *kutju* is positioned further on the edge than indefinite *kutju*, which occur outside and inside case marking respectively. This can be schematically represented as something like the following.[23]

(219) a. **Exclusive *kutju*: Outside the case layer**



b. **Indefinite *kutju*: Inside the case layer**



Kutju inside case marking (i.e. 219b) is likely *kutju* occurring in the quantifier or determiner position within the NP; recall discussion from chapter 2.2. The semantics of NP-internal *kutju* as an indefinite would also align it with other elements that sit in that position.

Kutju as an adverbial ('alone') is not assumed to form a constituent with the NP, parallel to adverbials more generally (recalling discussion from chapter 2.2.1). However the particular array of syncretisms in the Pintupi-Luritja case system provides for a set of ambiguous strings when considering the range of uses *kutju* can play in the clause. These show the importance of distinguishing between (at least) exclusive, indefinite, and adverbial *kutju*, as they have differing syntactic positioning. Besides differences in meaning, the positioning of *kutju* and case markings are important in distinguishing them, although we have seen that there can be string ambiguities when identifying which *kutju* is in a particular clause.

[23] I mark the indefinite *kutju* combining with a noun phrase as a DP here; I don't have a strong conviction about its status, but it is helps us here to distinguish it as an outer layer within the NP.

5.3 Association with larger focus sizes

We have shown that there is a syntactic relation between exclusive *kutju* and its focus associate. We have characterised this as the requirement that *kutju* right-adjoin to its focus associate, but we will eventually recast this as a structural definition, saying instead that *kutju* must c-command its focus associate (recall discussion about the relation between c-command and the scope of operators in section 1.3.2, and about the possible configurations of focus assocation in section 4.1.3; the c-command requirement for Pintupi-Luritja is defended in chapter 8). Taking c-command as the relevant level of description makes assumptions about the syntactic structure of the focus associate. In this section we will start to investigate some of the ramifications of this assumption.

Recall from chapter 1.3.2 that c-command predicts a level of (asymmetric) syntactic hierarchy, since it is defined through sisterhood. Applied to *kutju*, this would suggest that focus associates must themselves be syntactic constituents.[24] The close syntactic relationship between *kutju* and its focus associate is clear when the focus associate is itself unquestionably a constituent– in most cases so far, these have been nominal phrases and non-finite clauses. We have good and varied evidence that these elements are themselves constituents (i.e. they can precede the clitic cluster, are marked at the right edge by case, etc.). However we might wonder whether exclusive particles in general are also able to target and associate with larger and more complex finite constituents– whole verb phrases (VPs), for example. The status of VPs is contentious in many Australian languages, and it is also true that the evidence for their existence in Pintupi-Luritja is not clear. For example we have seen that although quite large constituents are able to precede clitics (e.g. medial verb phrases, purposive clauses– recall the discussion in chapter 2.3.2), a finite verb plus its object apparently cannot. The fact that the size of the constituent does not hinder clitic placement (since quite large non-finite clauses can do so) suggests that it is not this factor that is behind the apparent ban on finite verb plus object appearing before clitics. The existence of asymmetric (finite) VPs[25] in Pintupi-Luritja is therefore not immediately obvious at first glance based on evidence from clitic placement.

If finite VPs do not behave like other constituents for those purposes, we might then wonder where *kutju* sits in the clause when its focus associate is a finite verb with an object, since up until now all focus associates have undoubtedly been constituents. We have established that the relationship between *kutju* and its focus associate is mediated syntactically: in the string, *kutju* immediately follows– or is right-adjoined to– its associate. There is then a very close connection between sentence position of the exclusive particle and its focus associate in Pintupi-Luritja. If there is a VP constituent in the language,

[24] At least at a higher level; this does not dictate how granular the structure is within the c-commanded element– recall discussion of some analyses of the situation in Hungarian, whereby an operator c-commands a constituent which is itself flat. In other words, this doesn't necessarily require asymmetric hierarchy all the way down. This qualification is important, as it somewhat lessens the impact of the data in this section as arguments against a VP constituent. We should note too that certain focus constructions target elements that we don't assume are constituents (e.g. Hedberg, 2013). It's worth reiterating that no evidence for a VP constituent is not the same thing as evidence against a VP constituent.

[25] That is, a VP where the subject is syntactically external to a verb plus object constituent.

we would therefore assume that *kutju* would similarly appear on the right edge of that VP, as is the case with its non-finite counterparts.

To test this question, I created a storyboard for linguistic elicitation (recall discussion in chapter 1.2.1), which I called the *Getting the Bread story* (Gray, 2020). In it, a man is asked by a woman to drive into the community to do some chores– buy some bread, go to the mechanic, and fill up the car with fuel. These actions were chosen to set up finite VP alternatives, that is, alternatives that consist of a verb (plus an object in two of the cases). In the story, the man drives to the community, buys the bread, but forgets the rest of the chores. Because of this, he runs out of fuel on the trip home and has to walk the rest of the way. He is questioned when he arrives home about what happened. On the crucial page, the man admits that he did not fill up the car with fuel, he did not go to the mechanic, he *only bought the bread*. I assumed that structuring the conversation in this way ensured that the alternatives were all of this same type. I assume the target page encodes the exclusive particle associating with the VP *Bought the bread*, and it asserts that all the (relevant) alternatives are false (i.e. *go to the mechanic; fill up the car; …*).

Due to time constraints in the field, I only managed to have two speakers tell this story, both in the same session. The speakers told the story several times however, and there are variations in the structures they used for the crucial page. In some cases, one speaker told the whole story alone, and in some cases they told it playing the characters. For completeness, I will include all the relevant examples from this session below.

(220) Getting the Bread story
Crucial page prompt (prompt by picture only): *I only got the bread*

a. Wiya=n̲a karatji-ngka tjarrpatju-n̲u, **mangarri** **kutju**=n̲a mantji-n̲u.
NEG-1SG.Subj garage-LOC put.in-PST **bread** **only**=1SG.Subj get-PST
I didn't go to the garage, I only got bread.
JAG1-Storyboard-20201116_MA1; 01.38–01.43

b. Ngayulu **mangarri** **kutju** mantji-n̲u.
1SG.ERG **bread** **only** get-PST
I only got bread.
JAG1-Storyboard-20201116_MA2; 02.42–02.45

c. **Mangarri** **kutju**=n̲a mantji-n̲u.
bread **only**=1SG.Subj get-PST
I only got bread.
JAG1-Storyboard-20201116_MA2; 02.57–03.00

d. **Mangarri** kutju **kutju**=n̲a payi-mila-n̲u.
Bread one **only**=1SG.Subj buy-LOAN-PST
I only bought a (loaf of) bread.
JAG1-Storyboard-20201116_MANG; 03.03–03.07

e. **Mangarri** **kutju** mantji-n̲u, xxx
bread **one**/only get-PST xxx
(I) only got bread/I got a (loaf of) bread.
JAG1-Storyboard-20201116_NG; 02.24–02.28

The examples are uniform in one respect: only the object of the verb is marked by *kutju*– no examples have the edge marking we might expect of a constituent. In other words, no sentences are of the form [[*mangarri mantjin̲u*] *kutju*]. Although we established earlier that *kutju* disprefers attaching to a finite verb, because Pintupi-Luritja allows variation in ordering between verbs and objects, we could in theory also have seen examples of the form [[*mantjin̲u mangarri*] *kutju*]. This would have kept the verb and object together, with *kutju* adjoining at the right edge of that constituent; however no examples of this occurred.[26] Instead, in all cases *kutju* splits the object from the verb; this is also shown particularly in (220a), where clitics split the *kutju* phrase from the verb (see also (222a) below for another example of this). All these look like what we would expect when the focus associate is the object, rather than the verb and object together.

Elicited sentences based on verbal prompts indicate the same; compare the same patterns in the following, which verbally set up VP alternatives. Again, *kutju* interrupts the verb and object.

(221) Prompt: I wanted to sing and play guitar at the concert, but the microphone was broken, so I only played guitar.

a. Ngayulu yunytju-rri-ngu plii-rri-nytjaku kitawu-ngka anta warra-nytjaku...
1SG.NOM desirous-INCH-PST play-INCH-PURP guitar-LOC CONJ sing-PURP

warra-lpayi kat̲akati-ngu-tjangka ngayulu kiita **kutju** plii-rri-ngu.
sing-HABIT break-PST-CIRC 1SG.ERG guitar **only** play-INCH-PST
I wanted to play on the guitar and sing... With the microphone having broken, I only played guitar.
JAG1-Elicitation-20200317_MANG; 47.38–47.56

[26] Of course the string *mantjin̲u mangarri kutju* would also be ambiguous in what *kutju* attaches to– either only to *mangarri* or to the verb and object together. This is a more general ambiguity of *kutju* placement, and one that we have not discussed at length. Note too the persistent ambiguity of *kutju* in (220) as an exclusive or indefinite. I am interpreting these as exclusive but keep the ambiguity in mind. This ambiguity stems from the patterns of case marking discussed earlier in this chapter.

b. Ngayu-ku warra-lpayi puṉu kuya-rri-ngu, ngayulu kitawu-ngka **kutju**-lpi
1SG-DAT sing-HABIT stick bad-INCH-PST 1SG.NOM guitar-LOC **only**-then
plii-rri-nganyi.
play-INCH-PRS
My microphone went bad, I'm only playing on the guitar.
JAG1-Elicitation-20200317_MANG; 48.08–48.18

In all of these cases, we see that the finite VP is not treated as a constituent for placement, as *kutju* targets a sub-element of the VP/focus. Unfortunately I did not obtain negative evidence showing that other orderings are not possible; further work should target this question.

Although more difficult to find, some corpus examples show similar patterns; the following shows that the question is in fact more complex than only of verb/object constituents, and instead takes more peripheral elements like locations into account for *kutju* placement.

(222) a. Mutukayi kaṯakati-ngu-tjangka kuḻi puḻka-lu tjana-nya kampa-rra yiwarra-ngka
car break.down-PST-CIRC heat great-ERG 3PL-ACC burn-MV road-LOC
ngururrpa, **wilytja-ngka** **kutju**=ya **nyina-ngi**, paṯa-ra mutukayi
middle **shade-LOC** **only**=3PL.Subj **sit-PST.CONT** wait-MV car
kutjupa-ku.
other-DAT
*(Source translation:) Because their car had broken down, the very hot sun was beating down on them as they walked along the road. They could **only sit in the shade** for a while, waiting for another car to come.*
Pintupi-Luritja dictionary, (Hansen & Hansen, 2022); example under entry for *kutju*

b. Paata kuwarri aṉangu tjuṯa wiikinta **ngurra-ngka** **kutju** **nyina-nyi**.
but now people many weekend **home-LOC** **only** **sit-PRS**
*(Source translation:) People told me that long ago lots of them would go out like that for the weekend. But now many people **just sit at their homes** on the weekend.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aapiyi*

In (222a), the occupants of the car cannot do anything but sit in the shade to wait; it is *sit in the shade* that is being contrasted with other things they could have done (e.g. *fix the car themselves*, or *walk into town*). Nonetheless, (222a) is marked as though comparing sitting in the shade to sitting somewhere else. In (222b), the speaker is comparing people now, who don't do anything other than *sit/be at home* on the weekends, rather than *go out*. These examples shows that *kutju* placement in these contexts is not necessarily targeting objects *per se*, but other non-verbal elements associated with the finite verb.

Strikingly, this behaviour is not seen when the verb is in some sense non-finite– at least not obligatorily (see following for discussion). The following examples show *kutju* attached at the right edge of the entire non-finite clause, as expected of constituents.[27] Although we established above in example (198) that *kutju* can associate with non-finite verbs, the following examples show that *kutju* can associate with whole clauses as well, providing that they remain non-finite. There are a number of non-finite forms that verbs and their clauses can take, and that *kutju* can associate with.

(223) a. **Circumstantial clause**

Kanparrka tjuṯa **kapi-ngku pu-nganyi-ngka kutju** paka-lpayi.
centipede many **rain-ERG hit-PRS-LOC only** arise-HABIT

(Source translation:) Centipedes come out only when it is raining.

Luritja Picture Dictionary (Hansen et al., 2011: 109)

b. **Medial verb clause**

Paratji tjuṯa-ngku=ya yaṉangu tjuṯa-ngka kutu watja-lpayi,
Pharisee many-ERG=3PL.Subj person many-LOC continually say-HABIT

"Nyurrangarri **mara paltji-ra kutju** ngalku-ntjaku, luwu=lampa yalatji
2PL.ERG **hand wash-MV only** eat-PURP law=1PL.DAT thus
ngara-nyi."
stand-PRS

The Pharisees say to people "Only having washed your hands can you eat, that is how our law stands."

(Source translation:) For the Pharisees, and all the Jews, do not eat unless they thoroughly wash their hands, thus observing the tradition of the elders;

Maakakuṉu/Mark 7:3 (Bible Society of Australia, 2006)

c. **Intentive clause**

Wiya **mara paltji-lkitja-ngku kutju** nyurrangarri kuli-ntjaku.
NEG **hand wash-INTENT-ERG only** 2PL.ERG think-PURP

You should not be thinking only of washing your hands.

(No direct translation— context of Jesus chastising Pharisees)

Luukaṉu/Luke 11:41 (Bible Society of Australia, 2006)

The contexts in these sentences strongly suggest that the focus associate is the verb together with its arguments (in 223a this is the transitive subject and verb, in 223b and 223c this is verb and object). The syntactic positioning of *kutju* is likewise exactly as we would expect to see with a constituent by analogy with nominal focus associates of various sizes (e.g. in 203), namely positioned at the right edge

[27] Recall also discussion of the examples (198); in fact there are several more of these examples scattered across this chapter..

of the entire constituent. The examples described here are therefore important in light of what we saw with the placement of *kutju* with a finite verb plus object (220), which marked not the edge of the VP, but instead consistently only a sub-element of the focus in the examples of the construction I have. The fact that edge marking is possible with non-finite constructions makes the object-marking strategy for finite VPs striking.

Importantly, this right edge marking seen for non-finite clauses is also not forced by the clause type— it is not that *kutju* is in general unable to sit inside these clauses. The fact that *kutju* can in principle occur inside these clauses shows that there is no external factor for why the positioning is right-adjoined in (223) above. As (224) shows, *kutju* is sitting inside all three of the clause types exemplified in (223). This means that the pattern in (223) is not a by-product of selectional restrictions, but is indeed *kutju* sitting on the right edge of its associate.

(224) a. ***Kutju* inside a circumstantial clause**

Tjana mangarri **kutju** ngalku-**nytja**-**la** wiya nyurrangarri tjana-mpa
3PL.ERG veg.food **only** eat-**NMLZ**-**LOC** NEG 2PL.NOM 3PL-DAT
akumana-rri-nytjaku.
argument-INCH-PURP

Those who eat only vegetable foods, you all should not start arguing with them.
(Source translation:) Welcome those who are weak in faith but not for the purpose of quarrelling over opinions. Some believe in eating anything, while the weak eat only vegetables.

Ruumalakutu/Romans 14:1–2 (Bible Society of Australia, 2006)

b. ***Kutju* inside a medial verb clause**

Wiya=nyurra waama-ku **kutju** kuli-**ra** nyina-nytjaku, …
NEG=2PL.Subj alcohol-DAT **only** think-**MV** sit-PURP

You all should not be only thinking of alcohol, …
(Source translation:) Do not get drunk with wine, for that is debauchery, …

Yipitjalakutu/Ephesians 5:18 (Bible Society of Australia, 2006)

c. ***Kutju* inside an intentive clause**

Kurayitja paluru kaṉilpa-tjarra nguwanpa nyina-ku, tjiiṯa tjuṯa **kutju**
Christ 3SG.NOM wooden.dish-COMIT SEMBL sit-FUT seed many **only**
mantji-**lkitja**.
get-**INTENT**

Christ will sit with something like a wooden dish, intending to gather only seeds.
(Source translation:) His winnowing fork is in his hand, and he will clear his threshing floor and will gather his wheat into the granary, but the chaff he will burn with unquenchable fire.

Maatjuwukuṉu/Matthew 3:12 (Bible Society of Australia, 2006)

The fact that *kutju* is sitting inside the same types of clauses in (224) that it was sitting on the edge of in (223), suggests that *kutju* association functions with these clauses and the elements within them in the exact same way that it does with other constituents— on the right edge. That is, there is nothing about clauses themselves that imposes restrictions on the positioning of *kutju*. This tells us that the positioning of *kutju* with finite VP foci is not related to (i) the size of the focus, or (ii) general restrictions related to positioning with entire clauses in general. This shows that the phenomenon of *kutju* targeting a sub-element of the focus with VP associates is related to finiteness.

So we can conclude that the pattern seen with the placement of *kutju* with a finite verb plus object cannot be due to other restrictions on what *kutju* can associate with; it truly is the finiteness of the verb that appears to be the issue. What can we draw from this? One possibility might be to question the existence of a (finite) VP constituent in the languge. We have seen other arguments against their existence in other Central Australian languages (Laughren, 1989; Simpson, 1991; Hale et al., 1995). It could similarly be argued that the behaviour of *kutju* in these constructions is further evidence for a finite verb not forming a constituent with its object in Pintupi-Luritja.

However testing for constituency in syntax is well-known to involve triangulation of evidence– not all tests work for all constituents. One test (like *kutju* placement in (220) for example) cannot serve as conclusive evidence for the lack of a VP– even though it is true that it does pattern together with a range of other Western Desert-specific tests such as the inability to occur before the clitic complex. So this is one possibility then: (i) a finite VP is not a constituent in Pintupi-Luritja; (ii) the focus associate of *kutju* must be a constituent; (iii) therefore, *kutju* does not mark the right edge of a finite VP when that VP is the focus constituent. This approach does not explain however why it is the object/related adjunct that should be the element that is marked, rather than say, the verb, or either the verb or the object.

Another point that might cast doubt on the conclusiveness of *kutju* placement as a constituency test is the fact that there is in fact some variation in *kutju* placement with medial verb clauses as well. We saw above that *kutju* is able to mark focused elements within these clauses, as well as whole clauses when acting as the focus associate. However there are a number of examples where *kutju* targets a sub-element of these clauses, while the focus associate appears to be the entire clause.

(225) a. PROMPT: I don't have much time before work in the morning. I don't eat breakfast, I don't go for a walk; I only [drink coffee]$_F$ in the morning.

Kuupi tjiki-ra=n̲a waarka-ku a-nkupayi, aal̲i tjin̲t̲u-ngka ngayulu wiya
coffee drink-MV=1SG.Subj work-DAT go-HABIT early day-LOC 1SG.NOM NEG
ngalku-payi, ngayulu wiya parra ngara-payi.
eat-HABIT 1SG.NOM NEG around stand-HABIT

Ngayulu kupi **kutju** tjiki-**ra** ya-nkupayi waarrka-ku.
1SG.ERG coffee **only** drink-**MV** go-HABIT work-DAT

Drinking coffee I go to work; early in the morning I don't eat, I don't go around. Only drinking coffee do I go to work.

JAG1-Elicitation-20200317_MANG; 01.44–02.07

b. Palu-mpa kuuta **kutju**=n̲a pampu-**ra** pika-wiya-lpi=n̲a kuwarri
3SG.DAT coat **only**=1SG.Subj touch-**MV** sick-NEG-then=1SG.Subj now
nyina-ku.
sit-DAT

Merely having touched his coat, I will now be then without sickness.
(Source translation:) If I but touch his clothes, I will be made well.

Maakakun̲u/Mark 5:27-29 (Bible Society of Australia, 2006)

c. Waru-ngka **kutju** kutja-**ra** irrkil̲i ngalku-nytjaku.
fire-LOC **only** cook-**MV** bean.pod eat-PURP

(Source translation:) It is only after cooking the bean pod that you should eat them

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *antan̲i*

d. Yirrit̲i tjamu nganampa tjana wiya tjurratja kuli-lpayi;
long.ago grandfather 1PL.DAT 3PL.ERG NEG alcohol think-HABIT
tjana kuku-**kutju** waka-**ra** ngalku-payi.
3PL.ERG meat-**only** pierce-**MV** eat-HABIT

A long time ago, our grandfathers were not thinking of alcohol; they were only eating meat (having speared it).
(Source translation:) A long time ago our grandfathers didn't know about grog. They just thought about hunting.

Tjakulpa Kuwarritja (September 1986, p.3)

The examples in (225) all show cases where *kutju* is placed inside what the likely focus is; in (225a), [*drink coffee*] is contrasted with [*eating breakfast*] and [*walking around*]; in (225b) it is likely not being contrasted what else could be *touched* in order to be healed, but rather what else could be *done* that heals;[28] in (225c), [*cooking it in the fire*] is what is required before eating; and in (225d) [*thinking of alcohol*] is explicitly compared with [*spearing and eating meat*].[29] Nonetheless, *kutju* again does not attach to the right edge in all of these examples. What these examples show is the mismatches we saw with finite verb plus objects is also optionally seen in medial verb constructions. The difference appears to be that this happens apparently obligatorily with finite VPs, but optionally for the medial verb constructions (as we saw in example (223b) that *kutju* can also mark the right edge of these as well). However as discussed in chapter 2.4.2, there are a range of reasons to see medial verb clauses as less syntactically integrated into the clause than some other types of non-finite clause, and that their elements appear in a number of ways to be less syntactically self-contained. *Kutju* placement where the focus associate is the entire medial verb clause appears then to be another diagnostic that shows this behaviour.

A final point regarding what the examples from this chapter tell us about VP constituency: cross-linguistic comparisons in this situation are enlightening in this regard, because these patterns are in fact also seen in a great number of languages. We can characterise *kutju* placement in this section as a type of mismatch between the (semantic) focus size associated with a particle, and where that particle is actually positioned. We saw in chapter 4.1.2 that such mismatches are rife in intonational marking of focus (i.e. focus projection), but this appears to be an example of such a mismatch in particle placement. As discussed by Branan and Erlewine (2023), this type of morphosyntactic mismatch[30] is actually very widespread cross-linguistically: they note this kind of behaviour in 67 languages across 40 language families. They call this type of mismatch *anti-pied-piping*, characterised by focus particles targeting a subset of a semantic focus. We will return to the significance of the cross-linguistic spread of these patterns in chapter 8. Suffice to say for now, this pattern should be characterised as a mismatch between focus marking and focus size, resulting in ambiguities in the focus size; and that morphosyntactic marking of this kind is not at all restricted only to how *kutju* patterns in Pintupi-Luritja, but instead appears in many languages. This cross-linguistic distribution should factor into considerations of how to analyse these patterns, particularly when these analyses may have implications for how we assume the syntax of the language is built up more generally. We will return to this topic in chapter 8.

[28] Although this is admittedly open to interpretation.

[29] *Kuku* in (225d) is a typo for *kuka* 'meat'; this story also features in the book *Yara Pupanyinguru* (Napurula et al., 1985), where it is spelled *kuka*.

[30] I.e. either in particle placement or in constituent ordering.

Chapter 6

Kutju: Interactions with negation

Exclusives interact scopally with negation. There are two possible readings combining the two elements—negation can take both wide and narrow scope with respect to the exclusive. The two readings are as follows.

(226) a. Wide scope of negation: ¬ > *only*
Not only I got invited to the dinner, but so did every other PhD student from the department.
i.e. It is not so that I was the only one who was invited to the dinner

b. Narrow scope of negation: *only* > ¬
Only I did not get invited to the dinner.
i.e. I am the only one who did not get invited to the dinner

It is important to keep in mind the distinction between (i) the relation of *only* to its focus associate, i.e. the syntactic basis of focus association; and (ii) the ability of *only* to enter into scope configurations like those in (226). We discussed the former relation in the previous chapter (and will return to it in chapter 8); the latter relation will be the greater focus in this chapter, where we examine how *kutju* interacts with *wiya* (negation).

Importantly, when *only* is in the scope of negation in these configurations, it is the assertion of the exclusive element that is negated, i.e. the part of the meaning that no relevant alternatives are true. It does not negate the prejacent. We noted that a sentence like *Hugh only likes soup* presupposes that *Hugh likes soup* and asserts that there are no other relevant alternatives to soup for which it is true that Hugh likes them. Negation only targets this second part– the negated sentence *Hugh doesn't only like soup* still presupposes that *Hugh likes soup*. What is negated is the assertion that soup is the only thing he likes. This behaviour is in fact part of the reasoning why *Hugh likes soup* is a presupposition, because it projects through negation. We will see that this pattern carries across to Pintupi-Luritja as well.

6.1 Scope of *kutju* with sentential and constituent negation

We saw in chapter 3 that there are two positions in the clause that negation can sit in; (i) in clause initial or second position (sentential negation); or (ii) immediately following the constituent it negates (constituent negation). In configurations where negation semantically outscopes *kutju* (i.e. ¬ > *only*) we would therefore predict that there are two syntactic configurations: one involving constituent negation, and one sentential. This prediction is borne out: we find examples of constituent negation of the form [[[FOC] *kutju*] *wiya*], as in (227), as well as examples of sentential negation of the form [[*wiya*] … [[FOC] *kutju*]], as in (229).Although we have to note that the syntactic ambiguity of *wiya* that we have discussed throughout this thesis also applies to the examples in (227); I am analysing these as constituent negation for reasons I lay out below, but purely from these strings alone we can't tell where *wiya* sits. Note that in both of these cases, regardless of the difference in linear ordering between *kutju* and *wiya*, negation is outscoping *kutju*. This shows that the scope relations are not based on blind linear precedence, but make reference to the sentential/constituent distinction– if *wiya* is acting as sentential negation, it precedes the *kutju* phrase to outscope it, and if it is constituent negation, then it immediately follows the *kutju* phrase.

Let us firstly see cases of constituent negation.

(227) **Constituent negation scoping over *kutju*: ¬ > *kutju***

a. Pipirri tju̲ta **kutju wiya** a̲nangu tju̲ta-tarra.
child many **only** **NEG** person many-also
Not only the children but the people (i.e. adults) too.
(Source translation:) It is getting close to Christmas now so all the children are learning about the meaning of Christmas, ***not only the children*** *but people too.*
Tjakulpa kuwarritja (December 1987, p.16, 17)

b. Waru tjangi=latju parratiya-nkupayi, ngayulu **kutju** **wiya**,
fire fire.stick=1PL.excl.Subj carry.around-HABIT 1SG.ERG **only** **NEG**
tju̲ta-lu=ya waru kati-ya-nkupayi, ma̲tupurra.
many-ERG=3PL.Subj fire carry.around-HABIT essential
(Source translation:) We used to carry fire sticks around with us, ***not just me,*** *a lot of people carried them around; they were essential.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kanan̲i*

c. Nyaaku=n̲i=nyurra panypura-nganyi? Ngayu-nya **kutju** **wiya**, mayutju
why=1SG.Obj=2PL.Subj belittle-PRS 1SG-ACC only NEG lord
Katutja-nya=nyurra panypura-nganyi.
God-ACC=2PL.Subj belittle-PRS
*Why do you belittle me? You are **not only** belittling **me** but God.*
(Source translation:) Moses said to them, "Why do you quarrel with me? Why do you test the LORD?
Yanutja 17:1–7/Exodus 17:2 (Bible Society of Australia, 2006)

Clitic placement also shows the focus associate, *kutju*, and constituent *wiya* all form a syntactic constituent together.[1]

(228) Mangarri-ku **kutju** **wiya=nyurra** kuli-ra nyina-nytjaku.
food-DAT **only** **NEG=2PL.Subj** think-MV sit-PURP
You all should not be thinking only of food.
(Source translation:) Do not work for the food that perishes, but for the food that endures for eternal life, which the Son of Man will give you.
Tjaanaku̲nu̲/John 6:27 (Bible Society of Australia, 2006)

Next, let us see cases where sentential negation scopes over the *kutju* phrase. Here, *wiya* linearly precedes the *kutju* phrase, rather than following it.

(229) **Sentential negation scoping over *kutju***

a. Ngurrka kapi-tjarra yinti-ngu, **wiya** kapi **kutju** yinti-ngu, ngurrka
blood water-COMIT pour-PST **NEG** water **only** pour-PST blood
kapi-tjarra.
water-COMIT
(He) poured blood with water, (he) did not only pour water, (but) blood with water.
(Source translation:) This is the one who came by water and blood, Jesus Christ, not with the water only but with the water and the blood.
1 Tjaanaku̲nu̲/John 5:6 (Bible Society of Australia, 2006)

[1] Although cf. example (217) in footnote 21 earlier in section 5.2.2.

b. Nganaṉa **wiya** mutukayi-ngka **kutju** ya-nkupayi, nganaṉa tjina-tjarra
1PL.NOM **NEG** car-LOC **only** go-HABIT 1PL.NOM foot-COMIT
ya-nkupayi naanytja-ngka-tarra.
go-HABIT horse-LOC-also
(Source translation:) We didn't always go in a car, sometimes we went on foot or on horses.
Kuula ngurrara tjuṯalatju yankupayi (Anderson, 1985)

c. Nganaṉa **wiya** Tjuuntiyi-ngka **kutju** Katutja-nya waḻku-ntjaku, tjiṉṯu kutjupa
1PL.ERG **NEG** Sunday-LOC **only** God-ACC praise-PURP day other
tjuṯa-ngka-ṯarra.
many-LOC-also
We should not praise God only on Sunday, but on the other days as well.
No real translation from Romans
Ruumalakutu/Romans 14:21 (Bible Society of Australia, 2006)

These cases of sentential negation do not form a syntactic constituent as we saw with constituent negation, as clitics can intervene between *wiya* and the *kutju* phrase. This is expected based on assumptions about the syntax of sentential negation discussed throughout chapter 3.

(230) a. **Wiya=nyurra** tjaatji palumpa **kutju** yunypa-rri-nytjaku, mayutju
NEG=2PL.Subj church 3SG.DAT **only** happy-INCH-PURP lord
kutjupa-ku=nyurra yunypa-rri-nytjaku.
other-DAT=2PL.Subj happy-INCH-PURP
You should all not only rejoice for his church, you should rejoice for other lords.
(No direct source translation from Matthew)
Maatjuwukuṉu/Matthew 12:6-7 (Bible Society of Australia, 2006)

b. **Wiya=nyurra** ngayu-ku waarrkana tjuṯa **kutju** nyina-nyi, ngayu-ku walytja
NEG=2PL.Subj 1SG-DAT worker many **only** sit-PRS 1SG-DAT family
tjuṯa=nyurra nyina-nyi.
many=2PL.Subj sit-PRS
You all are not only my workers, you are my family.
(Source translation:) I do not call you servants any longer, because the servant does not know what the master is doing; but I have called you friends, because I have made known to you everything that I have heard from my Father.
Tjaanakuṉu/John 15:15 (Bible Society of Australia, 2006)

c. **Wiya=nyurra** waama-ku **kutju** kuli-ra nyina-nytjaku, …
NEG=2PL.Subj alcohol **only** think-MV sit-PURP
You all should not be thinking only of alcohol…
(Source translation:) Do not get drunk with wine, for that is debauchery; but be filled with the Spirit, …

Yipitjalakutu/Ephesians 5:18 (Bible Society of Australia, 2006)

The fact that material that is not part of the focus associate can also intervene between negation and the exclusive phrase shows that sentential *wiya* is truly syntactically unconnected to the *kutju* phrase. In (231a), *ngayulu* '1SG.NOM' is not part of the focus associate, but is intervening between *wiya* and the *kutju* phase. Similarly in (231b), *wiya* is separated from the *kutju* phrase by the verbal complex *ngalya yanu* 'came hither'.

(231) a. Ngayulu tjukarurru waarrka-rri-nganyi mayutju Yiitju-nya ngayuku
1SG.NOM correct work-INCH-PRS lord Jesus-ACC 1SG.DAT
yunypa-rri-nytjaku, **wiya** ngayulu mayutju manta ngurrara-ku **kutju**
happy-INCH-PURP NEG 1SG.NOM boss earth denizen-DAT only
waarrka-rri-nganyi.
work-INCH-PRS
I work righteously for Jesus to become pleased about me, I don't work only for the worldly authorities.
(Source translation:) Whatever task you must do, work as if your soul depends on it, as for the Lord and not for humans, …

Kalatjiyalakutu/Colossians 3:23 (Bible Society of Australia, 2006)

b. …**wiya**=n̪a ngalya ya-nu yan̪angu palya tjun̪a **kutju** ninti-ntjaku, wiya.
…**NEG**=1SG.Subj hither come-PST person good many **only** teach-PURP NEG
I have not come to teach only the good people, no.
(Source translation:) I have not come to call the righteous but sinners to repentance.

Luukan̪u/Luke 5:31–32 (5:32) (Bible Society of Australia, 2006)

Comparing the cases of constituent and sentential negation, despite differences in linear ordering between the elements, both examples (227) and (229) show the same semantic scope ordering, namely ¬ > *only*. This scope pattern is transparent and is expected given what we have learnt both about how negation takes scope, and how *kutju* associates.[2]

[2]The fact that *wiya* lexicalises all uses of negation in Pintupi-Luritja means that these patterns are not necessarily expected to occur in other languages that make a distinction between a right-adjoined negative element and a clausal one. Laughren (2018) for example has some examples of how Warlpiri *jinta* 'one', comparable to Pintupi-Luritja indefinite *kutju* in a number of ways, interacts with negation. Like Pintupi-Luritja *kutju*, both clausal and right-adjoined negative elements in Warlpiri

6.1.1 Clause-initial *wiya*, clitics and *kutju*

Some of the topics related to the syntax of clause initial *wiya* and clitics dealt with in section 3.3.3 can be seen with interactions with *kutju* phrases as well. Recall from the earlier chapter that in some cases of clause initial *wiya*, clitics can either follow *wiya* directly, or the next element that follows the clause-initial *wiya*. The following examples show that *kutju* phrases can also be implicated in this construction.

(232) a. **Wiya** ingkaṯa tjuṯa **kutju=nyurra** kuli-ntjaku, nyurrangarri yalatji-lpi kuli-ntjaku.
NEG pastor many **only=2PL.Subj** think-PURP 2PL.NOM thus-then think-PURP
You all should not think only of pastors, (but instead) you should think thus: …
(Source translation:) So let no one boast about people. For all things are yours, whether Paul or Apollos or Cephas or the world or life or death or the present or the future– all are yours, …
1 Kurinytjiyalakutu/Corinthians 3:21–22 (Bible Society of Australia, 2006)

b. Yaṉangu paluru kuya palya-ntja-la, **wiya** ngayulu **kutju=ṉa** tjiluru-rri-ngu,
person 3SG evil do-NMLZ-LOC **NEG** 1SG.NOM **only=1SG.Subj** sad-INCH-PST
kutjupa tjuṯa-ṯarra=nyurra.
other many-also=2PL.Subj
That person having done evil, not only I became sad, (but) all of you as well.
(Source translation:) But if anyone has caused grief, he has caused it not to me but to some extent– not to exaggerate it– to all of you.
2 Kurinytjiyalakutu/Corinthians 2:5 (Bible Society of Australia, 2006)

Here, as expected from the discussion of how *wiya* behaves in these constructions, *wiya* both precedes and outscopes *kutju*. The difference between the examples in (238) and other examples we have seen of sentential *wiya* outscoping *kutju* is that in (238), both elements are in a pre-clitical position. As argued in section 3.3.3, there are reasons to see these constructions as examples whereby more than one syntactic position above the clitics is filled; these examples in (238) are therefore directly comparable to the examples in section 3.3.3, but additionally show scope interactions. That negation linearly precedes and by assumption sits syntactically higher than *kutju*, and that negation here outscopes *kutju* is similarly expected by the patterns described throughout this chapter.

outscope *jinta*; but whereas the clausal negation is achieved by way of the negative complementiser *kula*, the right-adjoined negation is lexicalised by the privative *-wangu*. This distinction is obscured in Pintupi-Luritja by the complete syncretism of *wiya* across these environments (cf. discussion in chapter 3).

6.2 *Wiya kutju*

We have now seen that there are two main ways for negation to scope over *kutju*: for sentential *wiya* to precede it, and for constituent *wiya* to immediately follow it. Both of these constructions have the reading ¬ > *kutju* (i.e. 'not only *x*'). The opposite scope pattern– *kutju* > ¬ (i.e. 'only *x* is not *y*')– is however not as transparent. Based on the examples with constituent negation discussed above, which show a syntactically transparent concentric scope ordering, we might predict that scope configurations expressing narrow scope of negation with respect to *kutju* would be seen in analogously concentric scoping constructions,[3] of the form [[[FOC] *wiya*] *kutju*], i.e. where *kutju* attaches outside of– and scopes over– constituent negation. While this string *wiya kutju* does in fact occur, the associated reading is not the expected *kutju* > *wiya* one; instead, as we noted in section 5.1.1, this construction appears to instead somewhat idiomatically mean *only*, but with a scalar or evaluative aspect to its meaning, similar to English *merely*.[4] There is no obvious negation in these examples at all; they appear to function exactly like *kutju* does, but in the majority of cases with an added speaker evaluation. We will briefly explore this construction here before returning to the question of narrow scope negation below.

(233) a. Pipitinaminiti **wiya kutju** tjana inka-ngu tjuṯa-ngka.
fifteen.minutes **NEG only** 3PL.ERG play-PST many-LOC
(Source translation): They played short games of only fifteen minutes.
Tjakulpa kuwarritja (June 1986, p.6f)

b. Nyuntu kuli-ra wiima **wiya kutju** mantji-nmara tjukutjuku, mangarri.
2SG.ERG think-MV little **NEG only** get-CNTFC small food
(Source translation:) You should have thought about it and only taken just a small amount of that food as there is only a small amount there.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *wiya kutju*

[3] Concentric in the sense of outer elements scoping over inner elements in a hierarchical structure.

[4] We noted earlier that McConvell (1983) mentions the existence of *-wiyaju* in some more northerly Western Desert languages. This form in fact shares perhaps more than a passing resemblance to *wiya kutju* discussed here (keeping in mind that the orthographic <*j*> in *-wiyaju* corresponds to the orthographic <*tj*> in *kutju*). Semantically they appear to be similar as well; McConvell includes a Manjiljarra example of *-wiyaju* which appears to have a scalar or evaluative dimension to its meaning. Jones' (2011) grammar of Wangkajunga also comments on *-wiyaju*, noting that "The particle marks the participant as not being a very good representative of a class or as being a sole member of a class" (Jones, 2011: 267). This all sounds very similar to this evaluative, *merely*-esque quality of *wiya kutju* in Pintupi-Luritja. It is at least conceivable that the *-ju* of Manjiljarra/Wangkajunga/etc *wiyaju* is a contracted form of the *kutju* element that we see in the Pintupi-Luritja phrase/element *wiya kutju*. The likelihood of such a contraction from *kutju* to *-tju* is bolstered by similar contractions elsewhere; Bowern (forth.) notes the possible relation between *kutju* and the exclusive form *-tju* in the Pintupi-Luritja clitics; the deletion of an initial *ku–* is also seen through the variation in form of the reportative *kunyu*, which also occurs as *-nyu* (Hansen & Hansen, 2022). The Kukatja dictionary on the other hand (Valiquette, 1993) lists the form as *wiyayitju*; the *-yi-* has a less obvious connection to *kutju*.

c. Ngayulu wiya nyurrangarri-nya tjuṯa-lingku papatatji-mila-ṉu,
1SG.ERG NEG 2PL-ACC many-INTENS baptise-LOAN-PST

maṉkurrpa **wiya kutju**.
a.few **NEG only**

I didn't baptise a lot of you, only a few.
(Source translation:) I thank God that I baptized none of you except Crispus and Gaius, so that no one can say that you were baptized in my name. I did baptize also the household of Stephanas; beyond that, I do not know whether I baptized anyone else.

1 Kurinytjiyalakutu/Corinthians 1:14–16 (Bible Society of Australia, 2006)

Although an evaluative component is present in the majority of cases, some examples appear to be purely exclusive readings, like in (234) below.[5]

(234) Nyuntu mimi **wiya kutju** ungku-nytjaku.
2SG.ERG breast.milk **NEG only** give-PURP
(Source translation:) You should only give breast milk to the child to drink.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ipi*

Occasionally the construction is written together as *wiyakutju* in community texts (e.g. in 235; see also example 191b); this may suggest that speakers interpret *wiya kutju* as a conventionalised unit, rather than being compositionally built out of *wiya* and *kutju*.

(235) **Orthographic *wiyakutju* in community texts**

a. Nyuntu kantama kutju-ngara **wiyakutju** kanyi-lku …
2SG.ERG condom one-CARD **merely** have-FUT
*(Source translation:) Remember; - You can **only** use each condom one time- …*

Tjakulpa kuwarritja (October 1987, p.23)

[5] A slight issue with this example; the Pintupi-Luritja dictionary also has this sentence under the entry for *mimi* 'breast, milk', but with a different translation; there it is translated as 'Don't give only one breast to the child to drink.' This would be inconsistent with the description of how *kutju* interacts with negation and its focus associate, based on discussions throughout these chapters. However one of the compilers of the dictionary, Kenneth Hansen (*pers.comm*), suggests that this translation is inaccurate, and that the translation I give in (234) is more accurate. The source of this inconsistency between the translations is uncertain.

b. Tjiipina-lu ngayu-nya wiima **wiyakutju** yalpa-mila-ṉu Niila-lu
Steven-ERG 1SG-ACC little **only** help-LOAN-PST Neil-ERG
palya-ṉu=latju.
make-PST=1PL.excl.Subj
Steve only helped me a little bit, Neil and I did it.
(Source translation:) Steve and I built them and Neil helped a little bit.
Tjakulpa kuwarritja (June 1987, p.7)

Some uses are less easy to determine; sometimes *wiya kutju* is also used a little like some uses of English 'just'.

(236) a. Palulanguru paluru kungka yiniwana **wiya kutju** witiri-nkupayi.
after.that 3SG.NOM woman anyone **NEG only** take-HABIT
Then he takes just any woman.
(Source translation:) Because of that (if that person is a man) he takes any girl that he wants as a partner (with no understanding or concern for our marriage rules).
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kamiyuniti*

b. A-nkula **kutju** inkangara!, tjaputjapu-ngka kutju.
go-MV **only** play.around.IMP football-INSTR only
(Source translation:) Go and play (but) only with a soccer ball.
cf. 'Just go and play'
Kuwaṯalatju ngurrpalu nyangu (Malbungka, n.d.)

These appear similar to a nebula of readings that have variously been called 'emphatic', 'intensifying', 'uncontrasted', or 'unexplanatory' *just*; see an overview and discussion in Windhearn (2021: Ch. 6). I note the existence of these readings, but will otherwise leave them aside for now.

It is also worth noting that *wiyakutju* can attach to both indefinite and exclusive *kutju*.

(237) a. **Kutju wiya kutju** ninti nyina-nyi, ngayulu=ṉa yaṉangu-ku katja.
one NEG only knowledgable sit-PRS 1SG.NOM=1SG.Subj person-DAT son
Only one person is knowledgable, I am the Son of Man.
(Source translation:) No one has ascended into heaven except the one who descended from heaven, the Son of Man.
Tjaanakuṉu/John 3:13 (Bible Society of Australia, 2006)

b. Nyikunypa ngaatja **kutjuwiya kutju** nyikunypa.
elbow.bone DEM **only.NEG only** elbow.bone
(Source translation:) We call this 'nyikunypa' "elbow bone," only this joint is 'nyikunypa' "elbow bone."
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *nyikunypa*

c. Wangka **kutju wiya kutju** paluru atu-n̲u.
speech **one NEG only** 3SG.ERG have.intuition-PST
There was only that one message that he perceived.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *atun̲i*

The Pintupi-Luritja dictionary in fact lists *kutjuwiya kutju* as a separate entry; I would argue that in at least some cases, this should rather be split as *kutju wiyakutju*, since *wiyakutju* occurs separately attached to elements other than *kutju* (e.g. see examples above in 233). In some of these cases (particularly examples 237a and 237c), the first *kutju* is clearly acting as a numeral or an indefinite.

6.2.1 The syntax of *wiya kutju*

I argued above that the occasional orthographic representation as *wiyakutju* in community texts suggests that this phrase has no further internal structure. Syntactically we can see that this string *wiya kutju* forms a constituent with the focus associate, as can be shown by clitic placement at the right edge of the phrase. In this way it exhibits the same behaviour as plain *kutju*.[6]

(238) a. Alatji **wiya kutju=n̲a** tjakultju-nanyi, kuli-ntjaku, yuwa.
thus **NEG only=1SG.Subj** report-PRS listen-PURP yes
(Source translation:) That's all now, that I am reporting so that people can hear it, yes.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *wiya kutju*

b. Yara yalatji **wiya kutju=n̲a=nta** tjapi-lku,…
story thus **NEG only=1SG.Subj=2SG.Obj** ask-FUT
I will only ask you this (one thing), …
(Source translation:) Then Gideon said to God, "Do not let your anger burn against me, but let me speak one more time;…"
Tjatjatja 6:36–40/Judges 6:39 (Bible Society of Australia, 2006)

[6]Note though that none of the following examples orthographically combine *wiya kutju* into a single word.

c. Wangka wiima **wiya kutju=n̲a** wangka-ku nyuntu kuli-ntjaku.
word little **NEG only=1SG.Subj** speak-FUT 2SG.ERG listen-PURP
I will say only a few words for you to listen.
(Source translation:) But, to detain you no further, I beg you to hear us briefly with your customary graciousness.
Tjakultjurinkunytja/Acts 24:4 (Bible Society of Australia, 2006)

Importantly, this right-adjoined *wiya kutju* as shown in examples above must be distinguished from some superficially similar-looking examples. Occasionally, examples of the string *wiya kutju* such as the following occur.

(239) Yiitju-ku walytja tjuṯa palya nyina-payi, **wiya kutju** maralpa nyina-ngi,
Jesus-DAT family many good sit-HABIT NEG one empty.handed sit-PST.CONT
wiya.
NEG
Jesus' family were well, not one of them was lacking, no.
(Source translation:) There was not a needy person among them, for as many as owned lands or houses sold them and brought the proceeds of what was sold.
Tjakultjurinkunytja/Acts 4:34 (Bible Society of Australia, 2006)

This is not the same reading as the *wiya kutju* examples discussed above ('*merely*'), nor is it a *kutju* > ¬ reading. This is sentential negation scoping over *kutju* used as an indefinite: ¬ > ∃, or '*It is not so that one* (=any) *was lacking*.' This is then structurally in fact analogous to the sentential negation examples in (229). The difference is that here, *kutju* is functioning as an indefinite, and as such, is able to stand alone in the clause (cf. example 180c in section 5.1). Examples like this further demonstrate that it is important to distinguish both between sentential and constituent negation, and *kutju* as an exclusive particle and an indefinite.

A similar issue can sometimes arise when *kutju* is being used as an adverbial in the sense of 'alone.' Here, *kutju* can stand alone and does not have to be right adjoined. When this is negated, the resulting sentence can likewise appear similar to the evaluative/scalar *wiya kutju.*

(240) Paluru **wiya kutju** a-nu.
3SG.NOM **NEG alone** go-PST
He didn't go alone.
(Speaker comment:) Paluru wiya kutju anu*, that means "He didn't go by himself, he went with someone else",* paluru wiya kutju anu*, there's someone else in the car as well.*
JAG1-Elicitation-20201207_MAHGDG; 26.08–26.25

The speaker comments clearly show that this is not a *kutju* > ¬ construction (i.e. 'Only he did not go'), and neither is it similar to the other *wiya kutju* ('merely') examples discussed already. This is

therefore unlikely to be an example where either *kutju* or *wiya* are right adjoined to the subject– i.e. [[[*paluru*] *wiya*] *kutju*]. It is also unlike the previous example (239) because *kutju* cannot be acting as the subject– the subject in (240) is clearly *paluru*. Instead, (240) is likely an example of sentential negation scoping over the predicate, which is being modified by *kutju* as an adverbial. As such, it is *kutju anu* 'went alone' which is negated.

This example is particularly interesting because it appears on first glance to be that only *kutju* is negated ('It is not alone which is how he went'), since for example this sentence does not entail that 'He didn't go,' i.e. the verb is not negated. If this were true, then it would look like an example of constituent negation taking scope from left to right, and only targeting *kutju*. However I would argue that this is not the case in this example; crucially, it is the downward entailingness of negation that produces this behaviour. The predicate 'go alone' is stronger than 'go';[7] when this is negated, since negation is a downward entailing environment, only 'go alone' is negated, and not 'go.' This is why (240) can be an example of sentential negation that does not negate the main verb *anu* 'went.' Note that the same entailment pattern holds for comparable English constructions (see footnote 7). I would argue that similar issues are at play in (240), i.e. that the fact that this can be sentential negation that nonetheless does not negate the proposition that *He went* has to do with the downward entailing nature of negation in combination with the particular predicate, rather than anything to do with its syntactic placement in examples like (240). This shows the ambiguities in structure that a single string can produce resulting in differing semantic readings.

We can conclude that the *kutju* > ¬ scope configuration is not expressed by the expected *wiya kutju* string. This instead appears to be semantically very similar from *kutju*, but with an added evaluative component indicating that the focus associate is relatively low on some relevant scale compared to other alternatives. A diachronic explanation as to how this construction came to be is not immediately obvious.[8]

[7] For example, *He went alone* entails that *He went*, but the reverse does not hold: *He went* does not entail that *He went alone*. The proposition *He went alone* is true in fewer cases; the times when you *go alone* are necessarily a subset of the times when you *go*.

[8] An interesting comparison to the Pintupi-Luritja patterns come from neighbouring Mparntwe Arrente; Wilkins (1989: 381) notes scope relations between *-ante* 'only' and the negative suffix *-tyekenhe*. He notes that when the negated verb *arlkwe-tyekenhe* 'didn't eat, can't eat' has *-ante* 'only' attach on its right edge (*arlkwe-tyekenh-ante*), this has a reading of *only* > ¬; Wilkins translates this form as 'only didn't eat', and notes that it "entails that no act of eating took place." This is comparable in form to the *wiya kutju* examples we have discussed here, but is exactly the reading that is missing. Like Pintupi-Luritja though, the opposite scope reading in Arrernte is possible with a concomitant re-ordering of elements; *arlkwe-ty-ante-kenhe* (whereby negation appears outside of the exclusive suffix) is translated as 'didn't only eat (,but did something else as well)', and "requires that an act of eating **did** take place in conjunction with some other activity." This is analogous in form and reading to how we saw both constituent and sentential negation scope above the *kutju* phrase in Pintupi-Luritja. An obvious question would be why the difference; an immediate difference between encoding of the relevant elements may be important. In Arrernte, negation attaches to a nominalised verb (cf. discussion of Western Desert negation in chapter 3.4; note too the similarity in form too between the *-tye-* element in examples above and Western Desert *-n(y)tja* nominalisations), whereas as we have seen in Pintupi-Luritja, sentential *wiya* is a particle with a much less tight syntactic relation to what it attaches to. An interesting question then would be to compare these patterns in e.g. Pitjantjatara, which aligns in form for negative utterances more closely to the Arrernte constructions (cf. chapter 3.4). At the moment though I have no information about *wiya kutju* in Pitjantjatjara– if it exists at all as a string, nor what reading it would have. In terms of the source of this construction, an

6.3 Clause-initial positions and the scope of *kutju*

We might then wonder how a *kutju* > ¬ scope reading is encoded in Pintupi-Luritja. It is worth briefly looking closer again at scope issues when *kutju* is clause initial, as these constructions are relevant for the question. We will return to the questions in this section again in more detail in section 8.1, as it will become clear that they are crucial in recognising the syntactic aspects to scope determination.

So let us consider constructions in which the *kutju* phrase linearly precedes *wiya*, and why they are important. We noted in section 3.1.1 that *wiya* sitting in second position is string ambiguous between two structures: sentential negation, and constituent negation attached to the first element. The same structural ambiguity holds if that first element is a *kutju* phrase. However this is a very different kind of configuration to those discussed in section 3.1.1, because *kutju* phrases are scope-bearing elements. In that chapter we said that negation would scope over the entire proposition despite being in second position, since the concept of wide/narrow scope only makes sense in reference to other scope-bearing elements. Suddenly, with a clause-initial *kutju*, we have that other scope-bearing element. The question is then whether this structural ambiguity of where negation sits syntactically carries across to a scope ambiguity– that is, are both scope orderings possible in this construction? If so, does a particular scope ordering correlate with the sentential/constituent distinction? This construction is therefore absolutely crucial for determining the role of syntax in determining scope relations.

Two things to keep in mind: according to the assumptions made about the syntax of negation with regards to clitics throughout chapter 3, these examples are syntactically ambiguous only in the absence of pronominal clitics; the presence of clitics should otherwise allow us to disambiguate the two structures in most cases.[9] The question of clitics is revisited in section 8.1. The second thing to note is that both exclusive and indefinite *kutju* exhibit scope interactions;[10] we will consider the two readings together in this chapter.

Firstly, we can note that in some cases of clause initial *kutju* followed by *wiya*, negation outscopes the *kutju* phrase. This pattern is familiar to us from earlier examples throughout this chapter.[11]

anonymous examiner draws attention to parallels with Jespersen's Cycle; this intriguing connection will have to wait for later study.

[9] Although have also seen throughout that clitic positioning is occasionally slightly perturbed through mechanisms not yet well understood.

[10] That is, both the patternings of constituent negation [[[FOC] *kutju*] *wiya*] and sentential negation [[*wiya*] … [[FOC] *kutju*]] hold regardless of what reading *kutju* has; both as an exclusive and as an indefinite, these constructions indicate the wide scope of negation (¬ > *only* and ¬ > ∃ respectively). It is worth noting however that indefinites are known to exhibit particular scope taking behaviours; I have not considered this here throughout, and future work on specific and non-specific readings of indefinite *kutju* may warrant a return to this data at a later stage.

[11] In (241b), only the first line is the important part of this example, but I have included the entire sentence for the context.

(241) ***Kutju* linearly precedes *wiya*; negation scopes high**

a. ¬ > ∃

Kala, yuru-ngku tjana-nya Yitjipi-nya ngurrara tjuṯa mirrinta-nu,
so water-ERG 3PL-ACC Egypt-ACC denizen many kill-PST

kutju wiya kana nyina-ngu, wiya.
one NEG alive sit-PST NEG

So the water killed all of the Egyptians, not one was alive, no.
(Source translation:) The waters returned and covered the chariots and the chariot drivers, the entire army of Pharaoh that had followed them into the sea; not one of them remained.

Yanutja 14:13–31/Exodus 14:28 (Bible Society of Australia, 2006)

b. ¬ > ***only***

Yaṉangu tjuṯa-ngku **kutju wiya** nganaṉa-nya tjingapu-nganyi,
person many-ERG **only NEG** 1PL-ACC tempt-PRS

Yiitju-ku wangka wanti-nytjaku, mamu-ku mayutju-ngku,
Jesus-DAT word discard-PURP demon-DAT lord-ERG

palumpa waarrkana tjuṯa-ngku-ṯarra nganaṉa-nya tjingapu-nganyi.
3SG.DAT worker many-ERG-also 1PL-ACC tempt-PRS

It is not only people who tempt us to cast aside Jesus' word, (but) the lord of the demons, his many workers also tempt us.
(Source translation:) …for our struggle is not against blood and flesh but against the rulers, against the authorities, against the cosmic powers of this present darkness, against the spiritual forces of evil in the heavenly places.

Yipitjalakutu/Ephesians 6:12 (Bible Society of Australia, 2006)

Negation here is clearly scoping over *kutju* (¬ > ∃ and ¬ > *only*) in both examples; i.e. (241a) is paraphrasable as *It is **not** so that **one** remained alive*– i.e. they were all dead; and (241b) as ***not only** people tempt us but **also** associates of the devil.* This patterning is completely analogous to how we saw constituent negation scoping over exclusive *kutju* earlier in the examples in (227)– *wiya* follows and scopes over the *kutju* phrase. In (241)– and in all of those sentences in (227) as well– the *kutju* phrase just happens to be clause initial.[12]

Consider then the following examples, which show the exact opposite scope pattern; although the linear ordering between *kutju* and *wiya* remains the same, now it is *kutju* that scopes above negation.

(242) ***Kutju* linearly precedes *wiya*; *kutju* scopes high**

[12]We have also already seen sentential negation in initial position doing the same; cf. example (239) above.

a. ∃ > ¬

Watiya **kutju**-tjanu **wiya** mangarri nyuntu ngalku-nytjaku.
tree one-ABL NEG food 2SG.ERG eat-PURP

From one tree you cannot eat the fruit.
(Source translation:) And the LORD *God commanded the man, "You may freely eat of every tree of the garden; but of the tree of the knowledge of good and evil you shall not eat, for in the day that you eat of it you shall die."*

Yurruntitja/Genesis 2:15–17 (Bible Society of Australia, 2006)

b. ***only*** > ¬

Manta Kuutjina-ngka **kutju** tjana-nya **wiya** pu-ngu kunaṯa-ngku, Yitjurila-ku
land Goshen-LOC **only** 3PL-ACC **NEG** hit-PST hail-ERG Israel-DAT

ngulytju ngan̲t̲itja tjuṯa.
family descendant many

(Source translation:) Only in the land of Goshen, where the Israelites were, was there no hail.

Yanutja 9:13-35/Exodus 9:26 (Bible Society of Australia, 2006)

In contrast to the examples in (241), here in (242) we instead see wide scope of the *kutju* phrase– (242a) is saying that *There exists a tree such that you cannot eat from it* (∃ > ¬); example (242b) is clearly indicating that Goshen is the *only place such that hail did not hit it* (*kutju* > ¬). We know this is true because of the stories in which these sentences are found– Adam is not being told that they cannot eat the fruit of *any* of the trees in the garden (which would be ¬ > ∃); he is being told that there is just the *one* tree that is forbidden (∃ > ¬). Similarly in (242b) the story is clear that Goshen was the only place in Egypt saved from the seventh plague of thunder and hail.

The argument we have been working towards– and that we will spread out the evidence for again in section 8.1– is that the scope ambiguity that we see when clause initial *kutju* phrases are followed by negation is a structural ambiguity– whether *wiya* is constituent or sentential negation. Cases like those in (242), in which *kutju* both linearly precedes and outscopes *wiya* are under this analysis sentential negation, not constituent negation.[13] If this is true, then this is good evidence for a syntactic determination of scope more generally in Pintupi-Luritja. We will pick up on this analysis below in chapter 8.1.

A clause initial *kutju* phrase followed by *wiya* is then string ambiguous between two structures, which I will argue correlates with differing scope readings. However not quite all of these constructions end up actually being ambiguous; firstly, sometimes intonational indications may also help here to set a constituent-negated *kutju* phrase off from the rest of the clause. This could be the interpretation of examples like (243) below, where a comma likely indicates such an intonational break, which may

[13]That this is sentential negation can be more clearly seen in (242b), as the *kutju* phrase and *wiya* are interrupted by the pronoun *tjananya.*

indicate that this is constituent negation. Here, negation clearly scopes over *kutju*, as would be expected of constituent negation.

(243) a. Wangka **kutju wiya,** wangka kutjupa kutjupa=ya wangka-ngu.
voice **one NEG** voice other other=3PL.Subj speak-PST
Not with one voice, but with many different voices they spoke.
(Source translation:) But even on this point their testimony did not agree.
Maakakuṉu/Mark 14:59 (Bible Society of Australia, 2006)

b. Muutja-ku wangka-wana **kutju wiya,** Tjuwu tjuṯa-ngku Kurayitja-ku wangka-wana
Moses-DAT word-PERL **only NEG** Jew many-ERG Christ-DAT word-PERL
kuli-ra nyina-nytjaku.
listen-MV sit-PURP
Jews should not only live only according to the word of Moses, but also having listened, to the word of Christ.
No real translation from Romans
Ruumalakutu/Romans 10:2–4 (Bible Society of Australia, 2006)

Secondly, cases where *kutju* is being used as an adverbial 'alone' as in (244) need to be considered separately. Here, *wiya* is negating the proposition that the car is push-start-able by someone acting alone.[14]

(244) **Kutju**-lu **wiya** ruurrkultjinga-lku, wiya, puṯu yuṉṯu-lpa.
alone/one-ERG **NEG** push.start-FUT NEG in.vain push-then
Alone he won't push start it (the car), no, in vain he pushes.
(Source translation:) You all get up, give the car a push start for him and send it off! One person can't push start it, no; he is pushing it in vain.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kala*

Finally, the general syncretism of *wiya* across all negative functions also works to obscure what is going on. In the examples of (245), *wiya* is acting more like 'contrary' negation (recall discussion in chapter 3) than standard negation. Here, *wiya* is denying the suitability of using *kutju* at all in these clauses.

[14] I admit this sentence may be ambiguous; the ergative case marking on *kutju* would be expected with an adverbial function, as I have suggested, but it could also be marking *kutju* as subject. If this is the case, the scope relation that would make the most sense would be *kutju* > ¬ ('One person is such that they will not push start it'), in which case it would be compatible with an analysis of sentential negation. This would then not be an exception to the analysis we have built up over this chapter.

(245) a. **Kutju-wiya** tjuṯa karrimunu=n̪a nya-ngu, tjuṯa-lingku.
one-NEG many multitude=1SG.Subj see-PST many-INTENS
(Source translation:) There was not just one animal there; I saw not a few but very many there.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *karrimunu*

b. Amuru-languru tjana ngalya-nu kuula ngurrara pipirri tjuṯa-ṯarra,
Amaroo-ABL 3PL.NOM hither-come-PST school denizen children many-also
kutju-wiya.
one-NEG
(Source translation:) The school mob came from Amaroo with a lot of children not just a few.
Warumpinya ngurrara kuulaku piipa: Papunya School paper (September 1986, p. 20f)

The examples in this section have shown the array of readings that arise when *kutju* and *wiya* intermingle with each other in different combinations.[15] Above all the examples have shown the importance of differentiating between a wide range of distinctions for both elements; for *wiya*, the sentential/constituent distinction appears crucial for distinguishing scope relation when it sits in second position, as well as other uses of *wiya* that are not standard negation (i.e. the examples in 245). For *kutju*, we have again seen the importance of distinguishing between exclusive, indefinite, and adverbial *kutju*. All of these issues must be considered in order to tease apart the readings when both *kutju* and *wiya* occur in a single clause.

Finally, we saw that negation scopes over *kutju* in the vast majority of cases. It is only when the *kutju* phrase is clause-initial do we ever see wide scope of *kutju*. However, being in this clause-initial postion is not sufficient for wide scope– it is not enough to merely linearly precede negation to scope above it. We saw some variation in scope readings in this configuration, and I have argued that the wide/narrow scope readings correlate with structural ambiguities of the syntax of negation of the sort discussed in chapter 3 (i.e. whether it is constituent or sentential negation). Although based on limited examples, this view aligns with the broader behaviour of the elements discussed. We revisit this issue when considering the syntax of scope in chapter 8.1.

6.4 Some general conclusions on *kutju*

Let us briefly take stock and conclude on some descriptive generalisations we are now in a position to make about *kutju*. Firstly, *kutju* appears to have a semantics familiar from other investigations into exclusive particles; namely that it presupposes the truth of the prejacent, and asserts that all sentences that can be made by swapping the focus associate out for a relevant alternative are false. We saw that the

[15] A combination that we haven't seen– and that I have not come across– is *kutju* and constituent negation attaching to different elements in the clause. Whether this is possible and what reading it would have remain open questions.

prejacent appears to be presupposed in Pintupi-Luritja based on interactions with negation– negation scoping over a *kutju* phrase does not entail the negation of the prejacent.

We then saw that *kutju* has a subtle range of meanings– temporal, some scalar readings, and some apparent minimal sufficiency readings. We also saw that *kutju* can also be used similarly to an indefinite pronoun, and also as an adverb. All three of these uses (exclusive, indefinite, adverbial) have a slightly different syntactic integration in the clause; the first two form a tight constituent with the focus associate, whereas adverbial *kutju* sits elsewhere in the clause. Patterns of case marking demonstrated that exclusive and indefinite *kutju* sit in different positions in the nominal domain.

We saw that there is a strong syntactic relation between *kutju* and its focus associate. It therefore behaves like a constituent exclusive particle, rather than a sentential one. The broad generalisation in placement is that the particle must sit at the right edge of its associate; however we saw that there is some variation in placement when certain elements serve as the focus associate, namely a finite verb plus its object or other tightly associated element (particularly locations). We saw that there is some variation in placement with medial verb clauses. We discussed some possible reasons behind this, which may shine light on the status of finite VPs in the language.

Finally, we saw that *kutju* phrases interact scopally with negation, both when it is functioning as an exclusive particle and as an indefinite. Negation can scope over *kutju* in a number of syntactic configurations: as constituent negation, in which the negative particle *wiya* sits on the right edge of the *kutju* phrase [[[x_F] *kutju*] *wiya*]; and as sentential negation, in which negation sits in or near a clause initial position, and is separated from the *kutju* phrase [*wiya* [... [[x_F] *kutju*]]]. We saw that constituent negation forms a syntactic constituent with the *kutju* phrase, but that sentential negation does not. We saw that *kutju* cannot scope over negation by sitting on its right edge, and although this string does occur (*wiya kutju*), it instead has an evaluative reading similar to English 'merely.' Some interesting cases occur when the *kutju* phrase occurs clause initially; the string x_F *kutju wiya* is structurally ambiguous between constituent and sentential negation (in the absence of clitics to disambiguate). This appears to relate to scope relations– the only examples we have of *kutju* taking wide scope are where the *kutju* phrase linearly precedes sentential negation. However being in this position does not ensure wide scope of the *kutju* phrase. We have suggested that the difference between the two is related to the constituent/sentential negation distinction.

Chapter 7

Other focus sensitive elements

In this chapter, we will cast a glance towards some other focus sensitive elements; mostly we will look at the additive suffix *-ṯarra*, but we will also compare this to a number of other additive elements, as well as considering the role of negation as an FSE. Examining these other elements in light of the discussion of *kutju* helps to highlight their similarities– in particular, their syntactic relation to their focus associate, and placement in broader focus contexts. We will take a step back and consider how we can talk about the syntax of FSEs more generally in Pintupi-Luritja in section 7.3.

7.1 The additive suffix *-ṯarra*

In this section, we examine the additive suffix *-ṯarra*.[1] As discussed in the introduction to chapter 4, *-ṯarra* attached to an element *x* presupposes that at least one alternative to *x* is also true.

(246) a. Iilinytji miyi yuṉinypa tjuṯa ngalku-payi, kayurru-**ṯarra**.
galah veg.food seed many eat-HABIT mulga.seed-**also**
(Source translation:) Galahs eat various seeds and the mulga seed as well.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kayurru*

[1] *-ṯarra* is not the only additive in the language; Hansen and Hansen (1978) in their description of Pintupi list *-lurrtju*, *-luu*, *-ṯu* (cf. English 'too') as well as *-tarra* (non-retroflex); Heffernan and Heffernan (2000) in their learner's guide to Pintupi-Luritja note alongside *-ṯarra* also *-ṯaarra*, *-ṯawarra*, *-lurrtju* and *-ṯuu*. Another element that includes an additive reading among its uses is *kiin* (ultimately from English *again*). We will consider some of these in varying levels of detail in section 7.1.2. Another interesting point to note is that at least some of these forms are homophonous with aversive markers– suffixes that attach to an element to indicate that an action was undertaken in order to avoid that element (nominal or verb phrase). For example Bell (1988: 15f) describes *-ṯarra* and *-ṯawarra* as adversives in Ngaanyatjarra and Pitjantjatjara. This is then likely no accident, but what the semantic connection there might be between aversives and additives is unclear at the moment.

b. Punaṉka-ngku piḻkati waka-ra ngalku-payi, kuka kutjupa tjuṯa-**ṯarra**.
black.kite-ERG snake pierce-MV eat-HABIT meat other many-**also**
(Source translation:) The black kite grabs snakes in its claws and eats them, it grabs other prey as well.
Luritja Picture Dictionary (Hansen et al., 2011: 107)

c. Yuwa, ngayulu-**ṯarra**=ṉa tjukurrpa nya-ngu.
yes 1SG.ERG-**also**=1SG.Subj dream see-PST
Yes, I also saw a dream.
(Source translation:) When the chief baker saw that the interpretation was favorable, he said to Joseph, "I also had a dream:…
Yurruntitja/Genesis 40:1–23 (40:16) (Bible Society of Australia, 2006)

As an additive, the suffix functions somewhat similar to conjunction, although does not create a syntactic constituent with the two elements; it can also occur together with overt conjunction (247b).

(247) a. Kanya yini Warumpi-nya ngaṉti-tjayiti nampa-**ṯarra**.
CONJ name Warumpi-NOM back-side number-**also**
And the name Warumpi is on the back side, also the number.
(Source translation:) There are also new guernseys for Papunya footballers. They are green with a yellow honey ant on the front and the yellow name "Warumupi" with the number on the back.
Tjakulpa kuwarritja (April 1987, p.19)

b. Luritji **anta** Anmatjirri-**ṯarra** wangka palu-nya ngayulu wangka-nyi kiina.
Luritja **CONJ** Anmatyerr-**also** language DEM-ACC 1SG.ERG speak-PRS also
(Source translation:) I also speak those languages, Luritja and Anmatyerr, as well.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kiina*

-ṯarra is similar to *kutju* in how it establishes a relation to its focus associate, by adjoining to its right edge. This relation is therefore also syntactic: the element *-ṯarra* attaches to is the element that evokes alternatives, and *-ṯarra* operates on those.

(248) Nyuntu-**ṯarra** yilta palumpa walytja nyina-nyi.
2SG.NOM-**also** truly 3SG.DAT family sit-PRS
Also you are truly his family.
[[Nyuntu]$_F$ -ṯarra]
(Source translation:) A little later someone else, on seeing him, said, "You also are one of them." But Peter said, "Man, I am not!"
Luukaṉu/Luke 22:58 (Bible Society of Australia, 2006)

Attaching to its focus associate, the resulting unit is also a syntactic constituent, as clitics appear after the suffixed element.

(249) Nyuntu-nya-**ṯarra=ṉa=nta** wiya nya-ngu
2SG-ACC-**also=1SG.Subj=2SG.Obj** NEG see-PST
I didn't see you either.
JAG1-Elicitation-20201207_MAHGDG; 22.09–22.12

-ṯarra does not exhibit the same ordering variation with case marking that *kutju* does; it always sits outside of case marking (like in 249). As such, it patterns with exclusive *kutju*, rather than indefinite *kutju*, in that it sits on the outer edge of the nominal domain.

The suffix readily attaches to noun phrases, and various finite and non-finite clauses; like with *kutju*, attachment to finite clauses occurs less often, but it is possible as (250) shows. See below for further examples.

(250) Thomas Stevens-lu yara ngaatja-nya waka-ṉu.
Thomas Stevens-ERG story DEM-ACC write-PST
Thomas Stevens-lu piitji tjuṯa waka-**ṉu-tarra**.
Thomas Stevens-ERG picture many draw-**PST-also**
Thomas Stevens wrote this story. Thomas Stevens also drew the pictures.
Wakalpayi yirriṯi. Kuṉṯilpayi kuwarri (Stevens, 1981)

In relevant references, *-ṯarra* is described as a suffix, rather than a particle like *kutju*.[2] This distinction is presumably based on (i) the fact that there is no possibility for variable ordering with case marking like we saw with *kutju*, and (ii) the inability of a retroflex consonant to start a word.[3]

[2] Although in many ways it behaves like an enclitic.

[3] See Hansen and Hansen (1978):"The contrast between the apico-alveolar and apico-postalveolar series is neutralised in the word-initial position. The tongue tip tends to the apico-alveolar position but is much more fronted than the word-medial apico-postalveolar sound. When reduplicated, the neutralised sound goes to the apico-postalveolar position. (tungkuṯungku 'short'). For the purposes of practical authography [*sic*] (t, n, l) are written in the word-initial position." Descriptions of other Western Desert languages are similar; both Goddard (1985: 11) and Jones (2011: 28) speak of neutralisation of the two in initial position. The fact that *-ṯarra* is clearly pronounced with an initial retroflex is then good language-internal evidence for characterising it as a suffix. Being a suffix rather than a particle does not however appear to distinguish it from *kutju* in terms of where it is placed in the clause, aside from ordering issues with case morphology, as discussed for *kutju*.

Additive elements interact with negation slightly differently than exclusive particles. Recall that we assumed a different status to the meaning contribution of exclusive and additive elements: exclusives presuppose the prejacent and assert that all alternatives are false, but that additives assert the prejacent, and presuppose that at least one alternative is also true. We noted that the behaviour of negation interacting with these elements was the main reason this is often assumed: negation combining with an exclusive does not negate the prejacent, but negation combining with an additive does. *Not only Jack went for a walk* does not mean that *Jack did not go for a walk*, but the sentence *Jack didn't go for a walk either* does mean that *Jack did not go for a walk*. So what does this mean for questions of scope interaction with negation? For *kutju*, we saw that different scope orderings resulted in truth-conditional differences in reading. For *-ṯarra* and other additives however, different orderings with negation do not have truth-conditional consequences.[4] Elements suffixed by *-ṯarra* however can and do co-occur with negation. For example the examples in (252) show both constituent and sentential negation co-occuring with a *-ṯarra* phrase.

(252) **Negation interacting with *-ṯarra***

a. An nyaa-**ṯarra** **wiya**=ṉa mantji-ṉu?
CONJ what-**also** **NEG**=1SG.Subj get-PST
(Source translation:) And what was it as well that I did not get?
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *an*

b. Palulanguru kapi **wiya** punka-ṉu manta Yitjipi-lawana, manta Kayinana-lawana-**ṯarra**,
after.that water **NEG** fall-PST earth Egypt-PERL earth Canaan-PERL-**also**
mangarri tjana-mpa wiya-rri-ngu.
food 3PL-DAT nothing-INCH-PST
After that, no rain fell on Egypt, or Canaan either, their food ran out.
(Source translation:) Now there came a famine throughout Egypt and Canaan and great suffering, and our ancestors could find no food.
Tjakultjurinkunytja/Acts 7:11 (Bible Society of Australia, 2006)

[4] An anonymous examiner however rightly points out that this does not mean that additives do not interact scopally with negation; there are noticeable effects related to different orderings of the elements, but these differences are presuppositional in nature, and as we noted do not have truth-conditional consequences. The examiner notes in particular the following contrast, whereby changing the ordering of negation and the additive give two different readings, which are appropriate with different presuppositional contexts.

(251) a. **not > also**
I saw Sarah, but I didn't also see [Josh]$_F$

b. **also > not**
I didn't see Sarah, and I also didn't see [Josh]$_F$

To relate this to the Pintupi-Luritja data, note that all forms throughout here appear to align with the pattern in (251b). More work on this point is needed.

Cases where the *-ṯarra* phrase precedes sentential negation, such as is arguably the case in (249), in which clitics split the *-ṯarra* phrase from negation, maintain the same reading with regards to their truth-conditional content (although cf. discussion in footnote 4). As such, we will focus less on this interaction here as we did with interactions between negation and *kutju*.

7.1.1 *-ṯarra* and association with larger constituents

An interesting issue with *-ṯarra* is placement with regards to its focus associate when the focus associate is a larger constituent. The exact same question of ambiguity of the size of the focus associate that we saw with *kutju* holds for *-ṯarra* as well. We see that the element right-adjoins to its associate, but we cannot tell from this alone what exactly is being right-adjoined and how much material to the left of the FSE is encompassed. Like *kutju*, *-ṯarra* also can attach to various non-finite clauses like purposives (253) and medial verb constructions (253b).

(253) ***-ṯarra attached to purposive-marked verbs***

a. PROMPT: Yesterday I bought some clothes; I went to the pool as well
Mungaṯu ngayulu ulytja mantji-ṉu, ngayulu a-nu tjurrpi-**nytjaku-ṯarra**.
yesterday 1SG.ERG things get-PST 1SG.NOM go-PST swim-**PURP-also**
Yesterday I got some things, I went to go swimming as well.
JAG1-Elicitation-20201207_MAHGDG; 10.47–10.54

b. ***-ṯarra attached to medial verbs***
Ngurrka walytja-tjarra paluru tjarrpa-ngu yurrunpa watiya-ngka waralyngara-la
blood own-COMIT 3SG.NOM enter-PST before wood-LOC hung.up-?MV
ngurrka yinti-rra mirri-rri-**ngkula-ṯarra**.
blood pour-MV dead-INCH-**MV-also**
With his own blood he entered, before being hung up on the cross, pouring his own blood, and also dying.
(Source translation:) … he entered once for all into the holy place, not with the blood of goats and calves but with his own blood, thus obtaining eternal redemption.
Yipuru wangkapayiku/Hebrews 9:12 (Bible Society of Australia, 2006)

c. ***-ṯarra attached to nominalised verbs***

Mangarri puntura ngalku-la kurruṉpa yatayi nyina-nyi, kapi puntura
food much eat-MV spirit dreamy sit-PRS water much

tjiki-ntja-tjanu-**ṯarra**.
drink-NMLZ-ABL-**also**

(Source translation:) After gorging a lot of food the person has a vague feeling [lit. the spirit is dreamy]; it comes from drinking a lot of water also.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kurruṉpa yatayi*

d. ***-ṯarra attached to habitual-marked verbs***

Piipa=la waka-ra iya-**lpayi-ṯarra**.
letter=1SG.excl.Subj write-MV send.off-**HABIT-also**

(Source translation:) We write our names on paper to get our wage money. We also write letters and send them.

Luritja Picture Dictionary (Hansen et al., 2011: 126)

Like *kutju*, speakers were hesitant to attach *-ṯarra* to finite verbs in elicitation contexts, and a corpus search finds only a few examples, like those following.

(254) a. Palatja nganytja-lku-**ṯarra** nyuntu-paṉu mobile phone-akutu.
DEM stick-FUT-**also** 2SG-CONC mobile phone-ALL

It [COVID-19] will also stick to your mobile phone.
(Source translation:) That germ [COVID-19] can stick to your mobile phone.

Video: Northern Land Council, 2020; 2.50–3.55

b. Layitningi-ngku rungka-ṉingi, tuutuu-ra puntura wangka-**ngi-ṯarra**.
lightning-ERG strike-PST.CONT thunder-?MV great speak-**PST.CONT-also**

Lightning was striking, a great thunder was vocalising also.
(Source translation:) …and there were peals of thunder, rumblings, flashes of lightning, and an earthquake.

Tjukurrpa Nyangutja/Revelation 8:5 (Bible Society of Australia, 2006)

This suggests that *-ṯarra* is like *kutju* in that while not being completely banned from doing so, attaching to finite verbs is somewhat dispreferred.

The major question that again arises is whether *-ṯarra* can attach to finite VPs. Recall that *kutju* in these cases attached to the direct object (or associated adjuncts, like locations), rather than to the right edge of a verb-plus-object constituent. In fact, *-ṯarra* appears to do exactly the same thing in cases

where the focus associate is a finite verb and its object. Like *kutju*, *-ṯarra* in these environments exhibits patterns of anti-pied-piping (Branan & Erlewine, 2023).

(255) Prompt: What did you do today? I read a book, and I bought some groceries too.
Ngayulu piipa riita-mila-ṉu, ngayulu mangarri-**ṯarra** mantji-**ṉu**.
1SG.ERG book read-LOAN-PST 1SG.ERG food-**also** get-**PST**
I read a book, I also got food.
JAG1-Elicitation-20201207_MAHGDG; 11.32–11.45

Similar patterns can be seen in corpus examples, where an object is marked with *-ṯarra* in cases where the focus size would appear to encompass more material. In all of these cases, VP alternatives are being compared, and in all cases, it is not the right edge that is being marked by *-ṯarra*.

(256) a. Wangka kuli-nytjaku tuulyi-**ṯarra** nya-**nganyi** nganaṉa munga-ngka palya-lingku.
voice listen-PURP movie-**also** see-**PRS** 1PL.ERG night-LOC good-INTENS
(Source translation:) We listened to the talk and also saw a film that night.
Tjakulpa Kuwarritja (September 1986, p.8, 9)

b. (Preceding English paragraph for context:) The two of us put a fence around the 'painting peoples' house and it took two days for us to do this for the Tula Artists mob.
Timpa-**ṯarra** ngalitju atu-**ṉu** palya-nytjaku.
timber-**also** 1PL.excl.ERG chop-**PST** do-PURP
We also chopped the timber to do it.
(Source translation:) We cut the timber ourselves and built the fence right round.
Tjakulpa kuwarritja (September 1986, p.15)

c. Ya-nkula paluru=lanya watja-ri-nangi puḻi tjuṯa kamu karru-**ṯarra**
go-MV 3SG.ERG=1PL.Obj say-around-PST.CONT hill many CONJ creek-**also**
ninti-**ṉingi**.
show-**PST.CONT**
(Source translation:) After going on, he was telling us about the hills and showing us the creeks as well.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *karru*

d. Tinimiiti-**ṯarra** tjana-nya aḻa-ra u-**ngangi**, ngalku-la=ya atji-ntjaku.
tin.of.meat-**also** 3PL-ACC open-MV give-**PST.CONT** eat-IMP=?2PL.IMP try-PURP
(Source translation:) Long ago a white man followed people in the bush and picked them up. He put them down at a place to wait (for him). He used to open and give them tins of meat to try eating it.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *atjiṉi*

Example (256b) is even a particularly striking example, as the object *timpa* 'timber' is fronted, and separated from the verb *atuṉu* 'chopped' by another element; that is, although the VP is a focus associate, it does not even form a contiguous string.[5] Like we saw with *kutju* then, both elicited and corpus examples suggest that broader focus contexts involving finite verbs exhibit a different syntactic relation between FSE and focus associate than nominals and non-finite verbs do.

This behaviour raises analogous questions to our discussion of *kutju* in chapter 5.2– the FSE does not attach to the right edge of the focus in these contexts as it does elsewhere (i.e. NPs, non-finite verbs/clauses, finite verbs on their own). We might again wonder what this means for the status of (finite) VPs in Pintupi-Luritja if FSEs like *kutju* and *-ṯarra* cannot appear on their right edge. This shows another area for which there is no surface evidence for finite VP constituents in the language. We again return to this question in chapter 8.2.

7.1.2 Brief comparison with other additives

Briefly, let us compare the behaviour of additive *-ṯarra* with other additive suffixes in the language. These include *-lurrtju* and *-ṯawarra*, which appear to equal *-ṯarra* in meaning (in having an additive inference), and in syntactic placement (right adjoined to the focus associate). These can be seen in (257) below. The Pintupi-Luritja dictionary (Hansen & Hansen, 2022) also includes a verb *lurrtju-rri-nyi* [*lurrtju*-INCH-PRS] 'meet; gather; assemble together; join (a group)', which obviously includes related meanings to the additive suffixal use of- *lurrtju* as indicating an addition or congregation.[6]

(257) a. Anta kuka ruwunytja nganaṉa ngalku-payi, kuka nyaa– kuka ngaya, kuka tjalku,
CONJ meat much 1PL.ERG eat-HABIT meat what meat cat meat bilby
kuka puṯutjurru-**lurrtju**, kuka mala-ṯu.
meat small.wallaby-**also** meat hare.wallaby-too
And we'd eat a lot of meat, what sort of meat– cat, bilby, small wallaby as well, hare wallaby too.
(Source translation:) And we'd eat a lot of meat too - bandicoot and cat, and the small wallaby /puṯutjurru/, and the hare wallaby /mala/.
Ngayulu kuliṉu mamu (Wararrngula Tjupurruḻa, 1988)

[5] This looks similar to what has been called 'subpart of focus fronting' (Fanselow & Lenertová, 2011); more on this in chapter 8.2.

[6] Clendon (1988: 198) also has a Manjiljarra example including an element *lurrju*, which is glossed as 'altogether.'

b. Nyaa-**lurrtju** puyilma-nkupayi?
what-**also** smear-HABIT
(Source translation:) He is rubbing fat on the spear so it won't become twisted. What is the other thing they smear with fat? The spear-thrower.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *-lurrtju*

c. Pala nguwanpa aṉangu tjuṯa-ngku pipirri tjuṯa-ngku-**ṯawarra** watja-lpayi.
DEM SEMBL person many-ERG child many-ERG-**also** say-HABIT
(Source translation:) People and children as well, say this about a person like that.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *-ṯawarra*

Like *-ṯarra* and *kutju*, it appears that the placement of *-lurrtju* and *-ṯawarra* can target a sub-unit of the focus. There is a little more variation in what kinds of clauses this shifted placement occurs in, as shown in (258). In each case, the additive attaches to a sub-element of the focus– namely the leftmost element within the focus.

(258) a. **Object inside habitual clause**
Impi-**ṯawarra** palya-lpayi waṉkawaṉka-tjanu.
cocoon-**also** make-HABIT web-ABL
(Source translation:) [The grub] makes a home for itself on the bush. It makes a home for itself on the bush. Then finally it makes a cocoon so it can lie inside it. After that it lies inside the cocoon and finally grows wings. After that that cocoon cracks. From being a grub it comes out as a butterfly, when the cocoon cracks. Then it makes a cocoon as well from fine webs.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *impi*

b. **Subject inside finite intransitive clause**
Palunya-ngka mutukayi ruurrku puḻka-rri-ku an puyu-**ṯawarra**
DEM-LOC car roar great-INCH-FUT CONJ smoke-**also**
puyungara-ku.
smoke.rise-FUT
In that case, the car will roar greatly (become a great roaring) and also smoke will rise up.
(Source translation:) He pressed the accelerator and revved the engine of the car. When he does that, the engine roars loudly and there is a lot of smoke as well.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *-ṯawarra*

c. **Object inside medial verb clause**

Tiiyi-**lurrtju** tjiki-ra nyina-rra nyina-rra wangka-rra wangka-rra ara maa
Tea-**also** drink-MV sit-MV sit-MV speak-MV speak-MV story away
nya<u>l</u>i-rri-nyi.
sleepy-INCH-PRS

(Source translation:) After one makes a fire and sits and sits there one should eat meat in the light of the fire. After drinking tea as well one keeps on sitting there talking and talking (and telling the) stories and then becomes sleepy.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ara*

d. **Shared object of medial verb clause and habitual verb**

Kuli-ntja kuya-wana paluru kuli-lpayi. Ya<u>n</u>angu tju<u>t</u>a-**<u>t</u>awarra** nya-kula
think-NMLZ bad-ATTRB 3SG.NOM think-HABIT person many-**also** see-MV
tuunlayiki-rri-payi.
don't.like-INCH-HABIT

(Source translation:) He has been thinking bad thoughts. As well, if he sees any person he hates them.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *-<u>t</u>awarra*

e. **Object of intentive clause**

Wiitingi-ku=latju tjungu-rri-kitja yunytju-rri-nganyi.
wedding-DAT=1PL.excl.Subj together-INCH-INTENT desirous-INCH-PRS
Kuka-**<u>t</u>arra**=latju pu<u>l</u>ka ngalku-kitja.
meat-**also**=1PL.excl.Subj great eat-INTENT

(Source translation:) We want everybody to gather together for a wedding (at the church), so that we can also eat meat and food together.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *-<u>t</u>arra*

Some cases exhibit some ambiguity; (259) is an example of the suffix targeting the verb, unlike the overwhelmingly nominal cases seen in previous examples of *kutju* and *-<u>t</u>arra*. This could be a preference for targeting the left edge within the focus like we have seen throughout (as also discussed by Branan and Erlewine, 2023 as common in anti-pied-piping), but it is also possible that *mangarri* is an afterthought; this is impossible to tell in the absence of intonation.

(259) Wiya=n, kana ngarri-nytjaku, kana-rri-ra paka-ra nyina-nytjaku,
NEG=2SG.Subj awake lie-PURP awake-INCH-MV arise-MV sit-PURP
ngalku-ntjaku-**lurrtju** mangarri.
eat-PURP-**also** food
No, don't do that, lie there awake, so you can get up and sit and eat as well.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *-ntjaku*

Ambiguity of placement may also be found with finite VP focus associates when the noun phrase is clause final. For example in (260), the story is reporting what students did on an excursion to the Top End of the Northern Territory; the alternative– what they also did– was [*swim in the ocean*]$_F$. As a finite VP, we have come to expect that the additive particle will mark the location, which it does.

(260) Tjurrpi-ngu=ya yuru tiṉa-ngka-**lurrtju**.
swim-PST=3PL.Subj water big-LOC-**also**
They also swam in the ocean.
(Source translation:) They went on a boat across the sea water to Mandorah and went swimming and fishing.
Tjakulpa kuwarritja (October 1984, p.17, 18)

This example makes us question what determines which element within the focus is actually marked– whether it is attracted to the left edge, whether it disprefers attaching to the verb, how large a unit *-lurrtju* is attaching to, or whether there is general variation in positioning. All possibilities would be possible given the examples throughout.

In contrast, it is interesting to note the use of *kin*/*kiin* (from English 'again') as an additive. Firstly, *kiin* has a broad set of meanings, but can also be used as an additive. The difference to other additives like *-ṯarra* and *-lurrtju* is the much laxer constraints determining the syntactic relation to its associate: it does not need to immediately follow the focus associate.

(261) a. Nyuntupa turaawutju puluu-wana. Tjaata nyuntupa puluu-wana-**kin**. ...
2SG.DAT trousers blue-ATTB shirt 2SG.DAT blue-ATTB-**also**
An mukati=nta maru. Ngayuku=tju mukati maru **kiin**.
CONJ hat=2SG.Obj black 1SG.DAT=1SG.DAT hat black **also**
(Source translation:) Your trousers are blue. Your shirt is a blue [sic] too... And your hat is black. My hat is also black.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kaala*

b. Arrnguḻi mangarri palya **kiin**.
wild.plum food good **also**
(Source translation:) Wild plum is a good food as well.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *arrnguḻi*

Here in the first sentences, *tjaata nyuntupa* 'your shirt' is clearly the focus associate; it is the relevant alternative to *nyuntupa turaawutju* 'your trousers.' Similarly for *mukati* 'hat' in the second section. However, *kin* is not right-adjoined to these elements, and instead occurs at the end of the clause. This is in fact where English 'again' would be expected to sit, although Pintupi-Luritja *kiin* has obviously developed a broader semantics than the English source word. This suggests that there may be a broad tendency for these items not to take on the same syntactic restrictions in Pintupi-Luritja as non-borrowed items. This is true of both *kiin*, and as we saw earlier in section 5.2, of *uuni* 'only' as well.

This section suggests further that this pattern of marking an element within a broader focus domain is not just a property of exclusive *kutju* and additive *-ṯarra*, but is instead a property of a whole class of focus sensitive elements. Exactly the same patterns can be shown for the other additive elements *-lurrtju* and *-ṯawarra*. An interesting exception is the English-derived *kiin* 'too, again', which like the English-derived *uuni* 'only,' has a different syntactic relation to its focus associate; this pattern is instead reminiscent of the respective strategies of establishing this relation in English.

7.2 Negative *wiya* interacting with focus

In this short section, we will consider negation (in the form of *wiya*) as a focus sensitive element. The relation of negation to focus and focus sensitivity has been noted in the literature since at least Jackendoff (1972), but has in general been much less explored in comparison to other FSEs. Examples like (262) suggest that negation can associate with focus, because the difference in pitch accent placement in the clause can slightly alter the reading.

(262) a. They didn't SEE me. (But they might have heard me)

b. They didn't see ME. (You on the other hand...)

However whether we can see negation as a focus sensitive element *per se* is more controversial; the current view generally converges on the view that negation is not itself an FSE in the same way that e.g. *only* is (Beaver & Clark, 2008; Büring, 2016; Fălăuș, 2020). These arguments assume that general properties of how focus and negation independently work conspire to give the illusion of negation associating with focus in the same way as other *bona fide* FSEs.

In chapter 3 we noted that there is a syntactic distinction between sentential and constituent negation, but did not discuss what actually influences which one is used when. We only discussed the uniform semantic import of the two constructions (i.e. clausal negation). It won't be demonstrated here

that there is a correlation between constituent negation and particular pragmatic import (i.e. focus), but it is interesting to consider whether this is a factor.

Sometimes constituent negation is used when the element it attaches to is focused. Two clear examples of this are in (263a) and (263b); I've included the entire quote for the context (with inserted line breaks for readability), which shows the contrast. Note that the clitics following *wiya* show that this is constituent negation in both cases.

(263) a. Nyuntu warrki-nyi aṉangu tjuṯa.
2SG.ERG tell.off-PRS person many

Nyuntu-nya wiya=nta=ya aṉangu tjuṯa-ngku warrki-nyi.
2SG-ACC NEG=2SG.Obj=3PL.Subj person many-ERG tell.off-PRS

Nyuntu kutju wangka uḻpaṯa uutji-mila-lpayi.
2SG.ERG only speech rubbish use-LOAN-HABIT

Nyuntu wangka palya kutju wangka-mara.
2SG.ERG speech good only speak-CNTFC

(Source translation:) You are swearing at Aboriginal elders. They are not swearing at you. Only you have been using bad language at them. You should have only spoken well to them.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aalytji aalytjirrinyi*

b. **Nyuntu-pa wiya**=n̲a=nta tju-nu, ngayu-ku tiiyi.
2SG-DAT NEG=1SG.Subj=2SG.Obj put-PST 1SG-DAT tea

I didn't put it (there) for you, it's my tea.
(Source translation:) Who is this stranger who is not embarrassed to come (and drink) my tea? I didn't put it there for you to drink.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *wapaḻ pirinypa*

Here, *nyuntunya* 'you.ACC' and *nyuntupa* 'you.DAT' are clearly being contrasted with other relevant people, and are focused. Clitic placement shows that this is constituent negation. At least sometimes then, there is a relation between this strategy of negation and focus.

However this is not always the case; some cases of constituent negation do not appear to be focused. For example in (264) there is no strong reason to assume the first person is focused based on the context of the story.

(264) Ngayulu **wiya**=**n̲a** ninti nyina-ngu nyuntu nyina-ngi-tjangka.
1SG.NOM **NEG**=**1SG.Subj** knowledgeable sit-PST 2SG.NOM sit-PST.CONT-CIRC

*The bird asked "Why are you chopping down this tree?" The man said "I saw this tree before. **I didn't know that you were living (there).**"*

Watikamu tjuḻpu (Phillipus, 1989)

What this suggests is that the use of constituent negation does not mean that the element it attaches to is focused; the reverse situation (whether being focused and negated necessarily results in constituent negation) won't be tested here.

It is worth noting that a purported relation between negation and focus has been described elsewhere for other Australian languages; Phillips (2023) lists a small number of discussions of the topic in grammars, but notes that this topic is in general greatly understudied in Australian languages. A relevant example is seen in Diyari, where Austin (2021) describes different readings of inclusion of the negative particle *wata*.

(265) Diyari Austin (2021: 173f)

a. Wata nganhi wanku.
NEG 1SG.NOM snake
'I am not a snake' or 'It is not I who is a snake'

b. Ngathu wata nhanha nhayi-rna wara-yi.
1SG.ERG NEG 3SG.ACC see-PTCPLE AUX-PRS
'It was not her that I saw' or 'It was not see her that I did'

Wata then appears to be able to 'associate' with different, increasing focus sizes (recall discussion of focus projection in chapter 4.1.2). Austin says that "[c]lause-initially, *wata* is ambiguous between its predicate negation function and its NP negation function." This draws an interesting parallel with Pintupi-Luritja; we have seen in detail in section 3.3.2 that second position *wiya* is ambiguous between what we have been calling constituent negation (Austin's NP negation) and sentential negation (Austin's predicate negation). The difference between the two languages is related to the behaviour of focus association with the elements involved (*wiya* associates to the left in constituent negation, and to the right[7] as sentential negation; *wata* appears to appear clause-initially and uniformly scope to the right). Despite these differences, the ambiguity is of the same type, whereby it is unclear how much material is encompassed in the focus.

7.3 Parallels in syntactic behaviour

What this chapter has shown is that we find parallel syntactic behaviour among focus sensitive elements in Pintupi-Luritja. After the in-depth description of *kutju* in the previous chapters, we have been able to compare its behaviour with other FSEs, mainly the additive suffixes *-ṯarra*, *-lurrtju*, and a few others. The semantics of these elements means that many of the characteristics of *kutju* in the last chapter do

[7] Although cf. discussion throughout on the scope of elements in the absence of other scope-bearing elements in the clause.

not apply here– i.e. since the contribution of -*ṯarra* and others is a presupposition, they do not interact scopally with negation in quite the same way (recall discussion in section 7.1).

However their syntactic behaviours are otherwise quite uniform. All FSEs investigated right-adjoin to their focus associate. Most strikingly, all exhibit the same mismatches in particular environments– a sub-unit of the logical focus is marked, instead of the right edge. This happens apparently obligatorily with finite verb plus objects (i.e. finite VPs), and apparently optionally with a number of other, non-finite clause types. What this suggests is that FSEs form a uniform class syntactically, despite some variation in their semantic form (i.e. their presupposed or asserted status). That is to say, discussions of the syntax of, e.g. *kutju*, do not only have *kutju*-specific results. Instead, it appears we can speak of a class of elements with comparable syntactic behaviour.

There are two other points of interest that have arisen over the last chapter; firstly, it looks like *wiya* does not belong to this class of FSEs. This is in line with other work that has suggested that negation generally does not align with *only* etc, but that apparent focus sensitive effects associated with negation arise through a combination of general negative strategies with how focus marking works in the language more generally. We saw that it is possible that there may be a correlation between focus marking and where *wiya* attaches, but that this relation is not complete– constituent negation does not mean that the element it attaches to is focused. It is possible that focus results in constituent negation being a more likely strategy, but this is not investigated here.

Finally, we saw hints of a stark contrast in syntactic behaviour with a small sub-class of FSEs in Pintupi-Luritja, namely those derived from English terms (*uuni* 'only' and *kiin* 'too'). Instead of being right-adjoined, these in fact behave syntactially more like they do in English– *uuni* sits high in the clause and associates with its focus further on, and *kiin* is generally more free, including sitting at the end of the clause. Although they differ syntactically, they are nonetheless fully integrated into Pintupi-Luritja grammar.

Chapter 8

Revisiting the role of syntax in focus sensitivity

Before concluding this thematic section of the thesis on focus sensitivity, let us take stock of what the past few chapters have shown us about the role of syntax in establishing how the elements discussed interact. These examples have demonstrated the role that syntax plays in determining both the relation of focus sensitive elements to their associates, as well as how these phrases then interact scopally with other elements like negation. In this chapter I firstly want to argue that this generalisation is best phrased in terms of c-command, rather than linear order: the focus particle must c-command its associate. This would be good evidence for more general asymmetric syntactic structure in the language.

We will then turn to the patterns of marking we saw with both *kutju* and *-ṯarra*/*-lurrtju* etc., when the focus associate was a finite VP, and put these patterns in some typological context.

8.1 The c-command requirement

We have seen that the relationship of *kutju* and *-ṯarra* etc. to their focus associate is in general strictly regulated by their relative positioning; they all right adjoin directly to their focus associate.[1] Together the FSE forms a constituent with its associate, as is shown by clitic placement. Only considering these facts, we could state this distribution in purely linear terms, i.e. by speaking of linear ordering as the relevant factor in determining their interaction, without making reference to any syntactic structure. For example, we could phrase the generalisation as 'Focus sensitive elements must immediately follow their focus associate.' However there are good reasons why we should not see an analysis in terms of linearity, and instead understand the generalisation as reflecting syntactic structure and by making reference to c-command as the relevant relation between the elements.

[1]The exceptions to this generalisation we saw involved *uuni/yuuni* 'only' and *kin/kiin* 'also' (from 'again'), which both seem to maintain some of the syntactic behaviour from their English source. The other kind of deviations from this pattern– involving finite verb clauses– is to be discussed below in section 8.2.

The first argument for rejecting linearity as the relevant level of description comes from the integration of negation into a sentence with a *kutju* phrase. We saw that negation has two ways of interacting with this phrase: as constituent negation, where it immediately follows the *kutju* phrase; and as sentential negation, where it linearly precedes the *kutju* phrase, potentially with intervening material separating them. Both of these constructions however have negation semantically scoping over *kutju*, despite occurring both to the right and the left of the phrase respectively. This means that by stating the generalisation purely in terms of linearity, we would be forced to say that ordering is important for the relation of *kutju* and the focus associate, but not when it comes to negation and its scope; or in the roundabout way that constituent negation must follow the *kutju* phrase, but that sentential negation must precede it. Cases where *kutju* outscopes negation make this however even more difficult; here we would have to say that to outscope negation, *kutju* must linearly precede negation, be in initial position, and that the negation that follows it cannot be constituent negation. Defining these scope relations in terms of linearity quickly becomes a disjunctive list of stipulations. This is not a principled approach to the phenomenon.

In contrast, framing these generalisation in terms of c-command is elegant in that it appeals to a single principle, with the complications in ordering stemming from syntactic issues that apply more generally in the grammar. Let's investigate this in a little more detail. The general principle would be stated as something like 'An operator scopes over its c-command domain.'[2] Understood broadly, we could apply this to a number of the issues investigated in this chapter: (i) the relationship between *kutju*/-*ṯarra*/etc. and their focus associates; (ii) the scope of negation; and (iii) the scope relations between negation and *kutju* phrases.

Firstly, the role of syntax in regulating the relationship between FSEs and their focus associates has been clear throughout. Phrasing this relationship as one of c-command is more broadly supported by our knowledge of e.g. nominal structure; the right edge is clearly relevant for nominal phrases in Pintupi-Luritja, as case marking sits here and attaches to the entire phrase.[3] Exclusive *kutju* extends this right edge, and continues outward with additional structure; the entire NP can represent the entire focus associate of *kutju*, and the data from clitic positioning shows these units together to act as a single syntactic unit.

The next argument, involving the scope of negation, has already been dealt with in some detail throughout the last several chapters. The logic of the argument with constituent negation mirrors that of *kutju*: being right-adjoined to an element is syntactically attached to that element– branching off to the right of, and scoping over, elements within it. Sentential negation is attachment to the clausal spine.

Taken together, we can make sense of the complex interactions between *kutju* and negation we have investigated at length throughout the last few chapters. Both sentential and constituent negation

[2]Rather than taken as pure stipulation, other considerations– in particular assuming a compositional semantics– would make this the null hypothesis.

[3]This is sometimes discussed as the case marking taking 'scope' over the nominal phrase; I won't use this terminology here so as not to include too many notions under that terminology, but we can note its use and the flavour of asymmetric syntactic structure it conveys.

almost always scope over *kutju* because they almost always c-command it. Sentential negation scopes over a *kutju* phrase when it precedes that phrase, and constituent negation scopes over a *kutju* phrase when it immediately follows it. The way that elements take scope over linear structures (to the left or right) do not need to be commented on, since we can co-opt more general descriptions of the syntax of these clauses: building directly on nominal phrases for example involves sitting on their right edge (as seen by quantifiers, case, exclusives, negation). Sentential particles have propositional scope in the absence of other scope-bearing elements. We saw in section 6.3 that clause-initial *kutju* phrases are therefore crucial; here, *kutju* precedes negation, but does not always scope over it. I argued in section 6.3 that these cases are a kind of structural ambiguity, where the string is compatible with both sentential and constituent negation. We would expect constituent negation to continue to scope over *kutju* in this clause-initial position, as it does elsewhere; and we would expect sentential negation to be out-scoped. As we saw in section 6.3, there is indeed some variation in scope readings in this position. We argued that this variation is due to the ambiguity of the syntactic positioning of negation in those examples.

Framing these interactions in terms of c-command means that we do not need to stipulate complex disjunctive rules determining scope interactions. We can simply say that these are uniformly determined by syntactic structure, and that c-command, not linearity, is the relevant level of description for these generalisations. Issues of directionality in how scope is determined falls out of what we already know about how smaller syntactic units are built up; especially that right-adjoining to nominal phrases is equated with scoping over them.

Assuming this, we position Pintupi-Luritja among a number of other languages for which a syntactic component to focus association has been argued for. As discussed in chapter 4.1.3, this has been widely assumed (Jackendoff, 1972; Tancredi, 1990; Hoeksema & Zwarts, 1991; McCawley, 1996; Beaver & Clark, 2008; Erlewine, 2014). The principle can be seen in the following formulation, from Tancredi (1990).

(266) *The principle of lexical association*
An operator like *only* must be associated with a lexical constituent in its c–command domain.

In this way, the phenomena and their analysis throughout these last few chapters may not be surprising in the context of investigations of association with focus. What makes this point worth lingering on here is the implications this has more generally for the syntactic structure of Pintupi-Luritja. Following this argument of scope and association with focus through suggests a new way of investigating asymmetric syntactic structure in the language. This is important in the context of investigations into non-configurationality, and which processes are syntactically relevant in these languages.

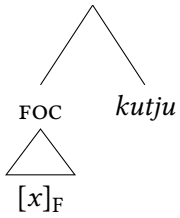
8.1.1 The syntactic basis of focus association in Pintupi-Luritja

For the reasons sketched out above, I argue that the representation of the structures discussed in these chapters should be seen through a syntactic lens. In this section I sketch out the syntactic

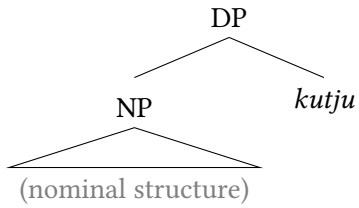
relations between the elements discussed throughout the last few chapters. I have to stress that these representations are schematic: these are not syntactic trees– which is why I have not consistently labelled the nodes– these are only schematic representations of c-command relations. There will therefore be a relationship between these structures and trees, but these are only meant to represent one aspect of their structure, namely the asymmetric relations between the relevant entities.

Firstly, *kutju* attaches to its focus associate. Together these form a constituent, as we saw from patterns of clitic placement. This is assumed to be true of both exclusive and indefinite *kutju*, although they differ slightly in their structure; as case marking patterns show, exclusive *kutju* attaches outside an NP, whereas indefinite *kutju* is integrated into the nominal structure. The discussion in 5.2.1 demonstrated that there is a fine-grained difference between the positioning of exclusive and indefinite *kutju*.

(267) **Exclusive *kutju* right-adjoined to its associate**



(268) **Indefinite *kutju* as part of the extended noun phrase**

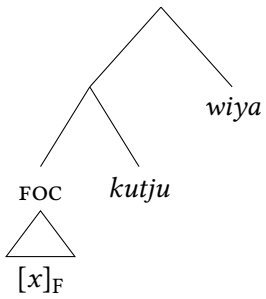


Kutju as a manner adverb meaning 'alone' (181) will however not be attached in the same way; it does not associate with focus in a similar fashion, and instead conventionally is linked to a clausal argument. It does not have the same syntactic restrictions in the sentence as exclusive *kutju* does, as it can e.g. occur clause-finally, separated from the subject. I will therefore assume it is governed instead by different rules of placement in the clause, and assume it patterns with other adverbs of manner in this way. As noted in a footnote in chapter 5.1, adverbial *kutju* is likely less syntactically constrained than the other uses because it (i) does not associate with focus, or act on alternatives like exclusive *kutju* does, and (ii) is not part of the extended noun phrase like indefinite *kutju* is.[4] For these reasons we established that it is important to distinguish between at least three *kutju*s: exclusive *kutju*, indefinite *kutju*, and adverbial *kutju*.

[4]For the differing behaviour of these elements interesting comparisons to the data presented here, see the discussion on Serbian *samo*/*sam*– and similar elements in a few other languages in Windhearn (2021: Ch. 4).

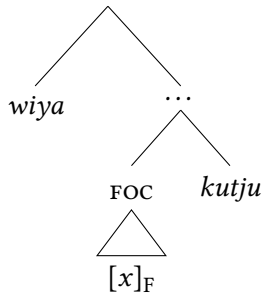
Returning to exclusive *kutju*, the two ways that negation combines with a *kutju* phrase to scope above it are as follows. Firstly, with constituent negation, *wiya* attaches to the right edge of the constituent over which it takes scope– the *kutju* phrase, much in the same way as *kutju* itself attaches to its associate. Together, these similarly all form a constituent, again as shown by clitic placement.

(269) **Constituent negation scoping above a *kutju* phrase**



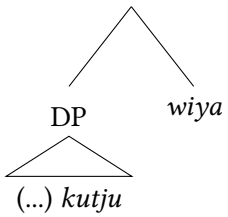
Secondly, sentential negation occurs earlier (i.e. higher) in the clause. It does not form a constituent with the *kutju* phrase, as clitics are able to split the two in this configuration. However, *wiya* is still c-commanding the *kutju* phrase, so it scopes above it much like in the examples of constituent negation.

(270) **Sentential negation scoping above a *kutju phrase***



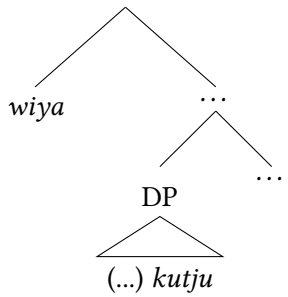
We should note that same relations hold when *kutju* is not an exclusive particle (i.e. has no focus associate), and is instead being used as an indefinite. We saw that constituent negation is right-adjoined in these cases (cf. 241a). These structures showing the syntax of negation were first discussed in section 3.3.

(271) **Constituent negation scoping above indefinite *kutju***



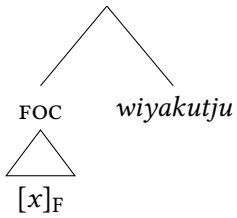
Similarly, we saw cases where sentential negation precedes indefinite *kutju* and scopes above it.

(272) **Sentential negation scoping above indefinite *kutju***



Based on the discussion of the scalar, evaluative *wiya kutju*, I would conclude that this is not structurally complex like the other examples with negation, but rather is better analysed as a single unit, functioning analogously to exclusive *kutju*, but with an additional evaluative import. As stated, the fact that it is often written together in community texts would also support this approach.

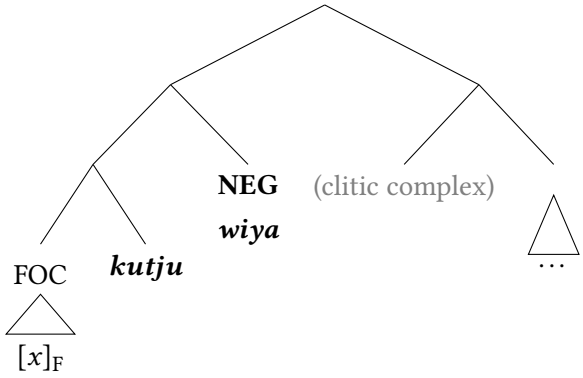
(273) ***Wiya kutju* right-adjoined to its associate** (cf. 267)



The discussion of clause initial *kutju* in the presence of negation would also follow from c-command under the analysis put forward here. Recall that in some cases in this configuration, the *kutju* phrase linearly precedes negation, but scopes under it. We discussed that this could similarly be understood as constituent negation, as in the following (cf. the essentially identical structure in 269).[5]

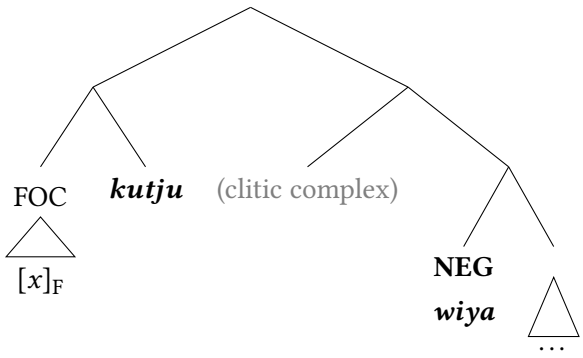
[5]For indefinite *kutju*, replace the focus constituent with an NP. Note that I have included the clitic complex (when present) as sitting in a position above much of the clause (not shown here). Further work should investigate the syntactic place of clitics in the clause in more detail than shown here.

(274) ***Kutju* linearly preceding negation but scoping under it**



Cases where the *kutju* phrase linearly precedes negation and scopes over it would under this analysis be cases of sentential negation.[6]

(275) ***Kutju* linearly preceding negation and scoping over it**



Sentences where the *kutju* phrase precedes negation are ambiguous between the two structures in (274) and (275); the two competing readings are of negation scoping high and low respectively. An analysis along the lines of a structural ambiguity is attractive because the seeming diversity of orderings between the two elements and their readings can be stripped back to a single underlying generalisation: scope is determined purely by structural considerations. The distinction between sentential and constituent negation becomes very important, and particularly understanding the direction in which they take attach.

Note that I have included the positioning of the clitic complex in both (274) and (275). The positioning of clitics in these constructions is predicted from the analyses. The crucial examples with clitics that would confirm this are very rare in my corpus; further work will need to confirm a correlation between clitic positioning, negation, and scope readings. However we do have a few limited examples in (276)

[6]Note that it is the entire *kutju* phrase that is the scope-taking element, i.e. the node that connects *kutju* to its associate. *Kutju* alone does not c-command negation here, but the phrase as a whole does.

below. They all align with the analysis presented: a clause-initial *kutju* is followed by negation, which is followed by clitics, and in every case negation scopes above *kutju*. These then look like the structure in (274).

(276) a. Waama wiya=nyurra tjiki-ra nyina-nytjaku,
alcohol NEG=2PL.Subj drink-MV sit-PURP

mangarri-ṯarra ngalku-ra **kutju** **wiya=nyurra** kuli-ra nyina-nytjaku, …
food-also eat-MV **only** **NEG=2PL.Subj** think-MV sit-PURP

You should all not be drinking alcohol, you should also not be thinking only of eating food, …
(Source translation:) Be on guard so that your hearts are not weighed down with dissipation and drunkenness and the worries of this life and that day does not catch you unexpectedly, …
Luukaṉu/Luke 21:34–35 (Bible Society of Australia, 2006)

b. Nyuntu-nya **kutju** **wiya=ya** kulil-wiya-ngku wanti-ngu, ngayu-nya
2SG.ACC **only** **NEG=3PL.Subj** listen-NEG-ERG discard-PST 1SG-ACC

Katutja-nya-ṯarra=ya mayutju tiṉa kulil-wiya-ngku wanti-ngu.
God-ACC-also=3PL.Subj lord big listen-NEG-ERG discard-PST

Not only you have they rejected without heeding, they have also rejected God without listening.
(Source translation): Listen to the voice of the people in all that they say to you, for they have not rejected you, but they have rejected me from being king over them.
1 Tjamiyula/Samuel 8:1–21 (8:7) (Bible Society of Australia, 2006)

c. Mani-ku **kutju** **wiya=li** kuli-ra mantji-ntjaku.
money-DAT **only** **NEG=1DU.Subj** think-MV get-PURP

We two should be thinking of getting not only money.
(Source translation:) Is this a time to accept silver and to accept clothing, olive orchards and vineyards, sheep and oxen, and male and female slaves?
2 Kiinga 5:20-27/Kings 5:26 (Bible Society of Australia, 2006)

As expected by our assumptions of the structure, this is constituent negation, and therefore scopes above the *kutju* phrase. There are however very few examples of this type of structure with *kutju* in my corpus, and all of them are Bible examples, which makes it difficult to make solid generalisations about the structure.[7] The crucial case would be sentences where clitics split a clause-initial *kutju* phrase from *wiya*, and have *kutju* semantically outscope negation. This would correspond to the structure in (275). I

[7] I assume the fact that all examples of this structure come rom the Bible is due to the sheer length of that text, coupled with the relative rareness of this exact constellation of elements.

find no examples of this pattern in the Bible. If this reading was consistent for this construction, then that would speak for a purely syntactic analysis of the scope relations as suggested here.[8]

There are also some limited examples of this structure involving *-ṯarra*, as in (277), although we do not find the same ordering variability between it and negation that we do with *kutju*; the ordering is always *-ṯarra* > *wiya*. We do however find variation in clitic positioning (which we have assumed is a difference between constituent versus sentential negation), but since additives are themselves not scope-bearing elements like exclusives are, there is no concomitant semantic (truth-conditional) difference between the two (recall discussion in section 7.1).

(277) a. Yiitju-lu palunya watja-ṉu, "Ngayulu-**ṯarra** **wiya**=**ṉa**=**nta** pu-ngku…"
Jesus-ERG 3SG.ACC say-PST 1SG.ERG-**also** **NEG**=**1SG.Subj**=**2SG.Obj** strike-FUT
Jesus said to him "I will not strike you either."
(Source translation:) And Jesus said, "Neither do I condemn you…"
Tjaanakuṉu/John 8:11 (Bible Society of Australia, 2006)

b. Nyuntu-nya-**ṯarra**=**ṉa**=**nta** **wiya** nya-ngu
2SG-ACC-**also**=**1SG.Subj**=**2SG.Obj** **NEG** see-PST
I didn't see you either.
JAG1-Elicitation-20201207_MAHGDG; 22.09–22.12

Further work should target the interplay of FSEs, clitics, and scope readings.

8.1.2 Extension to a more general role of syntax for scope

Obviously relevant to this discussion would be how other scope-taking elements behave in this initial position followed by negation. We might expect that if syntax is relevant for scope for focus sensitive elements, that it is also relevant more generally in the language, that as a principle it is not only relevant in one part of the grammar. However the semantics of other candidates for investigation partly obscures investigations. Answering the question of a more general role of syntax for scope conclusively is ultimately beyond the scope of this thesis; but we can briefly show why, and what we would need to know to probe this area further.

Classic candidates for scope interactions are quantifiers;[9] we have seen *kutju* working somewhat like an existential quantifier and how it interacts with negation. Others are more difficult; for example, *tjuṯa* can variously be translated as 'many, all, a plurality of.' Negation interacts differently with these elements (i.e. ¬ > ∀ is different to ¬ > *many*), so it is often unclear which of these readings are meant

[8] If there is variation in scope readings in this construction on the other hand, it would suggest an approach to scope determination that is not purely syntactic. We should note however that all examples we do have align with the analysis put forward in this chapter.

[9] We will be investigating scope with modal elements in part III of the thesis, which we will describe as a particular kind of quantificational element.

with *tjuṯa*. A more in-depth understanding of *tjuṯa* would be required before attaining a more complete picture of how it interacts scopally with negation.

Another possibility is to investigate a small number of examples of scope-taking elements borrowed from English, like *ipiritjingi* 'everything.'[10] Consider the following examples.

(278) **Wiya** tjayimtayimi **ipiritjingi** paka-lpayi, paata maanytja kutjupa kutjupa-ngka=ya
NEG same.time **everything** rise-HABIT but month other other-LOC=3PL.Subj
paka-lpayi.
rise-HABIT

It's not that everything [different plants] grows at the same time, but they grow in different months.
(Source translation:) Every food berry type does not grow at the same time, but they grow and mature in different months.

Pintupi-Lutitja dictionary (Hansen & Hansen, 2022); examples under entry for *ipiritjingi*

In (278), the reading is negation scoping over *ipiritjingi* ($\neg > \forall$), i.e. that it is not the case that everything grows at the same time; to be contrasted with $\forall > \neg$, which would be that nothing grows at the same time. The continuation shows the correct reading– that plants grow variously in different months. Syntactically, we see that *wiya* precedes *ipiritjingi*, which aligns with what we would expect based on the previous chapters: sentential negation preceding another scope-bearing element results in wide scope negation. However relevant examples are rare.

Note too that the scope of negation can sometimes be more difficult to detect; for example in (279), it is not clear how negation should be interpreted with respect to the verb *yunytjurringanyi* 'want'– whether it scopes above or below it. The two readings distinguish whether the government says that *Aboriginal people do not want that children learn their own language* ($\neg >$ *want*), or that *Aboriginal people want that their children do not learn their own language* (*want* $> \neg$).

(279) Government-angku watja-n̪i yan̪angu **wiya** kunyu **yunytju-rri-nganyi** pipirri tjuṯa
government-ERG say-PRS person **NEG** RPRT **desirous-INCH-PRS** child many
wangka walytja-ku ninti-njaku.
language own-DAT learn-PURP

The government says that Aboriginal people apparently don't want children to learn their own language.
(Source translation:) It says that Aṉangu do not want their children to learn their own language at school.

Tjakulpa Kuwarritja (June 1999, p.2,4)

We would expect the reading to say that *it is not so that people want it* based on the syntactic considerations discussed, but I note the difficultly in telling these apart sometimes.

[10] On the working assumption that *ipiritjingi* maintains the same range of readings and behaviours as English 'everything.' If this is true, then we can focus on how *ipiritjingi* and *wiya* interact scopally by means of syntax.

8.1.3 Brief comparison with other Australian languages

Despite the difficulties of investigating these issues with a range of various elements, we have seen good evidence of a syntactic aspect to scope determination with at least focus sensitive elements and negation. This is a very understudied topic among Australian languages, but there is some evidence that not every Australian language makes use of syntax to establish scope relations as discussed here. In the context of these other descriptions, this makes the Pintupi-Luritja data particularly interesting in the broader Australian context. Let us briefly look at just a handful of comparisons, to show cases from around the country where exclusives and negation clearly behave differently.

Austin (2021: 177ff) discusses the strikingly different behaviour of analogous elements in Diyari, which appear to have quite genuine variable scope interpretations. The Diyari exclusive particle *windri* appears to be able to associate both with elements both directly to its left (280a) and right (280b), and even at a distance– i.e. not directly adjacent to its associate (280c).

(280) Diyari (Austin, 2021)

a. **Windri mathari-yali** nhayi-rnda purri-yi.
only man-ERG see-PTCPL AUX-PRS
Only initiated men can see (the corroboree).

b. Ngathu yinha kawu-kawupa-yi **ngapa-ndru windri**.
1SG.ERG 2SG.ACC REDUP-inform-PRS **water-ABL only**
I'll tell you only about the (flood) water.

c. Ngathu **windri** nhinha **nhayi-rna** wara-yi
1SG.ERG **only** 3SGNF.ACC **see-PTCPL** AUX-PRS
[wata nganhi nhungkangu yatha-rna wara-yi]
not 1SG.NOM 3SGNF.LOC speak-PTCPL AUX-PRS
I only saw him. [I didn't talk to him]

The ambiguities of the relation between *windri* and its focus associate can in some cases be disambiguated by further morphology; the use of the suffix *-rlu* 'still' can be used to identify the focus associate.

(281) Diyari (Austin, 2021)

a. Ngathu **windri nhinha-rlu** nhayi-rna wara-yi.
1SG.ERG **only 3SGNF.ACC-still** see-PTCPL AUX-PRS
I only saw him [not someone else]

b. **Ngathu-rlu** **windri** nhinha nhayi-rna wara-yi.
1SG.ERG-still **only** 3SGNF.ACC see-PTCPL AUX-PRS
Only I saw him [no-one else did]

The existence of such morphological disambiguation strategies suggests further that it is not syntax that is determining the relation between *windri* and its associate. The ambiguity associated with Diyari *windri* appears not to be a syntactic ambiguity. There therefore appears to be a vastly different array of possibilities with how an FSE can associate in Diyari than in Pintupi-Luritja, with the latter being syntactically constrained to a much greater degree.

Evans (1995, 2003) discusses Mayali/Bininj Gun-wok[11] (a Gunwinyguan language of Western Arnhem Land), and particularly the elements *-djal* and *=wi*. Evans notes that *-djal* is unselective, and can associate with various clausal elements.

(282) Bininj Gun-wok (Evans, 2003: 519)
Gabi-**djal**-ganj-wo-n.
3/3NP-**just**-meat-give-NP
(a). '(S)he's still giving him/her meat'.
(b.) 'All (s)he's doing is giving him/her meat.'
(b.) 'Only she gives him meat.'
(c.) 'She gives him only meat.'
(d.) 'She gives meat only to him.'

Particular readings can be forced by extra morphological additions in the clause; here, the focus associate (in our terminology) is additionally suffixed with *=wi*. This is similar to the strategy used in Diyari.

(283) Mayali (Evans, 1995: 253)
An-me-**wi** / gun-ganj-**wi** gabi-**djal**-wo-n.
III-veg.food-**only** IV-meat-**only** 3/3NP-**just**-meat-give-NP
'She only gives him veg. food/meat (never beer).'

Whereas Evans states that the associate of *-djal* is determined pragmatically through context, related to the information-structural properties of the clausal elements, *=wi* is right-adjoined to the relevant element. This behaviour is again seen by the additive *=warridj*, 'too, also' (Evans, 2003: 602), which also right-adjoins to its focus associate (284a); although Evans notes that considerations of intonational grouping can shift its positioning to occur later than its focus (284b).

[11] Bininj Gun-wok is an overarching name for a number of dialects of the group; Mayali is sometimes used interchangeably for the label of the same group, or as a dialect within that group; see Evans (2003: Ch. 123).

(284) Bininj Gun-wok (Evans, 2003: 602)

a. Na-mud yi-ma-ng, na-mud a-ma-ng aye arduk=**warridj**.
I-group 2/3-get-NP I-group 1/3-get-NP I 1OBL=**too**
'You get your group, and I'll get my group too.' (said by someone challenging another to a fight)

b. Na-djinem ka-h-ngu-n=**warridj**.
I-black.rock.kangaroo 3/3-IMM-eat-NP=**too**
'The black rock kangaroo eats it also.'

So whereas some elements seem to have a relatively transparent relation between placement and focus association (*-wi, =warridj*) it is clear that the association with *-djal* is not syntactically determined. Evans (1995) relates this to the differing status of these elements in Mayali: *-djal* being an A quantifier, and *=wi* being a D quantifier. Kapitonov (2021a: 254f) describes very similar behaviour in another Gunwinyguan language, namely for the Kunbarlang prefix *rnak-*.

Finally, a brief comparison to neighbouring Warlpiri might be enlightening. In particular Laughren (2002, 2017a, 2018) has worked towards showing the relation between syntactic position and scope. Of particular interest for Laughren (as they are for us) are clause-initial positions. On the positioning of the negative complementiser *kula* she notes that *kula* must precede elements it scopes over; this linear precedence is recast as a structural requirement, based on detailed investigations of the syntax of clause-initial positions more generally. Laughren notes that "These data indicate that *kula* must occupy a higher position than C, …, *so that it must always C-command the focus position…*", and then that *kula* "…functions as a clausal *operator* and hence must not be C-commanded by an element that must be within its scope…" (1989, p. 113f; emphasis mine). There is a great parallelism between this approach and the arguments here: the idea of seeing the determination of scope not (merely) by way of linear precedence, but through asymmetric structure.

Relevant for the current discussion, Laughren (2018) also discusses Warlpiri *jinta* 'one' (which is comparable with Pintupi-Luritja *kutju* at least as an indefinite, adverbial 'alone', and in some cases apparently functioning as an exclusive), and shows that it can be outscoped by both right-adjoined and clausal negators.

(285) Warlpiri (Laughren, 2018)

a. Jirrama, ngula=ji yangka kujaka-pala nyinami kalinja, wati manu
two that=TOP you.know COMP=3DU.Subj be married.couple man and
karnta, yangka **jinta-wangu**– yapa-jarra, marlpa.
woman you.know **one-NEG** person-two together
*"Two" is like a married couple, man and woman, **not alone**, two people, together.*

b. **Kula**=ka=rnalu **jinta** pirnki ngarrirni wantiki=ji, wantiki ka=rnalu
NEG=PRS=13.PL.Subj **one** cave tell wide=TOP wide PRS.13.Subj
ngarrirni yangka– yurutu-rlangu kujaka=lu yarlu-pinja-yani.
tell that road-INCL COMP=PL.Subj clear-make-go
*We **don't only** describe a cave/caves as "wide", we describe as "wide"-– things such as a road that they clear (e.g., by grading).*

c. **Kula**=ka **jinta**-rlangu yangka kartirdi wiil-karri lawa.
NEG=AUX **one**-INCL that tooth hang-stand none
*He does **not** have even **one** tooth– none.*

However, in the case of the clausal negator *kula*, Laughren notes that *jinta* cannot linearly precede *kula*. How or whether *jinta* can outscope clausal negation in Warlpiri is unclear at the moment. The situation in Warlpiri similarly speaks for a syntactic role of scope determination.

To conclude, these short descriptions show that the analysis put forward here must be investigated in depth for every individual language, as languages across Australia clearly show differences in the degree to which they encode these relations in syntax.

8.2 Larger constituents, association, and placement

The second issue discussed in this chapter regards where these elements are placed with respect to their focus associate when the focus associate is a larger unit, particularly a finite clause. In the previous section I argued for the uniform principle of c-command as the best description of a range of phenomena, but in fact we have seen a range of evidence throughout the last few chapters that show us that this cannot always be true; in finite clauses we saw that there are mismatches between the focus associate and the FSE placement, in that the FSE targets a sub-unit of the focus associate. Various mismatches of this type between focus size and realisation (in morpho-syntactic marking as opposed to purely intonational) has been described in the literature in a range of languages. This section contextualises the Pintupi-Luritja data among descriptions of the phenomena. We can then question how to integrate this with the c-command requirement put forward in the previous chapter.

As a diverse phenomenon this type of focus marking has been discussed under different names– for example Fanselow and Lenertová (2011) speak of *subpart of focus fronting*, Branan and Erlewine (2023) speak of *anti-pied-piping*, among others. Descriptively these can be united as cases of focus realisation targeting a (chiefly) morpho-syntactic subunit of the focus for marking. We saw this in the preceding chapters; with *kutju*, *-ṯarra* and others, this meant that direct objects and locative adjuncts were consistently marked when the focus associate was a finite VP, and that it apparently optionally occurs in some other clause types as well (namely medial verb clauses). We also saw that this pattern

of marking is not a result of other selectional requirements– particularly with *kutju* for example it was clear that this cannot be due to a general inability to attach to larger constituents, as a range of non-finite clauses had *kutju* right adjoined to them. The issue truly appears to involve finiteness.

8.2.1 The syntactic and typological sides of the issue

What we have seen is a mismatch in Pintupi-Luritja between focus size, and how this focus size is morphosyntactically marked when compared to e.g. nominal focus associates. The total extent of this phenomenon and its facets cross-linguistically is not yet completely clear. Branan and Erlewine (2023) is the closest study as yet that approaches a typological overview of the phenomenon, as they note the pattern in upwards of 60 languages from 40 families. Aside from the papers and languages discussed in that study, we can also note discussions in Kuroda (1965), Aoyagi (1999), Fanselow and Lenertová (2011), Hole (2013), Davis (2013, 2014), Balogh (2021), Balogh and Kazemian (2021), Balogh and Langer (2022), Dash and Datta (2022), among others.

I think it's worth highlighting the parallels of these patterns at least descriptively with focus projection, which we discussed in chapter 4.1.2– i.e. intonational focus marking a single element which is compatible with ever growing concentric focus sizes, resulting in ambiguity. In those cases, as here, only a subset of the focus is actually marked. Highlighting this parallel situates the patterns described here in a broader typology of focus marking, and recognises the issue on a descriptive level as applying not only to intonational focus marking, but to focus marking more generally (see especially discussion in Branan and Erlewine, 2023; Assmann et al., 2023). The case of positioning with the Pintupi-Luritja finite VP is then not an outlier, at least in a cross-linguistic perspective.

Let us briefly examine some examples of the phenomenon from the literature, to better highlight the parallels with Pintupi-Luritja. We can further divide this marking pattern into those where a subset of the focus is marked syntactically, and those where there is morphological marking. We will first focus on cases of purely focus marking; that is, not involving focus sensitive elements like 'only'.

Some cases are less similar to the phenomenon described here in that they are purely syntactic mismatches, such as the following German and Czech examples from Fanselow and Lenertová (2011). The authors show that it is possible to only front the object in cases of VP focus.[12]

(286) (As answer to the question "What did you do?") (Fanselow & Lenertová, 2011)

a. German
Einen Hasen habe ich gefangen.
DET.ACC rabbit have I caught
I [caught a RABBIT*]$_F$*
Cf. The also possible form Ich habe einen Hasen gefangen*, in which the focus is not fronted at all*

[12] I have slightly altered the glosses; small caps indicates pitch accent.

b. Czech
Zajíce jsem chytil.
rabbit.acc AUX.1SG caught.SG.MASC
I [caught a RABBIT*]$_F$*

Here, the focus is the entire VP [*caught a rabbit*], but only the direct object is singled out for focus marking (i.e. is fronted). This structure would also serve as the realisation of narrow focus on the object, making the sentences in (286) in fact ambiguous. Calling this phenomenon *subpart of focus fronting*, the authors note that it appears to additionally be a feature of a number of languages.[13] Fanselow and Lenertová (2011) is however not a typological overview of the phenomenon, and it is likely that their subpart of focus fronting is much more common than only in the languages they mention; see particularly also discussions in Branan and Erlewine (2023). Although the Pintupi-Luritja data examined here do not involve syntactic mismatches, we can see the parallels– a subset of the focus is chosen out for focus realisation, resulting in an ambiguous structure which licenses both a 'narrow' focus of the object, and a 'broad' VP focus. It is of course possible that these kinds of mismatches exist as well in Pintupi-Luritja; we have not examined them here.

A greater similarity can be seen with morphological mismatches, particularly in where morphology is placed with respect to the focus, since this is the sort of ambiguity we have investigated throughout these past few chapters. Davis (2013, 2014) discusses the placement of the focus particle *=du* in Miyara Yaeyaman (Southern Ryukyuan); although *=du* attaches to focused elements (287a), with VP focus it attaches to the direct object, instead of the otherwise expected right edge of the VP (287b).

(287) Miyaran Yaeyaman (Southern Ryukyuan) Davis (2013)

a. **'Narrow' object focus**
What did that guy eat?
saata-tempura=ba=**du** fa-i.
sugar-fried.dough=BA=**DU** eat-PST
(He) ate fried dough.

b. **'Broad' VP focus**
What did that woman do?
kunu midun-pïto=o izï=ba=**du** fa-i.
this female.person=TOP fish=BA=**DU** eat-PST
This woman ate fish.

This is therefore a similar pattern to the syntactic examples demonstrated in German and Czech above.

[13] They mention it in (at least) Russian, Polish, Slovenian, Serbian-Croatian, Dutch, Swedish, Haitian Creole, Hausa, Gurune, Somali, Trinidadian English, and Italian (see paper for references).

Finally, more related to the last few chapters, we can note that focus sensitive elements can also show similar patterns. For example Balogh (2021) and Balogh and Langer (2022) discuss examples of this in Hungarian.[14] As shown in the following example, the additive particle *is* typically right-adjoins to its focus associate (288a); but when the focus associate is a finite verb with an object, *is* instead targets the direct object (288b).

(288) Hungarian Balogh (2021)

a. **Additive *is* with NP associate**
Prompt: My naughty little sister likes to hit everyone. She hits our brother all the time, she hits our father, when she is angry, my little sister hits the dog, …
És [a kutyá-t]$_F$=**is** meg-üti a húg-om, …
and the dog-ACC=**also** VPRT-hit the sister-POSS …
And my little sister also hits [the dog]$_F$, …

b. **Additive *is* with finite verb plus object**
Prompt: My sister can be really mean sometimes. She always drives our mother crazy with her constant complaining. She never stops talking and always leaves her toys all over the house. On top of that, my little sister hits the dog, …
Ennek tetejébe, [a kutyá-t=**is** meg-üti]$_F$ (a húg-om), …
on.top of.this the dog-ACC=**also** VPRT-hit the sister-POSS …
On top of this, my little sister/she [hits the dog]$_F$, …

Similar constructions with additive particles appear to also exist in at least Persian (preliminary results discussed by Balogh and Kazemian, 2021), Japanese (Kuroda, 1965; Aoyagi, 1999), Vietnamese and German (Hole, 2013: 269f); see also the range of references in Branan and Erlewine (2023).

A common and notable theme with these patterns is the left-edge preference for placement within the focus; Branan and Erlewine (2023) show that in many of the languages in which this pattern occurs, placement of the focus particle is at or near the left edge within that domain. We have seen that this was the case in Pintupi-Luritja as well. This characterisation of preferentially marking left-edge is a better characterisation of *kutju*/-*ṯarra*/etc. placement than suggesting that the particle targets objects, as we saw that not only direct objects are targeted for placement, but also locative adjuncts. This is then an almost Wackernaglian positioning for placement within the focus, although it is unclear here what drives the positioning (i.e. intonational factors, syntactic factors, etc; see particularly Branan and Erlewine, 2023 for one analysis). We have not really investigated why this pattern occurs, and we won't put forward any lengthy analysis here. Questions of the role of intonation for example appear

[14] This is not the only mismatch in focus associate/particle placement the authors discuss in those papers, but it is the relevant one for us. Note that I have also relabelled the focus associate in the Hungarian examples with a subscript F, instead of SA (= *Semantic Associate*).

to be crucial in unravelling the phenomenon, but a detailed linguistic understanding of intonation in Pintupi-Luritja is at current not at the level required to incorporate it as an explanatory factor.

8.2.2 A reckoning with syntax

We noted earlier that this marking pattern could be been as another test for syntactic constituency that finite VPs in the language do not pass, based on a few assumptions. If the determination of focus association is based on c-command, then this necessitates that the sister of the particle is a syntactic constituent; the fact that it is exactly with finite clauses that this pattern falls apart is then suspicious, as this aligns with several other failed tests for constituency. However several questions arise if one were to follow this line of reasoning. Firstly we would have to ask several language-internal questions: why is it then that non-finite VPs in comparison *are* constituents, since *kutju* readily attaches to them?[15] We would also question why this marking pattern appears to be optionally possible in medial verb clauses, where we know that right edge marking is also possible. An analysis based on the lack of a VP based on these patterns will also have to contend with the literature discussed demonstrating how widely attested these mismatches are cross-linguistically (see in particular references and discussion in Branan and Erlewine, 2023, who note a dispreference for the verb to host focus marking in a number of languages); does this pattern mean that all of these languages lack a VP? Analyses also have to grapple not only with variety in patterns, but also in degrees of obligatoriness.[16] We have gone to some extent to show that this is true of Pintupi-Luritja as well, but only for medial verb clauses; finite VPs apparently require this obligatorily. We did not establish what, if anything, is behind that apparent optionality of placement, and differing degrees of optionality depending on clause type.

Recent work is also shining a light on the variety of forms that focus ambiguities/projection can have, especially when extending the phenomenon to include morpho-syntactic marking of focus. This has shown that there is more variation in focus particle placement and the types of permissible readings than exist in European languages. Assmann et al. (2023) show the great diversification in strategies of focus ambiguities, particularly with regards to languages from the African continent. Many of the patterns they report are impossible forms of focus ambiguity in languages like English. This work suggests that any typology of possible forms of focus ambiguity will have to rely on further descriptions of (as yet) relatively understudied languages.

[15] Discussions of constituency in this domain in Warlpiri have also noted similar phenomena, whereby finite verbs plus an object do not count as constituents for e.g. clitic placement; but where non-finite verbs plus objects are (or at least can be) considered constituents for the same purposes (Nash, 1980: 178f, Simpson, 1991: 132, Laughren, 1989, Laughren, 2002: 94f). Simpson (1991: 106ff) argues that these structures are nominalisations, and are therefore constituents *qua* (complex) NPs. This is interesting to compare to Pintupi-Luritja, as many of the arguments for Warlpiri do not pattern the same way; recall discussion in section 2.4 on the behaviour of non-finite clauses– the retention of word order variation, the presence of clitics and negation, etc. This makes the Pintupi-Luritja non-finite clauses much more clause-like (and less nominal-like) than the Warlpiri case.

[16] Indeed many languages don't allow these patterns at all; English for example does not allow the same ambiguities of particle placement with constituent *only* (i.e. *Leila plays only bebop* cannot be interpreted as having a VP associate [*plays bebop*]$_F$), and many other languages also don't allow these ambiguities (e.g. Thai: Rusawang and Ruangjaroon, 2017: 12).

8.2.3 The semantic side of the issue

Finally, aside from the syntactic questions of particle placement in these environments, we can also comment on the semantic issues. One side of focus ambiguities in general is where the focus is realised, but the other is the semantic ambiguity, i.e. differences in interpretation. These work out such that the larger foci will entail the smaller ones. We established earlier that sentences with *only* that differ in the placement of focus can have truth-conditional differences (289, repeated from 154 above).

(289) a. They only sell ANTIQUES.
False in situations where they sell antiques and modern art.
True in situations where they both buy and sell antiques.

b. They only SELL antiques.
True in situations where they sell antiques and modern art.
False in situations where they both buy and sell antiques.

Here, different placement of focus leads to different truth conditions. But consider the relation between a direct object focus associate and a VP associate.

(290) They only sell ANTIQUES.

a. I guess they sell all sorts of stuff in there, right?
No, they only sell [ANTIQUES]$_F$

b. What do they do for income? I guess they're juggling a few jobs?
No, they only [sell ANTIQUES]$_F$

Here we have differences in what the focus is, but what about truth conditional differences? If selling antiques is the only thing you do, then antiques is also the only thing that you sell. This means that a broader focus size will entail the smaller one. But this does not follow through conversely. That is, if all you sell is antiques, that doesn't preclude you from having a car-washing business, for example. This is exactly *not* the pattern observed here throughout; marking of a sub-unit of the focus with an exclusive particle should have truth-conditional ramifications,[17] but it doesn't appear to. This remains a puzzling aspect to how this pattern is licensed.[18]

8.3 Conclusions on focus sensitivity

To conclude, these past few chapters on focus sensitivity have served a number of purposes in the context of this dissertation. Firstly we have examined the semantics of two main focus sensitive elements in detail, the exclusive particle *kutju* and the additive suffix *-ṯarra*, as well as a few others to a lesser degree.

[17] Unlike with purely intonational means, where no such truth conditional differences are observed; recall discussion in section 4.1.

[18] See also Branan and Erlewine (2023) for discussion of the semantics of these constructions.

We investigated the syntax of these elements in detail– we saw that they uniformly right-adjoin to their focus associate. We saw arguments for casting this generalisation in terms of c-command, i.e. making the relation between FSE and focus associate purely structural. We saw detailed interactions between *kutju* and negation, and how semantic scope relations between them are syntactically determined, but only once a wide range of factors are taken into account– constituent and sentential negation; exclusive, indefinite, and adverbial *kutju*; ambiguities of clause initial positions, and the role of clitic placement. This would suggest a much broader application of the notion of c-command to determining relations in Pintupi-Luritja, but that the semantics of e.g. other quantifiers makes determining the scope reading difficult.

Finally, we also investigated mismatches: cases where this uniform syntactic relation breaks down. For larger focus sizes involving finite verbs especially we saw consistent perturbation of FSE placement. This generally involved a shifting of the FSE towards the left edge of the focus, so that it marked direct objects or locations. We examined what this behaviour means about the status of VPs in the language; in particular, we saw that this behaviour is increasingly being recognised as a feature of a large number of languages. Although the exact nature of these mismatches is still puzzling, they are certainly not restricted to Pintupi-Luritja.

Part III

Modality

Chapter 9

Modality preliminaries

9.1 Introduction

The next few chapters investigate some topics in modality– the encoding of what *can*, *might*, *should*, and *must* be. The last few chapters have shown glimpses of regular correspondence between certain sentence positions of elements and particular interpretations. In these chapters we will see a much more varied picture of how syntax and semantics relate. This more opaque relation between syntax and semantics is a common cross-linguisitic feature in the domain of modality; Pintupi-Luritja is not unusual in this respect.

This first chapter introduces modality as a phenomenon, how it can be modelled, how it interacts with negation, and what variation we see cross-linguistically in how it is encoded. Chapter 10 examines epistemic modality in Pintupi-Luritja, largely focusing on the particle *tjinguru*. Chapter 11 gives an general overview on some forms of root modal expression, including particles derived from English modal verbs, and the frustrative particle *puṯu*. In this section, modal displacement versus the actual world is seen as an important factor in the semantics of *puṯu*. In chapter 12 we return to the purposive suffix and examine its modal contribution and how this interacts with negation. Finally, chapter 13 concludes the dissertation by giving an overview and outlook on the topics we have discussed throughout.

9.2 An overview of modality

As humans, we're not always only interested in what is in front of us. We like to talk about things we aren't sure of, what's possible and what is not possible, what we're (un)able to do and what we're supposed (not) to do. What we're doing in these cases is discussing what relation to reality certain propositions have; when we say things like *The apricots in my backpack might be rotten* we're saying that there is a possible but uncertain relation between the proposition that *The apricots in my backpack are rotten* and our reality (i.e. in this case that it is possible but uncertain that it's true; that rotten apricots are *compatible* with our reality). We have particular grammatical and lexical means to mark

this relation, like the modal verb *might*. Pintupi-Luritja is no different in this respect, in that it has a variety of ways to encode this often uncertain relation to reality. For example (291a) adds the particle *tjinguru* into the sentence to indicate that the speaker is unsure about whether the proposition it is added to is true; (291b) on the other hand uses the purposive suffix to indicate that there is a degree of obligation on the subject with respect to the proposition.

(291) a. "**Tjinguru** papa ngaa-ngku tjiki-ṉu" Amami-lu wangka-ngu.
maybe dog DEM-ERG drink-PST grandmother-ERG say-PST
*"**Maybe** that dog drank it" said Grandmother.*
From the Stolen Drink story (Gray, 2019b); JAG1-Storyboard-20200306_MA1; 02.15–02.22

b. Aṉangu tjuṯa-ngku kuwarri-tja irriṯi-tja-ṯarra palya-**nytjaku**.
people many-ERG now-NMLZ old.times-NMLZ-also do-**PURP**
*(Source translation): The people **should** do the old ways and the new ways.*
Warumpinya ngurrara kuulaku piipa: Papunya School paper (September 1985, p.22–23)

These are modal meanings. In this section we will lay out some descriptive parameters of variation of modal meanings to contextualise our studies of the Pintupi-Luritja lexical items in the following sections. The term modality has a number of unrelated senses in the literature; in the sense we are interested in here, it refers to a broad family of meanings related to possibility and necessity. In English we talk about how things *can*, *should* or *must* be, potentially in contradiction to how they actually are. Modality represents a form of displacement (Hockett, 1960), allowing the speaker to abstract away from the here and now, and describing what might or must be (e.g. von Fintel, 2006; Portner, 2009; Hacquard, 2011; Matthewson, 2016). Importantly, modality is a semantic category rather than a syntactic or morphological one, and is expressed cross-linguistically by a wide range of means including using modal verbs or verbal morphology, through lexicalised constructions, and modal particles. Verbs such as *can, must, might* and *may* are some of the ways these modal meanings are expressed in English, as are adverbs like *possibly* and *likely*, and some non-finite environments like *This dissertation is to be finished as soon as possible.* The point that modality is not restricted to any particular way of realisation is important because although we are used to thinking about the modal contribution of particular lexical items, we will here be examining some modal environments in Pintupi-Luritja where the relation to any one lexical item is not always clear, but where modal readings are nonetheless present.

In creating a descriptive typology of modal readings, there are two distinctions that will be important: modal *flavour* and modal *strength*. Modal flavour refers to the background against which a modalised sentence is judged. Consider the following examples.

(292) a. (Opening the backback and seeing that it is empty)
Hugh must have eaten the apricots.

b. (A note I write on the share-house fridge)
Anyone who wants to eat my apricots must call me first.

Both of these sentences involve eating apricots, and both use the modal verb *must*. However the contribution that *must* brings to the meaning of these sentences differs greatly between them; we can see this by the types of paraphrase one could use to replace it.

(293) a. According to the evidence on hand, I believe that the following conclusion is warranted: Hugh ate the apricots in my backpack.

b. The rules of the share-house dictate that the following holds in all cases: Would-be apricot-eating housemates call me first.

What these show is that a modal verb like *must* involves a core meaning of necessity, but that what this necessity follows from can vary. This variation in background can lead to modal lexical items like *must* contributing some very different types of meaning. The first sentence indicates necessity based on belief, knowledge, and reasoning; this is referred to as an *epistemic* modal flavour. With epistemic statements, the speaker is reasoning about the likelihood of the truth of the proposition based on things like evidence, perception, and deduction. The second sentence refers to necessity according to a set of rules or norms; this is a *deontic* modal flavour. Here there is a sense of obligation according to some relevant standards or laws. These show that there is quite a variety of meanings that *must* is able to represent.

There is variation in the literature on exactly how to describe this type of ambiguity in modal verbs like *must*, and there are different approaches on how to carve up the conceptual space distinguishing different modal flavours. One common way to do so is to posit a basic distinction between epistemic modal flavours, and to have an overarching name for the other modal flavours based on facts about the world, sometimes called *root* modality (following terminology originating in Hofmann, 1976). Root modality is generally taken to include modal flavours such as the following.

(294) **Some examples of root modal flavours** Cf. von Fintel (2006)

a. **Deontic:** According to rules/norms
Employees must wash their hands

b. **Teleological:** According to goals
To get there before it starts we'll have to leave now

c. **Bouletic:** According to desires
If you want to be in the band you have to learn to play the trombone

d. **Circumstantial:** According to general circumstances
I have to sneeze

Although there is general disagreement on how many flavours should be recognised,[1] how to organise them, and where the boundaries between them lay, the distinctions named here are relatively broadly accepted. These distinctions in flavour are important not only because of the difference in meanings they each represent, but because languages are sensitive to these distinctions in how they encode modal meanings; for example, while *must* is compatible with both epistemic and deontic readings, *can* does not allow epistemic readings.

(295) (Wondering about what Hugh will bring back from the shops)
Hugh can replace the apricots he ate.
(cf. Hugh might replace the apricots he ate.)

These kinds of restrictions not only span the epistemic–root modal divide, but can apply between different root modal categories as well; we will see later in this chapter that Pintupi-Luritja *puṯu* can be applied to circumstantial, but not deontic modal flavours.

In contrast to modal flavour, modal *strength* essentially involves the difference between possibility and necessity. In the examples above, we saw that while the modal flavour of *must* could shift, a core meaning of necessity remained. The possibility/necessity distinction is sometimes described as a difference in modal strength or force. This distinction can be seen in the following examples.

(296) a. You must leave on Thursday. *Necessity*
b. You can leave on Thursday. *Possibility*

There is an asymmetry between these modal strengths, in that the *must* (and other necessity modals) entails *can* (and other possibility modals), but not the other way around; note that in (296) that if you *must* leave it is entailed that you *can*, but being *able to* leave does not entail that one *has to* leave.[2]

9.2.1 The representation of modality

The parameters of modal flavour and force are useful descriptive elements for carving out a typology of possible modal meanings, and they form an important role in informing semantic analyses of modality. Analyses of linguistic phenomena always involve a degree of abstraction, as they aim to distill the core ingredients that together constitute the phenomenon under question; the phenomenon of modality is no different in this respect. In this section we will look deeper into one particular view of modality, which aims to give a unified analysis of modality as a kind of quantification.

[1] von Fintel (2006) notes that "[i]n the descriptive literature on modality, there is taxonomic exuberance far beyond these basic distinctions."

[2] This asymmetric entailment only holds within a single modal flavour however; e.g. *You have to drink more water* entails that *You can drink more water* (i.e. are permitted to), but it does not entail that *You can drink more water* (in the sense of are *able* to)– one can easily imagine that despite your obligations, the water mains have been turned off– so you are unable to drink water despite being permitted to by the rules. Here, $must_{\text{Deontic}}$ only entails can_{Deontic}, not $can_{\text{Circumstantial}}$.

In the previous section, we represented the contribution of modality in (293) as a paraphrase that preceded a non-modalised proposition. In doing this, we were separating out the semantic contribution of the modal, and are representing it as a meaning distinct from that of the proposition. This is an informal presentation of an approach that much of the literature takes when assuming how modal elements combine with non-modalised propositions. Modality is generally taken to be a propositional operator, i.e. an operator that combines with a (non-modalised) proposition, called the *prejacent*. In this section we will briefly discuss the standard approach to representing modality in the formal semantics literature, based on and associated with work by Angelika Kratzer (1977, 1981, 1991, 2012).[3] While many of the exact details are not essential to the conclusions we will draw, at the very least borrowing the notation of this approach will be useful, as well as placing the discussions in this chapter in the context of ever-developing assumptions about the nature of modality and how to model it as a phenomenon of natural language.

The crux of Kratzer's argument is that modality should be seen as a type of quantification– not over individuals or events, but over *possible worlds* (Lewis, 1986). Possible worlds are intuitively ways that our 'world' can be; a single world is a completely specified way that things are in that world. The world we inhabit is specified in so many details (although we may not know them all)– every building in every community everywhere has a history (when it was built, how many nails were used to build it, …), every person and other animal has a birthday, every pebble has a weight, every drop of water in all the oceans has a temperature at any given moment, all the stars have distances between each other, and on and on and on. These all together constitute our world. It is however very easy to imagine the world being different, both in inconsequential and very consequential ways– the tree in our yard might not have survived a summer storm two years ago, or they might have built the house we live in a metre to the north (or 1.1 metres, or…), or Franz Ferdinand's driver might not have taken a wrong turn in Sarajevo's streets in June 1914. If any of these infinite possible differences were true, then we would find ourselves in a different world to our actual world– some very similar to our world (e.g. our house sits 10cm to the north of where it stands now), some potentially very different (Franz Ferdinand living to see July 1914). We can conceive then of a (possible) world as a complete specification of the way things are or might be. It is perhaps important to note that although we are talking about a non-trivial topic (the existence of an infinite number of possible worlds/universes), linguists are in general happy to avoid the metaphysical issues; the fact that we as language users can conceive of these worlds is enough for them to be useful for our purposes (von Fintel, 2006; Hacquard, 2011).

It is intuitive and important that a proposition is not restricted to one single world, but can be true in many worlds. It is easy to imagine a world in which our tree didn't survive the storm but our house stayed standing, as well as a different world in which the tree didn't survive and neither did the house. The proposition *The tree in our yard didn't survive the summer storm* is compatible with both of these

[3]While the idea of quantification over possible worlds does not begin with Kratzer (some relevant work preceding Kratzer includes Carnap (1947), Hintikka (1961) and Kripke (1963); and see Copeland (2002) for a history surrounding this idea in modal logic), her work is very important in connecting this approach to natural language.

worlds (and many more), and is not exclusively tied to any one world. We can then in fact talk about the set of worlds in which a proposition is true– e.g. the set of worlds in which we lost the tree in that summer storm. In fact in this Kratzerian tradition, a proposition is to be identified with this set– the set of worlds in which the proposition is true.

The essential idea of this approach to modality is that what a modal does is make statements about the truth of a proposition in relation to a particular set of possible worlds. What a statement like *The apricots might be rotten* is saying then, is that in some possible worlds the apricots are rotten. An obvious and relevant question is which worlds these are– since this is epistemic, this will actually more accurately be something like the set of worlds the speaker is actively considering to be compatible with the actual world, informed by evidence and real-world knowledge (more on this issue below in chapter 10).

Viewing this as the fundamental role that modals play in the clause now brings us directly to the role of quantification. The standard division of existential and universal quantification (∃/∀) matches directly with the notions of possibility and necessity as modal strength discussed in the previous section; weak modals like *can* indicate existential quantification over (some contextually determined set of) possible worlds, and strong modals like *must* indicate universal quantification.[4] The standard notation for indicating this is borrowed from modal logic, which uses ◇ to represent modal possibility (or, existential quantification over possible worlds) and □ to represent modal necessity (or, universal quantification over possible worlds) (e.g. Gamut, 1991b).[5]

The connection of modality to quantification is also given credence in a number of parallels in how the elements relate to each other that appear valid in both domains. For example, negation interacts in seemingly parallel fashion with both modals and quantification, suggesting again that the former is an instantiation of the latter (cf. von Fintel and Heim, 1997–2021: 30f; Kroeger, 2019: 300f).

[4] I will put aside discussion of how more fine-tuned gradience in modal strength should be addressed; there are a number of analyses on the market, but I won't evaluate them here.

[5] A typical, more explicit rendering of this relation in a Kratzerian tradition can be seen in the following lexical entries for the modal verbs *can* and *must* (from Hacquard, 2011):

(297) a. Weak modal strength as existential quantification
$[\![can]\!]^{w,f} = \lambda q_{<s,t>}.\exists w' \in \cap f(w)\text{: } q(w') = 1$
In prose: *In some of the worlds w' in the set dictated by the modal base (i.e. the worlds under consideration), as evaluated from world w, the prejacent q is true*
For comparison, this entry in set notation: $\cap f(w) \cap q \neq \varnothing$

b. Strong modal strength as universal quantification
$[\![must]\!]^{w,f} = \lambda q_{<s,t>}.\forall w' \in \cap f(w)\text{: } q(w') = 1$
In prose: *In all of the worlds w' in the set dictated by the modal base (i.e. the worlds under consideration), as evaluated from world w, the prejacent q is true*
For comparison, this entry in set notation: $\cap f(w) \subseteq q$

This formulation is actually a somewhat simplified version of Kratzer's analysis, but it suffices to show the general idea of quantification over a set of worlds.

(298) a. $\Box\phi \equiv \neg\Diamond\neg\phi$
You must eat this ≡ It is not possible that you do not eat this

b. $\forall x.\phi \equiv \neg\exists x.\neg\phi$
All flowers are blooming ≡ There are no flowers that are not blooming

(299) a. $\Diamond\phi \equiv \neg\Box\neg\phi$
You can eat this ≡ It does not have to be that you do not eat this

b. $\exists x.\phi \equiv \neg\forall x.\neg\phi$
Some flowers are blooming ≡ Not all flowers are such that they are not blooming

We will be using this $\Diamond/\Box$ notation here to represent modal readings. This means that we are representing modalised statements as cases where propositional operators have selected the (non-modalised) prejacent.[6]

(300) Sal must have left for work already. $\rightsquigarrow \Box$'Sal has left for work already'

Whereas modal strength is directly encoded in the lexical entry of modals under this approach,[7] modal flavours are contributed by other means. This captures the essential insight that modal strength in verbs like *must* are constant, while modal flavour can vary (see examples 292 above).[8] Kratzer argues that modal flavour is contributed by context of the utterance, by means of what she calls *conversational backgrounds*. Across the spectrum of various quantificational approaches to modality, the way this contextual restriction is typically achieved is by manipulation of the set of possible worlds targeted by the modal to quantify over. This is directly analogous to the widely accepted need for a contextual restriction on the domain of quantifiers generally (von Fintel, 1994).[9] Intuitively, only relevant worlds should be quantified over, and this set of relevant worlds is what decides the modal flavour. For example, a sentence with epistemic necessity (e.g. *They must have left home by now*) should exhibit universal quantification over the set of possible worlds *consistent with the evidence, my beliefs*, etc. Among all the ways I can imagine the world to be, if I focus just on those that are compatible with the evidence on hand etc., then in all of those worlds it's true that *They have left home by now*. This is universal quantification ('in all of the worlds...') of a contextually restricted set of worlds ('the worlds compatible with the evidence etc'). Analogously, an example of deontic possibility (*You can park here*) will say that in some of the possible worlds *that comply with the parking laws of this street*, you park in that spot (i.e. parking in that spot is compatible with, but not necessitated by the laws). By restricting the domain of

[6] Ignoring tense etc. for the moment.

[7] In fact the quantificational strength is the only difference between the lexical entries for *can* and *must* in (297).

[8] "It is the task of semantics to describe all those features of the meaning of a linguistic expression that stay invariable in whatever context the expression may be used. This invariable element is the meaning proper of an expression" (Kratzer, 1977).

[9] I.e. typically a quantified noun phrase like *all students* in the sentence 'All students passed the test' is restricted to the students in the room, or those in the course being discussed, or some other contextually restricted set; rarely does it refer to all students ever everywhere.

quantification by picking out relevant aspects of those worlds (e.g. parking laws, etc.), we can determine the modal flavour. The exact method of how to restrict this set of relevant worlds accounts for essentially all of the variation between analyses within the quantificational approach to modality; Portner (2009: 48) calls identifying the set of worlds to quantify over the 'central issue' in any possible-worlds based analysis of modality.[10] The exact way of achieving this set is not crucial to the points made here; I will just assume that modals quantify over the relevant set of worlds, whatever set that is and however it is determined.

In the Kratzerian tradition then, modals are taken to encode a quantificational strength (◇/□), which targets a contextually restricted set of possible worlds to quantify over (the determination of which gives the modal flavour). This then combines with a prejacent (i.e. a non-modalised proposition) to produce a modalised proposition. This approach allows for a unified semantic explanation of the myriad readings that modals exhibit, while also connecting it to general principles of behaviour seen elsewhere, namely quantification.

9.2.2 Cross-linguistic variability in force and flavour

More typologically-minded work in modal expression has shown that there are some important points of variation in how natural languages encode modality (Nauze, 2008; van der Auwera & Ammann, 2013). The last decade or so has seen a series of in-depth language-specific investigations into the diversity of modal systems, and with it a fountain of ideas about how to integrate this variation into the sorts of quantificational-based representations of modality described here. This work has had implications for how modality should be represented in formal semantic approaches.

Particularly beginning with work in languages of the North American greater Pacific Northwest such as St'át'imcets (Rullmann, Matthewson, & Davis, 2008), Gitksan (Peterson, 2010), and Nez Perce (Deal, 2011), the topic of *variable force* modality has come to the attention of semanticists working in these areas. These initial studies have since been added to by other languages of the region and across other parts of the world, which display variable force effects to differing degrees and in different parts of their modal system (Menzies, 2013; Bochnak, 2015b, 2015a; Yanovich, 2016; Reisinger, 2018; Jeretič, 2021b, 2021a; Newkirk, 2022). In these languages (at least in parts of the modal system), we see essentially a reversal of the English-style system we have discussed up until now; modal elements are determined for modal flavour, but variable in their modal strength, i.e. can vary between possibility and necessity within one modal flavour. Other languages can be variable for both strength and flavour. A number of approaches explaining this have been put forward, but essentially all approaches in this field assume that the modal elements have an underlying modal strength as part of the modal's lexical entry (i.e. either ◇ or □), with other factors accounting for variable readings in various linguistic

[10] For example Kratzer's (1981 *et seq.*) approach in fact involves having modals be doubly restricted by two different conversational backgrounds (the modal base and the ordering source). Much of the literature on this point discusses various issues surrounding picking out the correct set of worlds to quantify over (e.g. gradability of modal expressions), but as these are not relevant for our purposes I won't dwell on them.

environments. These other factors can include dynamic manipulation of the worlds quantified over (e.g. via a choice function as in Rullmann et al., 2008, or further restrictions by the ordering source as in Peterson, 2010), and issues related to scalar implicatures (as in Deal, 2011; Jeretič, 2021b, 2021a; Newkirk, 2022). Work in this area then continues to argue that a Kratzer-style quantification approach to modality is also tenable in these cases of apparent variability, and remains useful for charting the limits of variation in the expression of modality.

Finally, one other modal phenomenon is relevant for our purposes, and involves the form of how modality can be encoded; namely what is sometimes called *covert* modality (Bhatt, 1999), or modality in non-finite contexts. In these constructions, a modal reading is conveyed despite no apparent lexical item being responsible for it. These are typically found in non-finite environments, for example *These books are to be read by Tuesday*, or *I know where to get cake at this time of night*. In many cases, the modal strength in these examples is also variable; i.e. is ambiguous between a possibility and necessity reading. For example, consider the sentence *I know where to get cake*. The strongest reading is a possibility reading– that I know *where we can get cake*. However this reading can be manipulated by the context; imagine for example you knew that there are several cake shops open after midnight in this town, and you know that some have a reputation for being terrible– but you don't know which ones they are. However I am a cake connoisseur, so I do know the reputations of the local late-night cake haunts. In this context, me uttering the sentence *I know where to get cake* has a much more prominent reading that more closely aligns with *I know where we should get cake*. Sometimes the variability in these constructions is evident within a single sentence like this, but in many cases, variable strength only becomes evident when comparing a number of example sentences (there is for example no similar variability possible with *These books are to be read by Tuesday*). The mechanisms behind this variability are not well understood (some work teasing out the relevant factors can be found in Bhatt, 1999 and Hackl and Nissenbaum, 2012). The relation of the apparent variability in modal force in covert modal contexts to the variable force modality described by Rullmann et al. (2008), Deal (2011) and others is likewise not yet clear, nor whether the two literatures are reducible to a single analysis. These constructions are relevant for our purposes because I have argued elsewhere that the modal readings in Pintupi-Luritja purposive clauses appear to be of this type represented by covert modality, rather than the other type (Gray, 2021); we will discuss the arguments for this in greater detail in chapter 12.

This section has served to present the assumed semantics of modals in a very general manner. Many of the close details of the analyses have been left out (e.g. details on exactly how to determine the domain of quantification for modals), as these details are less important for our purposes. What is important is the argument that modality is a propositional operator, which involves quantification over a contextually-restricted set of possible worlds, and states that the prejacent is true in some/all of these worlds. As well as sketching a rough estimation of the semantics, this section has set the stage for questions about how modals as propositional operators interact with other elements in the clause such as negation.

9.3 The interaction of negation and modality

As two propositional operators, modality and negation establish scope relations with one another. How this interaction is encoded is rife with irregularities cross-linguistically (Palmer, 1995; De Haan, 1997; van der Auwera, 2001). Recurring irregularities include how scope relations are determined between negation and the modal reading, as well as restrictions on some lexical items under negation. The latter can be illustrated in English; for example, the modal verb *can* can not be used for epistemic possibility, but its negated form can.

(301) [The car is gone]

a. #They can be at work.
cf. 'They might be at work'

b. Oh silly me, they can't be at work, it's Sunday.

This is an example of how the distribution of a particular modal expression is affected by the presence of negation. However we will be less concerned with these kinds of situations, and much more concerned with scope interactions between negation and the modal reading, and particularly the role that syntax plays (or not) in mediating between them.

To give a brief example of these relations, let's consider a sentence like *The apricots are ripe*; we can represent this proposition with ϕ. The addition of sentential negation gives us *The apricots are not ripe*, represented in our notation with $\neg\phi$. If we were to include the modal operator $\Diamond$, we would have $\Diamond\phi$, which (if an epistemic modal) would be something like *The apricots might be ripe*. The inclusion of both the modal and negation gives two possible readings. The first is where negation takes narrow scope with respect to the modal: $\Diamond\neg\phi$, or *The apricots might not be ripe*. Wide scope of the negation gives a reading of $\neg\Diamond\phi$, or *It is not possible that the apricots are ripe*. Thus different scope relations between $\neg$ and $\Diamond$ give 'not possible' and 'possible that not' readings. The same holds for the interaction of $\neg$ and $\Box$, the differing relations delivering $\neg\Box$ 'not have to' and $\Box\neg$ 'must not' readings, respectively.

It is an important question how syntax mediates between and determines these relations. If we expect scope to be read off syntactic structure, then we would expect these scope relations to be relatively transparent. Indeed in some languages, that appears to be the case (at least some of the time). Note in the following examples that scope relations corresponds to the left-right linear ordering of the modal and negative elements in the clause.

(302) Italian De Haan (1997: 12f)

a. Gianni **non deve** andare a Roma.
Gianni **NEG must.3SG**.PRS go.INF to Rome
Gianni needn't go to Rome. $\neg\Box\phi$

b. Gianni **deve** **non** andare a Roma.
Gianni **must.3SG.PRS** **NEG** go.INF to Rome
Gianni mustn't go to Rome. $\Box\neg\phi$

(303) French van der Auwera (2001: 24)

a. Tu **ne** **peux** pas manger de la viande.
you **not** **can** not eat of the meat
You can't eat meat. $\neg\Diamond\phi$

b. Tu **peux** **ne** pas manger de la viande.
you **can** **not** not eat of the meat
You can not eat meat. $\Diamond\neg\phi$

Sometimes these scope relations are transparent, but have an additional correspondence to particular modal flavours as well; Hacquard (2011) cites some Malay examples,[11] where linear order of the modal and negation not only has consequences for the scope interactions between them, but which modal flavour is possible.

(304) Malay Hacquard (2011)

a. Dia mesti tidak belajar.
he must not study
He must not study $\Box\neg\phi$, *Epistemic interpretation only*

b. Dia tidak mesti belajar.
he not must study
He does not have to study $\neg\Box\phi$, *Deontic interpretation only*

While these scope relations are reflected in the surface syntax in Malay, in other languages it need not be while still maintaining an obligatory connection with modal flavour.

(305) 'John may not watch TV' Hacquard (2011)

a. '...he never knows any celebrity gossip.' *Epistemic*: $\Diamond\neg\phi$

b. '...his dad is very strict.' *Deontic*: $\neg\Diamond\phi$

Here we have a single sentence (no differences in linear order) which is ambiguous between two scope relations ($\Diamond\neg$ and $\neg\Diamond$). These scope relations themselves correlate with modal flavours– when the modal scopes above negation the result is an epistemic reading, and when it scopes below the result

[11] Hacquard cites these from Drubig (2001), who cites them from Idris (1980).

is deontic. These examples illustrate one of the few relatively robust generalisations in the interaction of modality and negation: epistemics prefer to scope above other operators like negation and tense/aspect, whereas root modals tend to scope below them (Hacquard, 2006).

There are a range of approaches to explaining why this might be so. A common thread of thought in many analyses is that epistemic and non-epistemic modals are syntactically distinct, with epistemics located higher in the syntactic structure than root modals (Brennan, 1993; Cinque, 1999; Butler, 2003; Cormack & Smith, 2002; Hacquard, 2006, 2010).[12] Presumably some kind of syntactic reordering of elements is needed to derive the linear order we end up with, where epistemics and root modals occupy the same position. Another line of research sees some of this behaviour being the result of lexical properties of the relevant modal items– Iatridou and Zeijlstra (2013) for example argue that certain universal modals don't scope under negation because they are Positive Polarity Items (PPIs). Other accounts like De Haan (1997) suggest that particular idiosyncrasies in the relations between modals and negation are related to functional pressures, and cater to speakers' communicative needs.

Despite some occasional regularities– such as the general rule of thumb that epistemics tend to scope high– the scope interactions between modals and negation are very often irregular and are seemingly subject to individualised readings. Take again the case of English modal verbs; the combination of negation with *must* gives the scope ordering expected from the word order, but *can* gives the opposite reading (unless marginally with a very particular intonation).

(306) a. You must not leave the city. $\Box\neg$

b. You cannot leave the city. $\neg\Diamond$

Often these restrictions are mediated by differing lexical choices— so whereas a deontic $\Box\neg$ will be spoken as *must not*, the reversed $\neg\Box$ scope ordering will be spoken using *not have to*. De Haan (1997) argues that these strategies (differing syntactic position and variation in lexical choices), or a combination of the two, represent the two main ways that languages express the interaction of negation and modality. That is, surface syntax is not the only way that these scope relations can be determined. Languages in general have a range of methods at their disposal of expressing different combinations of negation and modality, and there are a range of poorly-understood factors that influence this. In particular, modal flavour seems to influence whether a modal will scope high or low compared to other operators in the clause; but this is a general tendency with a lot of variation when comparing languages.

Aside from correlations between relative scope with modal flavour, there is an important relation of the scope of negation to modal force as well: a scope relation between a modal with a particular force is equivalent to the opposite scope relation with the opposite modal force.

[12] It is sometimes noted that these approaches raise questions about the semantic uniformity of the quantificational approach– if flavour is contextually determined, and no other differences are encoded in a modal's lexical entry (recall discussion in previous chapter), then we might wonder why there are seemingly semantic consequences of a modal's syntactic position. Hacquard (2010) calls this 'Cinque's puzzle', in reference to Cinque (1999).

(307) a. $\neg\Box \equiv \Diamond\neg$

b. $\Box\neg \equiv \neg\Diamond$

To give an example in natural language, it is intuitively true that *It is not necessary for you to finish the cake* is equivalent to *It is possible/allowed that you do not finish the cake*; and that *You must not finish the cake* is equivalent to *It is not possible/allowed that you finish the cake* (questions of somewhat stilted expression aside). This is an important point because misunderstanding the scope of negation in a given sentence will lead to a false understanding of the force of the modal. That is why in the examples above (e.g. in 298), care is taken to put the negation in a finite clause embedding the modal, which stops the modal being able to to scope above it. These issues are particularly important when investigating questions of what the modal force of a particular lexical item (or covert modal) is, as we will be in these chapters.

9.4 Modal systems in the context of Australian languages

Modal systems in languages of Australia remain relatively understudied compared to other areas of grammar, although this is developing into an area of more focused interest. Most of the existing dedicated case studies focus on languages spoken in northern Australia, including both Pama-Nyungan and non-Pama-Nyungan languages (e.g. Verstraete, 2005; McGregor and Wagner, 2006; Nordlinger and Caudal, 2012; Schultze-Berndt and Caudal, 2016; Bednall, 2019; Phillips, 2021). Despite the relative paucity of work, there are some generalisations that are becoming apparent; Bednall (2023) in his survey for example notes the majority of both Pama-Nyungan and Non-Pama-Nyungan languages appear generally not to encode modal force. This suggests that variable force modality as a phenomenon is widespread across the continent, and is not a geographically isolated phenomenon. The force of several modal environments will be investigated in some detail here throughout the next few chapters for Pintupi-Luritja.

Aside from dedicated studies, many grammars include sections on phenomena that we would class as modal, although not always in great detail or from the viewpoint discussed here. These investigations cover a range of modal environments, particularly verbal mood inflections and modal particles. Relevant for this study, there does also exist some work on modal expression in Western Desert languages (Bell, 1988; Bednall, 2020). Gray (2021) examines the modal contribution of purposive clauses in Pintupi-Luritja; those findings are put into the context of this discussion later in chapter 12. The work that has been done suggests that there is significant (micro-)variation between Western Desert languages in how/whether the cognate forms contribute modal meanings or not. The modal readings reported in Gray (2021) for example seem to be strongest in Pintupi-Luritja, with some apparently modal uses of these occurring occasionally (but apparently less consistently) in other Western Desert languages like Yankunytjatjara and Pitjantjatjara (Goddard, 1985; Bell, 1988). This kind of variation between the closely related Western Desert languages awaits detailed work.

Regionally, the role of modal particles in a number of non-Western Desert languages of central Australia has also been examined, including Warlpiri (Nash, 1980; Laughren, 1982), and Mparntwe Arrernte (Wilkins, 1989). These are typologically closer to Western Desert languages than many of the languages of the Top End of the Northern Territory; however more detailed work in this area is needed before any regional generalisations can be made.

Chapter 10

The expression of epistemic modality

Epistemic modality concerns evaluations of a proposition with respect to the speaker's knowledge and beliefs. There are many situations in which a speaker does not necessarily know whether a particular proposition is true, but they will likely nonetheless have intuitions about it. These intuitions will be based on a range of secondary considerations of context, world knowledge, whether they have (in)direct evidence for/against its truth etc. Epistemic modality allows encoding of these levels of belief (and the basis thereof) in a proposition.

A recurring question in investigating epistemic modality is how modal strength is determined. We characterised necessity modals in the previous chapter as universal quantification over possible worlds; in the case of epistemics, these are worlds compatible with a speaker's beliefs (or perhaps worlds that the speaker is actively considering when trying to determine which is the actual world). But we might wonder what the difference is between universal quantification over what a speaker knows or believes, and plain knowledge? This is the distinction between utterances of the form *must* ϕ and ϕ. Although this question undoubtedly strays into philosophical territory, it certainly also has linguistic ramifications; this distinction will be relevant for us to examine the situation in Pintupi-Luritja. It is certainly true that expressions of epistemic necessity are not always felicitous where a speaker should be very confident that they know the state of affairs.

(308) Context: Talking about yourself on a first date
I must work in a nice little bookshop not far from the city.

Why should this be the case if *must* indicates universal quantification over what is believed? The relevant factors determining the felicitous use of, and the relations between, various modal and non-modal language in these situations has inspired decades of discussion (Karttunen, 1972; Kratzer, 1991; von Fintel and Gillies, 2010, 2021; Lassiter, 2016; Giannakidou and Mari, 2016; Goodhue, 2017; Mandelkern, 2018, a.o.). Determining modal strength in the epistemic domain relies on a range of conditioning factors beyond the cut-off point to 'knowledge', particularly information source (direct evidence, indirect evidence, deduction, perception, etc.) and how this affects the speaker's conviction.

Wild guesses and conjectures will tend to be possibility modals (309), whereas belief in propositions due to deduction or indirect evidence are more likely to be represented with necessity modals (310). The more direct the evidence, or through direct sensory perception, the less likely a statement is to be modalised at all (311).[1] These align with whether the conclusion is compatible with the evidence (possibility), or follows from the evidence (necessity). Only at some point once direct sensory evidence begins do we make the switch from modalised sentences into the realm of knowledge, for which we use non-modalised sentences. Compare the following examples:

(309) Context: You and a friend order a coffee at a busy cafe and take a seat at a free table outside. The barista emerges from inside with two coffees and is scanning the patrons. Not everyone has been served yet. You say:

a. Those coffees might be for us.

b. # Those coffees must be for us.

c. # Those coffees are for us.

(310) Context: You're flicking through one of your family's old photo albums, and come across a photo from a summer holiday at the beach where everyone is wearing jackets. You can't really remember this trip well, because you were pretty young at the time. You point to the photo and say:

a. # It might have been cold that year.

b. It must have been cold that year.

c. # It was cold that year.

(311) Context: You open the fridge and see a half-empty bottle of milk.

a. # We might still have some milk left.

b. # We must still have some milk left.

c. We still have some milk left.

These distinctions are necessarily fine-grained in practice. Most of the literature mentioned has concentrated on the distinction between epistemic necessity and the non-modalised counterpart, but the distinction between epistemic possibility and necessity is also not always clear cut– some contexts allow both existential and universal modal language, depending on a wide range of background assumptions in context, and how much evidence is available to the speaker (example from Peterson, 2010: 39).

[1] Of course, it must be the relevant perceptual evidence; von Fintel and Gillies (2010) point out that if you were to see an orchestra playing behind a soundproof barrier, you would be in a position to utter *They must be playing Mozart*, but hardly *They are playing Mozart*; here, direct perceptual evidence (visual evidence) is not the right kind of perceptual evidence to conclude that *They are playing Mozart*– for that, you need the 'right' kind of evidence (here presumably auditory).

(312) CONTEXT: You're wondering what your friend is doing. You notice his rod and tackle box are not in their usual place

a. He might be going fishing.

b. He must be going fishing.

Still, most interest has been focused on the factors that characterise the boundary that separates epistemic necessity from a plain non-modalised statement (i.e. '*must* ϕ' from ϕ; e.g. '*She must have left*' from '*She left*'). Often this is included as a requirement that the evidence for ϕ be indirect (von Fintel & Gillies, 2010); it has however also been argued that the requirement of indirectness of evidence is instead better modelled as a requirement of speaker ignorance; that in order to utter *must* ϕ, the speaker must not *know* that ϕ is true (Giannakidou & Mari, 2016; Goodhue, 2017). A range of other effects have been observed that separate epistemic necessity modals from bare propositions, for instance the requirement that the speaker is able to justify and explain their reasoning with *must*, but not with the bare prejacent (Wurm, 2023). These questions are closely related to another area of research in the topic, namely investigating the relation of epistemic modality to evidentiality, the grammatical encoding of information source (De Haan, 1999; Aikhenvald, 2004; Matthewson, Davis, & Rullmann, 2007; Matthewson, 2012); yet another line of research investigates the role of second-hand reports as evidence for a claim. Although undoubtedly an example of indirect evidence (Willett, 1988), reports are often insufficient to licence epistemic necessity claims (example from von Fintel and Gillies, 2010).

(313) [I read in a book that the battle of Hastings was fought in 1066]
The battle of Hastings must have been fought in 1066.

These discussions are all relevant here, as a single modal expression in Pintupi-Luritja (namely *tjinguru*) covers a range of epistemic contexts— we should ask how we can know whether the speaker considers the proposition an epistemic possibility or necessity. Although we won't solve the problems here, we will be guided by the main elements that are argued to influence which modal strength is expected in which environments– source and degree of (in)directness of the evidence for a belief, and that nebulous distinction between *believing* and *knowing*.

In the following section we will examine some properties of the Pintupi-Luritja particle *tjinguru* in light of the types of environments typically associated with differing epistemic modal strength. We will see that its use is not sensitive to the factors that divide the epistemic modal system in languages like English. The conclusion we will draw from this is that the Pintupi-Luritja epistemic modal system is not sensitive to differences of modal strength.

10.1 The particle *tjinguru*

Much of this chapter will be devoted to investigating the particle *tjinguru*, which is typically translated into English as 'maybe.' *Tjinguru* is a particle, typically occurring in first or second position in the clause,

although not exclusively. This can be seen in (314). In (314a) the speaker (the kangaroo) is tagging the proposition that 'The water snake has taken the water away to another place' as uncertain, not known, compatible with, but not entailed by the current evidence, etc. Similarly in (314b), the speaker considers it possible that a Kadaicha is nearby.[2]

(314) a. Papa-ngku tjapi-ṉu maḻu-nya, "Yaalytji kapi?"
dog-ERG ask-PST kangaroo-ACC where water

Maḻu-ngku watja-ṉu,
kangaroo-ERG say-PST

"**Tjinguru** waṉampi-lu kati-ngu ngurra kutjupa-kutu."
maybe water.snake-ERG take-PST place other-ALL

*(Source translation:) A dog asked the kangaroo, "Where's the water?" The kangaroo said "**Maybe** the water snake has taken it away to another place."*

Kapiku Ngurriṉingi (Ferguson Nakamarra, 1986)

b. Waṉapa **tjinguru** yila ngara-nyi.
kadaicha **maybe** close stand-PRS

*(Source translation:) Wind makes a blue mallee shrub or maybe a desert oak or mulga, keep moving in a certain way. When people were sitting there and saw the wind moving, they'd keep sitting there and think like this, "**Maybe** there is a kadaicha here close by."*

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *waḻpalu pirrtjitjingaṉi*

The use of *tjinguru* is a very common way of marking epistemic modality in Pintupi-Luritja, but it is not the only way. We will be looking at a few others throughout this chapter– primarily *-paka*– but can also note the use of *mayiti*/*mayitpi* (from English 'might be'), *-nga*, *-tiki*, *ruku*, *-kurralpa*, and others (see entries in Hansen and Hansen, 2022).

10.1.1 The question of modal strength

We noted that *tjinguru* is usually translated into English as *maybe*. However, unlike *maybe*, *tjinguru* is felicitous in a wide range of epistemic situations, regardless of modal strength. Assuming that information source plays a role in determining modal strength (as it feeds into how likely the speaker judges the proposition), *tjinguru* covers cases of wild guesses (315) as well as reasoning and deduction through various kinds of indirect evidence (318), as the following elicited examples show.[3]

[2] In the following examples, a Kadaicha (also spelled Kurdaitcha, Kutatja, among others) refers to men/monsters who inhabit and roam the country attacking and killing– see Meggitt (1955) and Musharbash (2014a, 2014b) for discussions on Warlpiri perspectives on Kurdaitcha and related monsters.

[3] See (395) in the appendix for further examples.

(315) **Epistemic:** $\Diamond\phi$ 'It might be that ϕ'
Knowledge source: Wild guesses

a. PROMPT: You will stay at a friend's house while they are away. You get to the house and realise they forgot to tell you where the key is. You don't know but guess and say: "The key might be under the flowerpot."
Yaka, kii yaalytji? **Tjinguru** ngaatja yuṉngu ngarri-nyi!
goodness key where **maybe** DEM inside lie-PRS
Goodness where's the key? Maybe it's in here!
JAG1-Elicitation-20200315_MANG; 36.28–36.40

b. PROMPT: You say to Tjakamarra that you will meet at 8 in the morning, but he doesn't turn up. You say: "He might be still asleep."
Tjinguru paluru yanku ngarri-nyi.
maybe 3SG.NOM asleep lie-PRS
Maybe he's asleep.
JAG1-Elicitation-20200315_MANG; 37.29–37.32

A further point indicating that *tjinguru* expresses weak modal strength is the fact that conjoined statements of the form [*tjinguru* $\phi \wedge$ *tjinguru* $\neg\phi$] are possible.[4]

(316) a. Kutjupa-lpi **tjinguru** nyina-ku irriti-tja nguwanpa **tjinguru** **wiya**.
some-then **maybe** sit-FUT long.ago-NMLZ SEMBL **maybe** **NEG**
Maybe some will be like the old days, maybe not.
(Source translation:) Then she asked how people were living, were they living just like in the old days or not?
Tjakulpa Kuwarritja (June 1986, p.3)

b. Tjiṉṯu-ngka **tjinguru** mangarri ngayu-ku ngarri-ku, **tjinguru** **wiya**.
day-LOC **maybe** food 1SG-DAT lie-FUT **maybe** **NEG**
Maybe I will have food tomorrow, maybe not.
(Source translation:) So do not worry about tomorrow, for tomorrow will bring worries of its own.
Maatjuwukuṉu/Matthew 6:34 (Bible Society of Australia, 2006)

Rullmann et al. (2008) note that whereas patterns like (317a) are a contingency, patterns like (317b) are a contradiction if ϕ and ψ represent mutually exclusive propositions (e.g. ϕ and $\neg\phi$ are mutually exclusive propositions).

[4]The interaction between *tjinguru* and negation is dealt with in more detail in section 10.4.

(317) a. $\Diamond\phi \wedge \Diamond\psi$

b. $\Box\phi \wedge \Box\psi$

An example of the pattern in (317b) would be the impossible *The horse must be in this paddock and it must not be in this paddock*, which is a contradiction. The abundance of examples of the form in [*tjinguru* ϕ, *tjinguru* $\neg\phi$] is therefore evidence of its weak modal character.

However examples where weak epistemic modal statements would often be inappropriate in English, such as those related to deduction and (in)direct evidence, are also covered by *tjinguru*. Note that all prompts explicitly included the English strong modal verb *must*.[5]

(318) **Epistemic:** $\Box\phi$ 'It must be that ϕ'

a. *Knowledge source:* Reasoning via indirect evidence
PROMPT: You are sleeping in bed, and wake up. You see your friend walk inside all wet. You say to yourself: "It must be raining."
Yaka, ngaatja nyuma! **Tjinguru** kapi-ngku pu-nganyi.
goodness DEM ?wet **maybe** rain-ERG hit-PRS
Goodness, it's wet! Maybe it's raining.
JAG1-Elicitation-20200315_MANG; 30.42–30.48

b. *Knowledge source:* Reasoning via indirect evidence
PROMPT: There's a football game between Papunya and Yuendumu in Papunya. You drive to Papunya from Alice Springs to see it, but you're just too late– it's just finished when you arrive. You don't know who won but you see all the Papunya people look happy and all the Yuendumu people look sad. You say: "Papunya must have won!"
Tjinguru=n̲a kuli-n̲u **tjinguru** Pupanya wina-rri-ngu, tumatji Pupanyi
maybe=1SG.Subj think-PST **maybe** Papunya win-INCH-PST because Papunya
ngurrara tju̲ta puku̲lpa nyina-ngu.
inhabitants many happy sit-PST
Maybe I think, maybe Papunya won, because all of the people from Papunya were happy.
JAG1-Elicitation-20200830_MA1; 16.57–17.05

c. *Knowledge source:* Reasoning by deduction[6]
PROMPT: We have three cups on the ground in front of us. I put a ball under one of the

[5] I am translating *tjinguru* here into English as *maybe*. I don't mean to suggest anything about its modal strength by doing so, but wanted a 'third option' for translation besides the English modal verbs. In addition, note that like *tjinguru*, *maybe* is a particle.

[6] Giannakidou and Mari (2016) and Goodhue (2017) discuss arguments for perhaps treating the use of apparent epistemic necessity in deductions such as this not as epistemic at all. The argument goes that the ball *must* be in the third cup not because the modal is quantifying over what is known, but rather it is quantifying over possibilities due to the general circumstances; e.g. perhaps the ball has to be in the third cup not due to the speaker's belief *per se*, but rather because we know that balls

cups and move them around. We look under the first, the ball is not there. We look under the second, the ball is not there either. So...
Ngaa-ngka wiya, ngaa-ngka wiya, **tjinguru** ngaa-ngka ngarri-nyi.
DEM-LOC NEG DEM-LOC NEG **maybe** DEM-LOC lie-PRS
(It's) not here, not here; maybe it's in this one.

JAG1-Elicitation-20201209_MANG; 33.25–33.30
(Example from von Fintel and Gillies, 2010)

This usage of *tjinguru* extends beyond elicitation contexts; following are some naturally occurring examples, both of which are situations where the speaker has deduced the conclusion from (various kinds of indirect) evidence.[7]

(319) a. Context: The speaker in the story has just come across a hairy monkey-like creature in the bush north of Papunya.
Ngayulu manytji-ṉu puḻi. Rungka-ṉu=ṉa palu-nya. Paluru puṯu-kutu
1SG.ERG get-PST stone pelt-PST=1SG.Subj 3SG-ACC 3SG.NOM unable-continually
pirrtji-ngu. Ngayulu kuli-ṉu-lpi "**Tjinguru** waṉapa ngaatja." Ngayulu
move-PST 1SG.NOM think-PST-then **maybe** Kutatja DEM 1Sg.NOM
watja-ṉu Ruunta-nya "Palatja **tjinguru** waṉapa nyina-nyi– a-rra=liku
say-PST Ronda-ACC DEM **maybe** Kutatja sit-PRS go-IMP=1DU.IMP
ngurra-kutu."
home-ALL
*(Source translation): I picked up a stone and tried to hit him, but he wouldn't move. I thought it **must** be a Kutatja. I told Ronda "It **must** be a Kutatja– We must go."*

Tjakulpa kuwarritja (June 1984, p.32–33)

usually don't just disappear into thin air— if it went into one of the cups in the beginning it *has to* be in one of those cups at the end (by virtue of its continuing existence); if it's not in the first or second then (if we can discount non-stereotypical ways that we assume the world works, like unless the cup-switcher is a magician) it *has to* be in the third one. Goodhue shows that at least Iberian Spanish and Portuguese are sensitive to deduction contexts in how they are lexically encoded, differently to epistemic contexts; the fact that Pintupi-Luritja uses *tjinguru* in these contexts suggests maintaining a connection to epistemic modality. However examples like this come up against a more general issue: the relation between epistemic and circumstantial modal bases generally cannot be completely distinct if we form our beliefs on the basis of facts in the real world (like *things don't just stop existing*)– this issue is noticed by Nauze (2008: Ch. 4.1.1) and Kratzer (2012: 24).

[7] A note on the creature in (319a): the entry for *waṉapa* in the Pintupi-Luritja dictionary (Hansen & Hansen, 2022) suggests that it is to be equated with Kurdaitcha (see footnote 2 above), although the hairy monkey-like appearance could also link it to other monsters like *Pangkaḻangu/Pangkalangu* (Yasmine Musharbash, *pers.comm.*)– my knowledge of the array and nature of monsters in this area is patchy. Note too that Mikantji is a water Dreaming site north-west of Yuendumu, and that Tjampitjinpa and Tjangala are skin (subsection) names. See papers in McConvell, Kelly, and Lacrampe (2018) for more information.

b. CONTEXT: Two men come across a car in the bush covered in paintings.
Alu ngaatja! Yuwa. Ngaatja **tjinguru** Mikantji-nya kunyu, Tjampitjinpa-ku,
INTJ DEM yes DEM **maybe** Mikantji-NOM PRT Tjampitjinpa-DAT
Tjangala-ku.
Tjangala-DAT
*(Source translation): Hey what's this! Yep, this **must** be Mikantji, (the Dreaming) for Tjampitjinpa and Tjangala.*
Video: Tjupi Old Car Tjukurrpa (00.53–01.05)

c. Kapi tjiki-ra kami-lu nya-ngu waru kampa-nyi-ngka. Paluru
water drink-MV grandmother-ERG see-PST fire burn-PRS-LOC 3SG.NOM
kuli-ṉu, "**Tjinguru** mamu-lu paḻtjatjirratja-ngku kutja-ṉi."
think-PST **maybe** monster-ERG hungry-ERG cook-PRS
Drinking the water, the grandmother saw a fire burning. She thought "The monster must be hungrily cooking."
*(Source translation:) After drinking some water the grandmother saw a fire burning and thought to herself, "That monster **must** be getting hungry now!"*
Kungka Wiimanya Palumpa Kaminya (Ferguson, 1986a)

d. Kutjunnguru-rri-ngkula kuka tjinguru yaapa-rri-nytja,
scarce-INCH-MV meat maybe half-INCH-NMLZ
tjinguru=ya mantji-ra wiya-ṉu-tjangka.
maybe=3PL.Subj get-MV NEG-PST-CIRCUMS
*(Source translation:) The cut up pieces of meat have become a few now, maybe there is only half of them left, **probably** because many people have come and taken them, finished them off.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kutjunngururrinyi*

We might wonder how we are in a position to claim that these are examples of epistemic necessity– does the conclusion necessarily follow from the evidence? These examples show how the evaluation of epistemic modal strength is not always clear from a perspective outside that of the speaker, who has a range of evidence at their disposal (e.g. contextual evidence, knowledge about the stereotypical course of events, etc.). How obviously true the propositions appear to the speakers is of course also closely bound to cultural considerations that can only be evaluated by speakers within that culture. For example, to what extent does the creature's behaviour and appearance in (319a) signify the likelihood of its being a *waṉapa*? To what extent do the paintings in (319b) show that it relates to Mikantji? A particular detailed knowledge is needed to know how likely the propositions are to be true.

What we are in a position to note though is the effect that these statements have in context. It is certainly the case that the speakers appear to believe these statements to be true– the speaker in (319a) then continues to go into town to tell people that she *did* see a Kurdaitcha (not that she *might have*), thereby publicly committing herself to having seen the creature. When the speaker announces the sentence in (319b), his interlocutor replies with *yuwa!* ('Yes', there translated as 'That's right!'), signifying that he also believes it to be true, rather than merely considering it a possibility (i.e. his agreement targets the proposition that the paintings relate to Mikantji, rather than agreeing that they might do). They continue to discuss the significance of the paintings in detail.

Such factors are also at play in the following examples, in which the speaker is confronted with various kinds of evidence of the conclusion.[8] It is again debatable the extent to which the evidence indicates the truth of the propositions. The use of modalised language at all suggests that the proposition is not settled (von Fintel & Gillies, 2010) or known to be true (Goodhue, 2017), but further investigations of strength are difficult. Both examples use *tjinguru*, whereas the English translations use weaker modal expressions ('maybe', 'might be').[9]

(320) **Further corpus examples of *tjinguru***

a. Paluru kuli-ṉingi "Tjina ngaatja yaṉangu-ku? Wampa. Wiya. **Tjinguru**
3SG.NOM think-PST.CONT tracks DEM human-DAT don't.know NEG **maybe**
mamu-ku tjina ngaatja?"
demon-DAT tracks DEM

*(Source translation): She thought to herself, "Are these tracks made by people?, Maybe. No, these tracks **might** be made by a devil."*

Maamangku Ngurriṉingi Palumpa Yuṉṯalpaku (Ferguson, 1987b)

b. Context: A devil has just struck and killed a woman
Pupakati-rra ipi tjulkura nya-ngu ipi tjuti-ṉi-ngka. "**Tjinguru** pipirri-tjarra
crouch-MV milk white see-PST breast drip-PRS-LOC **maybe** child-COMIT
minyma ngaatja wanyu=ṉaka tjina wana-ra nya-wa."
woman DEM hang.on=1SG.IMP track follow-MV see-?IMP

*(Source translation): He bent down and saw milk dripping from her breasts. "**Maybe** this woman has a baby," he thought "I'll follow the tracks and then I'll see."*

Tjangaraku Ngurrara (Stevens, n.d.)

[8] The array and nature of different types of direct and indirect evidence is debated; relevant for this discussion in how this relates to epistemic modality see particularly von Fintel and Gillies (2010)

[9] Unfortunately I don't have any insight into how the English translations came to be— these appear to have originally been oral stories transcribed, edited and translated; but it is not clear to me whether the use of these weaker modal terms in the English originated from the original story tellers, from (potentially non-Aboriginal) teacher-linguists, or a combination.

Again, these raise questions of how epistemic modal strength is determined; e.g. whether evidence of lactation is strong enough evidence for the existence of a child in this context. The English translations have chosen the less epistemically strong particle *maybe*, but stronger expressions like *must* are to my ears also felicitous in these contexts.

Not even logical deduction contexts are free from these considerations. We saw in (318c) that *tjinguru* is felicitous when the speaker comes to a conclusion by narrowing down the possible answer until only one option remains. In a number of recording sessions, I asked speakers to play a few rounds of the boardgame *Guess Who?* with each other. In this game, players are presented with a number of faces with different attributes (hair colour and style, attire, accessories, etc.), and have to ask questions to determine which picture their opponent has chosen. This is done by eliminating potential characters based on yes-no questions (such as *Does your person have glasses?*). In theory, there should come a point where only one character remains as the possible target. When playing this game, speakers would often declare their guess/conclusion using *tjinguru*.

(321) a. Palumpa yini **tjinguru** Sara-nya.
3SG.DAT name **maybe** Sara-NOM
So her name must be Sara.

JAG1-Storyboard-20200305_MANG; 02.17–02.20

b. James-nya **tjinguru** yilta?
James-NOM **maybe** right
It must be James, right?

JAG1-Storyboard-20200314_LNRNA; 01.33–01.35

The answer to these questions is reached via deduction, but it is not a sure thing– often players make mistakes in eliminating cards they should not have, or including ones they should have discarded. Assuming you play with perfect attention you should be able to deduce your opponent's card (hopefully before your opponent deduces yours)– but taking distractions, or carelessness, or unfamiliarity with the game into account means this is perhaps not always true. Considering these factors means that there are doubts in what the answer is, despite deduction (this is further shown for example by the fact that speakers were in fact often not right in their guess). Factors like these are presumably also at play even in classic deduction contexts like (318c); we should be able to deduce that the ball is in the third cup (since it wasn't in the first two), but having witnessed street magicians in the past might introduce some doubt– under normal circumstances, the ball should be in the third cup, but are these normal circumstances? The fact that one is being asked what appears to be an obvious question likely introduces some doubt into the speaker's mind (especially in fieldwork situations as opposed to imagined scenarios). Having these kinds of factors at play conspires to blur the epistemic boundaries between possibility and necessity, and makes it difficult to know whether particular environments indeed represent cases of epistemic necessity in practice.

Either way, these examples and others show a binary distinction between sentences marked with an epistemic particle, and those which are not. This shows that *tjinguru* is felicitous in contexts which in languages like English span the realm of *might* to *must*. That is, *tjinguru* appears to be insensitive to modal strength– or at least information source, which is typically taken to be an important ingredient in determining modal strength in the epistemic domain.

To conclude this section, we've seen that a range of different background assumptions about a speaker's knowledge state due to perceptual evidence or logical deduction do not seem to affect the felicity of *tjinguru* in these sentences. The findings of insensitivity to modal strength described in this section appear to mirror recent reports of epistemic modality in other Australian languages. In his overview paper on the topic, Bednall (2023) notes that modal force appears not to be encoded in traditional languages across the Australian continent more generally (both in Pama-Nyungan and Non Pama-Nyungan languages). Some recent examples showing this in detail include Phillips (2021: Ch.10.1), who shows the variability in modal strength exhibited by *mak*(*u*) in Western Dhuwal-Dhuwala (a dialect cluster of Yolŋu Matha, Pama-Nyungan); and Bednall (2019: Ch.9), who shows similar behaviour in the Anindilyakwa (Gunwinyguan, non-Pama-Nyungan) modal system. Mary Laughren (*pers.comm.*) points out a Warlpiri example including the epistemic particle *marda* which seems to parallel some of the *tjinguru* data here; consider (322a), in which a speaker includes explicit reasoning for the conclusion, much like a necessity modal. Compare this to (322b), which is a more typically possibility reading.[10]

(322) Warlpiri

a. Nyiya mayi ka kuyu=ju ngarni kakutu-rlu=ju, kula=ka-rna-rla
what Q PRES(AUX) meat=TOP eat.NPST boobook-ERG=TOP, not=PRES=1sgS-3sgDAT
pina-wiyi nyina ngajulu.
knowing-BEFORE sit.NPST I.NOM

Munga-ngka-rlu **marda** ka ngarni nyanungu-rlu-ju. Kula-ka warru
night-LOC-ERG **marda** AUX eat DET-ERG-TOP NEG-PRES(AUX) around
parnka parra-ngka-rlangu-wiyi.
move.fast.NPST day-LOC-FOR.EXAMPLE-BEFORE

*I wonder what meat the boobook owl eats. I don't really know about that. It **must** eat at night. It doesn't usually fly around in the day.*

Hale field notes, 1966/1967 at Yuendumu; *via* Mary Laughren (*pers.comm.*)

b. Kapu **marda** ngapa wanti-mi, **marda** lawa-rlangu.
AUX.FUT **marda** water fall-N.PST **marda** NEG-for.example
(Source translation:) It will perhaps rain today, or perhaps it will not.

Laughren et al. (2022); under entry for *marda*

[10] Thanks to Jane Simpson and David Nash for help with glossing.

The variable modal strength of *tjinguru* described here is also mirrored in other Western Desert languages; the Ngaanyatjarra & Ngaatjatjarra dictionary (Glass et al., 2003) has many examples where *tjinguru* appears to encode both epistemic possibility (323) and epistemic necessity (324).[11]

(323) Ngaanyatjarra/Ngaatjatjarra

***Tjinguru* as epistemic possibility**

a. Nyangka kutjupatjarra-lu watja-nma, ‘**Tjinguru** palalu yarlamayu-ra.’
CONJ others-ERG say-FUT.CONT **tjinguru** 3SG.NOM deceive-PRS

Nyangka-ya kutjupatjarra-lu watja-nma, ‘Wiya, minyma palalu kata
CONJ others-ERG say-FUT.CONT NEG woman 3.SG head

tjukarurru-lu watja-ra.’
straight-ERG speak-PRS

*(Source translation:) One woman might go out hunting and see a feather-foot man. Then she'll come and say, "I caught sight of (lit. a man appeared to me) in the bush." You know, she'll tell everyone. Then some might say, "**Maybe** she's lying." But others will say, "No, that woman's saying that in her right mind."*

Glass et al. (2003); Under entry for *kata tjukarurru*

b. Pika kultu-kultu-ra, nyaa-lu-munta-rni? Kaninytjarra warta-lu-**tjinguru**.
pain stab-PRS what-ERG-Q-1SG.Obj inside stick-ERG-**tjinguru**

*(Source translation:) I feel a stabbing pain, I wonder what it is? **Maybe** it's a stick inside me.*

Glass et al. (2003); Under entry for *kultu-kultulku*

c. Marlu mirri kunakurlu mangarri-rra kutjupa-lu-**tjinguru** tjutupu-ngu
kangaroo dead swollen lie-PRS someone-ERG-**tjinguru** shoot-PRS

wanti-nyangka.
leave-CIRCUM

*(Source translation:) A dead kangaroo is lying there swollen up **maybe** because someone shot it and left it.*

Glass et al. (2003); Under entry for *kunakurlu*

d. Nyarra kuru pinpapinpa-rra, wiilyka **tjinguru**.
DEM eye flash-PRS wild.cat **tjinguru**

*(Source translation:) (A pair of) eyes are flashing over there, **maybe** it's a wild cat.*

Glass et al. (2003); Under entry for *pinpaku*

[11]Note that glossing is based on my interpretation of the grammar section of Glass et al. (2003); many morphemes share form with Pintupi-Luritja morphemes but encode slightly different properties.

(324) Ngaanyatjarra/Ngaatjatjarra

***Tjinguru* as epistemic necessity**

a. Marlu palytjularralku yatarnta. Ka kuliralpi watja-lku,
kangaroo make.thumping.noise-PRS no.wind CONJ listen-PRS-then say-FUT
"Marlu-kula **tjinguru**. Nganpi-la nya-wa." Ka nganpi-lku nya-ku,
kangaroo-EMPH **tjinguru** peep-IMP look-IMP CONJ peep-FUT see-FUT
"Mularrpa."
true

*(Source translation:) A kangaroo makes a quiet thumping noise with its back feet when there's no wind. When you hear it you say, "That **must** be a kangaroo. Have a look around (the bush) and see." Then the other person looks around and sees, "Sure enough (it's a kangaroo)."*

Glass et al. (2003); Under entry for *palytjularralku*

b. Pirriyapuru-**tjinguru** kutipitja-ngu. Nyangka-rna katu-rri-ngu purtu
in.the.wind-**tjinguru** go.away-PST CONJ-1SG.Subj up-INCH-PST NEG.CAN
nya-ngu.
see-PST

*(Source translation:) It **must**'ve blown away in the wind. I got up and couldn't see it.*

Glass et al. (2003); Under entry for *pirriyapuru*

c. "Tjakarr-tjakarrpa pitja-ngu. Nyangka=rna ngarri-ngu kuli-rnu." Kutjupa-lu
tread.heavily come-PST CONJ=1SG.Subj lie-PST hear-PST someone-ERG
watja-rnu, "Tjakarr-tjakarrpa=rna kuli-ntja-munu. **Tjinguru**-rna kunkunpa
say-PST tread.heavily=1SG.Subj hear-NMLZ-NEG **tjinguru**-1SG.Subj asleep
purlkanya ngarri-rranytja."
great lie-PST.CONT

*(Source translation:) "Someone came treading heavily and I lay there and heard it." Somebody else said, "I didn't hear any heavy steps. I **must** have been sound asleep."*

Glass et al. (2003); Under entry for *tjakarr-tjakarr*

d. “Ngaanya **tjinguru** kartakati-ngu nyina-ngu-ya. Tjulpurrpa yurntu-rnu
DEM **tjinguru** break.down-PST sit-PST-3PL.Subj track push-PST
rurrkutjinga-ra ya-nu.”
start.engine-PRS go-PST

*(Source translation:) You know how you come along and see on the road, “This **must** be where they broke down and stayed (for a while). Here are the tracks where they pushed (the car) and got it started and went on their way.”*

Glass et al. (2003); Under entry for *tjulpurr*

e. Ayi, nyarranya-ya malta-maltarringku-la yula-rra-warni. **Tjinguru**
INTRJ DEM-3PL.Subj wail-PRS cry-PRS-?around **tjinguru**
kutjupa-kutjupa ngara-ngu.
something stand-PST

*(Source translation:) Hey, those people over there are all wailing loudly and crying. Something **must**’ve happened.*

Glass et al. (2003); Under entry for *malta-maltarringku*

It is clear that this phenomenon of variable modality for epistemic elements is neither restricted to Pintupi-Luritja within the Western Desert family, nor further afield among languages of Australia. The investigation of this topic remains however understudied for essentially all Australian languages.

10.2 Non-ignorant uses of *tjinguru*

Until now, all examples of *tjinguru* have a number of characteristics in common; as a kind of hedging strategy, these sentences are all spoken by a speaker who is ignorant about the truth of the prejacent (to some extent), and who crucially is in a position of actively trying to ascertain this truth. There are some other uses of *tjinguru* that are closely related to the examples we have seen, but differ in slight but important ways. I will be classing these together as what I’m calling ‘non-ignorant’ uses of the particle. In these examples, the speaker may or may not be ignorant about the truth of the relevant proposition, but they crucially are not actively trying to ascertain its truth. The speaker can be, but does not have to be, ignorant about the truth of the proposition; the defining characteristic is that the speaker is not taking a stance on or making an assessment about its truth.[12]

These examples can be divided into two main types: (i) something approaching hypotheticals or conditionals, where the speaker is asking the addressee to imagine a world in which the proposition is

[12]So ‘non-ignorant’ should therefore be read as ‘not necessarily ignorant.’ Cf. also discussion by Mauri (2008), who describes these cases as where “…the speaker makes a hypothesis about what is going to happen, or a conjecture about what has actually happened, and he imagines two possibilities, without knowing *or caring* which one actually occurred or is going to occur.” (Emphasis mine)

(not) true, and entertain that possibility in order to ruminate on the consequences in that imagined world; and (ii) disjunction (or a construction for a similar purpose). Although these are modal contexts in that they involve discussion of possible worlds informed by (various types of) speaker knowledge, their actual truth is not at stake.

I should stress then that when we speak of these non-ignorant uses, I am not saying that these elements literally encode e.g. disjunction; I am saying that the semantics of the relevant elements allows a construction that achieves a similar semantic result.

It's worth noting that there are some other non-ignorant uses of *tjinguru* that I won't investigate at any length; in particular, self ruminations (325a) and its use to lessen illocutionary force (325b).

(325) a. ***Tjinguru* used in ruminations**

Ul̲a paluru kuli-n̲u, "**Tjinguru** ngayulu turaaka turaaka palya-lku!"
boy 3SG.NOM think-PST **maybe** 1SG.ERG truck truck make-FUT

That boy thought "Maybe I'll make a toy truck!"
*(Source translation): (One day) a boy thought to himself, "**I think** I'll make a 'truck truck'."*

Turaaka turaaka palyan̲ingi (Nelson Tjakamarra, 1987)

b. ***Tjinguru* used to lessen illocutionary force**

Tjinguru nyuntu nganan̲a-nya aalpa-mila-lku?
maybe 2SG.ERG 1PL-ACC help-LOAN-FUT

***Maybe** you will help us?*

Nyinytjirri Tjampit̲a Tjarrpangu (Nangala, 1999)

10.2.1 *Tjinguru* in conditionals

Firstly, let's examine some cases where *tjinguru* evokes a situation to work through its implications.

(326) ***Tjinguru* functioning as a conditional/hypothetical**

a. **Tjinguru** nyuntu ngurrpa mutukayi palya-nytjaku nyuntu makanika kati
maybe 2SG.NOM ignorant car fix-PURP 2SG.ERG mechanic take.IMP
nyuntu-lawana.
2SG-PERL

***Maybe** you don't know how to fix a car; take a mechanic with you.*
*(Source translation): **If** you don't know how to check the car you should take a mechanic with you so he'll help you how to do it.*

Tjakulpa kuwarritja (December 1985, p.6)

b. **Tjinguru** nyuntu yunytju-rri-nganyi yara waka-ntjaku piipa ngaa-ku yini
maybe 2SG.NOM desirous-INCH-PRES story write-PURP paper DEM-DAT name
yalatji Tjakulpa Kuwarri-tja.
thus news now-NMLZ

***Maybe** you want to write a story for this paper, Tjakulpa Kuwarritja.*
*(Source translation): **If** you would like to write a story, go and see…*

Tjakulpa kuwarritja (August/September 1982, p.30)

c. **Tjinguru**=n waru-ku ya-nkula mantji-lku.
maybe=2SG.Subj fire.wood-DAT go-MV get-FUT

(Source translation:) Venomous snakes lie in hollow logs, or they go into holes or burrows and lie there. You might go and get some firewood. While dragging it back, you might see one and say, "It's lying in there."

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *yultu*

Note that using modal language for these purposes is also possible with English 'maybe' and weak modal verbs like 'might'; and is similar to clauses beginning with 'suppose', or 'imagine'.[13]

(327) a. **Maybe** you don't know how to fix a car yourself— take a mechanic along with you.

b. You **might** not know how to fix a car yourself– take a mechanic along with you.

c. **Suppose**/**imagine** you don't know how to fix a car yourself– you would take a mechanic along with you.

In none of these cases is the point of this modal language to express the speaker's ignorance about whether you know how to fix a car (even though the speaker may happen to be ignorant); instead, the speaker evokes the situation in order to work through the consequences of it. There is no evaluation or assessment of the situation by the speaker.[14]

Note too that it is relatively common for speakers to introduce conditionals with *if*, or *iipa* (or variations thereof, depending on the extent to which it is phonotactically integrated into Pintupi-Luritja in the utterance), from English *if*, such as in (328). While *tjinguru* is not the only way to express conditionals, it is our focus here.

[13]The co-opting of modal particles to fulfil these purposes appears to be widespread, but is less described in detail in the literature. It so happens that often when discussed, examples are often Australian languages: Bhatt and Pancheva (2017) note this strategy in Arrernte, which happens to be a geographical neighbour to Pintupi-Luritja; von Fintel (2007) cites a similar strategy in Guugu Yimithirr, via Levinson (2000).

[14]This use of English weak modal verbs is to be compared with strong modal verbs– compare the examples above with examples such as *You must not know how to fix a car yourself– take a mechanic along with you.* Unlike the examples above, this sentence does force a reading whereby the speaker is making an assessment on the truth of the prejacent.

(328) **Iipa** aṉangu palunya paamuliyi tjuṯa-tjarra, tjana kapi aapa-paka initjingi
if person DEM family many-COMIT 3PL.ERG water half-perhaps anything
kilytjukati-ngu-tja, nyuntu aalpa-mila-ntjaku.
broke-PST-NMLZ 2SG.ERG help-LOAN-PURP
If that man has his family with him, maybe if they only have a little water, or anything has broken, you should help him.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aapa*

The literature connecting conditionals to modality is well established, particularly through a co-opting of possible worlds as a key ingredient in their analysis (Kratzer, 1986; see von Fintel, 2007 for an overview).[15] What the *if* clause essentially does according to these approaches is restrict the domain of evaluation for the *then* clause to those described in the *if* clause. For example in the sentence *If the train is on time, then we will be there at five* says that it is true that we will be there at five, in all eventualities in which the train is on time. In other words, the evaluation of *We will be there at five* is restricted in its evaluation only to worlds where *The train is on time.* Keeping with the phrasing *if* ϕ*, then* ψ, this is akin to saying that ψ is true in the worlds in which ϕ is also true.[16]

The fact that *tjinguru* marks the antecedent (i.e. the *if* clause; the protasis) in the conditional examples here suggests that it is fulfilling the same role that it plays in all examples discussed so far, namely of evoking possible situations. What happens with these possibilities accounts for the differences in reading. In the case of epistemic modals proper (like in the previous section), these situations are evoked to be considered as possible descriptions of reality; whether they are accurate or not is unknown to the speaker, but they are to be assessed as realistically compatible with our actual world. With these conditional-esque cases, they are evoked in order to restrict the domain for evaluation of the consequent; these don't (necessarily) involve speaker ignorance, but are imagined situations that determine how to evaluate another proposition. This means that when a speaker utters a sentence of the form [*tjinguru* ϕ*,* ψ] (e.g. 326), they are telling you to take a mechanic along with you in just the situation where you don't know how to check the car. Understanding the use of *tjinguru* in these conditional contexts in this way allows us to maintain a common semantic core of the particle.

[15] I want to avoid discussion of how these conditionals do or do not relate to material implication. There is an extremely rich field of literature examining causal relations between the components of conditionals, and I don't want to wade into these discussions. Another aspect of conditionals that I won't have space to go into are temporal interactions, although I can note that the vast majority of examples I have are present or future oriented. It is also worth noting that the literature has identified a range of types of conditionals; the examples here constitute only one of these, a hypothetical conditional. Other types, like Austin (1979)'s biscuit conditionals (*There are biscuits on the sideboard if you're hungry*), factural/premise conditionals (*If Fred is so smart, why didn't he get the job?* (example from Bhatt and Pancheva, 2017)), or counterfactual conditionals are not considered.

[16] Of course this is a simplification, but describing the phenomenon at this level of detail is enough for our purposes.

10.2.2 *Tjinguru* as apparent disjunction

The second major use of *tjinguru* we'll consider here are cases where the particle functions similarly to disjunction. The use of epistemic modality to fulfil this role is noted as a common cross-linguistic strategy (Mauri, 2008). In these cases, *tjinguru* occurs between the two disjuncts when the disjuncts are noun phrases (329); when the disjuncts are whole propositions, *tjinguru* occurs as it usually does when it functions as an epistemic particle, i.e. near the beginning of both clauses (330).

(329) ***Tjinguru* functioning as disjunction– disjuncts are noun phrases**
NP *tjinguru* NP

a. Kaparirri puḻi-tjayiṯi-wana **tjinguru** tali-tjayiṯi-wana.
kaparirri hill-side-PERL **maybe** sandhill-side-PERL
(Source translation:) The word kaparirri *is the base of a hill, or the base of a sandhill.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kaparirri*

b. Kuwarri ngayulu wati Yatimatja-nya **tjinguru** wati Titjikatja-nya, nyuntu-lakutu
soon 1SG.ERG man Artemas-ACC **maybe** man Tychicus-ACC 2SG-ALL
wantirriya-lku.
send.out-FUT
Soon I will send to you the man Artemas, (or) maybe Tychicus.
(Source translation): When I send Artemas to you, or Tychicus, do your best to come to me at Nicopolis, for I have decided to spend the winter there.
Tayitutjaku/Titus 3:12 (Bible Society of Australia, 2006)

c. Luḻunypa aparranytji maḻu-kuṉu **tjinguru** aṉangu-kuṉu.
offspring child kangaroo-ASSOC **maybe** person-ASSOC
(Source translation:) A young one is either the child/offspring of a kangaroo, or the child/offspring of a person.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aparranytji*

d. Ninti-lpayi kutjupa tjuṯa-ngku nyurrangarri-la kuwarri mangarri **tjinguru**
teach-HABIT other many-ERG 2PL-LOC presently food **maybe**
mani mantji-lpayi.
money get-HABIT
Other teachers get food from you, (or) maybe money at the moment.
(Source translation): If others share this rightful claim on you, do not we still more?
1 Kurinytjiyalakutu/Corinthians 9:12 (Bible Society of Australia, 2006)

(330) ***Tjinguru* functioning as disjunction– disjuncts are propositions**
Tjinguru ϕ, tjinguru ψ

a. Puritjina yini ngana-nya ngayulu watja-lku tjana pakaltjinga-ntjaku?
prisoner name which-ACC 1SG.NOM say-FUT 3PL.ERG release-PURP

Tjinguru Parapatja-nya wanti-rri-ya-ntjaku ngayulu watja-lku,
maybe Barabbas-ACC leave-INCH-?-PURP 1SG.NOM say-FUT

tjinguru Yiitju-nya wanti-rri-ya-ntjaku ngayulu watja-lku?
maybe Jesus-ACC leave-INCH-?-PURP 1SG.NOM say-FUT

Which prisoner will I tell them to release? Maybe I will say to let Barabbas go, maybe I will say to let Jesus go?
(Source translation): Whom do you want me to release for you, Jesus Barabbas or Jesus who is called the Messiah?

Maatjuwukuṉu/Matthew 27:17 (Bible Society of Australia, 2006)

b. **Tjinguru** paluru wangka-rra nguḻutjinga-lpayi,
maybe 3SG.NOM speak-MV strike.fear-HABIT

tjinguru paluru ninti-lpayi?
maybe 3SG.NOM show-HABIT

(Source translation:) Does it maybe frighten you when it calls? Or does it indicate something to you?

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ingka*

This patterning holds quite generally; often exceptions can be seen in cases where noun phrases are stand-ins for elided clauses, although these are often difficult to tell apart from clauses with null copulas.

(331) **Tjinguru** tjaṉpa **tjinguru** papa.
maybe kadaicha **maybe** dog

(Source translation:) Maybe it was a kadaicha, or a dingo.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *inyu*

Note too that this construction allows both inclusive and exclusive readings; in some cases both 'disjuncts' are possible (e.g. 329), whereas in others only one 'disjunct' is possible (e.g. 330a).

Similar to the discussion about conditionals, there have likewise been argued to be a number of common factors that connect disjunction to (epistemic) modality, more specifically to existential modals. The role that ignorance plays in many cases of disjunction is important; the speaker does not know which state of affairs is true, and evokes them both as possibilities. Consider the following sentence.

(332) They visited two or three houses in the area.

The most natural reading of this sentence is that the speaker does not know whether *They visited two houses in the area* or *They visited three houses in the area*– i.e., the speaker is ignorant. Sometimes a Gricean account is invoked to explain the ignorance effect commonly associated with disjunction, however there are a number of accounts which explicitly connect this effect in disjunction to a modal semantics (Zimmermann, 2000; Geurts, 2005), in which disjunction is essentially the conjunction of modalised propositions. This approach explicitly links sentences of the form in (333a) to those of the form in (333b).

(333) a. $\phi \vee \psi$
E.g. [*They visited two houses*] $\vee$ [*They visited three houses*]

b. $\Diamond\phi \wedge \Diamond\psi$
E.g. [*It's possible they visited two houses*] $\wedge$ [*It's possible they visited three houses*]

The connection to this use of *tjinguru* is immediately obvious in the form of sentences such as (330), which literally take the form like in (333b); two sentential disjuncts are listed, both marked by *tjinguru*. Such use of 'maybe'-like particles or dubitative markings is in fact a common strategy cross-linguistically to encode disjunction, or at least the presentation of more than one possible option (Mauri, 2008).[17] This structure appears to be particularly common in Australian languages, and not only in the immediate region.[18]

Although we saw that examples of sentential disjunction like (330) bear an obvious structural similarity to representations like (333a), the examples of nominal disjunction (329) are not quite as analogous in their structure, as these have the form [NP1 *tjinguru* NP2], where only one of the disjuncts is marked (or where *tjinguru* connects them). Semantically however, these are directly comparable to the sentential examples– both disjuncts are considered epistemically possible; it is not so that the speaker accepts one NP and considers the other only possible.

Despite the apparent abundance of languages that use this construction to signal (something like) disjunction, there have been comparatively few in-depth language-specific investigations into its properties. We have seen that *tjinguru* is used here to indicate two possible alternatives, but in fact there are a number of intriguing parallels between the behaviour of this construction as used in Pintupi-Luritja, and disjunction proper.

[17] A non-Australian example is described for example in Cheyenne (Algonquian) by Murray (2017), who also cites a 2014 talk by Lisa Matthewson noting similar patterns in St'át'imcets and Tlingit.

[18] E.g. in Warlpiri (Bowler, 2014: 138); Dyirbal (Dixon, 1972); Diyari (Austin, 2021: Ch. 5.7), Mangarayi (Merlan, 1982: 38); Gaby (2017: 334ff,462f) also discusses parallel usage of the dubitative marking in Kuuk Thaayorre, although the overlap with the Pintupi-Luritja data is not total (e.g. apparently no clausal disjunction). Bowler (2014) similarly explicitly links the Warlpiri constructions to the modal analyses mentioned above, as the (covert) conjunction of two epistemic possibilities. An anonymous examiner wonders whether these disjunctive-like constructions in Pintupi-Luritja are exhaustive, i.e. if they are truly something like $\Diamond\phi \wedge \Diamond\psi$, then $\neg\phi \wedge \neg\psi$ should be possible. I don't know the answer to this now but this would in fact be a possible way to distinguish $\Diamond\phi \wedge \Diamond\psi$ from $\phi \vee \psi$.

For example, although disjunction generally often signals speaker ignorance, there are a number of environments where speaker ignorance is not conveyed. For example, when embedded under modals (*You can have an entree or a dessert*; this is known as a 'free choice permission' effect), embedded under negation (*I didn't read the newspaper or drink the coffee*), and in generic or habitual contexts (*Every day for breakfast they would drink a black coffee or tea*), there is no indication that the speaker is necessarily ignorant about which disjunct is true. Acknowledging the considerable literature that discuss these issues, we can note that the behaviour of disjunction in these cases is dependant on how it interacts with other elements in the clause (e.g. modal or generic operators, negation). The interaction of *tjinguru* with negation will be discussed in more detail in section 10.4. There are a number of examples where *tjinguru* appears not to be indicating disjunction, but where we can safely conclude that this is likewise due to interactions with other elements.

There are for example some cases where the use of *tjinguru* seems at first glance to function as conjunction, as in the following.

(334) ***Tjinguru* apparently indicating conjunction**

Puli-ngka	nyurrangarri	rungka-ra	mirrinta-nkunytjaku,	puluka,	**tjinguru**	papa
stone-INSTR	2PL.ERG	pelt-MV	kill-PURP	cow	**maybe**	dog

yanangu-tarra	puli	Tjaniya-la	kalpa-nyingka.
person-also	hill	?Sinai-LOC	climb-CIRC

By throwing stones you all must kill cows, or dogs, people also, who climb Mt. Sinai.
(Source translation): If even an animal touches the mountain, it shall be stoned to death.

Yipuru wangkapayiku/Hebrews 12:20 (Bible Society of Australia, 2006)

The reading is clearly indicating that should a cow climb Mt. Sinai, it should be stoned, *and* that if a dog should climb Mt. Sinai, it should meet the same fate. All/both relevant parties should be stoned, not only one of them– hence a conjunctive reading.[19] The fact that the additive suffix *-tarra* 'also' marks the final dis-/conjunct further demonstrates this.[20]

[19]It is interesting to note that this kind of behaviour is likely related to the semantics of the elements involved, rather than being specific to particular lexical items; *uu* (from English 'or') also has this conjunctive-like reading in a suitable environment. Note here that the reading is that *we would plug it in order to stop the native millet seed running out **and** to stop the water running out.*

(335)

Kanilpa	ala	ngara-nytja-ngka	ngami	tju-nkupayi,	wangunu	**uu**	kapi	inti-tjakumarra	manta-kutu.
dish	hole	stand-NMLZ-LOC	plug	put-HABIT	native.millet	**or**	water	dribble-AVOID	earth-ALL

(Source translation:) If a carrying dish had a knot hole in it, we would put a wooden plug in it with spinifex way to stop the native millet seed or water running out onto the ground.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *uu 3*

[20]Additive meanings should clash with disjunction, as in #*She drove to Canberra or Sydney as well*, on the reading where *as well* associates with *Sydney*, rather than the whole verb phrase. This is because the additive requires that its associate is true as part of its meaning; this clashes with disjunction, where it is not settled whether either disjunct is true. This further bolsters the conjunctive reading in (334).

Although the uses of *tjinguru* described in this section are different to the previous section, they still bear a strong connection to modality. The semantic machinery described in section 9.2.1 has been argued to be a crucial part of understanding the semantics of conditionals, united by their role in domain restriction; disjunction has similarly been argued to involve modal components (Zimmermann, 2000; Geurts, 2005). The fact that *tjinguru* covers also the same empirical ground suggests that it in fact carries an underlying modal contribution that comes into play in a range of environments, both ignorant and non-ignorant.

10.3 Other epistemic markers

Despite being the most common epistemic marking, *tjinguru* is not the only such marker in the language. In this section I want to briefly examine a few others. These other elements for the most part have a great overlap in usage with *tjinguru*.

Firstly, hypothetical contexts can also be marked by the suffix *-paka*, which Hansen and Hansen (1978: 217) and Heffernan and Heffernan (2000: 148) state is borrowed from Arrernte (*a*)*peke* (Wilkins, 1989: 361f). The suffix is impressionistically not generally used in cases of genuine epistemic modality (possibility or necessity), but like *tjinguru* in (326) is used in contexts where the actual truth of the non-modalised proposition is not being committed to by the speaker. It appears that *-paka* can attach to a range of elements in the clause, and unlike *tjinguru* does not intervene between disjuncts, but appears either at the right edge of the list of disjuncts, or on each disjunct (see examples in 336). Note too the conjunction-like readings in the examples below, analogous to the examples of *tjinguru* above.[21]

(336) a. Pipirri kana nyina-nytja-la ula-tjarra-**paka** maama-ngku ipi u-ngkula
child awake sit-NMLZ-LOC tear-COMIT-**perhaps** mother-ERG breast give-MV
anku-tju-nkupayi.
asleep-put-HABIT
(Source translation:) When the baby is awake a long time or maybe crying, its mother gives it the breast to put it to sleep.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *ipi unganyi*

[21] Note the pattern of case marking in (336d), where ergative sits on the right edge of the two elements. It has been recognised in other Western Desert languages that certain nouns that form a "natural pair" in some sense are case-marked on the right edge only, like a compound (see e.g. Goddard, 1985: 49ff. for Yankunytjatjara and Wilmoth, 2022: 174f for Pitjantjatjara). This looks applicable here, with *maama paapa* acting together to mean *parents*. An interesting comparison comes later in example (343b) below, which similarly has a single case marker, but interestingly where *tjinguru* splits the two elements.

b. Palulanguru papa-ṯarra tjarrpa-nyi ngalku-kitja tjuka-**paka** pulawa-**paka**.
then dog-also enter-PRS eat-INTENT sugar-perhaps flour-perhaps
Also dogs are coming in, wanting to eat sugar or flour.
(Source translation:) Also people have been allowing their dogs to come in and the dogs have been eating some of the sugar and flour.
Tjakulpa Kuwarritja (September 1986, p.12)

c. Yaṉangu kutjupa-nya mani mangarri-**paka** yu-ngkula yaṉangu yunypa-lingku
person another-ACC money food-**perhaps** give-MV person happy-INTENS
nyina-ku.
sit-FUT
*A person will be very happy by giving another person money **or** food.*
(Source translation): It is more blessed to give than to receive.
Tjakultjurinkunytja/Acts 20:35 (Bible Society of Australia, 2006)

d. Maama paapa-ngku-**paka** watja-ntjala nyurrangarri kuli-ra parrpaṯu
mother father-ERG-**perhaps** say-CIRC 2PL.NOM listen-MV quickly
palya-ntjaku.
do-PURP
You all should quickly do that which your mother or father says.
(Source translation): Children, obey your parents in everything, for this is your acceptable duty in the Lord.
Kalatjiyalakutu/Colossians 3:20 (Bible Society of Australia, 2006)

Like *tjinguru*, *-paka* can work like a conditional, by evoking situations that restrict how the associated clause is interpreted; in (337), this means that *They will work in the canteen* is restricted to applying to those who haven't gone to Sydney.

(337) Tjana-nya-**paka** wiya a-nkula Tjini-lakutu tjana warrka-rri-ku kantina-ngka.
3PL-?NOM-**perhaps** NEG go-MV Sydney-ALL 3PL.NOM work-INCH-FUT cantine-LOC
If they've not gone to Sydney they will work in the canteen.
(Source translation:) While most of the senior students went on their school trip to Sydney some of those who were left behind had the chance to do work experience and get paid a little bit of money to learn a job.
Tjakulpa Kuwarritja (December 1986, p.4)

There do not seem to be any restrictions in co-occurrence between *-paka* and *tjinguru* (338). It is not clear what, if any, extra meaning is conveyed by their co-occurrence compared to the occurrence of

only one of them. It's worth noting though that these examples are both non-ignorant, i.e. the speaker is not actively trying to ascertain the truth of the prejacent, but is rather describing the situation to discuss the consequences.

(338) a. Tjana yuwa-nma-nu, **tjinguru** kungka-**paka** **tjinguru** wati-**paka**
3PL.NOM yes-SAY-PST **maybe** woman-**perhaps** **maybe** man-**perhaps**
ya-nkunytjala miita-ngku-paka.
go-CIRCM spouse-?ERG-perhaps

They agreed, (for) maybe women or men going there, perhaps spouses.
(Source translation:) So we asked if we could have a training centre in Alice Springs near Yirara College. The reply was that we could; a place for men and women and possibly for husbands and wives to stay together.

Warumpinya Ngurrara Kuulaku Piipa: Papunya School Paper (June 1986, p. 4–5)

b. Paluru watja-n̲u In.Ayi.Tji.Tji.ku yan̲angu kutju **tjinguru** kutjarra-**paka**
3SG.ERG say-PST N.A.C.C-DAT person one **maybe** two-**perhaps**
iya-nytjaku wangka-nytjaku Kanpara-ngka.
send-PURP speak-PURP Canberra-LOC

(Source translation:) This woman from N.A.C.C. [National Aboriginal Consultative Committee] says we should send one or two people from here to Canberra, maybe a woman to talk at meetings.

Tjakulpa Kuwarritja (June 1986, p.3)

c. Tjana ngalya-nkula watja-nytjaku wangka paka kuli-ra palya-**paka**
3PL.NOM hither.come-MV say-PURP speech perhaps listen-MV good-**perhaps**
tjinguru kuya **paka**.
maybe bad **perhaps**.

(Source translation:) They go and talk at meetings in different places, then they come back and tell us what they've heard, it may be good news or it may be bad news.

Tjakulpa Kuwarritja (September 1986, p.5)

d. **Tjinguru** nyuntu-**paka** turapula-tjarra luu-ngka ya-nkula nya-wa Tjiita-nya.
maybe 2SG.NOM-**perhaps** trouble-COMIT law-LOC go-MV see-IMP Sid-ACC

(Source translation:) If you have trouble with the law, see Sid.

Tjakulpa Kuwarritja (April 1990, p.8)

In disjunction-like uses, we mentioned that *-paka* appears on the final of the two disjuncts (336); in uses that more mirror conditionals, *-paka* appears to be much freer in where it can attach to. There does not appear to be any particular semantic consequences of attaching to *nyuntu* in (338d); it is not clearly evoking focus alternatives for example, by saying what *you* should do if *you're* in trouble (in contrast to what others should do). The intriguing question of placement will have to be left aside for now.

For comparison, Wilkins (1989) notes that the Arrernte (*a*)*peke* can be used in three environments, directly comparable to Pintupi-Luritja *tjinguru*: (i) cases of genuine ignorant epistemic reasoning, (ii) as being comparable to a conditional or hypothetical, and (iii) functioning as disjunction, remarking however that it must follow each disjunct. It therefore appears that in Arrernte, (*a*)*peke* functions very much as Pintupi-Luritja *tjinguru*, although the question of modal strength awaits research.

Tjinguru and *-paka* are not the only epistemic elements in Pintupi-Luritja; others exist too, like *mayitpi* (from English 'might be'). Aside from their epistemic uses, these elements often mirror the non-ignorant uses described here, like quasi-conditionals and quasi-disjunction (339).

(339) **Mayitpi** Kiwirrkura-tjanu wirrtja-lku nya-ku layiti yurrunpa pi̱ṉtalytjinga-ntja, **mayitpi**
maybe Kiwirrkura-ABL hurry-FUT see-FUT light previous light.up-NMLZ **maybe**
tuutji-tjarra-lu **mayitpi** mutukayi-lu, **mayitpi** wati wa̱ṉapa-lu.
torch-COMIT-ERG **maybe** car-ERG **maybe** man kadaicha-ERG
(Source translation:) ***Maybe****, when coming from Kiwirrkura, a person will see again a light which was shining earlier at a distance, maybe it was someone with a torche, or maybe it was a car, or maybe it was a kadaicha man causing the light.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *wa̱ṉapa*

The point of showing the similar behaviour of these epistemic elements is to show that the differing behaviours of *tjinguru* seen throughout (the ignorant epistemic uses, the conditional and disjunctive-like uses) are not due to specific lexically-encoded features of *tjinguru* itself, but are general extensions from epistemic modality. The fact that this range of uses are seen throughout the epistemic modal system and are not restricted to only certain lexical items shows that this is more an investigation of the epistemic system more generally with its range of related and extended uses, rather than of particular lexical items in isolation.

10.4 Negation and epistemic modality

As a modal element, we see scope relations between *tjinguru* and negation when they co-occur in the clause. As is generally common with the relation between negation and epistemic markers,[22] the negative particle *wiya* scopes under the modal reading of *tjinguru* regardless of its presumed modal strength. This means that the readings are always *It is possible/necessary that not* ϕ.

[22]Recalling the discussion in section 9.3 above.

(340) a. **Epistemic:** $\Diamond\neg\phi$ 'It's possible that not ϕ'
PROMPT: You're walking down the street and think you see your friend up ahead, but you're not sure because you can't see their face. You're not sure if you should call out to them, and think: "It might not be them."
Tjinguru palatja paluru or **tjinguru** palatja paluru **wiya**.
maybe DEM 3SG.NOM or **maybe** DEM 3SG.NOM **NEG**
Maybe that's him or maybe that's not him.
JAG1-Elicitation3-20200830_MA1; 01.50–01.56

b. **Epistemic:** $\Box\neg\phi$ 'It must be that not ϕ'
PROMPT: You've lost your keys. You think they are either in your car or at your friend's place. You search everywhere in the car, but you can't find them. You say: "They must not be in the car."
Tjinguru mutukayi-ngka **wiya**, **tjinguru** ngurra-ngka.
maybe car-LOC **NEG** **maybe** house-LOC
Maybe it's not in the car/It must not be in the car, maybe it's in the house.
JAG1-Elicitation3-20200830_MA1; 01.08–01.13

(341) **Corpus examples:** $[\Diamond/\Box]\neg\phi$

a. Tjin̲t̲u-ngka tjinguru mangarri ngayu-ku ngarri-ku, **tjinguru wiya**.
day-LOC maybe food 1SG-DAT lie-FUT **maybe** **NEG**
Maybe I will have food tomorrow, maybe not.
(Source translation): So do not worry about tomorrow, for tomorrow will bring worries of its own. Today's trouble is enough for today.
Maatjuwukun̲u/Matthew 6:34 (Bible Society of Australia, 2006)

b. 'Ngayu-ku mayutju yirri̲t̲i ngalya ya-namara. **Tjinguru wiya** ngalya ya-nanyi,
1SG-DAT boss already hither come-CNTFC **maybe** **NEG** hither come-PRS
tjinguru kutu kutju ya-nu.'
maybe continually alone go-PST
My boss should have already come. Maybe he's not coming, maybe he went on alone.
(Source translation): But if that wicked slave says to himself, 'My master is delayed,'…
Maatjuwukun̲u/Matthew 24:48–49 (Bible Society of Australia, 2006)

A quick note on sentence final *tjinguru wiya* tags, as in (341a); as discussed in chapter 3, negation immediately following a clause-initial element is string ambiguous between constituent and sentential negation. In cases like (341a) *tjinguru* clearly semantically scopes over negation, but syntactically these

are string ambiguous. I assume that *wiya* tags are sentential negation in combination with clausal elision; other elements in the sentence are elided, leaving only *tjinguru* and *wiya*. This would then be analogous to a structure like *Maybe I will have food, maybe ~~I will~~ not ~~have food~~*, rather than a case of a structurally higher negation branching to the right, like [[*tjinguru*]*wiya*].

The pattern of scoping above negation is not limited to ignorant epistemic environments; non-ignorant uses of *tjinguru* also readily scope above negation (342).

(342) **Conditional *tjinguru* scoping above negation**

Tjinguru wati nyuntu-pa miiṯa **wiya** Yiitju-ku walytja nyina-nyi.
maybe man 2SG-DAT spouse **NEG** Jesus-DAT family sit-PRS
Suppose your husband is not part of Jesus' family.
(Source translation): For the unbelieving husband is made holy through his wife, and the unbelieving wife is made holy through the brother.

1 Kurinytjiyalakutu/Corinthians 7:14 (Bible Society of Australia, 2006)

This is all to be expected based on typological tendencies on the interactions of these elements: epistemics are wont to scope high.

10.4.1 The syntactic side of the interaction

There is another factor at play in this interaction however: the syntax of these constructions. We noted in previous sections of this thesis that it appears that syntax can play a determining role in establishing scope relations between elements. With that in mind, it is important to note that all examples given here of the combination of *tjinguru* and negation not only have their scope relation in common, but they have a particular syntactic relation as well. Semantically, all examples have the modal reading scoping above negation, and syntactically, all examples have *tjinguru* linearly preceding negation.

We might then ask whether the apparent ubiquity of *tjinguru* scoping over negation is due in fact to their relative sentence position, i.e. whether linear precedence[23] maps onto higher scope. The important testing ground for this question is of course what happens when the negative particle linearly precedes *tjinguru* within a clause.

To test this, I searched within written corpora for examples of the negative particle *wiya* appearing linearly preceding *tjinguru* within a clause. There were very few genuine examples of this, almost all from the Luritja Bible.

(343) ***Wiya* linearly preceding *tjinguru***

[23] As a stand-in for syntactic structure.

a. **Wiya** paluru puluka-kuṉu **tjinguru** nanikuta-kuṉu ngurrka-tjarra tjarrpa-ngu.
NEG 3SG.NOM cow-ASSOC **maybe** goat-ASSOC blood-COMIT enter-PST
He did not enter with the blood of a cow or a goat.
(Source translation:) …he entered once for all into the holy place, not with the blood of goats and calves but with his own blood, thus obtaining eternal redemption.
Yipuru wangkapayiku/Hebrews 9:12 (Bible Society of Australia, 2006)

b. **Wiya** katja **tjinguru** yuṉṯalpa-ngku yalatji kuli-ntjaku, …
NEG son **maybe** daughter-ERG thus think-PURP
No son or daughter is to think thusly, …
(Source translation:) Whoever loves father or mother more than me is not worthy of me and whoever loves son or daughter more than me is not worthy of me, …
Maatjuwukuṉu/Matthew 10:37 (Bible Society of Australia, 2006)

c. Yaṉangu kutjupa-ku nyuntu maḻpa nyina-rra **wiya** palu-mpa yulytja, **tjinguru**
person other-DAT 2SG.NOM friend sit-MV **NEG** 3SG-DAT thing **maybe**
mani nya-kula kanyi-lkitja-ngku kuli-ntjaku.
money see-MV hold-INTENT-ERG think-PURP.
Being a friend to other people, you should not think about having their things or money, having seen them.
(Source translation): The commandments, "You shall not commit adultery; You shall not murder; You shall not steal; You shall not covet"; and any other commandment, are summed up in this word, "You shall love your neighbor as yourself."
Ruumalakutu/Romans 13:9 (Bible Society of Australia, 2006)

What is immediately obvious is that these are not ignorant uses of *tjinguru*; they are disjunctions.[24] What's more, these are clearly cases of negation scoping *above* disjunction— since De Morgan's law

[24]It was important to discard a small number of other examples that at first glance fit this description, such as cases where *wiya* is acting as a privative on a disjunct: *Where there are people who are food-less or money-less.* This is a different use of *wiya*, so was not counted.

(344) Yaṉangu mangarri-**wiya** **tjinguru** mani-**wiya** nyina-nytja-la, mangarri-tjarra-ngku mani-tjarra-ngku-ṯarra
person food-**NEG** **maybe** money-**NEG** sit-NMLZ-LOC food-COMIT-ERG money-COMIT-ERG-also
yu-ngkupayi.
give-HABIT
Where there are people without food or money, those that have food and money give it.
(Source translation): There was not a needy person among them, for as many as owned lands or houses sold them and brought the proceeds of what was sold.
Tjakultjurinkunytja/Acts 4:34 (Bible Society of Australia, 2006)

dictates that ¬(P ∨ Q) is logically equivalent to (¬P ∧ ¬Q), negation scoping above disjunction is equivalent to negating both elements of a conjunction (e.g. Gamut, 1991a: 48). It is clear from these examples that the negation of both elements is understood, i.e. that *He entered not with the blood of a cow **and** not with the blood of a goat*, and that *No son should think thusly **and** no daughter should think thusly.*

Note too that the same pattern holds for disjunctive uses of *-paka* as well.

(345) Katutja-lu **wiya** kuli-n̪u kutjupa-ngku puluka tjiipi-**paka** pu-ngkula ngurrka
God-ERG **NEG** think-PST other-ERG cow sheep-**perhaps** strike-MV blood
palu-lawana yinti-ntjaku.
3SG-PERL pour-PURP

God didn't think that others must pour the blood of sacrificed cows or sheep.
(Source translation): Thus it was necessary for the sketches of the heavenly things to be purified with these rites, but the heavenly things themselves need better sacrifices than these.

Yipuru wangkapayiku/Hebrews 9:23 (Bible Society of Australia, 2006)

What is striking about these examples is that they all share the syntactic construction of *wiya* preceding and scoping above the epistemic element (*tjinguru*/*-paka*). At the same time, none of these examples are true stance-taking ignorant uses; they all are non-epistemic uses of the elements. What this suggests is that scope for these elements is reflected syntactically, but that other factors come into play.[25] If it is a semantic restriction that hinders epistemics generally from scoping under negation in many languages, then that semantic restriction is what is likely behind its absence in Pintupi-Luritja.[26] The fact that this syntactic configuration can in principle occur, and that this aligns with non-ignorant uses of the elements (i.e. disjunction), shows that *tjinguru* and other epistemic elements are not in principle banned from sitting under negation; only that certain readings appear to be possible in this configuration. This suggests that this is a semantic, not a syntactic restriction, which itself suggests maintaining syntax as an important aspect of establishing scope readings.[27]

[25] It is also worth noting that they all come from the Bible; the standard cautions therefore apply. We can however also note that case marking also supports the idea that *wiya* is scoping over the disjuncts as a constituent; note that case marking occurs following both (not each) disjunct in example 343b.

[26] Although I must note that it is not completely clear whether true ignorant epistemic *tjinguru*/*-paka* can scope under negation; this point requires further fieldwork. It is likely that we would expect epistemics to scope high in any case, as they have consistently been shown to do so (e.g. von Fintel and Iatridou, 2003).

[27] It is interesting to consider this question in light of other languages, since the use of dubitative particles as a kind of disjunction is common; this strategy is even marginally possible in English using *maybe* (346a). *Maybe* in general cannot scope under negation (346b), but in light of the Pintupi-Luritja discussion, we might wonder whether this is a semantic restriction; if so, *maybe* should be able to scope under negation when used in this quasi-disjunction construction, although my judgement suggests otherwise (346c).

(346) a. He always visits his father when he's in town, maybe once, maybe twice a week.

b. # He doesn't maybe bring a cake.

c. # He didn't bring anything with him this time– he didn't bring maybe a cake, maybe a hot cross bun.

However there are a small number of examples that appear not to follow this pattern, but where *wiya* linearly precedes *tjinguru* and negation nonetheless has narrow scope.[28]

(347) a. Tjukarra-ngku=n nganaṉa-nya ninti-lpayi, kuwarri-ṉa kuli-ṉi
correct-ERG=2SG.Subj 1PL-ACC teach-HABIT now=1SG.Subj think-PRS
nyuntu=n a-nanyi tjinguru ngalya-nkuku, **wiya tjinguru**.
2SG.NOM=2SG.Subj go-PRS maybe hither.come-FUT **NEG maybe**
You taught us correctly, now I understand you are going, maybe (you) will return, ***maybe not****.*

Tjakulpa Kuwarritja Warumpi Kuulaku (2001, p.6)

b. **Wiya**=ṉa kati-ku mititjina-ku **tjinguṟu**, tjinguṟu yu-ngku=ra.
NEG=1SG.Subj take-FUT medicine-DAT **maybe** maybe give-FUT=3SG.DAT
I finally brought the child (who had a swelling sore) to Tjakamarra (We were living in a caravan nearby). (I thought at the time) "No, ***maybe*** *I will* ***not*** *take (the child) for medicine to the settlement nurse) maybe (Tjakamarra) will give (the child some medicine). No. (He did not give the child any medicine).*

Yaparanytjilu Pulawu Ngalkuntjaku (Tjupurula, n.d.)

Such examples are exceedingly rare in texts. It is conceivable that intonational information may allow us to disregard them; for example, a slight pause between them may indicate that *tjinguru* does not belong to the clause proper, and is more like an interjection, or a parenthetical hedge. The complete lack of intonational information in the few examples I have found makes this an open question.

If we can ignore these examples, then this state of affairs would suggest something more fundamental about the relation between sentence position (understood at the moment as a stand-in for syntactic position) and scope taking possibilities; the only examples in the corpus of where negation linearly precedes *tjinguru* are ones where (i) *tjinguru* is not acting as an ignorant epistemic marker, and (ii) negation is scoping above *tjinguru*. It's worth stressing that the reason *why* negation apparently cannot scope over the epistemic reading is orthogonal to how this restriction is codified syntactically. That is to say, whatever the ultimate reason why epistemics are wont to scope over negation, this restriction is represented syntactically in Pintupi-Luritja. If linear ordering (presumably indicative of syntactic structure) had no relation to establishing scope relations, then we would not expect asymmetries of sentence position and scope reading with these elements; the fact that we do see this asymmetry tells us how important a role syntax plays in establishing these relations.

[28]Many thanks to Kenneth Hansen, who discussed these examples with me. Note the misspelling of *tjukarurrungku* as *tjukarrangku* 'correctly' in (347a). The English translation in (347b) is Hansen's; I have included extra surrounding context greyed out. Note that this is likely an early text, seen by the orthography: <ṟ> instead of <r> for the apical post-alveolar glide for example. Hansen also notes that although he was involved with Tjupurrula (the author of 347b) creating the text, Hansen did not type or edit it, so the text is missing certain punctuation (Kenneth Hansen *pers.comm*).

Chapter 11

Some general remarks on Pintupi-Luritja root modal expression

Root modality is an overarching term covering non-epistemic modal flavours. These include modality with respect to rules/norms (*deontic*), wishes/desires (*bouletic*), goals (*teleological*), circumstance (*circumstantial*, arguably *ability* modals as well), and others. Unlike the behaviour of English modal verbs discussed at the beginning of chapter 9, none of the modal lexicon of Pintupi-Luritja appears to cover both epistemic and root readings; these appear instead to be completely separate lexical fields.

In the domain of root modality there is a range of degrees to which different parts of the space of modal possibilities are lexicalised; not every possible combination of modal flavour and strength appears to have dedicated grammatical means to express it. In the rest of this chapter, we will briefly look at just two types of root modal elements: some particles derived from English lexical items, and the particle *puṯu*. In the next chapter we will look in more depth at main clause uses of the purposive suffix.

What we see in the environments we will examine in this chapter are relatively strictly determined modal meanings: *puṯu* for example encodes (at least) negation scoping over a circumstantial possibility ($\neg\Diamond$), and shows no variability in force or flavour (we will see that the possibility modal cannot be deontic, for example). However *puṯu* brings with it a series of questions about its modal nature and the relation to events in the actual world. These examples show that generalisations cannot be made about the whole modal system in the language– some modal elements exhibit variability in force/flavour in some domains but are restricted in other domains, and some modal elements allow no variability in any dimension.

Theories of modality usually have taken a certain cohesiveness within the modal system as the starting point for analyses. We discussed how the Kratzerian tradition considers the invariability of modal strength for lexical items observed in many languages as a significant clue as to their inner workings. As a result, the lexical entries for modal verbs typically encode a quantificational strength, but leave the conversational background (i.e. the restriction of the domain) to context.

When viewing the entire system of expressing root modality in Pintupi-Luritja, we note that the system seems mostly not to encode this feature that inspired the standard analyses of modality (with the exception of *puṳ*; see below). There are a small number of modal environments that won't be discussed here[1] (particularly some verbal mood inflections; see Bednall, 2020 for preliminary discussion of these), but in general many of the distinctions we make in our semantics do not seem to be encoded lexically or grammatically. Many of the modal force/flavour combinations are either completely specified and do not vary across any axis (like *puṯu*, see below), or are not unambiguously expressed at all. In these cases, speakers make extensive use of non-modal paraphrase. Ability or circumstantial possibility for example is often expressed by habitual marking on the verb, future tense, or occasionally a series of modal particles borrowed from English (see section 11.1 below).

(348) a. PROMPT: Tjakamarra can speak Luritja.
Tjakamarra-nya, paluru Luritji wangka-**payi**.
Tjakamarra-NOM 3SG.ERG Luritja speak-**HABIT**
(lit.) Tjakamarra, he speaks Luritja.
JAG1-Elicitation-20200315_MANG; 28.49–28.54

b. Palatja nganytja-**lku**-ṯarra nyuntu-paṉu mobile phone-akutu.
DEM stick-**FUT**-also 2SG-CONC mobile phone-ALL
It [COVID-19] will also stick to your mobile phone.
(Source translation): That germ [COVID-19] can stick to your mobile phone.
Video: Northern Land Council, 2020; 2.50–3.55

c. Tjuwu tjuṯa-ku tjaatji tiṉa ngaatja-nya-kunyu ngayulu kutju-ngku
Jew many-DAT CHURCH big DEM-ACC-REPORT 1SG-ERG alone-ERG
yuḻpu-ra wiya-**lku**.
break.up-MV NEG-**FUT**
That temple of the Jews, I alone will destroy it.
(Source translation): This fellow said, 'I am able to destroy the temple of God…'
Maatjuwukuṉu/Matthew 26:61 (Bible Society of Australia, 2006)

There appear then to be no dedicated modal expressions for these environments, and paraphrase is used to approximate the meanings instead (see also Deal, 2011 for discussions of strategies in Nez Perce). These paraphrases tend to capitalise on the stronger relationship between circumstantial modals and the real world– i.e. if Tjakamarra *can* speak Warlpiri, typically he would be expected to actually

[1] I don't claim that this chapter provides a comprehensive overview of the entire system of root modal expression in Pintupi-Luritja.

speak it; if COVID-19 *can* stick to your phone, then (with perhaps some implicit domain restriction, like "Under the correct set of circumstances") it is not untrue to say that it *will* do so.

Newkirk (2022) notes a general tendency for languages that have a relatively sparse modal inventory to show a propensity for variable force readings; this appears to hold here too, but only for a subset of the modal inventory (epistemics, and the purposive suffix; see chapter 12). Not all modal elements exhibit variable force.

11.1 English derived modals

There are a small number of modal particles in Pintupi-Luritja that are clearly derived from English modal verbs. In my corpus these include *ikin* (from 'he can'), *garra*/*gata* (from 'got to'), and *kaan* (from 'can't'). These elements function as indeclinable particles. Only one of these particles (*ikin*) represents a modal contribution that is otherwise not unambiguously represented in the Pintupi-Luritja modal system (circumstantial/ability ◇); this may be a factor in why it has been co-opted, to fill communicative needs unambiguously. However this does not account for the other particles, which all are otherwise represented in the modal system: a circumstantial/ability ¬◇ is encoded by *kaan*, but also with the particle *puṯu* (see chapter 11.2 below), and general root □ readings seen with *garra/gata* are also expressed with the purposive suffix (see chapter 12.1 below).

These English-derived modals have a particularly interesting morphosyntactic behaviour: when they are included in the clause, the main verb must appear in the imperative form.

(349) Tjakamarra-lu, **ikin** pitjirayiti tja**l**i-**la**.
Tjakamarra-ERG **he.can** refrigerator lift-**IMP**
Prompt: Tjakamarra can lift a fridge.

JAG1-Elicitation-20200315_MANG; 04.53–04.58

Recall that Pintupi-Luritja verbs are divided into four conjugation classes, called the *-la, -ø, -rra* and *-wa* classes (section 2.4). It is in the imperative that the four classes are maximally distinct, and there is no syncretism between them (indeed the names of the classes are the imperative suffixes). Example (349) is a *-la* class verb; note that there are examples of all remaining conjugation classes in the following examples.

(350) a. *-ø* class verbs[2]
Ngayulu **kaan** playi-rri-**ø** putpuula, ngayulu tjina ka**l**palpa
1SG.ERG **can't** play-INCH-**IMP** football 1SG foot broken
*I **can't** play football, my foot is broken*

JAG1-Elicitation3-20200830_MA1; 12.17–12.23

[2] A verb created by the inchoative suffix *-rri* can be either a *-ø* or *-wa* class verb (Heffernan & Heffernan, 2000: 107); cf. (350a) and (350d)

b. *-ø* class verbs

Tjapangaṯi-nya **kaan** wangka-**ø** Warlpiri.
Tjapangaṯi-NOM **can't** speak-**IMP** Warlpiri.
Prompt: Tjapangaṯi can't speak Warlpiri.

JAG1-Elicitation-20200315_MANG; 29.26–29.29

c. *-rra* class verbs

If nyuntu yunytju-rri-nyi ya-nykunytjaku, yu **garra** bush bus mantji-ra
if 2SG.NOM desirous-INCH-PRS go-PURP you **got.to** bush bus get-SER
a-**rra**!
go-**IMP**
Prompt: If you want to get to Papunya, you have to take the Bush Bus!

JAG1-Elicitation-20200314_MANG; 06.03–06.07

d. *-wa* class verbs

Nyuntu **garra** waarrka-rri-**wa** rawa.
2SG.NOM **got.to** work-INCH-**IMP** strong
Prompt: You need to work harder.

JAG1-Elicitation-20200317_MANG; 01.12.38–01.12.41

Although rare, these forms do occasionally occur in written sources as well.

(351) Wiya, tjamana wiima-paṯu. **Kaan** miṯu-**la**-lpi.
NEG foot little-INTENS **can't** track-**IMP**-then
(Source translation:) "Can they be tracked clearly?" "No, they only have small feet; you can't track them."

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kaan*

That verbs in these constructions occur with imperative morphology does not seem to be limited to Pintupi-Luritja.[3] Bell (1988: 57f,90f) and Langlois (2004: 92f) give examples from another Western Desert language, Pitjantjatjara, of English-derived modals (namely *ayikan*/*yukan*, *kan* and *kant*, from 'I/you can', 'can' and 'can't', respectively) triggering imperative marking on the verb. Note here too the desiderative meaning attributed to *ayikan* in (352a).

(352) Pitjantjatjara Bell (1988: 58,90)

[3] I have one example of an English derived modal where an imperative is not used. Instead, a purposive suffix is present on the verb. Chapter 12.1 demonstrates that the purposive is the suffix which would usually be used to indicate deontic necessity. This possible variation in verbal morphology here is not at all well understood at the moment.

a. **Ayikan** nyuntu-nya pilki-**la**
I.can 2SG-ACC squash-**IMP**
I'd like to squash you!

b. **Yukan** wanant(u)rita tju-**rra**
you.can one.hundred put-**IMP**
(Look!) You can set (this thing) at one hundred!

(353) Areyonga teenage Pitjantjatjara Langlois (2004: 92)

a. Ngayulu **kant** paka-**la**.
1SG.NOM **can't** get.up-**IMP**
I can't get up.

b. You **kan** nya-**wa** kuna.
2SG.NOM **can** see-**IMP** excrement
You can see the (mouse) droppings.

The question of why the imperative is present in these cases (and appears to have remained stable for at least some 35-odd years, at least in Pitjantjatjara) will have to remain open for now.[4]

11.2 The particle *puṯu*

Another modal environment we will examine involves the particle *puṯu*. In elicitation contexts, *puṯu* is used to translate the negation of ability and circumstantial modals, specifically in $\neg\Diamond$ contexts.

(354) **Ability/Circumstantial modality:** $\neg\Diamond\phi$

a. Prompt: Because he's such a little child, he **couldn't** lift a refrigerator.
Paluru **puṯu** tjaḻi-lku pitjirayiti tiṉa-lingku.
3SG **puṯu** lift-FUT refrigerator large-INTENS
He won't be able to lift the refrigerator, (it's) huge.
JAG1-Elicitation2-20200815_LM; 08.34–08.41

[4] Langlois (2004) suggests a calque from English, as the form of the English verb in combination with modal verbs is syncretic with the English imperative form. Mary Laughren (*pers.comm.*) has suggested that these are perhaps better understood as irrealis forms rather than imperative, noting parallels in some Ngumpin languages like Walmajarri; there are some uses of the imperative more generally in Pintupi-Luritja that would make this a potentially fruitful path of analysis to follow; for example in (320b) above.

b. PROMPT: You've got a book but the letters are really tiny. You say: "I **can't** read this, it's too small!"
Yaka, **puṯu**=ṉa nya-nganyi; ini wiima tjuṯa ngaatja ngari-nyi.
goodness **puṯu**=1SG.Subj see-PRS word little many DEM lie-PRS
Goodness, I can't see, (there are) tiny words here.
JAG1-Elicitation-20200315_MANG; 11.19–11.25

c. PROMPT: I hurt my foot, I **can't** walk.
Puṯu=ṉa a-nanyi, tjina ngayu-ku pika.
puṯu=1SG.Subj go-PRS foot 1SG-DAT hurt
I can't walk, my foot is hurt.
JAG1-Elicitation-20200315_MANG; 16.52–16.56

d. PROMPT: Tjapangaṯi **can't** speak Warlpiri.
Tjapangaṯi-nya **puṯu** wangka-nyi Warlpiri.
Tjapangaṯi-NOM **puṯu** speak-PRS Warlpiri.
Tjapangaṯi can't speak Warlpiri.
JAG1-Elicitation-20200315_MANG; 29.29–29.34

A number of naturally-occurring and non-elicited examples mirror this modal usage.

(355) a. Munga maru-ngka=latju **puṯu** nya-nganyi rawa-ngku.
night dark-LOC=1PL.excl **puṯu** see-PRS continually-ERG
*(Source translation): Because it was such a dark night, we **couldn't** see at all.*
Tjakulpa kuwarritja (December 1987, p.24)

b. Nyuntu **puṯu** mayi pakaltjinga-lku, wiima wiya kutju paka-lku.
2SG.ERG **puṯu** veg.food grow-FUT small NEG only grow-FUT
*You **won't be able** to grow food, only a little will grow.*
(Source wording): When you till the ground, it will no longer yield to you its strength.
Yurruntitja 4:11–14/Genesis 4:12 (Bible Society of Australia, 2006)

c. Puyu paṉṯi-ra waṉampi-lu paka-ra **puṯu** nya-ngu tjiḻpi-nya.
smoke smell-MV water.snake-ERG rise-MV **puṯu** see-PST old.man-ACC
*Smelling the smoke and rising up, the water snake **couldn't** see the old man.*
(Source translation:) The Waṉampi smelt it and came out of his hole and looked around, but the old man was hiding behind a big rock near the hole.
Waṉampi (Tjungarrayi Stockman, 1987)

d. Yaṉangu tjuṯa-ngku **puṯu** nya-ngangi piitji tuulyi-ngka, yarrkayi.
person many-ERG **puṯu** see-PST.CONT fish television-LOC indistinct
*(Source translation:) The people **couldn't** see the fish on the TV, they were too indistinct.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kulyirrtji*

e. Kungka-lu wangka-ngu "Tjinguru nyuntu kuru kuya-rri-nganyi, waṉma=nu
woman-ERG say-PST maybe 2SG eye bad-INCH-PRS far=2SG.Subj
puṯu nya-nganyi!"
puṯu see-PRS
*The woman said "Maybe your eyes are getting bad, you **can't** see far!"*
From the Binoculars storyboard (Gray, 2019a); JAG1-Storyboard-20200306_MA2; 03.16–03.22

There are a few distributional characteristics to note here. Firstly, *puṯu* occurs alongside a fully tensed verb; these same sentences without *puṯu* are also grammatical. It is fully compatible with future, present, past, and past continuous tenses (e.g. 355b, 355e, 355c, and 355d respectively). This means there are no tense-based restrictions on its distribution. Also nonfinite verb forms like medial verbs and habitual verbs are compatible with *puṯu*. The particle also regularly occurs directly before the verb which it targets, although does not form a constituent with it as clitics are able to separate them (e.g. 354b, 354c). The non-constituency with the verb is also shown by the fact that although it is very common that *puṯu* directly precedes the verb it modifies, it does not necessarily have to (356).

(356) **Puṯu** nyurrangarri tjana-nya ya-nkula **ninti-lku**, tjuṯa-lingku-ngka.
puṯu 2PL.ERG 3PL-ACC go-MV **teach-FUT** many-INTENS-LOC
You will not be able to teach them all, being so many.
(Source translation): The harvest is plentiful, but the laborers are few.
Maatjuwukuṉu/Matthew 9:37 (Bible Society of Australia, 2006)

On first glance then, *puṯu* appears to lexicalise negation scoping over an ability/circumstantial possibility modal (¬◇). Importantly, the modal flavour is restricted to circumstantial/ability modality only; no other modal flavours are possible. For example, *puṯu* is infelicitous in ¬◇ deontic environments (cf. the use of negated purposives for this purpose in chapter 12.2).

(357) a. PROMPT: If you wanted to have a sign in Luritja out the front of the shop saying that dogs are not allowed in the shop, could you say: (Sentence constructed by JG)
Papa tjuṯa **puṯu** tjarrpa-nyi
dog many **puṯu** enter-PRS

(Speaker comment): *Puṯu* is... with *puṯu* that means they... can't go in, like, nah, they... can't find a way to get in... unless someone opened the door.

Note: Speaker offered instead an example with a negated purposive for this context: *Papa tjuṯa **wiya** tjarrpa**nytjaku***. Cf. descriptions of deontic ¬◇ contexts in chapter 12.2
JAG1-Elicitation-20201007_MA; 18.28–23.16

b. PROMPT: Imagine you're driving around town and you go to park somewhere, but a policeman comes up to the car to tell you "You can't park here, you're not allowed to park here." If the policeman was speaking Luritja, could they say: (Sentence constructed by JG)
Nyuntu **puṯu** ngaa-ngka mutukayi ngara-tju-nanyi
2SG.ERG **puṯu** DEM-LOC car stand-put-PRS

(Speaker comment): "*Nyuntu puṯu ngaangka mutukayi ngaratjunanyi*"... It's like telling "*You can't park the car there*"... "Can't", but how? Like, is it deep? Is it... Got water there?
(JG): But *puṯu* is like "*You can't do that because there's water there, or the car doesn't fit*"..
(Speaker): *Yuwa* (Yes)
(JG): ...but not like, not that you're not allowed to, it's just that you can't.
(Speaker): "*Not allowed to*" is, means *wiya* (no)

Note: Speaker again offered instead an example with a negated purposive for this context: ***Wiya** mutukayi ngaangka ngaratju**nkunytjaku***.
JAG1-Elicitation-20201107_MA; 33.45–36.50

Comments such as these indicate strongly that *puṯu* in infelicitous in deontic contexts. The speaker rejects the felicity of *puṯu* in these contexts, and instead offers different contexts where this sentence would be felicitous by emphasising *circumstantial* factors– e.g. you can't get in because the door is locked, or you can't park here because some physical circumstances of the car park itself disallows you. Because of comments like these, I conclude that *puṯu* only covers cases of circumstantial and ability modality; not deontic modality.[5]

[5] An interesting comparison comes from neighbouring Arandic languages. In discussing the Mparntwe Arrernte adverb *uyarne/uye*, in many ways comparable to Pintupi-Luritja *puṯu*, Wilkins (1989: 328) notes its purely circumstantial readings, and that deontic readings are impossible. This mirrors the usage of *puṯu*. However Wilkins notes that the Western Arrernte cognate *uyarne* covers both circumstantial and deontic readings.

This modal usage is quite clear, and appears to align with the semantics of modals discussed in chapter 9– *puṯu* ϕ denotes the negation of the existence of any relevant possible worlds (here, relevant means possible according to circumstance or ability) in which the prejacent ϕ is true. That is, a sentence like *He can't lift a fridge* (cf. 354a) says that no worlds that comply with the circumstances of the world (informed by e.g. the weight of fridges, the lifter's muscles and lifting techniques) are worlds in which he lifts a fridge. This is clearly a modal framing of the semantics of the particle– the lexicalisation of the combination of a negated quantifier over a set of possible worlds.[6]

11.2.1 Complications: The real world

We have characterised *puṯu* in modal terms here. However a common thread in discussions of *puṯu* across Western Desert languages includes a second, perhaps related meaning of the particle which appears to strictly ground its semantics to the evaluation world. It has been noted that a number of examples suggest that the semantics of *puṯu* is closely tied with an attempt by the agent/causer to do the action described in the evaluation world, and additionally that the agent/causer was unsuccessful in doing so, or failed to realise their ultimate goal (examples below). If the semantics of *puṯu* requires that the action was attempted in the evaluation world, we might wonder whether *puṯu* truly is a modal particle; we have been working on the assumption that modality relates to displacement into possible ways the world could be– a requirement that obligatorily ties its semantics to the real world would be an interesting ingredient to that end. Returning to the examples given above, *puṯu* is ambiguous between a reading of 'not able to' and 'try and fail'– indeed, *puṯu* is typically translated in Western Desertist literature/dictionaries not (only) as 'can't', but as 'in vain', or 'unsuccessfully' (e.g. see entries for *purtu*/*puṯu* in Goddard and Defina, 2020; Valiquette, 1993; Glass et al., 2003; Hansen and Hansen, 2022). The ambiguity between the two readings (unsuccessful attempt/actualisation, and mere negated ability) is often obscured in English, since modal constructions with negation such as *not be able to* do not specify whether the event was attempted/fulfilled or not, and are therefore compatible with both cases.

These semantic contributions are not easy to tease apart; one approach is to look at entailment patterns. A sentence of the form $\neg\Diamond\phi$ entails $\neg\phi$; i.e. *They couldn't lift a fridge* should entail that *They didn't lift a fridge.* This follows directly from the quantificational approach to modality, since $\neg\Diamond\phi$

[6]However it is also worth noting that *puṯu*'s hold on encoding $\neg\Diamond\phi$ readings is not complete; occasionally these can be expressed by a negated future (as in 358), or with the English-derived particle *kant/kaan* (recall examples in section 11.1).

(358) Wiya=n miṯu-**lku**.
NEG=2SG.Subj track-**FUT**
(Source translation:) That person (who is a kadaicha) goes around the place just like an inconsistent wind. He goes and sits in one place. Then he gets up and goes looking around the place. ***You can't track him.*** *You'll see him and then lose sight of him.*

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kawaḻinanyi*

states that ϕ is true in none of the relevant worlds; i.e. all worlds are $\neg\phi$ worlds.[7] However there are some examples with *puṯu* where this is clearly not true.

(359) ***Puṯu*** $\phi \not\models \neg\phi$

a. Kamula-ngku ngara-la yaya wilypu-nganyi pika-ngku, kungka-ku **puṯu**
camel-ERG stand-?MV saliva froth-PRS angry-ERG woman-DAT **puṯu**
ngurri-ra.
search-MV
(Source translation:) The camel is standing there angry with froth coming from its mouth because it has searched in vain for a female camel.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *yaya*

b. **Puṯu** **tjapi**-lku watja-lku, "kuranpa pati."
puṯu **ask**-FUT say-FUT ear closed
(She) will ask in vain, (she) will say "(their) ears are closed." (idiom)
(Source translation:) If a woman asks another person in vain for something, she will then say to others, "that one is mad."
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aṉpiri pati*

c. Maama-lu **puṯu** wangki **yati**-ṉu.
mother-ERG **puṯu** bush **lift**-PST
(Source translation:) Mother lifted the wangki bush aside in vain (looking for more wangki berries).
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *yatiṉi*

These examples show cases where the agent has indeed undertaken the action; but it has failed to result in the intended effect. The camel has searched for a female camel but crucially not found it; the

[7] This is heavily dependent on modal flavour, i.e. the set of worlds quantified over. The reason this effect is so strong with circumstantial modals involves their tight relationship to the actual world (or the world under discussion), as the modal base is defined with reference to characteristics of the actual world. This is subtly different for e.g. deontic modals, which are based on rules/laws etc. If I say *You can't park next to the house*, that does not necessarily entail that this never happens in the real world, only that it never happens in worlds which perfectly follow the parking laws– according to the parking laws as they stand (in our world), it doesn't happen that you park next to the house, because you can't according to those laws. Of course such situations rarely apply to the actual world for deontics– laws are often broken. When making the same argument for circumstantial or ability modals, as I am doing here, the modal flavour is informed by the situation in our actual world, so it should hold that ϕ never happens in the real world. However I should note that the issue becomes more involved depending on which approach to modals is taken; in the approach advocated by Kratzer (1981) *et seq*., deontics are circumstantial in that they involve circumstances in the evaluation world– they have a circumstantial modal base. The deontic flavour is contributed by the ordering source, an additional restriction on the domain. The intertwined nature of these issues makes these issues somewhat difficult to keep apart.

woman will ask another person but won't get it; mother has lifted the bush aside but did not find any more berries. Therefore, these examples of *puṯu* ϕ in (359) do not entail $\neg\phi$.

This same pattern is also seen in some *why* questions, as in (360). This story involves Mary and Joseph searching to find the young Jesus, who had been in the temple in Jerusalem.

(360) Yiitju-lu pula-nya ngalya watja-ṉu, "Nyaa-ku=pulan **puṯu** ngurri-ri-nangi?"
Jesus-ERG 3DU-ACC hither say-PST what-DAT=2DU.Subj **puṯu** search-?around-PST.CONT
(Source translation): *"Child, why have you treated us like this? Your father and I have been anxiously looking for you."* *He said to them, "Why were you searching for me? …"*
Luukaṉu/Luke 2:49 (Bible Society of Australia, 2006)

Here, the young Jesus is not asking his parents why they could not search for him– they *were* searching for him– he is asking them why they failed (i.e. according to him they should have known he would be in the temple). These examples therefore cast doubt on a simple $\neg\Diamond$ modal analysis of *puṯu*.

If we take these entailment patterns seriously, then *puṯu* is then ambiguous between a clearly modalised ($\neg\Diamond$) reading and a 'try and fail' one. In fact, given these ambiguities we might ask whether the two readings are in fact reducible to a single meaning, and whether *puṯu* includes a modal element at all in its semantics.[8] Perhaps all apparently modal examples of *puṯu* involve this failure in the evaluation world, and the semantics of *puṯu* ϕ is better characterised as 'agent tries to ϕ but fails', or 'agent does ϕ but does not achieve the desired outcome.'

To work towards an answer requires contexts in which *puṯu* is felicitous, but where it is clear that there was no attempt to ϕ. One environment that might be able to disambiguate between the two are generic statements, as the event in question is not predicated of any particular individual in any actual case of attempting ϕ. When asked for generic statements of the form $\neg\Diamond\phi$, speakers will initially tend not to offer sentences with *puṯu*, but rather a negated habitual/generic verb. The following prompt was hoped to make a reading where it was very unlikely that there really was an attempt to ϕ.[9]

(361) Prompt: Eagles can fly, but camels can't fly.

a. Waḻuwurru parrpaka-ṉi, kamula wiya parrpaka-ṉi.
eagle fly-PRS camel NEG fly-PRS
(lit.) Eagles fly, camels don't fly.
JAG1-Elicitation2-20200815_LM; 15.22–15.31

[8] The glaring issue here is whether 'try and fail' could itself be analysed as a modal meaning. The involvement of a notion of a desired outcome opens up a possible analysis in this vein, as desire can be characterised in modal terms (see discussion e.g. throughout Portner (2009)). What is clear is that the reading is different to a purely modalised one. Although central to this question, I leave the details of this question to later work.

[9] A further issue with this prompt is the comparison with modal circumstantial possibility, which as discussed in a previous section tends to be expressed with non-modalised paraphrase, as it is in these examples.

b. Wa̲luwurru nya̲lpi-tjarra pulayiti-payi, kanya kamula wiya.
eagle wings-COMIT fly-HABIT CONJ camel NEG
(lit.) Eagles fly with (their) wings, but camels don't.

JAG1-Elicitation3-20200830_MA1; 11.25–11.34

If camels *can't* fly, then it follows that they *don't*. However when pressed with whether the sentence is possible with *pu̲tu* included (i.e. *kamula pu̲tu parrpaka̲ni*), speakers concluded it meant "the same", offering sentences like the following:

(362) Kamula **pu̲tu** parrpaka-n̲i; nya̲lpi wiya.
camel **pu̲tu** fly-PRS feathers NEG
(lit.) Camels can't fly; (they've got) no feathers.

JAG1-Elicitation2-20200815_LM; 16.53–17.11

Further work is required to understand the exact contribution of *pu̲tu*, but these examples already tell us a few things about its nature: (i) it covers cases of $\neg\Diamond\phi$, but only for circumstantial (not deontic) readings; (ii) it is also used for cases where the agent has attempted ϕ and failed, or has done ϕ but failed in achieving the desired effect (e.g. search but not find); and (iii) it therefore has in many cases a close connection to the actual world, and does not necessarily involve modal displacement. *Pu̲tu* clearly belongs to the broad class of frustrative particles (Overall, 2017; Kroeger, 2017; Davis & Matthewson, 2022; Caudal, 2023)– indeed many analyses of frustratives themselves cast them in modal terms; also relevant appears to be actuality entailments, where ability modals in combination with perfective aspect entail the actualisation of the event (Bhatt, 1999; Hacquard, 2020). The exact semantics of*pu̲tu* awaits detailed study.

Chapter 12

The purposive suffix

We have already discussed many of the syntactic features of the purposive suffix in chapters 2.4.2 and 2.4.3; here we will examine the modal properties of these clauses. Some of the data presented here overlaps with what is presented in Gray (2021), although our main focus here will be more on the interactions between the modal reading and negation, rather than the question of variable modal force.

12.1 Modal readings of purposive clauses

We have already seen in chapter 2.4.2 that purposive clauses can be divided into three main uses: (i) their namesake purpose clauses, (ii) as a non-finite complement clause, and (iii) with main-clause modal uses; it is this third usage that we will now examine. All three uses of the purposive suffix have a different clausal status; the first is an adjunct, the second is a non-finite complement, whereas the modal usage is a matrix clause. In these examples, purposive-marked verbs serve as the only verb in the clause, and most typically result in root modal readings of (weak) necessity, i.e. in the realm of modal strength corresponding to English *should* to *must*. This is clearly seen in the following deontic examples.

(363) **Deontic: □P**
'It must be that P (in view of the rules/norms)'

a. Aṉangu tjuṯa-ngku kuwarri-tja irriṯi-tja-ṯarra palya-**nytjaku**.
people many-ERG now-NMLZ old.times-NMLZ-also do-**PURP**
*(Source translation): The people **should** do the old ways and the new ways.*
Warumpinya ngurrara kuulaku piipa: Papunya School paper (September 1985, p.22–23)

b. Nganaṉa Katutja-ku wangka kutju kuli-**ntjaku**, yaṉangu-kuṉu wangka wiya.
1PL.ERG God-DAT speech only listen-**PURP** person-CONC speech NEG
We must listen only to the word of God, not to that of people.
*(Source wording): We **must** obey God rather than any human authority.*
Tjakultjurinkunytja/Acts 5:29 (Bible Society of Australia, 2006)

c. If nyuntu-paka mungaṯumungaṯu ngalya a-nu overseas-tjanu, nyuntu
if 2SG.NOM-perhaps recently hither come-PST overseas-ABL 2SG.NOM
nyina-**nytjaku** ngurra-ngka, waanpulitji.
stay-**PURP** home-LOC one.place
*(Source translation): If you've just come back from overseas you **must** also stay at home, …*
Video: Northern Land Council (2020: 5.30–5.37)

d. Warrkana tjuṯa yaaḻi warrka-rri-**ngkunytjaku** yaayitikuluuku.
worker many morning work-INCH-**PURP** eight.o'clock
(Source translation:) The workers should start work in the morning at eight o'clock.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *yaayitikuluuku*

Beyond deontic readings, other root modal flavours are also commonly expressed with this construction, including bouletic (364a), circumstantial (364b), and other, less easy to place non-epistemic modal flavours (364c).[1]

(364) a. **Bouletic:** □P
'It must be that P (in order to fulfil a wish/desire)'
Tjupi-ku yunytju-rri-ngkula nyurrangarri ya-**nkunytjaku** tjaṯa-kutu watiya
honey.ant-DAT desirous-INCH-MV 2PL.NOM go-**PURP** bush-ALL tree
tjuṯa-wana ngurri-ri-nkunytjaku.
many-PERL search-?around-PURP
*(Source translation): If you want to find some honey ants, you **should** go into the scrub and look around all the trees.*
Tjakulpa kuwarritja (April 1989, p.4, 7)

[1] My inclusion of 'prophetic' modality is more to show the variety of background considerations that can constitute a modal flavour than to propose something like eschatological necessity as a serious *sui generis* semantic category that is encoded in the language. Since we assume that a variety of types of background information can form and inform the modal base (and therefore the flavour), strict demarcation between them can be difficult. See also (396) in the appendix for more root necessity readings of the purposive suffix.

b. **Circumstantial: □P**
'It must be that P (in view of the circumstances)'
Yaṉangu-ngku kala kutjukutju-ngku panya mara-ngku kutju palya-**nytjaku**.
people-ERG PRT one.by.one-ERG PRT hand-ERG only do-PURP
So the people have to do it by hand one at a time.
*(Source translation): Until this equipment comes, people **have to** share one hand pump.*
Tjakulpa kuwarritja (August—September 1982, p.10)

c. **"Prophetic" modality: □P**
'It must be that P (in view of prophecy)'
Ngaa-kutu ngalya ya-rra, katu-kutu! Ninti-lku=ṉa=nta ngula
DEM-ALL hither come-IMP up-ALL teach-FUT=1SG.Subj=2SG.Obj later
ilkari-wana ngara-**nytjaku**, manta-wana-ṯarra ngara-**nytjaku**.
heaven-PERL stand-**PURP** earth-PERL-also stand-**PURP**
Come up here! I will show you what is to be in the heavens and on earth.
(Source wording): And the first voice, which I had heard speaking to me like a trumpet, said,
*"Come up here, and I will show you what **must** take place after this."*
Tjukurrpa Nyangutja/Revelation 4:1 (Bible Society of Australia, 2006)

The range of root modal flavours compatible with the purposive clause, but the complete lack of available epistemic readings suggests that the major requirement of use is a circumstantial modal base.

As detailed in Gray (2021), some uses of the purposive suffix also exhibit a weaker modal strength, where the reading is clearly of *possibility*, rather than anything approaching necessity. This means that the modal force that the purposive suffix exhibits is variable.

(365) ◇**P** 'It can/may be that P (in view of the rules/norms/circumstance)'

a. **Deontic**
CONTEXT: Talking about rules for going on the dodgem cars.
Mutukayi wiima tjuṯa-ngka wiima tjuṯa kutju kaḻpa-**nytjaku**, yaṉangu tiṉa
car little many-LOC little many only board-**PURP** person large
tjuṯa wiya.
many NEG
*(Speaker translation): In those little cars, only little kids **can** jump in, no big people.*
JAG1-Elicitation2-20200815_LM; 32.57–33.07

b. **Circumstantial**

MANTJI-NTJAKU: Kantina-ngka nyurrangarri man-tjarra-ngku mantji-**ntjaku**,
get-PURP canteen-LOC 2PL.ERG money-COMIT-ERG get-**PURP**
kuka luuki-ṯarra, mangarri waru-ṯarra ngalku-nytjaku.
meat chook-also food hot-also eat-PURP

TAKE-AWAY: In the canteen you can get (if you have money) meat, chicken, and hot food to eat.
(Source translation): TAKE-AWAY: The take-away food bar is going well. We have hot, juicy chickens, hot pies and pasties and hamburgers.

Tjakulpa kuwarritja (August–September 1982, p.16)

c. Yiwarra tjukarurru maa ngarri-nyi mutukayi wala ya-**nkunytjaku**.
road straight ahead lie-PRS car fast go-**PURP**
*(Source translation:) The road is straight and a car **can** go fast along it.*

Luritja Picture Dictionary (Hansen et al., 2011: 134)

d. Panya tjiṉṯu tayimi nya-**kunytjaku** palu-nya inti-nytja-la.
PRT day time see-**PURP** DEM-ACC dribble-NMLZ-LOC
(Source translation:) One can see that stuff running from it when the hot sun is on the tree.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *iwilytjirri*

e. Nyuntu nya-**kunytjaku** puḻipuḻi-ngka.
2SG.ERG see-**PURP** rock.RDPL-LOC
(Source translation:) You can see them in the rocky country.

Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *kakarrara 2*

There is no reading of obligation here— (365a) says that children are the only ones *permitted* to ride the dodgem cars, not that they are the only ones that are *obligated* to; example (365b) is similarly expressing availability, rather than obligation to buy some chicken; etc.

We can briefly note that exclusive particles appear more generally to interact and influence the modal strength contributed by purposives. The inclusion of *kutju* in the clause leads strongly to a possibility reading; this can be seen in (365a) above, and similar examples can be found elsewhere as in (366).

(366) Tjinguru nyuntu mitjitjina-ku yunytju-rri-nyi?
maybe 2SG.NOM medicine-DAT desirous-INCH-PRS

tjiṉṯu-ngka **kutju** mantji-**ntjaku**, wiya munga-ngka.
sun-LOC **only** get-**PURP** NEG dark-LOC

*Maybe you're wanting medicine? You **can only** get it during the day, not at night.*
(Source translation): Please get your tablets during the daytime during the week– not at nights or on the weekends.

Tjakulpa (February 1987, p.18)

Sentence (366) is not saying that during the day is the only time you are obligated to get medicine; like (365a), this is clearly a possibility reading. This appears to be a general effect of exclusives; it is not limited to *kutju*, but can be seen with other exclusives like *uuni*.

(367) **Uuni** anangu 30 pala art tjinta-ngka tjarrpa-**ntjaku**.
only person 30 CARD art centre-LOC enter-**PURP**

Only 30 people can enter the art centre.
(Source translation:) Only 30 people in the art centre at one time.

Photo of sign outside Papunya Tjupi Art Centre; 11 November 2020. See (394) in the appendix

The effect of exclusives on modals has been noted elsewhere to varying degrees (von Fintel & Iatridou, 2007; Alonso-Ovalle & Hirsch, 2018),[2] but ultimately lies outside the scope of detailed investigation here.

When analysing the modal force of purposive constructions, it is important to ensure that only main-clause purposives are considered, as complement uses of the purposive are sometimes co-opted into translating some possibility readings as well. In these cases, the word *palya*, meaning 'good/fine/acceptable/permitted' can be used to paraphrase deontic possibility, as in the following.

(368) a. Katutja-lu watja-ṉu pala tjuṯa **palya** nyuntu ngalku-**ntjaku**.
God-ERG say-PST DEM many **good** 2SG eat-**PURP**

God said that it is fine for you to eat these things. $\rightsquigarrow \Diamond\phi$
(Source wording): What God has made clean, you must not call profane.

Tjakultjurinkunytja/Acts 10:15 (Bible Society of Australia, 2006)

[2] von Fintel and Iatridou's observation relates to anankastic modals, but there is obviously something different at play here. Sæbø (2020: 2) describes anankastic modality as cases which "...entail that unless the eventuality described in the consequent clause holds or comes about, the hypothetical goal expressed in the *if* clause cannot or will not be reached." The hallmark example to demonstrate anankastic modality is *If you want to go to Harlem, you have to take the A train.*

b. **Palya** ngalku-**ntjaku** bush animal tjuṯa-nya anta plants tjuṯa-nya.
good eat-**PURP** bush animal many-ACC CONJ plants many-ACC
(Source translation): It is ok to eat traditional bush animals and plants. $\rightsquigarrow \Diamond\phi$
Video: SecureNT (2020: 0.36–0.41)

c. Wiya, kuwarri wupunu-nanyi **palya**=n ya-nkula tjiika mantji-**tjaku**.
NEG soon open-PRS **good**=2SG.Subj go-MV check get-**PURP**
(Source translation:) "Is the office open?" He replied, "No, soon it is opening and then you can go there and get your cheque."
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *wupununanyi*

Although these examples include the purposive suffix, it is clearly a non-finite complement to *palya*, which is what really contributes the meaning of (deontic) acceptability. These are clearly analogous to the structures we saw in chapter 2.4.2. This is therefore not the same phenomenon as what we are interested in in this chapter.

Similarly, adjunct purpose clauses can also disguise themselves as modals. Consider the following example.

(369) Context: The characters in the story have gotten lost driving around, and now have had to stop because it is so dark that they can no longer see.
'Wiila paṯa-ra=laka nyina!' watja-n̪u=n̪a. 'Nya-**kunytaku** [sic], piku
well wait-MV=1PL.IMP sit.IMP say-PST=1SG.Subj see-**PURP** moon
paka-nytja-la'.
rise-NMLZ-LOC
*(Source translation): 'Well let's sit and wait,' I said, 'and we'll **be able to** see when the moon comes up'.*
Tjakulpa kuwarritja (December 1987, p.24)

The English translation has framed this as circumstantial possibility– that the light of the moon means that we are able to see. However this is very plausibly a purpose clause— let us wait *in order* to see. Whether this actually represents a *bona fide* modal reading, or whether purpose clauses like this skirt around the edges of modality is debatable. Careful differentiation between uses of purposive clauses is necessary when considering modal force– should one decide that the examples listed here are *not* modal, then they should be discounted as examples. Note however, that these explanations cannot account for the weak readings in the examples in (365) above.

Turning back to main-clause purposives, we have to note that some examples are admittedly difficult to categorise in terms of their intended modal force. Take the following sentence in (370a) for example.

(370) a. Tjilpi tjinguru ulkumanu wangka walytja wangka-payi.
old.man maybe old.woman language own speak-HABIT

Paluru ngalya-**nkunytjaku** ninti-ntjaku wiima tjuṯa-nya.
3SG.NOM hither.come-**PURP** teach-PURP little many-ACC

Kuula ngaa-ngka Aṉangu tjuṯa warrka-rri-**nytjaku** Literacy Centre ngaa-ngka.
school DEM-LOC people many work-INCH-**PURP** literacy centre DEM-LOC

*(Source translation): Old people who speak only Luritja **can** come to school to teach the children. Aṉangu **can** work in the literacy centre.*

Tjakulpa kuwarritja (June 1999, p.4,6)

b. Alatji-ku pipirri tiṉa-nya nganaṉa-tju tjungu-ngku watja-nytjaku puntura-lingku,
thus-DAT child big-ACC 1PL-EXCL together-ERG say-PURP important-INTENS

ngula tjana tjalpa-ngku rana-mila-**nytjaku** ngurra-paka.
later 3PL.ERG self-ERG run-LOAN-**PURP** community-perhaps

We should say this together to the older children, very important, that they perhaps later are to run the community themselves.

*(Source translation): They said we should send our children to school with other white children to really learn these things and later they will **be able to** run their Communities.*

Tjakulpa kuwarritja (December 1987, p.12, 14)

The source translation suggests a possibility reading: that the old people who speak Luritja are *able* to come to school to teach the children– this suggests deontic possibility. But surely in the context of urging for the continuation and recognition of the importance of bilingual education there is a degree of obligation, if not by the law then in view of the community's goals– perhaps in fact it *should* be that the old people come and teach the children in light of the clear benefits. Similar concerns can also be seen in (370b); is it expressing only that children will (as adults) be in a position to run the community (possibility), or is it in fact expressing the desire that they should be the ones to run the community? One tends to think that it is in fact both.[3]

There was a degree of this kind of ambiguity that permeates a number of examples, and in discussion this would often align with slight distinctions in flavour. Examples like the following suggest from the source translation that the purposive suffix is encoding something like circumstantial possibility– the properties of the new showers are such that you are able to light a fire under the heater (and you will have hot water as a result). However when presented with the Luritja in this example, a speaker

[3]We noted earlier (in footnote 2, chapter 9) that universal modals entail existential modals, as long as they are both of the same modal flavour. This is not the case here– being in a position to run the community suggests ability or circumstance, but the reading that the children should one day run the community is bouletic– in response to a desire not to have to rely on non-Indigenous outsiders. Bouletic necessity does not entail circumstantial possibility, but there are real-world facts that connect all of these– i.e. if you want someone to do something, then they have to be able to do it in order to do it. These facts can sometimes blur the intended reading.

reframed it from circumstantial possibility to something more akin to bouletic necessity– that if you want a warm shower, then you in fact *have to* light a fire.[4]

(371) Tjaawa nyuwana-lpi ngara-nyi Yamunturrngu-la. Umpi nyuntu kutja-**nytjaku**
shower new.one-then stand-PRS Mt.Liebig-LOC warm 2SG.NOM heat-**PURP**
yuṉngu-tjayiti tjiwiri umpi-ngka-paka tjuti-ṉi-ngka.
inside-side water warm-LOC-perhaps dribble-PRS-LOC
*(Source translation): There are some new showers like this one at Mt Liebig. You **can** light a fire under the heater on the left and get hot water in the shower.*
Tjakulpa kuwarritja (June 1987, p.18)

Aside from these kinds of ambiguities, it is clear that the purposive suffix also can indicate some degree of variable force within a single flavour (the examples 363 through to 365). It is unclear at the moment what factors influence this variability in force in general. It is certainly true that these examples represent a minority of examples– the majority of examples exhibit readings of *should/must*, i.e. a greater level of obligation. It was suggested in Gray (2021) that these modal readings are in fact directly comparable to other cases of covert/non-finite modality, where the factors influencing this variability in a number of languages are still not clear (see discussions in Bhatt, 1999; Hackl and Nissenbaum, 2012); more on this issue below.

When discussing the question of variability, it is worth noting that variability in reading here refers to variability of the construction, rather than any actual instantiation of it. The examples above show that the purposive suffix exhibits both possibility and necessity readings; however this does not mean that any one sentence will inevitably be variable. Importantly, the variability cannot be due to context alone; indeed constructions using the suffix were often rejected when asked whether it was felicitous in possibility contexts.

(372) a. Prompt: (Sentence constructed by JG) If you take your car to the mechanic, and you're not sure if it's ok to drive or not, could I go to the mechanic and ask:
Ngayulu mutukayi ngaatja trayip-mila-**ntjaku**?
1SG.ERG car DEM drive-LOAN-**PURP**
(Speaker comment): Ngayulu mutukayi ngaatja trayipmilantjaku, that means "Do I have to drive this car?"
JAG1-Elicitation3-20201003_MANG1; 17.08–17.15

[4] I've listed a series of similar examples in (397) in the appendix, where there is a similar ambiguity between a reading of circumstantial possibility and bouletic (weak) necessity. There is also a clear connection to what Yanovich (2014) calls symbouletic modality, where the speaker is urging the addressee to undertake an action.

b. PROMPT: (Sentence constructed by JG) You want to know if someone is able to swim when you take them to the pool. Can you ask:
Nyuntu tjurrpi-**nytjaku**?
2SG.NOM swim-**PURP**
(Speaker comment): Nyuntu tjurrpinytjaku– that means "You have to swim." … That means like, I'm a little bit forcing her to swim. Like, *nyuntu tjurrpinytjaku!,* that means "You have to swim!"
JAG1-Elicitation3-20201003_MANG1; 18.11–18.18, 19.08–19.23

These examples test the felicity of the purposive suffix in contexts which should strongly favour a (circumstantial/ability) possibility reading. The speaker here instead offers alternative translations that involve necessity instead. This shows that the idea of modal force variability only makes sense when considering different examples of the suffix, and not necessarily only with a single instantiation.

Finally, in discussing the readings available with this main-clause purposive construction, we should note that it in fact covers more ground than strictly pure modal readings. There are occasionally examples where no clear possibility or necessity readings are conveyed, and the purposive instead carries a vaguely future or desiderative reading (373).[5]

(373) a. Nyuntu-paka yara watja-**nytjaku**?
2SG.ERG-perhaps story tell-**PURP**
*(Source translation): Perhaps you have a story you **would like** to tell?*
Tjakulpa kuwarritja (April 1987, p.17)

b. Nyuntu initjingi palya-**ntjaku** purinypa-ngku kuli-ntjaku.
2SG.ERG anything make-**PURP** careful-ERG think-PURP
*(Source translation:) If you **want** to make anything, you should think carefully about it.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *initjingi*

The examples in this section show that when used as a main-clause modal construction, the purposive covers a range of root modal flavours, and is generally a (weak) necessity modal, with a number of possibility readings also available. The factors that influence which modal strength is acceptable are not well understood; we will discuss this in more detail in section 12.3.

[5]See Gray (2021) for some discussion of what kinds of environments are predicted by some approaches to force certain readings, and which not. Note that example (373b) is an example of a desiderative reading in the antecedent of a conditional; this was also reported in Gray (2021), and this example provides further evidence of this reading being a feature of purposives in conditionals. The reason why this would hold more generally is not yet understood.

12.2 Negation in modal purposive clauses

The addition of the negative particle *wiya* in modal purposive clauses mainly, if not exclusively, results in the modal reading scoping above negation, giving a $\Box\neg$ reading.[6] These include both deontic and circumstantial readings.

(374) **Deontic/Circumstantial:** $\Box\neg\phi$ ($\equiv \neg\Diamond\phi$)
'It must be that not P'/'It's not that it can be that P'

a. **Wiya** pampu-**ntjaku** papa ngaatja-nya aaka aaka, patja-lpayi.
NEG touch-**PURP** dog DEM-ACC sneaky RDPL bite-HABIT
*(Source translation:) You **should not** touch this dog; he very sneakily comes and bites people.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *aaka aaka*

b. **Wiya** wati tjuṯa=ya mangka waṯawara-tjarra nyina-**nytjaku**, wiya.
NEG man many=3PL.Subj hair long-COMIT sit-**PURP** NEG
*Men **should not** have long hair, no.*
(Source translation:) Does not nature itself teach you that if a man wears long hair, it is dishonoring to him, …
1 Kurinytjiyalakutu/Corinthians 11:14 (Bible Society of Australia, 2006)

c. Kanya kalitji-ngka tjana **wiya** ranuwayi-rri-**nytjaku** kutu nyina-nytjaku
but college-LOC 3PL.Subj **NEG** run.away-INCH-**PURP** continually sit-PURP
kuula-ngka.
school-LOC
*(Source translation): Also if they go away to a College, they **can't** run away and they'll have to stay at school to learn.*
Tjakulpa kuwarritja (December 1986, p.12, 14)

d. **Wiya** witi-**ntjaku**, atjiki, kuka-wiya.
NEG catch-**PURP** clever meat-NEG
(Source translation:) If you see a mirrarangara *lizard lying there and you want to grab it, it will scurry up a tree very fast. You **can't** grab them, they are clever, they are not edible.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *atjiki*

[6] Crucially these scope relations are described on the assumption that the modal strength is necessity; if we assumed it is underlyingly a possibility modal, then we would have to conclude that it is negation that scopes high, due to their equivalence– i.e. that $\Box\neg \equiv \neg\Diamond$ (see section 9.3). This question will be revisited in section 12.3.

e. Iipi nyuntu palya kanyi-n̲i, riikuta **wiya** u-**ngkunytjaku** kutjupa.
if 2SG.ERG good keep-PRS record NEG give-PURP other
*(Source translation:) If you look after that record player, you **should not** give it to another.*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *iipi*

As (375) shows, these types of sentences often also function like negative imperatives.

(375) **Negated purposives functioning as negative imperatives**

a. Nyuntu nyina-ma watiya katu, **wiya** ngalya tjaru kati-**nytjaku**.
2SG.NOM stay-IMP.CONT tree top **NEG** hither IDIOM climb-**PURP**
*(Source translation): … you stay sitting high up in the tree, **don't** come down…*
Kungka mamu (Ferguson, 1987a)

b. Tjintirrtjintirrpa-ngku kapi yila-lpayi, "**Wiya** rungka-**ntjaku** kapi=lampa
willie.wagtail-ERG water extract-HABIT **NEG** pelt-**PURP** water=1PL.DAT
wiya-lpayi-ngka."
NEG-HABIT-LOC
*(Source translation): The willie wagtails cause the rain clouds to come close by. "You **should not** throw stones at them in case the clouds go away."*
Luritja Picture Dictionary (Hansen et al., 2011: 105)

c. Irri̲ti-tja kuka apunta-rri-ngu, **wiya** nyuntu ngalku-**nytjaku**,
old.times-NMLZ meat rubbish-INCH-PST **NEG** 2SG.ERG eat-**PURP**
wan̲i raapitji-kutu!
discard.IMP rubbish-ALL
*(Source translation:) This old meat is rubbish (and) you **should not** eat it (so) throw it in the rubbish!*
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *irri̲ti̲tja*

Although it won't be discussed in detail, we can note that other negative elements like *naata* (from English 'not') also serve to negate purposives in the same way. This shows that this behaviour relates to how scope relations with negation as a general phenomenon are established, not with individual lexical items (i.e. this is not about *wiya* per se, but about negation– however it is expressed).

(376) **Naata** nyina-**nytjaku** ngananan̲a ya-nku.
NEG sit-**PURP** 1PL-NOM go-FUT
(Source translation:) We should not stay here, we should go.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022); example under entry for *naata*

Importantly, unlike the scope relations we saw with epistemic modality, the position of negation in the clause is not tied to how it scopes in relation to the modal reading; whereas it linearly precedes the modal element in all examples in (374) and still scopes underneath it, negation can also linearly follow the modal element, as the examples in (377) show.

(377) **Negation linearly following the purposive-marked verb**

a. Papa tjuṯa payi-la payi-la yuṉngu tjarrpa-**nytjaku** **wiya**.
dog many shoo-IMP shoo-IMP inside enter-**PURP** **NEG**
*(Source translation): Animals are **not allowed** in the store.*
Tjakulpa kuwarritja (September 1986, p.12)

b. Palya=nyurra manta Yitjipi-lakutu ya-nkunytjaku, nguḻu-rri-**ngkunytjaku** **wiya**.
good=2PL.Subj land Egypt-ALL go-PURP afraid-INCH-**PURP** **NEG**
*It's good for you all to go to Egypt, you **must not** be afraid.*
(Source translation:) … do not be afraid to go down to Egypt, for I will make of you a great nation there.
Yurruntitja/Genesis 46:1-27 (46:3) (Bible Society of Australia, 2006)

c. Ngayu-nya ampaka-mila-**ntjaku** **wiya**, ngurra kutjupa-kutu a-rra!
1SG-ACC humbug-LOAN-**PURP** **NEG** place other-ALL go-IMP
(Source translation:) Stop annoying me go to another person's place.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *ampakamilaṉi*

d. Puḻi kuulta arkatju-**ngkunytjaku** **wiya** mulyaṯa-ngku.
rock gold hide.away-**PURP** **NEG** steal-ERG
(Source translation): You should not hide that gold intending to steal it.
Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *kuulta*

Note too that negation can follow a non-modal purposive-marked verb, like in the following examples, where it is functioning as a purpose clause in (378a), and as a complement to *yunytjurrinytjaku* 'should want' in (378b). These examples are plausibly constituent negation in both cases, thanks to the presence of clitics following negation.[7]

(378) **Non-modal purposives with constituent negation**

[7] Although we have seen throughout that other analyses cannot be excluded; recall discussion of the position of clitics with first-position sentential negation for example.

a. Kutju-ngku watja-lku, “Ngalku-**nytjaku** **wiya**=n̲a ya-nanyi, kuwarri=n̲a
one-ERG say-FUT eat-**PURP** **NEG**=1SG.Subj come-PRS today=1SG.Subj
manta payi-mila-n̲u. …”
earth buy-LOAN-PST

One said “I am not coming to eat, I bought some land today.”
(Source translation): The first said to him, “I have bought a piece of land, and I must go out and see it; please accept my regrets.”

Luukan̲u/Luke 14:18 (Bible Society of Australia, 2006)

b. Tjana nyurrangarri-nya pul̲ka-wan̲i-**nytjaku** **wiya**=nyurra yunytju-rri-nytjaku.
3PL.ERG 2PL-ACC exalt-?-**PURP** **NEG**=2PL.Subj desirous-INCH-PURP
You all should not want for them to praise you.
(No real translation in 1 Corinthians)

1 Kurinytjiyalakutu/Corinthians 14:20 (Bible Society of Australia, 2006)

This behaviour stands in contrast to the behaviour seen in how negation interacts with epistemic modality, where linear position does seem to affect scope possibilities. The examples in (377) show that linear ordering has no apparent effect on scope relations between the modal reading and negation, which consistently produces a □¬ reading.

In chapter 6.3 we saw arguments that clause-initial positions appeared to be important for scope relations between negation and *kutju*, as there appeared here to be a string ambiguity with second position *wiya* and whether it represented constituent negation (wide scope negation) or sentential negation (narrow scope negation). I have not yet seen any examples where a clause initial purposive marked verb that precedes *wiya* results in wide scope negation; although such strings can be found (as in 379), the reading appears to be consistent with the readings found in other constructions.

(379) Karral̲uwan̲i-**nytjaku** **wiya**, wanti, pipirri kuunyi!
immerse-**PURP** **NEG** leave.it child poor.thing
(Source translation:) Don’t dunk the child in the water! leave the poor thing alone!

Pintupi-Luritja dictionary (Hansen & Hansen, 2022), under entry for *karral̲uwan̲inyi*

12.2.1 Wide scope negation?

Together these examples have shown that the available scope reading is not as strongly tied to the relative sentence positions of the relevant elements as we have seen in previous chapters. This should make us wonder about the opposite scope configuration, and what kind of syntactic configuration can deliver it. Unfortunately however it’s not clear whether negation can scope above the modal reading at all (i.e. ¬□ ‘not have to’ readings). There is a confounding factor that made elicitation of ¬□ modal

readings difficult, namely that these are often interpreted in illocutionary terms as polite negative imperatives, which as we have seen above are more akin to □¬ readings. This type of strengthening from ¬□ to □¬ readings is recognised as a general diachronic pathway for readings involving these elements (Horn, 1989/2001; Horn & Wansing, 2022).

So while it's true that in elicitation for ¬□ readings both negation and purposive-marked verbs would arise, in all cases the speaker was also essentially telling the addressee not to do something. These readings are then difficult to differentiate in these examples.

(380) a. PROMPT: It's really busy at work and your boss says you have to do some extra work because it's so busy. The next day they come and tell you that they hired an extra person to work there, and say: "You don't have to do all that extra work anymore!"

Nyuntu **wiya** palya-**ntjaku** warrka ngayulu nyuntu-nya tjapi-n̲u-tja, ngayu-ku
2SG.ERG **NEG** do-**PURP** work 1SG 2SG-ACC ask-PST-NMLZ 1SG-DAT
mal̲pa kutjupa-ngku ngayu-nya haalpa-mila-lku.
associate other-ERG 1SG-ACC help-LOAN-FUT

[Don't/You don't have to] do that work I asked you, my other associate will help me.

JAG1-Elicitation3-20200830_MA1; 10.08–10.20

b. PROMPT: A friend has a sore leg and finds it hard to walk, but wants to go to the shops. I tell him: "You don't have to walk! I'll drive you."

Ayi! Tjina **wiya** ya-**nykunytjaku**! Pat̲a-la! Kuwarripa. Ngaatja Toyota ngalya
INTJ foot **NEG** go-**PURP** wait-IMP soon DEM Toyota hither
a-nanyi.
come-PRS

(Speaker translation): Hey! Don't walk, wait! There's a Toyota coming.
(Speaker comment): Don't walk! Or like you're saying, You don't have to go… You don't have to walk, there's a car there!

JAG1-Elicitation2-20200815_LM; 23.08–23.15, 22.30–22.50

There are a small number of tantalising non-elicited examples from texts that could suggest ¬□ readings, such as in the following.

(381) **Plausible ¬□ readings**

a. Ngayulu palya-ṉu ngali Tjiipana-lu mungatu=litju palya-ṉingi palatja
1SG make-PST 1DU Steve-ERG recently=1DU.excl make-PST.CONT DEM
raka-pala waaḻa-ngka tjiḻpi tjuṭa-ku tuulita palya-nytjaku yila-nguru
five-CARD house-LOC old.men many-DAT toilet do-PURP nearby-ABL
wiya tjaṭa-kutu ya-**nkunytjaku**.
NEG dense.bush-ALL go-**PURP**

*(Source translation): I built them– Steve and me, we built them a while ago, by the five houses for the old men, nearby so they **don't have to** go out to the bush to go to the toilet.*

Tjakulpa kuwarritja (June 1987, p.7)

b. Yalatji tjana kuli-lpayi, "Piita-lu **wiya** miiṉṯa tjuṭa mara-ngku
thus 3PL.NOM think-HABIT Peter-ERG **NEG** sick many hand-INST
pampu-**ntjaku**, paluru yiwarra-wana ya-nkula puri Piita-kuṉu-ngku
touch-**PURP** 3SG.NOM road-PERL go-MV shadow Peter-ASSOC-ERG
miiṉṯa tjuṭa palya-lku."
sick many heal-FUT

They were thinking like this: "Peter [should not/doesn't have to] touch all the sick people, he will heal them going along the road with his shadow."
(Source translation:) …so that they even carried out the sick into the streets and laid them on cots and mats, in order that Peter's shadow might fall on some of them as he came by.

Tjakultjurinkunytja/Acts 5:15 (Bible Society of Australia, 2006)

However there are some issues here that may obscure what's going on. Sentence (381a) is really negation within a purposive clause which is actually acting as a purpose clause, i.e. as an adjunct, rather than as a main-clause usage. It is therefore probably more akin to 'we built toilets for the purpose of them not going into the bush.' The boundaries between purpose clauses and modal readings is not well understood to my knowledge, and examples such as this demonstrate the difficulty in separating them. It's certainly true that the reading is that of *purpose > not*, however it is not clear what relation if any this has to either □¬ or ¬□. The strictest understanding of (381a) would suggest that this is not a true ¬□ example, but rather negation within an adjunctival purpose clause. The example in (381b) is surely best understood as thinking that it is not necessary for Peter to heal with his hands; however this example arguably suffers the same confounding issues as we saw in (380), that an action not being necessary in context will often suggest that one should not. The paucity of examples of ¬□ readings with the purposive clause and *wiya*, and the absolute abundance of □¬ readings suggests that only the latter is clearly available.

There are therefore two main relevant properties of the interaction between negation and the modal reading associated with main clause purposives: (i) that the syntactic positions of negation and the purposive-marked verb do not determine scope relations, with the typical reading consistently being $\Box\neg$ ($\equiv \neg\Diamond\phi$) ; and (ii) that illocutionary factors and the unclear boundaries between modal and other uses of the purposive suffix together make it difficult to know whether $\neg\Box$ readings are possible at all by means of combining *wiya* and the purposive suffix.

These observations suggest something about the modality in purposive clauses that differs from what we've seen in the epistemic domain. We saw that the epistemic modal reading was associated with the particle *tjinguru* itself, as seen by the fact that only non-epistemic uses of the particle were able to scope under negation, which we saw correlated directly with relative linear position. The modal reading in the purposive examples however, although being triggered by the construction, do not really seem to be associated with the purposive suffix *per se*; the purposive-marked verb is not the locus of the modal reading, so differences in linear ordering with negation do not affect scope relations. Although the modal reading is associated with the construction as a whole, how it interacts with elements like negation is less tied to syntactic considerations involving the verb itself. In section 12.3 we will briefly consider why this might be the case, and why this behaviour differs so much from the epistemic examples.

12.3 The role of nominalised/non-finite clauses

We might wonder then what determines the scope relations between negation and purposive modal readings, considering that the relative ordering of purposive marked verb and negation does not seem to affect scope relations. In this context I think it is worth highlighting the nominalised/non-finite nature of this construction in its relation to modality. A number of languages have been shown to exhibit modal readings related to nominalised/non-finite constructions, sometimes called 'covert modality' (Bhatt, 1999). Much of the work on these environments has been done in Indo-European languages (Bhatt, 1999; Holvoet, 2001, 2003; Holl, 2010; Šimık, 2011; Hackl & Nissenbaum, 2012), but I have argued that the Pintupi-Luritja purposive should likewise be understood under this phenomenon's umbrella (Gray, 2021). There seem to be clear diachronic pathways that lead to synchronic modal constructions relating to goals and purpose (Haspelmath, 1989; Evans, 2007), but many of the synchronic properties of the constructions are broadly not well understood. There does appear to be widespread variability of modal strength (recall late night cake escapades in section 9.2.1), at least on a construction-wide level. Work like that of Bhatt (1999) and Hackl and Nissenbaum (2012) show that the exact reading given involves the interplay of a wide range of factors– the embedding/embedded verbs involved, quantifiers involved, general context, among others.

The question of negation in these contexts is also less well understood, but there does appear to be a tendency towards $\Box\neg$ readings, rather than $\neg\Box$. Holvoet (2001: 77f) and (2003: 473) for example notes this across the Slavic and Baltic languages he considers; Bhatt (1999: 158ff) similarly notes the narrow scope of negation in non-finite embedded *wh*- questions. The same scope pattern is also seen in the

English 'BE to' construction; whereas the unembedded (382a) indicates necessity, (382b) can only have a □¬ reading (these parallels were also noted in Gray, 2021).

(382) a. You are to leave this room (immediately)! #◇/□

b. You are not to leave this room! #¬□/□¬

Recall that this is similarly the only possible reading in Pintupi-Luritja as well, regardless of relative positioning. These examples suggest that these patterns appear typical for how negation behaves in these non-finite modal environments– covert modals generally appear to scope above negation, regardless of any other factors.[8] Again, the claim that the modal is scoping above negation is dependent on it being a universal modal; the same reading is obtained by assuming that negation scopes above a possibility modal, since □¬ ≡ ¬◇. We've been assuming that the modal force is essentially □ on the basis that the modal typically has a □ reading when unembedded, although this reasoning is not watertight– Deal (2011) shows that there are reasons to assume that some variable force modals are underlyingly ◇, which can be used in certain environments in place of □ readings.[9] This reasoning has to do with (a lack of) scalar implicatures, which crucially hang on the behaviour of the modal in non-upward-entailing contexts. However I argued in Gray (2021) that the purposive clause in Pintupi-Luritja shows different behaviour to e.g. Nez Perce in these environments, which suggests that the modality in these cases is not related to issues in scalar implicatures. This further suggests non-uniformity in variable force modality as a phenomenon taken as a whole.

For Bhatt (1999: 158ff), how negation interacts with the modal reading in examples like those shown here are telling about the nature of this kind of modality and its syntactic representation. Bhatt argues that the modal reading originates in the C domain (i.e. high in the syntactic tree), and is thus located higher in the syntactic structure than negation. This general idea is illuminating for the discussion here, as it mirrors arguments made about the nature of the modal reading in Pintupi-Luritja purposive clauses. We established in the section on epistemic modality (section 10.4) that linear order (i.e. presumably a reflection of syntactic structure) appears to largely determine scopal interactions between negation and the epistemic modal reading; however examples (377) have shown that linear order does not determine scope relations between negation and the modality expressed by the purposive suffix– or rather, that the relative positions of the purposive-marked verb and the negative particle do not have the same effect. The conclusion drawn from this was that while the modality in the epistemic *tjinguru* is directly associated with that lexical item, the same cannot be said for the purposive. The modal reading in purposive clauses does not originate on the purposive-marked verb itself, but is instead a feature of the construction as a whole. This is compatible with the claims in Bhatt (1999) of modality not originating in the non-finite marking itself; instead, by arguing that the modal reading originates higher in the clause,

[8] I should stress that I make this claim fairly gingerly– the typological justification is presently not strong.

[9] See also work by Jeretič (2021b, 2021a). Note the idea that variability of modal force is variability in reading, but not necessarily in the lexical entry for the modal. Under many accounts, a modal element may be underlyingly either a ◇ or □ modal, with external factors that conspire to modulate its force in a given environment.

the modal readings under discussion are not embodied by the non-finite elements themselves. For this reason, scope relations are not affected by shifting the elements around, as we saw in the section on epistemics.

12.4 Purposives across the Western Desert family

Finally, and briefly, we can note that Pintupi-Luritja is a relatively rare example within the Western Desert family for how pervasive the modal readings in purposive clauses are. Other Western Desert languages exhibit the core uses as purpose clauses and non-finite subordination, which appear to be present in all of them, but not all exhibit the modal readings discussed here. These main clause modal readings appear to be the strongest in Pintupi-Luritja amongst the Western Desert family, with only some fleeting examples in the literature in other languages (see e.g. Hansen and Hansen, 1978; Bell, 1988). These appear marginally more possible with the inclusion of a posture verb in some languages. Wilmoth (2022) gives an example from Pitjantjatjara: firstly with the posture verb *ngaṟanyi* 'stand.PRS', then immediately following without; she notes there is variation in the presence of the posture verb in her corpus, and suggests that this behaviour is in an intermediatory stage of grammaticalisation– one which appears much further progressed in Pintupi-Luritja, where no posture verb is needed.[10]

(383) PITJANTJATJARA (Wilmoth, 2022)

... nganaṉa wiya-n-ma-**nkunytjaku** **ngaṟa-nyi**,
... 1PL.ERG no-DELOC-EMIT-**PURP** **stand-PRS**

munu nganaṉa kuṉpu-ngku wangka-**nytjaku**.
CONJ 1PL-ERG strong-ERG speak-**PURP**

We should say no, and we should do so with conviction.

Similar constructions have been suggested to me in conversations with Elizabeth Marrkilyi Ellis for Ngaanyatjarra, although this would need to be investigated. Also interesting in this respect are some examples of Yulparija given in Burridge (1996). The purposive in Yulparija appears to be built out of slightly different morphological pieces, but nonetheless appears to give modalised meanings when combined with negation.

(384) YULPARIJA (Burridge, 1996: 55)

a. **Wiya** tili-lku-ra-**ku**.
NEG light-IR-OPT-**PURP**
No fires are to be lit?

[10] I.e. presumably not needed any more; assuming a similar diachronic path we might expect posture verbs to have been an ingredient in this construction at an earlier stage of Pintupi-Luritja.

b. **Wiya**-rna ngayu-lu nya-ku-ra-**ku** waru.
NEG-1SG.NOM 1.SG-ERG see-IR-OPT-**PURP** fire
I mustn't see a fire?

Like the Pintupi-Luritja data, these readings are both $\neg\Diamond$ ($\equiv \Box\neg$). In some languages, main clause purposives instead appear to have more of a desiderative meaning. Platt (1972) gives a good example of this in Gugada.

(385) Gugada (Platt, 1972: 32)
ŋajulu wanga-**njdjagu**.
1SG talk-**PURP**
I want to talk.

What these examples show is that while similar structures exist across the family, there are slight differences in what interpretations they give. In some languages posture verbs appear to be a necessary ingredient in a modal reading; it is possible that Pintupi-Luritja is further along a diachronic pathway in not needing these verbs. The desiderative meanings we saw glimpses of in Pintupi-Luritja also are shown elsewhere, as is the behaviour of the modal with the introduction of negation. This topic is not well understood in most Western Desert languages, but this data shows that there is variation between them. The available readings and behaviour of purposives is therefore another type of grammatical variation within the Western Desert family.

Chapter 13

General conclusions and outlook

In chapter 1.3.3 I laid out some guiding questions for this dissertation. In investigating the syntax-semantics interface we are interested in how strings are paired with meanings; considering the well-known 'freedom' of word order in Australian languages I suggested investigating word order through the following sub-questions:

(386) **Word order is free/restricted:**

a. In which domains?

b. To what extent?

c. To what purpose?

Through our investigations in this thesis into negation, focus sensitivity, and modality, we have seen that the answers to these questions are not trivial. Word order varies in different domains to different extents for different aims. In chapter 3 we saw that negation has at least two main syntactic reflexes (constituent and sentential negation), but that this only plays a role semantically when other scope-bearing elements are also in the clause. That is, various syntactic forms both introduce a propositional-level negative effect. This is however likely to be a consequence of the semantics of negation itself, rather than a reflection of how it is encoded in Pintupi-Luritja. Once other scope-bearing elements are present however, then we saw that word order does appear to play a strong role.

This was explored in part II, where we examined focus sensitive elements like exclusive *kutju* and additive *-ṯarra*. Here, the positioning of negation clearly affects the available interpretation; in particular we saw glimpses of examples that suggest that this interpretation is strictly regulated by the syntactic configuration that the elements find themselves in, and that c-command is the relevant level of description. The string ambiguities involving *kutju* in clause-initial positions suggest that it is syntax, not linearity, that regulates the reading.

These chapters also showed the necessity of teasing different uses of lexical items apart, and treating them separately in analysis; we saw that different uses of *kutju* (exclusive particle, indefinite, adverbial,

etc.) all exhibit different syntactic behaviours. Understanding what these are and how they work are necessary preliminaries to working on how these elements interact with other elements in the clause. We saw for example that there is a strong syntactic regularity in where focus sensitive elements like exclusive *kutju* sit in the clause in relation to their focus associates. On the other hand, we also saw that this regularity broke down with certain clause types– apparently obligatorily with finite VPs, and optionally with medial verb clauses, *kutju* and other focus sensitive elements targets a sub-unit of the focus domain for marking. This again shows the importance of investigating freedom of word order in different domains to different extents.

Finally, we saw that regularity in position and reading largely breaks down in the domain of modality. The most regularity can be seen with epistemic modality, which in addition to semantically scoping above operators like negation also syntactically precedes them. There was no such regularity with purposive clauses however, which appear to only allow a single reading in combination with negation, regardless of ordering. We have suggested that this may be related to the nature of the source of modality in these cases– that the modality arises from the construction in those cases, rather than from the purposive suffix itself. Here the position of negation does not affect the reading to the same extent that we saw with focus sensitive elements.

This thesis has uncovered more questions than it has answered. Some areas of further investigation immediately present themselves. Further work is required on clause-initial positions and the interactions with negation. If these are syntactic in nature as I have suggested here, then we should see similar effects with other scope-bearing elements. More work is required on quantifiers in the language generally, as these would be prime elements to test in these environments. Also related to clause-initial positions is the syntax of clitics, in particular the occasional shifting of clitics further beyond second position. We have noted a few environments that facilitate this shifting, but the phenomenon stands out as warranting its own more detailed investigation.

It would be interesting to examine variability in the phenomenon throughout in other Western Desert languages as well. We have seen that even a cursory look at the literature shows that there is some variation on a grammatical level between languages. This was most apparent with negation, although we can note that negation is the best-described of the phenomenon discussed in this thesis among other Western Desert languages. We saw glimpses that suggest similar variation may exist in other domains as well (recall for example the brief discussion of *kutju* in Kukatja in section 5.2). I also hope that future work investigates the role of scope in regulating or constraining the pairings of strings and interpretations in Australian languages.

Further work on quantifiers would also be enlightening for the discussion of modality. We have seen that theories of modality are built on parallels with quantification; however many of the behaviours of modals that inspired this family of analyses do not carry across into Pintupi-Luritja (i.e. fixed force with variable flavour). This fact in and of itself does not speak against a quantificational account of modality; the fact that quantifiers also don't appear to work in Pintupi-Luritja as their English counterparts do might provide insight as to how the connection between the two phenomena is/might be encoded in

the language. It is in any case striking that both domains appear to be much more flexible than more well-described systems of modality and quantification in other languages.

Another area in need of work is intonation, and the role that it plays in many of the topics discussed here– clitic placement, the encoding of negation, scope ordering, etc. Although some of the material presented here has been based on original fieldwork, many of the examples presented throughout are based on written material, and therefore lack intonational information. I have not done any intonational work on my own recordings, or on other recordings available. More in-depth work in this area may lead us to understand some of the questions we are left with at the conclusion of this dissertation.

Finally, although most of the work discussed here has been relatively technical, I want to stress that this is not just linguistic data; this is a living language spoken on a daily basis by thousands of people in Central Australia. As you are reading this right now the language is being spoken somewhere. It should be clear that this work does not begin to represent the totality of the complexities and richness of Pintupi-Luritja. I hope that further work will continue to map out and document the language, with a greater input from and control by Aṉangu, whose language this is and who understand its depth. Pintupi-Luritja should continue to thrive as a living and modern language. With careful maintenance and support it should hold and solidify its position as an important part of Central Australia.

Kala, palya.

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Appendix

.1 Part I: Foundations

(387) **Case marking**

See discussion in section 2.2.1

	Common nouns	Proper nouns
ERG	*-ngku*	*-lu*
NOM	ø	*-nya*
ACC	ø	*-nya*
DAT	*-ku*	*-ku*
LOC	*-ngka*	*-la*
ALL	*-kutu*	*-lakutu*
ABL	*-nguru*	*-languru*
PERL	*-wana*	*-lawana*
AVOID	*-ngkamarra*	*-lamarra*

(388) **Palya plus accusative**

a. Ngaa-ngku palya-lku nyuntu-**nya** miiṉta-lingku.
DEM-ERG make-FUT 2SG-**ACC** sick-very
This [COVID-19] will make you very sick.

Video: Northern Land Council (2020) 0.32–0.36

b. Wati kutjupa tjuṯa-ngku wangka-ngu tjana yunytju-rri-nyi tjurratja
men other many-ERG say-PST 3PL.NOM desirous-INCH-PRS grog
tjiki-nytjku [sic] yalatji tjana-**nya** pukulpa palya-n̯i.
drink-PURP thus 3PL-**ACC** happy make-PRS

(Source translation): Some of the men, however, were saying that they wanted to drink because it makes them happy.

Tjakulpa kuwarritja (June 1987, p.4–5)

(389) **Reflexive clitic series forms in Hansen and Hansen (1978: 120)**

RFL	Singular	Dual	Plural
1	*-n̯atju*	*-lingku*	*-langku*
		-litjungku	*-latjungku*
2	*-ngkun*	*-ngkupulan*	*-ngkunyurra*
3	*-ngku*	*-ngkupula*	*-ngkuya*

(390) **Imperative clitic series** (Heffernan & Heffernan, 2000: 74)

IMP	Dual	Plural
1	*-lika*	*-laka*
2	*-pula*	*-ya*
3	*-pulanku*	*-yanku*

(391) **Avoidance clitic series** (Hansen & Hansen, 1978: 119)

AVD	Singular	Dual	Plural
1	*-tjura*	*-limpalura* (incl.)	*-lampalura*
		-limpatjura (excl.)	*-lampatjura*
2	*-ngkura*	*-ngkurapula*	*-nyurrampalura*
3	*-lura*	*-pulampalura*	*-tjanampalura*

(392) **Reflexive/reciprocal clitics** (Heffernan & Heffernan, 2000: 72)[1]

RFL	Singular	Dual	Plural
1	*-n̯atju*	*-linku*	*-lanku*
2	*-nkun*	*-pulankun*	*-nyurranku*
3	*-nku*	*-pulanku*	*-yanku*

[1]Here, the description in Hansen and Hansen (1978: 120f) varies to a greater extent, largely involving ordering, and which exact elements make up the clitics. See the appendix for their forms given. They in fact discuss further variation in forms that occur, due to "a multiplicity of Western Desert dialects at Papunya."

Pintupi-Luritja verbs

Based on Heffernan & Heffernan (1999: 90)

	-la	**-ø**	**-rra**	**-wa**
Imperative	*waka**la***	*nyina*	*tju**rra***	*pu**wa***
Past tense	*waka**ṉu***	*nyina**ngu***	*tju**nu***	*pu**ngu***
Future tense	*waka**lku***	*nyina**ku***	*tju**nku***	*pu**ngkuku***
Present tense	*waka**ṉi***	*nyina**nyi***	*tju**nanyi***	*pu**nganyi***
Past continuous	*waka**ṉingi***	*nyina**ngi***	*tju**nangi***	*pu**ngangi***
Imperative continuous	*waka**nma***	*nyina**ma***	*tju**nama***	*pu**ngama***
Future continuous	*waka**nmalpa***	*nyina**malpa***	*tju**namalpa***	*pu**ngamalpa***
Serial form	*waka**ra***	*nyina**rra***	*tju**nkula***	*pu**ngkula***
Counter factual form	*waka**nmara***	*nyina**mara***	*tju**namara***	*pu**ngamara***
Apprehensional form	*waka**ltjipi***	*nyina**tjipi***	*tju**nkutjipi***	*pu**ngkutjipi***
Characteristic form	*waka**lpayi***	*nyina**payi***	*tju**nkupayi***	*pu**ngkupayi***
Intention form	*waka**lkitja***	*nyina**kitja***	*tju**nkukitja***	*pu**ngkukitja***
Concern form	*waka**ltjirratja***	*nyina**tjirratja***	*tju**nkutjirratja***	*pu**ngkutjirratja***
Purpose form	*waka**ntjaku***	*nyina**nytjaku***	*tju**nkunytjaku***	*pu**ngkunytjaku***
Negative form	*waka**lwiya***	*nyina**wiya***	*tju**nkuwiya***	*pu**ngkuwiya***

1em

(*wakala*, spear/pierce; *nyina*, sit; *tjurra*, put/place; *puwa*, strike/hit)

- -tju- → -rra (trans.)
- -nta- → -rra (trans.)
- -tjinga- → -la (trans.)
- -ma- → -rra (intrans.)
- -pu- → -wa (trans.)
- -ngara- → -ø (intrans.)
- -kati- → -ø (trans./intrans.; maintained from stem)
- -rri/arri- → -ø/-wa (intrans.)
- -mila- → -la (trans.)
- -yi/ya/ri/ra- → -rra (trans./intrans.; mantained from stem)

Irregular verbs (Hansen and Hansen 1978: 192f)

- *ngara* ‘stand’: Belongs to -ø class, but *ngara-* + *-rri* = *ngarali-*
- *ngalku-/nga-* ‘eat’: (*-kati*) → (*-ti*); (*-ri*) → (-li); Belongs to *-la* class but has some variation:

  - Past tense: *ngalangu/ngalkuṉu*
  - Future tense: *ngalku/ngalkuku*
  - Imperative: *ngala/ngalkula*

- *nya-* 'see': Is *-wa* class but drops the classifier (*ng*) before future tense *-ku*; i.e. (*-ngku-*) → (*-ku*)
- *pitja-* 'motion': Is *-ø* but both (*-rri*) and (*-rr*) → (*-la*)

.2 Part II: Focus sensitivity

(393) **Discussion of focus particle *kula***
Context: Transcribing an earlier recording (JAG1-Story-20200314_LNRNA), and came across the sentence *Alatji alatji kula wangka* "That's how you should talk!"

(MA): *Alatji alatji kula wangka*
(JG): What's *kula*?
(MA): *Kula* can be used in a lot of ways...
(JG): Ah so it's *alatji kula*...
(MA): *Tjapangaṯilu kula* [skin.name-ERG kula], that means... I might say... If you ask me "Who's gunna drive?" but I say *Nyuntu kula turayipirringanyi!* [2SG.NOM kula drive.PRS], that's you!
(JG): Right
(MA): *Kula*, that little word *kula* is just used in different ways. Like *nyuntu kula* [2SG.NOM kula], *nyurrangarri kula* [2PL.NOM kula], *tjana kula* [3PL.NOM kula].
(JG): Could I say the same if I said like, if I said "What did you eat?" and you said...
(MA): *Ngaatja kula* [DEM kula], *xxx kula.*
(JG): Ah, ok.
[More discussion]
(MA): Like this: "Sing like this!" *Alatji alatji kula warrala!* [thus thus kula sing.IMP]
(JG): Not some other way. Or like...
(MA): Not loud, not soft, but *alatji alatji kula*, means right, um... equal balance.
(MB): Like that, like that. JAG1-Story-20201129_MANG; 4.08–6.25

(394)

.3 Part III: Modality

(395) **Epistemic: □P** 'It must be that P' cf. (318)

a. *Knowledge source:* Reasoning by deduction
PROMPT: Peter tells you to meet him in the afternoon, and that he will either be at home,



Figure 1: Use of *uuni*; see example (197a)

at work, or at the shop. You drive to his home, but he's not there. You drive to his work, but he's not there. You say: "He must be at the shop."

Tjinguru paluru kantina-ngka.
maybe 3SG.NOM shop-LOC
Maybe he's at the shop.

JAG1-Elicitation-20200315_MANG; 44.42–44.45

b. *Knowledge source:* Reasoning by circumstance
PROMPT: Tjakamarra is driving from Alice Springs to Papunya [usually ≈ 3.5hr]. We say goodbye to him leaving Alice Springs. Five hours later I say: "Tjakamarra must be in Papunya by now."
Yuwa kala paluru tjinguru tjarrpa-ngu.
yes so 3SG.NOM maybe arrive-PST
Yeah so maybe he arrived.
JAG1-Elicitation-20200316_MA; 00.51–00.54

(396) **Various root necessity readings of the purposive suffix** (cf. 363, 364)

a. Yaṉangu-ngku wangka walytja kanyi-**nytjaku**, wiya wangka walyapala-kuṉu
people-ERG language own keep-**PURP** NEG language white.people-CONC
tju-nkunytjaku, wangka Luritji kutu kuṉpu-ngka kanyi-nytjaku.
put-PURP language Luritja continually strong-LOC hold-PURP
*(Source translation): Also people said that Aboriginal people **must** look after their languages, and not mix up their languages with English. To keep Luritja strong forever, keep it separate from English.*
Tjakulpa kuwarritja (December 1987, p.4–5)

b. Yaṉangu-ngku kala kutjukutju-ngku panya mara-ngku kutju palya-**nytjaku**.
people-ERG PRT one.by.one-ERG PRT hand-ERG only do-PURP
*(Source translation): Until this equipment comes, people **have to** share one hand pump.*
Tjakulpa kuwarritja (August—September 1982, p.10)

(397) **Ambiguity between circumstantial and bouletic readings with the purposive suffix** (Cf. 371)

a. Tjiwiri-ngku pu-ngkula wiya-rri-ngkunytja-la nyurrangarri ya-**nkunytjaku**
water-ERG hit-MV NEG-INCH-NMLZ-LOC 2PL.NOM go-**PURP**
tjupi-ku.
honey.ant-DAT
*(Source translation): After rain has fallen, that is the time you **can** go looking for honey ants.*
Tjakulpa kuwarritja (April 1989, p.4, 7)

b. Aṉangu pipirri-ṯarra ngalya ya-**nkunytjaku** Rikiriyayitjin tjinta-kutu.
people children-also hither come-**PURP** recreation centre-ALL
Adults and children can come to the recreation centre.
(Source translation): The Centre will be open after school and on the weekend, for kids and anyone else interested.

Tjakulpa kuwarritja (October 1987, p.4)

.4 Participant Information Sheet

The following text was shown and given to speakers before we could work together, so that they could learn about the project and deicide whether they would like to take part. This was part of the process for ethics approval from the Australian National University, and was made to make sure that people had information about the project in their own language. Many thanks to Nantayah Nakamarra Tjonggarda for the translations into Pintupi-Luritja, and for a back-translation into English with Lance McDonald[†] *(not included here).*

Researcher:

- *Yuwa, ngayuku yini James Gray-nya. Ngayulu PhD student kuula Literature, Languages and Linguistics, College of Arts and Social Sciencesnguru, Australian National University, Canberrala. Ngayulu waarkarrinyi yaaltjiyaaltji wangka tjungu ngarranytjaku anta kutjupakutjupa nyinanytjaku. Ngayulu yunytjurringanyi nintirrinkunytjaku Pintupi-Luritja wangka nyakunytjaku yaaltjiyaaltji kutjupananyi wangka Englishanguru.*

  Hello, my name is James Gray, I'm a PhD student at the School of Literature, Languages and Linguistics, College of Arts and Social Sciences, Australian National University, Canberra. I work on how languages can be similar and different to each other. I want to learn Pintupi-Luritja, and see how it is different to languages like English.

Project Title: The realisation of information structure in Pintupi-Luritja

General Outline of the Project:

- **Description and Methodology:**
  Ngayulu tjapinytjaku nyuntunya yunytjurringanyi yara wangka mantjira kanyintjaku Pintupi-Luritjitjarra. Ngayulu tjinguru nyuntunya tjapilku yara kutjupa ankunytjaku, uu piitji nyakula watjantjaku yara wangkangku. Ngayulu tjinguru wangkaku yara Pintupi-Luritjingku, tjapilku wangkapaka palya tjukarurrunutja. Kutjupangara video palyara nganampa waarka, kuli̱nila palya. Ngayulu wakalku nyaala wangkangutja Luritjingku, kutjupa ankula Englishakutu. Ngayulu tjinguru nyuntupa haalpaku yunytjurriku palyalkitja.

  I want to ask you questions and record us talking about Pintupi-Luritja. I might ask you to translate some sentences, or describe a picture in language, or tell a story. I might say a sentence in Pintupi-Luritja and ask if it sounds good. Sometimes we might make a video of our sessions as well, if you think its ok. I will write down most or all of what we talk about, and translate it into English. I might need your help to do that sometimes.

- **Participants:**
  Kutjupa nganan̲a yunytju nyinara nganan̲ala tin̲a nguwanpa 18 waarkarrinytjaku ngayulawana. Ngayulu kuli̱ni ngayulu waarkarrinyi An̲angu kalala palawana.

Anyone who is interested and older than 18 can work with me; I hope that I can work with around 10 different people.

- **Use of Data and Feedback:**
  Ngayulu yunytjurringanyi wakara tjunkunytjaku nyuntupa wangka reportangka, ngayuku universityngku. Kutjupa ngulapaka piipa riitarrinytjaku aṉangu kutjupanya yunytjurrinytjaku wangkaku. Ngayulu kutjupa kuliṉi nintirrinytjaku tjana yunytjulingku wangka nganampaku mantjiṉunta kulintjaku, nganaṉa nyaapaka wakara tjunutja. Nyuntu yunytju, ngayulu nyuntupa yini yaarkayaarka kanyintjaku, ngayunya watjala. Ngayulu yunytju nyuntunya piipa kutjupa wangka ngali palyaṉutja kanyintjaku. Ngayuluṉa kanyilku wangka tjuṯa ngali palyaṉu panyapa. Kutjupaṉa yiyalku Australian Institute of Aboriginal and Torres Strait Islander Studies AIATSIS (waala tiṉa Canberrala aṉangu tjuṯaku ngaranyi palangka tjana kanyiṉi Aṉangu wangka kutjupakutjupaku yulytja yirriṯitja tjuṯa) and PARADISECanku (nganampa wangka kutjupakutjupa kanyiṉi). Tjana kanyilku rawa, Aṉangu paka yunytjurringkula wangka tjuṯa, paluru tjinguru kulilku tjananya, but nyuntu watjala ngayunya if nyuntu wiya yunytju wangka kutjupangku kulintjaku, wangka ngali palyaṉutja.

  I want to write down your words in a report for my university, and also in the future in articles or books for other people who are interested in language. I might also show people interested in language the recordings of us talking, or what we've written down. If you want I can keep your name secret. I can give you a copy of the recordings we make. I will keep the recordings that we make, and also send a copy to the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) in Canberra, and the Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC), where they will be stored and kept safe for a long time. People who are interested in languages might listen to them, but you can tell me if you do not want anyone to hear any recordings that we make.

Participant Involvement:

- **Voluntary Participation & Withdrawal:**
  Nyuntu wiya ngayula warrka palyalkitja yunytjurringkula, nyuntu wangka, nyuntu yunytju nyinara kutju wangka. Nyuntu yunytjurringkula kutju palantjaku. Nyuntupa kulintjangka kutju. Nyuntu ngayulawana warrka palyara wiya wantira palyantjaku, nyuntu wangka yunytjurringkula. Palangku wiya marrkulku nyuntu ngali tjungu waarka palyaṉutja. Nyuntu kulira tjapila ngayunya, nyuntu puṯupaka kulira. Nyuntupaka palya kulira ngayunya wiya tjapinytjaku. Nyuntu yunytjurringkula wiya wangka ngalinya palyaṉutja kulira, nyuntu watjala wangka wiya ngayunya tjunkunytjaku, ngayunya tjutunytjaku. Nyuntu walytjangku kulira palyala. Ngayuku wangka tjuṯa palyaṉutja.

  You do not have to work with me, only if you want to. It is your choice. You can also stop working with me any time if you want, and that will not affect our relationship. Please feel free to ask me

questions if you are unsure or do not understand something. You can also decide not to answer any questions. If you don't want me to use a recording we make, you can tell me not to use the recording, or to delete it. You can decide this anytime up until my report is published.

- **What does participation in the research entail?**
  Ngayulu yunytjurrinyi wangka mantjira ngali wangkarapungkunytjaku Pintupi-Luritjingku, video ngaatja ngali wangkanyi yara palyaṉutja wangkatjarra. Ngayulu yunytju tjapinytjaku nyuntunya yara wangka ngali tjunutja Englishanguru Pintupi-Luritjinguru, ngayunya watjala yara ngaatjapaka palyangka. Kutjupangara ngayulu nyuntunya tjapilku nyuntu piitjinguru ngayunya tjakultjunkunytjaku wangka Luritjingku, or yara watjantjaku, haalpamilantjaku wakara tjunkunytjaku nyaatjarra ngali wangkara pungu yara kutjupangka. Yaṉangu kutjupa yunytjurringanyi wangka walytjangku kulintjaku yara nyaatjarra nganaṉa palyaṉu uu video nyangu nganaṉa palyaṉutja. Nyuntu kulira yaṉangu kutjupa kulintjaku wangka yara ngaatjanya tjunutja.

  I would like to record us talking about Pintupi-Luritja, and sometimes video us talking about language. I would like to ask you to translate some sentences into English or Pintupi-Luritja, and to tell me if some sentences I make up sound good. Sometimes I might ask you to describe a picture in language, or tell a story, or help me write down things we talked about in another recording. Other people interested in language might also want to listen to the recordings we make, or watch videos we make; you can decide if other people can listen to the recordings.

- **Location and Duration:**
  Nganaṉa palyantjaku ngurra yatanpangka nyuntu kuliṉi yunurungku. Tjinguru yuṉngu ngurra kutjupangkapaka or urilta. Nganaṉa tjinguru 1 hour nyinaku, waarrka ngaatja palyantjaku. Kutjupangara rawa nguwanpa, nyuntu yunytju nyinara. Nyuntu watjala ngayunya waarrka wiyarrinkula nyuntu purrkarringkula. Ngali nyakunytjaku ngulapaka kutjupangka.

  We can do the recordings in a quiet place that you feel comfortable in, maybe inside somewhere, or outside. It will usually take about an hour each time we work, maybe sometimes longer if you want. You can always tell me to stop if you have had enough. We can meet as often as you want.

- **Remuneration:**
  Ngayulu nyuntunya payimilalku 50 tala per hour, ngali waarkarringutja.

  I can pay you 50 dollars per hour when we work together.

- **Risks:**
  Ngayulu wiya kuliṉi palatja kuya nyinaku nyuntupa waarka ngaanguru. Nyuntu ngayunya tjapila nyuntu wiya yunytjurringkula wangka ngayulawana mantjiningka. Nyuntu yunytjurringkula waarrka wiya ngayulawana palyalkitja wiyarriwa. Nyuntu yunytjurringanyingka ngayulu kanyilku nyuntupa yini yaarkayaarka. Yaṉangu ngurra kutjupanguru wiya ninti nyinaku wangka nyuntupaku. Tjinguru yaṉangu kutjupangku, nyuntunya nintingku tjinguru kulilku, nyuntupa

wangka. Ngali video palatja palyara, nyuntu ngalimpa wiya yaṉangu ninti nyinaku, ngali marrkulku yaṉangu video nyakupayiangka, video palatja, ngayulu wiya nintilku kutjupakutu. Nyuntu ngayunya watjala nyuntu wiya yunytjurringkula yaṉangu kutjupangku kulintjaku wangka ngali palyaṉutja, anta video ngali palyaṉutja.

I don't think there are any risks to you from this research. You can always tell me if you don't want to be recorded, or you want to stop working with me. If you want I can keep your name secret, and people from outside the community won't know your voice. But people who know you might still recognise your voice. If we make videos and you don't want to be recognised, we can restrict people from watching that video, and I won't show it to anyone. You can always tell me that you don't want anyone to hear a recording we make, or watch any video we make.

- **Benefits:**
  Wangka ngaatja palyaṉutjangka haalpamilalku nganaṉanya kulintjaku yaaltjiyaaltji Pintupi-Luritji tjungu andtakutjupa wangka kutjupa Australiangka and ngurra kutjupanguru kulilku. Wangka ngaangku haalpamilalku nganaṉanya English, Pintupi-Luritjinguru tjukarurru kulintjaku wangka walytjangku tjakururrunutja.

  This research will help us know more about Pintupi-Luritja, and how it is similar and different to other languages in Australia and the world. It could also help us understand how to translate more clearly between English and Pintupi-Luritja.

Exclusion criteria:

- **Participant Limitation:**
  Nyuntu nyinanytjaku 18 years oldanguru ngayula waarkarrikitja.

  You must be at least 18 years old to work with me.

Confidentiality:

- **Confidentiality:**
  Ngayulu tjapilku nyuntunya nganalupaka kulintjaku wangka ngaatja ngali palyaṉutja, anta nyaku videos ngali palyaṉu. Nyuntu kulira palyala nganalu kulira nyaku anta nganalu kulilku wiya palunya tjananya kulilku. Ngayulu tjunku wangka ngali tjunununtja archiveangka. Yulytja kutjupa ngarrinytjaku mantjintja wiya rawalingku. Nyuntu yunytju nyinarra, ngayulu kanyilku nyuntupa yini yaarkayaarkangku. Ngayulu kutjupakutu wangkarra or wakara wangka tjuṯa ngaatjanya. Ngayulu kulira palyalku code (like B14 or A28), nyuntupa yini wiya. Ngayulu kanyilku nyuntupa yaarkayaarka rawara law-ana.

  University ngaangku watjaṉi Australian privacy rules nyuntupa kanyinytjaku, waarrka tjuṯa yaarkayaarka. Nyuntu tjapila ngayunya nyuntunya yungkunytjaku wangka tjuṯa palyaṉutja. Nyuntu yaaltjiyaaltji ngurrinytjaku wangka ngaa tjuṯanya nganaṉa kanyinyingka nyuntunyatjarra, or palyantjaku wiya tjukarurrungku.

I will ask you who can listen to the recordings we make and watch any videos we make; you can make decisions about who can and cannot listen to them. I will then put the recordings in an archive so that they stay safe for a long time. If you want, I can keep your name secret, so that when I talk or write about the recordings, I can use a code (like B14, or A28) instead of your name. I will maintain your confidentiality to the extent allowed by the law.

Australian privacy rules require me to tell you how my University handles your private information, and you can ask me to give you more details of that, or how you can find out what information we have about you and to fix it if it is wrong.

Data Storage:

- **Where:**
  Wangka ngaa tjuṯa tjungu kanyira ngayulu wakara tjunku wangka tjuṯa nyuntupa yini, nyuntupa age, yaaltjipaka nyuntu tjinguru tiṉapaka uu wiimapaka, number. Nyuntu wangka kulila anta tjurra computer ngayukunungka, ngayuku yaarkayaarka kanyilku, kutjupangku mantjinytja wiya. Ngayulu kanyilku hard drive ngayulawana, computer and online archive paluru nampa kanyilku alanytjaku. Ngayulu iyalku piipa kutjupa Australian Institute of Aboriginal and Torres Strait Islander Studiesakutu (AIATSIS), and the Pacific and Regional Archive for Digital Sources in Endangered Culturesakutu (PARADISEC). Ngayulu nyuntunya yungku piipa kutjupa nyuntunya wangkatjarra ngali palyaṉutja. Aṉangu kutjupangku yunytjurringkula wangka ngaatja kulilku wangka ngaa tjuṯa internetwana.

  In addition to the recordings, I'll also write down some details like your name, age, and languages you can speak/understand and store it on my computer, a hard drive, and in a safe online archive. I will keep the hard drive with me, and the computer and online archive require passwords to access. I'll also send a copy to the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS), and the Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC). I can also give you a copy of the recordings we make. People who are interested in language can listen to the recordings from the archive on the internet.

- **How long:**
  Wangka tjunutja nganaṉa wangka kanyilku ngarrinytjaku rawa. Wiyarrintja wiya. Ngula year nyarrangka aṉangu tjuṯangku kulilku, kulira tjana ninti nyinaku yaaltjiyaaltji aṉangu wangkangutja kuwarri.

  The archives will make sure the recordings survive and don't get lost for a very long time. Then in the future, people will be able to listen and know how people spoke now.

Queries and Concerns

Contact Details for More Information:
Nyuntupaka tjapintjaku yunytjurringkula or wangkanytjaku ngayulakutu, wangka ngaatja palyaṉutjatjarra, nyuntu ngayunya tjapila uu ngayuku waarrka ringamilala ngayuku universitynya:

If you have any questions or want to talk to me about the project you can contact me, or my supervisor at my university:

- James Gray
  School of Literature, Languages and Linguistics
  The Australian National University
  Telephone: [number]
  Email: james.gray@anu.edu.au

- Professor Jane Simpson
  School of Literature, Languages, and Linguistics
  The Australian National University
  Telephone: [number]
  Email: [email address]

Tjungurringkula wangka ngaatja mantjira tjungkula tjungunutja. Nyuntupaka tjinguru kulira yunypa wiya mulyarrarriku, nyuntu ringamilala Papunya health service [number]*ngka.*

If participating in this research has upset you in any way you can also talk to the Papunya health service, who you can call on [number].

Ethics Committee Clearance:
The ANU Human Research Ethics Committee nyakula palyamankuku wangka nganan̲a tjunutja. If nyuntu tjuni kuya yunypa wiya kulira, waarrka ngaatja palyan̲utja, nyuntu ringamilala:

The ethical aspects of this research have been approved by the ANU Human Research Ethics Committee (Protocol 2019/768). If you have any concerns or complaints about how this research has been conducted, please contact:

- Ethics Manager
  The ANU Human Research Ethics Committee
  The Australian National University
  Telephone: [number]
  Email: [email address]