

Subordination in Ngadju

A Preliminary Analysis

With an additional learner's guide
on forming complex sentences in Ngadju.

Josh van de Ven

*Goldfields Aboriginal Language Centre Aboriginal Corporation,
Boulder.*

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Abbreviations

1	first person	N	noun
2	second person	NPP	non-past progressive
3	third person	O	object-like argument of canonical transitive verb
A	agent-like argument of canonical transitive verb	PART	participle
ABS	absolutive case	PC	past completive
ACC	accusative case	PFV	perfective
ADV	adverbial/adverb	PL	plural
ALL	allative case	PRIV	privative case
AUX	auxiliary verb	PRO	pronoun
C	complementizer	PST	past tense
CAUSE	indicating cause of main clause action	PURP	purpose clause
COMP	complementizer	RDP	reduplicative
CONT	continuous	REDUP	reduplication
CP	complementizer phrase	REL	relative
DAT	dative case	REMEMB	'you remember the one'
DEM	demonstrative	S	sentence
DIST	distal	NP	noun phrase
ERG	ergative case	SEQ	sequential
FOC	focus	SG	singular
FREQ	frequent	SS	same-subject
FUT	future tense	SUBJ	subject
IMPL	implicated clause	TEXD	text deictic
INTNS	intensifier	TOO	'too'
IPFV	imperfective	V	verb
IRR	irrealis	VERB	verbaliser
LOC	locative case	VP	verb phrase

1. Introduction

Ngadju is a Pama-Nyungan language of the Mirning family spoken in the southern Goldfields region of Western Australia (Goldfields Aboriginal Language Centre Aboriginal Corporation, 2023). Substantial work has been done on Ngadju over the past few decades to document and revitalise this language. Carl-Georg von Brandenstein (1980) oversaw initial recording and analysis of Ngadju. More recent work by Troy Reynolds and other linguists at the Goldfields Aboriginal Language Centre has led to further documentation and analysis of this language. While significant headway has been made in understanding the lexicon and morphology of Ngadju, little work has been done so far analysing its sentence structure (syntax). This paper provides an initial analysis of subordination in Ngadju as one key element of the language's syntax. In doing so, it improves understanding of Ngadju grammar, and contributes to the future development of revitalisation and teaching materials in this language.

To understand what 'subordination' is, a few key terms need to be first understood. Sentences consist of *clauses*. A clause can be thought of as a string of words containing exactly one verb. "I am hungry", "she reads a book", or "you speak Ngadju" are all clauses, because they contain exactly one verb - "am", "reads", or "speak". "To eat breakfast", "because it was hot", and "when it rains" are also clauses, because they also contain exactly one verb - "eat", "was", and "rains". Clauses can be *independent* or *dependent*. Independent clauses can stand by themselves as whole sentences - e.g. "I am hungry", "she reads a book", or "you speak Ngadju". Dependent (or 'subordinate') clauses cannot stand by themselves - e.g. "to eat breakfast", "because it was hot", or "when it rains". These clauses sound incomplete, or like something is 'missing', and so they *depend* on another clause to be understood.

A sentence consists of one or more clauses. When a sentence only has one clause - e.g. "I am hungry", "she reads a book", or "you speak Ngadju" - it is called a *simple* sentence. When a sentence contains more than one clause, it is called a *complex* sentence. There are two different processes that can be used to make a complex sentence. *Coordination* involves connecting two independent clauses together, while *subordination* involves connecting an independent and a dependent clause together. In a complex clause that involves coordination, two *independent* clauses are joined together, usually by a word like "and" or "but". For example, "I eat breakfast and you eat lunch" is a coordinate complex sentence because the two clauses "I eat breakfast" and "you eat lunch" are independent - they can stand by themselves. In a complex clause that involves subordination, however, one independent clause is linked to a subordinate, or *dependent*, clause. For example, "I read a book when it

rains” is a subordinate complex sentence because one clause, “when it rains”, cannot be used by itself, and ‘depends’ on the main clause, “I read a book”, to be understood.

This paper analyses *subordinate clauses* in Ngadju, which are a type of complex clause involving a main/independent clause used with a subordinate/dependent clause. In developing this analysis, primary data is used from von Brandenstein (1980) interlinearised by Troy Reynolds (personal communication, 2024). This paper draws on some of von Brandenstein and Reynolds’ existing analysis, but also suggest new ways of understanding sentence structure in Ngadju.

The structure of this paper is as follows. Section 2 provides further context on subordination in general, including an overview of subordination in Australian languages (2.1) and the ways a language might signal that a clause is subordinate (2.2). This is by no means a comprehensive introduction to subordination in Australian languages, but rather a general overview of the relevant background for Ngadju.¹ Section 3 provides an overview of subordination in Ngadju specifically, focusing on the form subordination takes in Ngadju (3.1) and the ways Ngadju grammar indicates that a clause is subordinate (3.2). Section 4 forms the bulk of this paper and provides an analysis of two pronouns in Ngadju - *kuni* and *pana* - which are involved in subordination. Section 4.1 distinguishes the meanings of these two pronouns, which have not been previously described in detail. Section 4.2 discusses the ways these pronouns are used, and the implications these uses have for Ngadju syntax. Finally, section 5 summarises the key findings here, and suggests areas for further research to help improve understanding of Ngadju. At the end of this paper, a postscript is included containing a learner’s guide for forming subordinate clauses in Ngadju. This is written with readers in mind who are less interested in technical linguistic analysis, and instead want a clear description of how to form complex clauses in Ngadju for the purposes of language teaching and revitalisation.

2. Background: What is subordination?

As described in section 1, ‘subordination’ is traditionally defined as a relationship between clauses in which one clause depends on another to be fully understood (Longacre, 2007; Lyons, 1968). This dependency can be established syntactically (in the sentence structure) by having one clause embedded inside another. In the English example in (1), for instance, the

¹ For a more comprehensive introduction to syntax, see Van Valin and LaPolla (1997). For subordination in general, see Cristofaro (2005). For discussion of subordination in Australian languages specifically, see Nordlinger (2023) and van Egmond (2023).

subordinate clause “who I usually see” is embedded inside the broader sentence “the doctor is on holiday”.

(1) *The doctor [who I usually see] is on holiday.*

Alternatively, subordination can be established semantically where the meaning of the subordinate clause only makes sense when combined with the main clause, regardless of whether the subordinate clause is ‘inside’ the larger clause or not. Often this is the result of adding morphemes (word endings) that indicate a particular kind of temporal or causative relationship between the clauses. In the Diyari example in (2), for instance, the second clause *jujkudu nandalha* “to kill a kangaroo” is shown to be subordinate, not because it is embedded inside the main clause, but rather because the ending *-lha* indicates that it is the cause of the main clause event. For this reason, it depends on the main clause to be understood, and is therefore subordinate without needing to be syntactically embedded.

(2) **Diyari** (South Australia) (Austin, 1981a, p. 318)

<i>karna</i>	<i>waparna</i>	<i>warrayi</i>	[<i>jujkudu</i>	<i>nandalha</i>]
<i>karna</i>	<i>wapa+rna</i>	<i>warrayi</i>	[<i>jujkudu</i>	<i>nanda+lha</i>]
man.ABS	go+PART	AUX	[kangaroo.ABS	kill+IMPL.SS]

“The man went to kill a kangaroo”.

Subordinate clauses are generally divided into three main types. Relative clauses are clauses which are used to help specify a noun (de Vries, 2018; Hendery, 2023). In (3a) below, the relative clause “who loves yodelling” tells us *which* professor is being discussed - i.e. not just any professor, but the professor “who loves yodelling”. Adverbial clauses are clauses which describe an entire sentence, rather than a single noun, usually to provide information about the time or cause of the main clause event (de Vries, 2018; Schmidtke-Bode and Diessel, forthcoming). In (3b) below, the adverbial clause “while he cooked dinner” tells us *when* they sang, giving us more information about the time when the singing happened. Finally, complement clauses are clauses which are required by a verb for the sentence to be complete (Longacre, 2007; Noonan, 1985). In (3c) below, the clause “what you said” is necessary for the sentence to be completed, as “I heard” feels incomplete otherwise. The clause “what you said” is therefore required by the verb, and as such this is a complement clause.

- (3) a. The professor [who loves yodelling] (relative)
 b. They sang [while he cooked dinner] (adverbial)
 c. I heard [what you said] (complement)

Now that these key terms have been defined, the general form of subordination in Australian languages more specifically will be discussed.

2.1 What do subordinate clauses look like in Australian languages specifically?

Subordination in Australian languages is unique compared to other languages around the world (van Egmond, 2023). Subordinate clauses in Australian languages tend not to be syntactically embedded, in contrast to Indo-European languages such as English in (1). Instead, they are often simply juxtaposed next to a main clause, making distinguishing subordination from coordination difficult (Cristofaro, 2005). The Gumbaynggirr sentence in (4), for instance, can be interpreted as having a relative clause “who were laughing”, or as simply two coordinated clauses “were laughing and sitting”. There is no morphological or syntactic feature that distinguishes these two constructions, so both of these English translations are possible.

(4) **Gumbaynggirr** (New South Wales) (Eades, 1979, p. 320)

<i>ni:gar</i>	<i>yarang</i>	<i>dulungming</i>	<i>ngayingging</i>	<i>wa:gaya</i>
<i>ni:gar</i>	<i>yarang</i>	<i>dulungming</i>	<i>ngayingging</i>	<i>wa:gaya</i>
men.SUBJ	DEM	laugh.PST	sit.PST	fire.LOC

“The men who were laughing were sitting around the fire”.

“The men were laughing and sitting around the fire”.

Unlike English, which has the three types of subordinate clause discussed above, many Australian languages combine these into a single generic subordinate clause (Nordlinger, 2023; van Egmond, 2023). This was historically called an ‘adjoined relative’ (Hale, 1976), however the present work uses the alternative ‘general modifying subordinate clause’ (GMSC), as used by Nordlinger (2006)². GMSCs are found across a wide range of Australian

² This is because the phrase ‘adjoined relative’ can sometimes be confusing, because even though it is called a ‘relative’ clause, it is not always actually a relative clause, as I discuss here.

languages (e.g. Hale, 1976; Evans, 2006; Harvey, 2002; Mushin, 2012; Dench, 1995; Austin, 1981a; etc.). GMSCs have two main features (Hale, 1976):

- i. The subordinate clause occurs at the edge of the sentence. It is never embedded inside the main clause.
- ii. Where possible, the subordinate clause can have both relative and adverbial interpretations.

This is seen in Warlpiri in (5) below. As can be seen, the subordinate clause *kutjalpa ngapa nganu* is located at the right edge of the sentence (feature (i) above), not next to the noun *yankiri* “emu”, as in English. The sentence can also have two possible interpretations (feature (ii) above) - as a relative clause which helps determine which emu is being speared (e.g. the one that was drinking water), or as an adverbial clause which helps determine when the spearing happened (e.g. while the emu was drinking water).

(5) **Warlpiri** (Northern Territory) (Hale 1976, p. 78)

<i>ngatjululu</i>	<i>na</i>	<i>yankiri</i>	<i>pantunu</i>	[<i>kutjalpa</i>	<i>ngapa nganu</i>]
<i>ngatjulu+lu</i>	<i>ø+na</i>	<i>yankiri</i>	<i>pantu+nu</i>	[<i>kutja+lpa</i>	<i>ngapa nga+nu</i>]
1SG+ERG	AUX	emu	spear+PST	[COMP+AUX	water drink+PST]

“I speared the emu which was drinking water” (Relative).

“I speared the emu while it was drinking water” (Adverbial).

While juxtaposition/GMSCs are the most common subordination structures seen in Australian languages, a few also exhibit true syntactic embedding, as in English. In the following example (6) from Mparntwe Arrernte, the relative clause *alye nhengerle mpwarekerle* “that made the boomerang” is embedded inside the larger sentence *artwe ampwe nhakwe re irryarterlke amirrerlke mpwarepareme* “the old man makes spears and womera as well”, as in the English translation:

(6) **Mparntwe Arrernte** (Northern Territory) (Wilkins, 1989, p. 418)

<i>artwe</i>	<i>ampwe</i>	<i>nhakwe</i>	[<i>alye</i>	<i>nhengerle</i>	<i>mpwarekerle</i>]
<i>artwe</i>	<i>ampwe</i>	<i>nhakwe</i>	[<i>alye</i>	<i>nhenge+rle</i>	<i>mpware+ke+rle</i>]
man	old	that.DIST	[boomerang	REMEMB(O)+REL	make+PC+REL]
<i>re</i>	<i>irryarterlke</i>	<i>amirrerlke</i>		<i>mpwarepareme</i>	
<i>re</i>	<i>irryarte+rle</i>	<i>amirre+rle</i>		<i>mpware+p+are+me</i>	
3SG.A	spear(O)+TOO	womera(O)+TOO		make+FREQ+RDP+NPP	

“The old man there that made the boomerang makes spears and womera as well’.

In summary, subordination in Australian languages is most commonly realised by juxtaposing the subordinate clause next to the main clause, often in the form of a general modifying subordinate clause (GMSC). This is seen in Gumbaynggirr and Warlpiri in (4) and (5) respectively. Less commonly, languages may also use true embedding, as in the Mparntwe Arrernte example in (6).

2.2 How is subordination indicated in Australian languages?

Languages across the world use many different mechanisms to indicate that a clause is subordinate. In English, one way this is done is by using *relative pronouns* to indicate that a subordinate clause is relative (helping figure out which noun is being discussed). This involves using a form of pronoun after the noun to indicate its role in the subordinate clause. In English, for instance, the various italicised relative pronouns in (7a-c) each signal a different grammatical role that the preceding noun plays in the subordinate clause. In (7a) and (7b) “the woman” and “many strategies” are the direct object in the subordinate clause (the thing the verb is done to, e.g. the person who “I know” and the strategies which “we can use”). Similarly in (7c), “the weekend” is the time phrase in the subordinate clause “when I don’t have to work”.

- (7) a. That’s the woman [*who* I know].
b. There are many strategies [*which* we can use].
c. I go to the park on the weekend [*when* I don’t have to work].

Relative pronouns are also used in some Australian languages, as in Djambarrpuyngu in (8) below. Like in (7a) and (7b), the pronoun *ɲunhi* in (8a) and (8b) is used to show that the preceding noun, in this case *guya* “fish” and *yolɲu* “person” respectively, is the subject of the following clause (*darrkthurr D.-nha* “bit D.” and *dhu yakurr ɲorra* “is sleeping” respectively). In (8c), *ɲunhi* is used to indicate that the subordinate clause *ɲayi ga nhakun mar’yuna* “s/he is prepared” describes the time frame of the main clause, much like “when” in (7c).

(8) **Djambarrpuyŋu** (Queensland) (Wilkinson 1991, pp. 657-658)

a.	<i>ŋuriki</i>	<i>ŋarra</i>	<i>djāl</i>	<i>guyaw</i>	[<i>ŋunhi</i>	<i>darrkthurr</i>	<i>D.-nha</i>]
	<i>ŋuriki</i>	<i>ŋarra</i>	<i>djāl</i>	<i>guya-w</i>	[<i>ŋunhi</i>	<i>darrkthu+rr</i>	<i>D.+nha</i>]
	TEXT-DAT	1SG	want	fish-DAT	[TEXT(SUBJ)	bite+3	D.+ACC]

“I want the fish that bit D.”.

b.	<i>wapwapthuna</i>	<i>nhanŋu</i>	<i>ŋurik</i>	<i>yolŋuw</i>	[<i>ŋunhi</i>	<i>dhu</i>
	<i>wap+wapthu+n+a</i>	<i>nhanŋu</i>	<i>ŋurik</i>	<i>yolŋu+w</i>	[<i>ŋunhi</i>	<i>dhu</i>
	jump+REDUP+1+SEQ	3SG.DAT	TEXT.DAT	person+DAT	[TEXT(SUBJ)	FUT

yankurr *ŋorra*]

yakurr *ŋorra*]

sleep lie.1]

“(The children) are jumping about the person who is sleeping”.

c.	[<i>ŋunhi</i>	<i>ŋayi</i>	<i>ga</i>	<i>nhakun</i>	<i>mar’yuna</i>]	<i>ŋayi</i>	<i>dhu</i>
	[<i>ŋunhi</i>	<i>ŋayi</i>	<i>ga</i>	<i>nhakun</i>	<i>mar’yu+n+a</i>]	<i>ŋayi</i>	<i>dhu</i>
	[TEXT(SUBJ)	3SG	IPFV.1	like	be.ready+1+SEQ]	3SG	FUT

lakaraman *wo* *dharpuman*

lakara+ma+n *wo* *dharpu+ma+n*

tell+1+SEQ or spear+1+SEQ

“When s/he is prepared, s/he will speak or spear”.

Many Australian languages also use morphology (word endings) to indicate that a clause is subordinate. In the Martuthunira example in (9) below, the ending *-lu* on the verb *nhawu* “see” indicates that this is a subordinate clause, and that the subordinate clause is the purpose or reason for the main clause action. The *-lu* also indicates that the subject (the person or thing doing the action in the main clause) is the same as the subordinate clause. This kind of morphology is known as switch-reference, and is found in many Australian languages (Austin, 1981b).

(9) **Martuthunira** (Western Australia) (Dench, 1995, p. 252)

<i>kayarra</i>	<i>kanarrilha</i>	[<i>nganaju</i>	<i>nhawulu</i>]
<i>kayarra</i>	<i>kanarri+lha</i>	[<i>nganaju</i>	<i>nhawu+lu</i>]
two	come+PST	[1SG.ACC	see+PURP.SS]

“Two people came to see me”.

Finally, it is important to note that some Australian languages do not use relative pronouns or morphology (word endings) to indicate that a clause is subordinate. This is often the case in languages which simply juxtapose subordinate clauses next to main clauses, such as Gumbaynggirr in (4).

Having discussed what subordination looks like in Australian languages more generally, including how subordination might be signalled, subordination in Ngadju more specifically will now be discussed.

3. Subordination in Ngadju

3.1 What subordination strategies does Ngadju use?

As discussed in section 2.1, subordination in Australian languages is most commonly realised as a juxtaposed general modifying subordinate clause (GMSC) structure, as for Gumbaynggirr and Warlpiri in examples (4) and (5). Subordinate clauses in Ngadju follow this pattern. (10) below offers a clear example of an adjoined/juxtaposed subordinate clause position. Here the subordinate clause *kuninya ngajungarri ngarlkukarran* “which we were eating” is located at the edge of the sentence, not next to the underlined noun *manjali* “food”, which the clause is describing. Unlike English, the subordinate clause here is not embedded, and is instead juxtaposed/adjoined.

(10) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 36)

<i>manjali</i>	<i>all</i>	<i>warrapurngayinya</i>	[<i>kuninya</i>	<i>ngajungarri</i>	<i>ngarlkukarran</i>]
<u><i>manjali</i></u>	<i>all</i>	<i>warrapur+ngayi+nya</i>	[<i>kuni+nya</i>	<i>ngaju+ngarri</i>	<i>ngarlku+karran</i>]
<u>plant.food</u>	<i>all</i>	<i>tree.sp.+PL+ABS</i>	[<i>DEM+ABS</i>	<i>1+PL</i>	<i>eat+PL.IPFV</i>]

“All the plant-based food which we were eating was berries”.³

This kind of juxtaposition means that subordinate clauses are often difficult to distinguish from coordinated clauses in Ngadju, much like Gumbaynggirr in (4). In (11) below, the clause *nyinalpan nangukarran* “(they were) sitting and looking around” can be interpreted as an adverbial subordinate clause, describing when the main clause happened (e.g. when “I was just watching them”), or as a coordinated clause (e.g. “I was just watching them watchfully and they were sitting and looking around”).

(11) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 5)

<i>ngaju</i>	<i>pala</i>	<i>nyinanangukin</i>	<i>wartuwartu</i>	<i>matali</i>
<i>ngaju</i>	<i>pala</i>	<i>nyina+nangu+kin</i>	<i>wartu+wartu</i>	<i>matali</i>
1SG.SUBJ	not.yet	sit+see+SG.IPFV	eye+REDUP	3PL.ABS

³ It is also possible to translate this sentence as “all the plant-based food was berries, which we were eating” - both translations are only possible because Ngadju exhibits an adjoined subordinate clause construction, where the noun which the subordinate clause describes does not need to be next to the subordinate clause.

[<i>nyinalpan</i>	<i>nangukarran</i>]
[<i>nyina+lpan</i>	<i>nangu+karran</i>]
[sit+PL.IPFV	see+PL.IPFV]

“I was just watching them watchfully while they were sitting and looking around”.

“I was just watching them watchfully and they were sitting and looking around”.

In the data used for this paper, no clear examples of the semantic multifunctionality of the general modifying subordinate clause (GMSC) could be found (e.g. where the subordinate clause can be translated as a relative or an adverbial clause in Ngadju, as in the Warlpiri example in (5)). It is strongly suspected that Ngadju does exhibit a GMSC construction, especially given that it does not otherwise exhibit extensive means of encoding distinct adverbial or relative functions, e.g. through sentence structure (as for English in (3)) or morphology (as for Diyari in (2)).⁴ Indeed, it is possible that (11) above exhibits this multifunctionality - for instance, this could be translated as “I was just watching them watchfully while they were sitting and looking around” (adverbial) or “I was just watchfully watching those ones who were sitting and looking around” (relative). Given that it is unclear whether (11) is an instance of subordination or coordination for the reasons described above, however, it cannot be claimed with certainty that semantic multifunctionality is possible.⁵ Nevertheless, subordinate clauses in Ngadju are most often adjoined/juxtaposed, not embedded, as is the case in the vast majority of Australian languages.

There is some evidence that true embedding (as for English in (1) or Mparntwe Arrernte in (6)) occurs in particular contexts involving the pronouns *kuni/pana* in Ngadju. This will be discussed in more detail in section 4.2.

3.2 How does Ngadju signal subordination?

Von Brandenstein (1980), who oversaw the first major documentation of Ngadju, identified two main strategies that Ngadju uses to signal that a clause is subordinate. Firstly, he

⁴ Ngadju does have an adverbial clause suffix *-nta* (see section 3.2), but this is only used in particular circumstances and not for all adverbial clauses.

⁵ To determine this with certainty, a Ngadju sentence would need to be found which is definitively subordinated (i.e. possibly by using a relative pronoun *kuni/pana*, see section 4) and where the two clauses involve the same arguments and the same time frame. Note that having a GMSC does not mean that *all* subordinate clauses can be semantically relative *and* adverbial - this is only the case where they can logically be interpreted as such, e.g. by sharing arguments (for a relative interpretation) or by sharing a time frame (for an adverbial interpretation). All sentences containing *kuni/pana* that I identified in T. Reynolds (personal communication, 2024) either could not be instances of subordination (see section 4), or did not share present tense, and therefore could not be interpreted as adverbial clauses.

describes two relative pronouns in Ngadju - *kuni/kuna* and *puni/puna* - which function similarly to relative pronouns in English and Djambarrpuyngu in (7) and (8) above. These pronouns are discussed in more detail in section 4. Secondly, he describes “participial constructions” (1980, p. 29) in which one of three endings is used on a verb to indicate that a clause is subordinate, and to indicate the relationship between the subject of the main clause and the subordinate clause (e.g. if the person/thing doing the action in the main clause is the same as or different to the person/thing doing the action in the subordinate clause). Von Brandenstein presents these suffixes as a combination of a participle suffix *-n* and the case markers *-ku*, *-ta*, and *-ja*.⁶ More recent analysis suggests that these are in fact three non-compositional affixes: *-nku*, *-nta*, and *-nja* (T. Reynolds, personal communication, 2024). From von Brandenstein’s description, this sounds like a system of switch-reference, as in Martuthunira in (9).

Recent analysis of these word endings in Ngadju suggests a slightly different analysis (T. Reynolds, personal communication, 2024). Rather than indicating whether the subject (person/thing doing the action) in the main clause is the same as or different to the subordinate clause, it seems like these endings indicate that the subordinate clause action is prior to, or a cause of, the main clause action. This is similar to the Diyari example in (2). For example, in (12) below, the suffix *-nta* signals that the subordinate clause *jujupanya nyinanta purlpa yaanjan* “I have no dogs and no rifle” is the cause of the main clause *ngaju too purta mantarlpungu munta* “I am really tired too”. The ending *-nta* adds the “because” meaning to the subordinate clause. As a result, the meaning of this clause becomes dependent on the main clause. *-nta* therefore signals subordination in Ngadju, as well as establishing a causal/prior meaning.

(12) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 38)

<i>ngaju</i>	<i>too</i>	<i>purta</i>	<i>mantarlpungu</i>	<i>munta</i>	[<i>jujupanya</i>	<i>nyinanta</i>
<i>ngaju</i>	<i>too</i>	<i>purta</i>	<i>mantarl+pu+ngu</i>	<i>munta</i>	[<i>juju+panya</i>	<i>nyina+nta</i>
1SG.SUBJ	too	later	tired+VERB+PFV	INTNS	[dog+PRIV	sit+CAUSE

<i>purlpa</i>	<i>yaanjan</i>
<i>purlpa</i>	<i>yaanjan</i>
rifle	nothing]

“I am really tired too, because I have no dogs and no rifle”.

⁶ I could not find examples of *-nku* and *-nja*.

Ngadju therefore makes use of morphology (word endings) to indicate subordination, but only in one context - for the ending *-nta* to indicate cause or prior action. The next section discusses the pronouns *kuni* and *pana* as the main focus of this paper, and as an area which provides interesting insights into the grammar of Ngadju.

4. The Ngadju pronouns *kuni* and *pana*

4.1 Distinguishing the meanings of *kuni* and *pana*

Von Brandenstein (1980) describes two pronouns as “relative” in Ngadju - *kuni* and *pana*.⁷ He provides little detail regarding their explicit function, although describes *kuni* as a “genuine relative pronoun [which] introduces relative sentences exactly as does Latin *qui/quae/quod*” (von Brandenstein, 1980, p. 31). Indo-European style relative pronouns are rare in Australia (Hendery, 2023), something which von Brandenstein himself notes (1980, p. 31). Subordination in Ngadju would therefore be particularly interesting from a typological perspective if *kuni/pana* are indeed true relative pronouns. For this reason, the exact function of *kuni/pana* warrants closer analysis.

Kuni and *pana* appear to function similarly in Ngadju, with a possible difference in distribution according to temporal placement. *Pana* appears to be used more regularly where the sentence involves an intended future outcome, or some kind of irrealis mood (e.g. a hypothetical situation).⁸ *Kuni* appears to be used in all other contexts. For this reason, *pana* is much more restricted in its occurrence than *kuni*. Clear examples of the distribution of *pana* and *kuni* are given below. (13) and (14) both involve future actions or intentions, indicated by the adverbial *purta* “later; soon”, and therefore use *pana*. (15) and (16) both take place in the past, and therefore use *kuni*.

(13) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 39)

<i>purta</i>	<i>anytime</i>	<i>ngaju</i>	<i>panarti</i>	<i>muji</i>	<i>yankun</i>	<i>ngartaka</i>
<i>purta</i>	<i>anytime</i>	<i>ngaju</i>	<i>pana+rti</i>	<i>muji</i>	<i>yanku+n</i>	<i>ngarta+ka</i>
later	anytime	1SG.SUBJ	DEM.IRR+ALL	away	go+PFV	tree+LOC

⁷ These two pronouns have the phonological variants *kuna* and *pani* respectively which are less commonly occurring. Throughout this paper these pronouns are referred to as *kuni* and *pana* respectively.

⁸ This pattern is not without exceptions - e.g. *kuni* is used in sentences with future intention/irrealis mood in T. Reynolds (personal communication, 2024, p. 43, ex. 40; p. 52, ex. 74, 76). The majority of sentences examined in this paper conformed to the pattern outlined above, however. Further research will undoubtedly help clarify the semantic differences in these pronouns further.

ngawurrkin
ngawurr+kin
 look.for+SG.IPFV

“Any time later I will go looking for them over there among the trees”.

- (14) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 44)

<i>yayi</i>	<i>kumpa</i>	<i>ngaju</i>	<i>junu</i>	<i>ngaju</i>	<i>purta</i>	<i>wamurti</i>
<i>yayi</i>	<i>kumpa</i>	<i>ngaju</i>	<i>junu</i>	<i>ngaju</i>	<i>purta</i>	<i>wamu+rti</i>
now	adjacent.time	1SG.SUBJ	talk	1SG.SUBJ	soon	camp+ALL
<i>kaning</i>	<i>panarti</i>	<i>yapurru</i>	<i>mijalk</i>			
<i>kani+ng</i>	<i>pana+rti</i>	<i>yapurru</i>	<i>mijal+k</i>			
go+PFV	DEM.IRR+ALL	down	water+LOC			

“Now, like I said before, I will soon go to the camp, to that one down by the sea”.

- (15) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 36)

<i>manjali</i>	<i>all</i>	<i>warrapurngayinyu</i>	<i>kuninya</i>	<i>ngajungarri</i>	<i>ngarlkukarran</i>
<i>manjali</i>	<i>all</i>	<i>warrapur+ngayi+nyu</i>	<i>kuni+nya</i>	<i>ngaju+ngarri</i>	<i>ngarlku+karran</i>
plant.food	all	tree.sp.+PL+ABS	DEM+ABS	1+PL	eat+PL.IPFV

“All the plant-based food was berries, those ones we were eating”.

- (16) **Ngadju** (Western Australia) (von Brandenstein 1980, p. 32)

<i>nyakinya</i>	<i>matayi</i>	<i>kuninya</i>	<i>kaka</i>	<i>yuulu</i>	<i>yankun</i>	<i>parunu</i>
<i>nyaki+nya</i>	<i>matayi</i>]	<i>kuni+nya</i>	<i>kaka</i>	<i>yuulu</i>	<i>yanku+n</i>	<i>parunu</i>
this+ABS	3SG.SUBJ]	DEM+ABS	yesterday	here	go+PFV	again
<i>yayi</i>	<i>yankunkin</i>					
<i>yayi</i>	<i>yanku+n+kin</i>					
now	go+CONT+SG.IPFV					

“This is him, the one who came here yesterday, and now keeps coming again”.

There is one sentence in the data in which both *kuni* and *pana* are found, given in (17) below.⁹ In (17), *kuni* can be interpreted as reaffirming reference with respect to *nanjarr yapurru Wanantarrala* “(their) meat (is) down in Wanantarra”. Von Brandenstein (1980, p. 21) notes that the absolutive *-nya* is often used as a kind of focus marker, reaffirming the importance of a particular person or thing in the text. This is likely the function of *kuni* in

⁹ In (17), this paper follows von Brandenstein (1980; p. 32) in assuming that *kuninyala* is haplological - that is, it is underlyingly *kuninya kunila*, with the second *kuni* elided to avoid repetition of syllables. There are no other examples of double marking on *kuni* to test this hypothesis, but analysing (12) as two demonstrative pronouns “those ones down in that place” more naturally matches the translation than a single combined pronoun, perhaps with the meaning of “in that one” (e.g. in the penguin).

(12), largely because the subsequent *paninya* is redundant unless *kuninyala* is interpreted as indicating focus. The second half of (12) is thus translated as “(as for) those ones down in that place, I’ll eat them”. *Kuni* is therefore used to establish reference independent of future intention in “(as for) those ones down in that place”, while *pani* is then used given the future intent of “I’ll eat them”, conveyed through the future particle *jula*.

(17) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 20)

[<i>ngaju</i>	<i>wanna naku</i>	<i>all</i>	<i>julayangarrnya</i>	[<i>nanjarr</i>	<i>yapurru</i>
[<i>ngaju</i>	<i>wanna naku</i> ¹⁰	<i>all</i>	<i>julaya+ngarr+nya</i>	[<i>nanjarr</i>	<i>yapurru</i>
[1SG.SUBJ	wanna visit	all	penguin+PL+ABS]	[meat.ABS	down
<i>Wanantarrala</i>]	[<i>kuninyala</i>		<i>jula</i>	<i>ngarlkun</i>	<i>yapurru</i>
<i>Wanantarra+la</i>]	[<i>kuni+nya</i>	<i>(kuni)+la</i>	<i>jula</i>	<i>ngarlku+n</i>	<i>yapurru</i>
<i>Wanantarra+LOC</i>]	[<i>DEM+ABS</i>	<i>(DEM)+LOC</i>	FUT	eat+PFV	down
	<i>paninya</i>]				
	<i>pani+nya</i>]				
	<i>DEM.IRR+ABS</i>]				

“I wanna visit all the penguins, (their) meat (is) down in Wanantarra, (as for) those ones down in that place, I’ll eat them”.

Pana has clear cognates with related Pama-Nyungan languages in the Goldfields area, including Pitjantjatjara *panya* (Goddard 2020) and Mirniny *pala* (J. Coffin, personal communication, 2024). Pitjantjatjara *panya* means “that (one that we were talking about)”, referring to something previously known from the discourse and without a deictic meaning. It seems likely that Pitjantjatjara *panya* and Ngadju *pana* are related, especially given that Ngadju *pana/kuni* seem to be used with the meaning of “that” in relation to a previously mentioned person or thing in the text, not a particular deictic relation (e.g. “that one over there”). Mirniny *pala* seems to have a similar function (J. Coffin, personal communication, 2024). The specific ‘future intention’ or hypothetical/irrealis meaning of Ngadju *pana* seems to be unique to this language, as is the demonstrative *kuni*.¹¹ It is possible that this distinction in temporal use resulted from the semantic narrowing of *pana* given the coexistence of the similar demonstrative *kuni* in Ngadju, but this requires further comparative work to establish for certain.

¹⁰ This is one of few instances of a verb without aspect marking. It is possible that this is an example of a non-finite subordinate clause, which frequently occur after modal verbs (e.g. “I want to X” in English). This a further area of Ngadju grammar which would benefit from investigation.

¹¹ *Kuni* is possibly related to demonstratives in the Ngumpin languages to the north of the Goldfields, e.g. Warlpiri *kuja* (McConvell, 2006), but this is a tenuous link.

4.2 Kuni/pana as relative and demonstrative pronouns

Analysis of the Ngadju data seems to suggest that *kuni/pana* function not only as true relative pronouns, as von Brandenstein (1980) suggests, but also as demonstrative pronouns meaning “that one”, as in neighbouring Pitjantjatjara *panya* and Mirniny *pala*. It is likely that Ngadju *kuni/pana* functioned exclusively as demonstrative pronouns at an earlier stage of the language, and that these pronouns came to have a relative function in particular contexts. This is a common grammaticalization pathway cross-linguistically (Heine and Kuteva, 2002; Roberts and Roussou, 2003; Diessel, 2000), as attested in the emergence of English relative pronoun “that” (e.g. “the book that I read”) and in relative pronouns in other Australian languages, e.g. in the Ngumpin-Yapa subfamily north of the Goldfields (McConvell, 2006) and in various Yolngu varieties (Wilkinson, 1991; Morphy, 1983). Furthermore, relative pronouns in Australia often evolve from ‘recognitional’ demonstratives, which refer back to a previously mentioned referent, rather than spatial demonstratives, which describe distances (McConvell, 2006). Given that Pitjantjatjara *panya* and Mirniny *pala* have this ‘recognitional’ function (e.g. “you know the one” for Pitjantjatjara *panya*), it is likely that Ngadju *pana* also has a ‘recognitional’ function which then developed into a relative pronoun in certain contexts, as will be argued below.

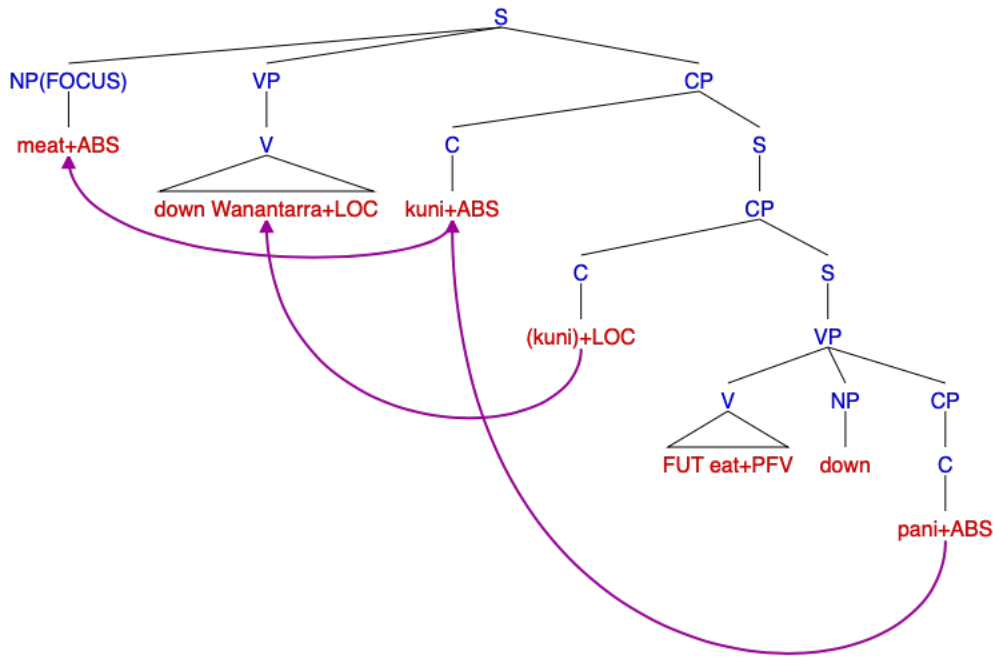
Firstly, there are particular examples of the use of *kuni/pana* which cannot easily be interpreted as having a relative function, but where a ‘recognitional’ demonstrative function is more likely. The use of *kuni* in (17) above strongly suggests a recognitional interpretation, calling attention to “the penguin” and “Wanantarra” as “that one” and “that place” where the subsequent action takes place. The fact that two relative pronouns *kuninya* and *(kuni)+la* are sequential would require a particularly complex relative interpretation, as suggested by the hypothetical syntactic analysis in (18) below.¹² Such a tree would result in an interpretation along the lines of “(their) meat_i (is) down in Wanantarra_j, which_i in where_j I eat which_i”.

¹² This syntax tree should by no means be taken as a definitive analysis of Ngadju syntax - this is meant purely for illustrative purposes to highlight the difficulty in interpreting *kuni/pana* in (17) as relative. This analysis is highly unconventional and does not align with generally accepted understandings of phrase structure. The fact that interpreting *kuni/pana* as relative pronouns results in a highly unconventional and complex analysis is exactly my point here - this as evidence that *kuni/pana* are not relative pronouns in this instance.

Note that this paper assumes a basic phrase structure for Ngadju in line with Nordlinger’s (1998) analysis for Wambaya and Austin and Bresnan’s (1996) analysis for Warlpiri on the basis that these languages share flexible syntax and what appears to be a sentence-initial focus position. For this reason this paper assumes an initial NP(FOCUS) position which is the focussed element in the sentence. This is of course an area which requires further investigation.

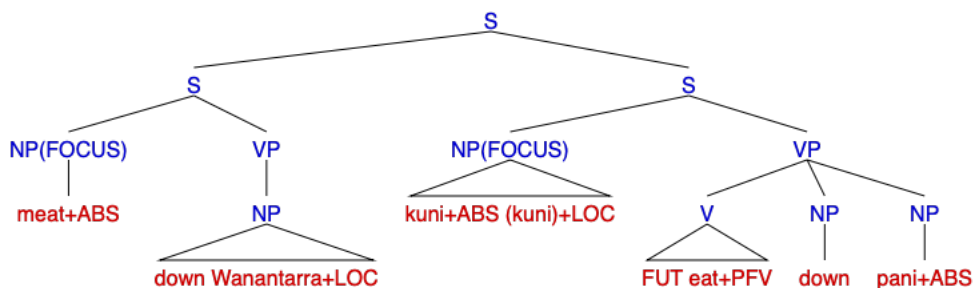
Note that this paper also models the zero-copula predicate in *nanjarr yapuru Wanantarrala* (literally. “meat down Wanantarra+LOC”) as a verb phrase with an empty verbal element. This is mostly to allow for a clearer illustration of coordination in (19) and could be reanalysed under a more detailed account of Ngadju phrase structure.

- (18) Hypothetical syntax tree for the second half of (17) assuming analysis of *kuni/pani* as relative pronouns.



This analysis is less than ideal for a number of reasons which will be discussed below. Firstly, however, let us compare (18) with an alternative analysis - namely that *kuni* and *pani* are here recognitional demonstratives meaning “that one”. A hypothetical tree for this interpretation is given in (19) below, with the translation given in (17) above: “(their) meat_i (is) down in Wanantarra_j, (as for) those ones_i down in that place_j, I’ll eat them_i”.

- (19) Hypothetical syntax tree for the second half of (17) assuming analysis of *kuni/pani* as recognitional demonstrative pronouns.



This analysis is much simpler, suggesting that instead of true relative clauses (which are rare in Australian languages), this sentence exhibits juxtaposed coordination with demonstrative pronouns to clarify reference, both of which are common in Australian languages (van Egmond, 2023; Cristofaro, 2005; McConvell, 2006). This analysis also allows us to more readily account for the use of *kuni* and *pana* as distinct pronominal forms in (17),

as it permits the analysis given in 4.1, where *kuni* can be used to establish the focused referent and *pani* as part of the future intention in the main verb phrase. This is not as easy to account for in the analysis in (18), where *pani-nya* and *kuni-nya* must be interpreted as coreferential.

There is further strong evidence that *kuni/pana* do not always function as relative pronouns. (20) below similarly exhibits sequential *kuni* pronouns, and can be better understood as having a demonstrative rather than relative function for the same reasons as (17) above.

(20) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 20)

[<i>wanti</i>	<i>kaja</i>	<i>karra</i>	<i>junukin</i>	<i>nurrutan</i>]	[<i>matayi</i>	<i>ngarnka</i>
[<i>wanti</i>	<i>kaja</i>	<i>karra</i>	<i>junu+kin</i>	<i>nurrutan</i>]	[<i>matayi</i>	<i>ngarnka</i>
[boy.ABS	small	long.time	talk+SG.IPFV]	[3SG.S(A)	large.rock
<i>ngalpa</i>]	[<i>kuninya</i>		<i>ngaju</i>	<i>nangukin</i>]		
<i>ngalpa</i>]	[<i>kuni+ny</i>	(<i>kuni</i>)+ <i>la</i>	<i>ngaju</i>	<i>nangu+kin</i>]		
big]	[DEM+ABS	(DEM)+LOC	1SG.SUBJ	see+SG.IPFV]		

“I’m talking about a little boy long ago, he (was) on a big cliff, (as for) that one in that place, I was watching him” (demonstrative interpretation).

#“I’m talking about a little boy long ago, he (was) on a big cliff, who at which I saw” (relative interpretation).

Finally, (22) below provides strong evidence that *kuni* can function as a recognitional determiner because there are no main clause arguments which it could be understood to be coreferential with. This example comes from a conversation between two speakers. In (22), the speaker uses *kuninya* to possibly refer to *ngantanya* “man”¹³ in the previous speaker’s sentence (21). Several clauses separate this pronoun from its possible antecedent, meaning its use as a relative pronoun is improbable. In the context of a conversation, however, its use as a recognitional pronoun meaning “that one (who we were talking about)” is particularly plausible, especially given the existence of pronouns with similar functions in neighbouring languages, e.g. Pitjantjatjara *panya*.

¹³ Note it is also possible that *kuninya* is referring to an even earlier discourse referent, in this case *ngaata* “European” in T. Reynolds (personal communication, 2024, p. 31, ex. 33). In this case it becomes even more likely that *kuninya* is being used as a demonstrative, not a relative pronoun.

(21) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 31)¹⁴

[<i>nanjarr nyinangarkukin</i>]	[<i>ngantanya purta ngapuru put em</i>]
[<i>nanjarr nyina+ngarku+kin</i>]	[<i>nganta+nya purta ngapuru put em</i>]
[meat.ABS sit+eat+SG.IPFV]	[man+ABS later salt.ABS put em]
<i>nanjarrrta</i>	[<i>kuninya nyinan ngiyujakin</i>]
<i>nanjarrr+ta</i>	[<i>kuni+nya nyina+n ngiyuja+kin</i>]
meat+LOC]	[DEM+ABS eat+PFV sit+SG.IPFV]

“It was sitting and eating meat, then, (as for that) **man_i**, (he) put salt on the meat which we sit and eat”.

(22) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 31)

[<i>yalunya kuntalyjan</i>]	[<i>wamurti parranu wijanu</i>]
[<i>yalunya kuntaly+ja+n</i>]	[<i>wamu+rti parranu wija+nu</i>]
[good juicy+CAUS+PFV]	[camp+ALL again move.quickly+PFV]
kuninya <i>purtayi</i>]	
kuni+nya <i>purtayi</i>]	
DEM+ABS later]	

“(it) becomes good and juicy. Then **that one_i** moves quickly to the camp again”.

A similar example can be given for *pana* in (13), repeated as (23) below, where there are no main clause arguments which could be interpreted as a head of a relative clause. Instead, *panarti* can be understood as meaning “over there”, referring to some place previously mentioned in the discourse or obvious from context.

(23) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 39)

<i>purta anytime ngaju panarti muji yankun ngartaka</i>
<i>purta anytime ngaju pana+rti muji yanku+n ngarta+ka</i>
later anytime 1SG.SUBJ DEM.IRR+ALL away go+PFV tree+LOC
<i>ngawurrkin</i>
<i>ngawurr+kin</i>
look.for+SG.IPFV

“Any time later I will go looking for (them) over there among the trees”.

It seems clear from these examples that *kuni/pana* must at least sometimes function as demonstrative pronouns. Von Brandenstein (1980) gives a number of examples, however,

¹⁴ Note that *kuninya* in (21) appears to function as a relative pronoun, which will be discussed in more detail below. *Kuninya* in (22) cannot be a relative pronoun.

which appear to resemble typical relative clause constructions familiar from languages such as English, as in (24):

(24) **Ngadju** (Western Australia) (T. Reynolds, personal communication, 2024, p. 8)

<i>juwi</i>	[<i>kuniny</i>	<i>ngarlkuwarran</i>]	<i>kamparti</i>	<i>pilimi jungku</i>
<i>juwi</i>	[<i>kuni+ny</i>	<i>ngarlku+warran</i>]	<i>kamparti</i>	<i>pilimi jungku</i>
meat.ABS	[DEM +ABS	eat+PL.IPFV]	stomach	fill.me mouth

“That meat that we are eating filled up our stomach and mouths”.

(24) is unusual in that it appears to be an example of true embedding, which is comparatively rare in Australian languages (van Egmond, 2023; Hale, 1976). It is still possible to interpret *kuni* in this sentence as a recognitional determiner, however, for instance by translating (24) as “(as for) the meat, that one we are eating, (it) filled up (our) stomach and mouths”. To ascertain with certainty whether this is truly an instance of subordination (and therefore that *kuni* is a true relative pronoun) or an instance of juxtaposed coordination (and therefore that *kuni* is more likely a recognitional demonstrative), constituency tests and specific elicitation with Ngadju speakers would be needed. In the absence of such data, it can safely be said that it is ambiguous whether *kuni* functions as a true relative or demonstrative pronoun. Von Brandenstein’s hypothesis that this is a relative pronoun is therefore plausible, at least in certain cases.

It is clear from (20-23), however, that *kuni/pana* cannot always function as true relative pronouns. From the examples where a relative interpretation is possible (e.g. (24), but also (15), (16), (21), etc.), it can be generalised that a relative interpretation is only possible where the relative pronoun occurs in a particular syntactic configuration - namely ‘Pro ... V’¹⁵. It is *only* when *kuni/pana* is used in this particular syntactic configuration that an interpretation as a relative pronoun is possible. This is perhaps unsurprising given the similarity between this structure and relative clause structures in other languages with relative pronouns, e.g. English. For example, the translations in Table 1 below can be used to compare possible interpretations of the Ngadju sentences used so far in this paper. Bolded pronoun clause phrase orders do not follow the ‘Pro ... V’ pattern required for a relative interpretation to be possible.

¹⁵ Note that it is not a requirement that the subordinate clause immediately follow the noun which it is describing to have a relative function, unlike English. This is because subordinate clauses in Ngadju are adjoined/juxtaposed (see section 3). (10) is a clear example of where a relative interpretation is possible without needing the subordinate clause to be adjacent to the noun antecedent.

Subordination in Ngadju: A Preliminary Analysis

Ex:	Pronoun clause phrase order:	Demonstrative interpretation	True relative interpretation
13/23	N Pro ... V	<i>Any time later I will go looking for them over there among the trees.</i>	n/a
14	Pro N ¹⁶	<i>I will soon go to the camp, to that one down by the sea.</i>	<i>I will soon go to the camp which (is) down by the sea.</i>
15	Pro ... V	<i>All the plant-based food was berries, we were eating those ones.</i>	<i>All the plant-based food was berries which we were eating.</i>
16	Pro ... V	<i>This is him, the one who came here yesterday, and now keeps coming again</i>	<i>This is him, who came here yesterday, and now keeps coming again.</i>
17	Pro Pro ... Pro	<i>... (their) meat (is) down in Wanantarra, (as for) those ones down in that place, I'll eat them.</i>	n/a.
20	Pro Pro ... V	<i>... (as for) that one in that place, I was watching him.</i>	n/a.
21	Pro V	<i>... he put salt on the meat, we sit and eat that one.</i>	<i>... he put salt on the meat which we sit and eat.</i>
22	N Adv V Pro V	<i>Then that one moves quickly to the camp again</i>	n/a.
24	Pro V	<i>That meat, the one we are eating, (it) filled up our stomach and mouths.</i>	<i>That meat which we are eating filled up our stomach and mouths.</i>

Table 1: Comparing possible translations interpreting kuni/pana as true relative pronouns or recognitional determiners mapped to the phrase order of the phrase containing the pronoun.

Based on the data here, it seems that Ngadju exhibits two recognitional demonstratives, *kuni* and *pana*, which have either a) developed into true relatives in particular syntactic

¹⁶ Ngadju has zero copula in locational predicates, so no verb is necessary in this clause.

contexts, namely ‘Pro ... V’, or b) can coincidentally be translated as relative pronouns in English where they occur in contexts that resemble relative clauses in English. Determining which of these two possibilities is true in Ngadju requires ascertaining whether using *kuni/pana* as a relative pronoun leads to true subordination, which is difficult to determine without direct elicitation. More generally, however, it can be concluded that subordination in Ngadju more closely resembles subordination in other Australian languages than von Brandenstein’s initial analysis may otherwise suggest.

5. Conclusion

This paper provided an initial investigation into subordinate clauses in Ngadju. Ngadju is typical of many Australian languages in that it exhibits a juxtaposed/adjoined general modifying subordinate clause (GMSC), in which subordinate clauses are located at the edge of a main clause (not embedded inside it, as in English) and may have both relative and adverbial interpretations. Ngadju has three main subordination constructions which were discussed in this paper. Firstly, complex sentences can be formed by juxtaposing clauses together, leading to constructions which are difficult to precisely label as ‘coordination’ or ‘subordination’. Secondly, verbs can take the suffix *-nta* to form a subordinate adverbial clause describing an action which is prior to, or a cause of, the main clause action. Finally, subordinate clauses may sometimes be formed using the pronouns *kuni* or *pana*. These pronouns are identical, differing only in use according to temporal placement, with *pana* being generally associated with sentences involving future intention or a hypothetical situation, and *kuni* being used in all other cases. It is clear that *kuni/pana* sometimes function as regular ‘recognitional’ determiners with the meaning of “that one (that we were talking about)”. Similar pronouns are known from related languages in the Goldfields, including Pitjantjatjara and Mirniny. In some cases, however, Ngadju *kuni/pana* can be interpreted as a relative pronoun. This may result in true syntactic embedding, as in English, but it is also possible that such cases only coincidentally result in translations as relative clauses in English, and that they are underlyingly cases of juxtaposed coordination. At any rate, this paper has developed a clearer picture of subordination in Ngadju. It shows that subordination in Ngadju is fairly typical for Australian languages, in contrast to von Brandenstein’s initial description of the language.

While this paper has provided an initial analysis of subordination in Ngadju, many aspects of this language’s syntax remain unexplored. In particular, it would be beneficial to

develop a better understanding of coordination and complement clauses in Ngadju, both of which have not been discussed in detail here. This paper has also not investigated possible instances of non-finite subordinate clauses, as in (17), which may be a specific form of complement clause. Beyond syntax, this paper also shed light on the semantic differences between *kuni* and *pana* and on the importance of focus to both syntax and case marking (in the form of the absolutive *-nya*) in Ngadju. This last topic in particular is something which would be very beneficial to research, as it appears to be fundamental to many aspects of Ngadju grammar. Undoubtedly further research on all aspects of syntax and morphology in Ngadju will contribute to understanding this language, and to future work in education and language revitalisation.

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Postscript: Learner's guide to subordination in Ngadju

How to use this learner's guide:

This section describes how to form subordinate clauses in Ngadju. This learner's guide is based on the analysis presented earlier in this paper. Unlike the main paper, which is technical and argues *how* we know how subordination works in Ngadju, this learner's guide simply provides an overview of how subordination works. It is not an exhaustive guide to everything in Ngadju grammar, but focuses only on subordination. It should be used with other resources on Ngadju to help learn the language.

If you're interested in seeing how we know subordination works in this way, the numbers in square brackets next to section titles correspond to sections in the main paper that provide more information.

What is subordination?

1; 2

First things first, let's unpack a few key terms:

- Sentences consist of one or more *clauses*.
- A *clause* is basically a string of words containing exactly one verb, for example:
 - "I am hungry".
 - "She reads a book".
 - "You speak Ngadju".
 - "To eat breakfast".
 - "Because it was hot".
 - "When it rains".
- Clauses can be *independent* or *dependent*:
 - *Independent* (or *main*) clauses can stand by themselves as whole sentences:
 - "I am hungry".
 - "She reads a book".
 - "You speak Ngadju".
 - *Dependent* (or *subordinate*) clauses cannot stand by themselves as whole sentences, they need to be combined with another sentence to make sense. The following clauses feel 'incomplete' or confusing on their own, so they must be dependent/subordinate clauses:
 - "To eat breakfast".
 - "Because it was hot".
 - "When it rains".
- When a sentence has just one clause, it is called a *simple* sentence:
 - "I am hungry".

- “She reads a book”.
- “You speak Ngadju”.
- When a sentence has more than one clause, clauses can be combined in two ways:
 - *Coordination* is when two *independent* clauses are combined, usually by a word like “and” or “but”:
 - “I am hungry and she reads a book”.
 - “You speak Ngadju but I speak Pitjantjatjara”.
 - *Subordination* is when one *independent* clause is connected to a *dependent* clause:
 - “She reads a book when it rains”.
 - “I am ready to make breakfast”.

How do you combine clauses in Ngadju?

3.1

In Ngadju, combining clauses to make more complex sentences is super easy! All you need to do is put the extra clause after the main clause. For example:

- (1)

<i>manjali</i>	<i>all</i>	<i>warrapurngayinya</i>	[<i>kuninya</i>	<i>ngajungarri</i>
<i>manjali</i>	<i>all</i>	<i>warrapur+ngayi+nya</i>	[<i>kuni+nya</i>	<i>ngajungarri</i>
plant-based food	all	berry+PL+ABS	[that+ABS	we

[<i>ngarlkukarran</i>]
[<i>ngarlku+karran</i>]
eat+PL.ONGOING]

“All the plant-based food that we were eating was berries”.

- (2)

<i>ngaju</i>	<i>pala</i>	<i>nyinanangukin</i>	<i>wartu-wartu</i>	<i>matali</i>
<i>ngaju</i>	<i>pala</i>	<i>nyina+nangu+kin</i>	<i>wartu+wartu</i>	<i>matali</i>
I	just	sit+see+SG.ONGOING	watchfully	them

[<i>nyinalpan</i>	<i>nangukarran</i>]
[<i>nyina+lpan</i>	<i>nangu+karran</i>]
[<i>sit+PL.ONGOING</i>	look around+PL.ONGOING]

“I was just watching them watchfully and they were sitting and looking around”.

This can sometimes lead to multiple possible translations of Ngadju sentences in English. For example, (1) can also be translated as “all the plant-based food was berries, those ones we were eating” and (2) can also be translated as “I was just watching them watchfully while they were sitting and looking around”. Both of these translations are equally possible.

In English, if we are using a subordinate clause to describe a noun, we often need the subordinate clause to be immediately after the noun it is describing. For example, in the English translation of sentence (1), we put the subordinate clause inside the main clause so that it is next to “food”, the noun it is describing, like in (3):

(3) “All the plant-based food that we were eating was berries”.

You don’t need to do this in Ngadju! Copying the word order in English and saying something like “*manjali all kuninya ngajungarri ngarlkukarran warrapurngayinya*” is incorrect. In Ngadju, simply put the subordinate clause after the main clause, like in (1).

Using *-nta* in Ngadju:

3.2

In Ngadju, if you want to add a subordinate clause that describes something that happened *before* the main event, or is a *cause* of the main event, you can add the ending *-nta* to the verb in the subordinate clause instead of the regular verb ending (*-n/-ngu/-kin*, etc.). For example, consider these two sentences:

(4) *ngaju too purta mantarlpungu munta*
ngaju too purta mantarlpu+ngu munta
 I too later be tired+FINISHED really

“I am really tired too”.

(5) *jujupanya nyinan purlpa yaanjan*
juju+panya nyina+n purlpa yaanjan
 dog+without sit+FINISHED rifle nothing

“I have no dogs and no rifle”.

If you want to combine these clauses into a larger sentence with the meaning “I am really tired too *because* I have no dogs and no rifle”, you can simply replace the *-n* ending in *nyina+n* with *-nta*, which means “because” or “after”. For example:

(6) *ngaju too purta mantarlpungu munta jujupanya nyinanta*
ngaju too purta mantarlpu+ngu munta juju+panya nyina+nta
 I too later be tired+FINISHED really dog+without sit+BECAUSE

purlpa yaanjan
purlpa yaanjan
 rifle nothing

“I am really tired too, **because** I have no dogs and no rifle”.

4

The pronouns *kuni* and *pana*:

Ngadju has two pronouns, *kuni* and *pana*, which both mean “that one”, used to refer to someone or something that you were previously talking about. Use *pana* when the sentence is about something you’re intending to do in the future or something hypothetical, and use *kuni* everywhere else. For example:

(7)	<i>yayi</i>	<i>kumpa</i>	<i>ngaju</i>	<i>junu</i>	<i>ngaju</i>	<i>purta</i>	<i>wamurti</i>
	<i>yayi</i>	<i>kumpa</i>	<i>ngaju</i>	<i>junu</i>	<i>ngaju</i>	<i>purta</i>	<i>wamu+rti</i>
	now	before	I	talk	I	soon	camp+ALL
	<i>kaning</i>	<i>panarti</i>	<i>yapurru</i>	<i>mijalk</i>			
	<i>kani+ng</i>	<i>pana+rti</i>	<i>yapurru</i>	<i>mijal+k</i>			
	go+FINISHED	that one+ALL	down	water+LOC			

“Now like I said before, I will soon go to the camp, to that one down by the sea”.

(8)	<i>nyakinya</i>	<i>matayi</i>	<i>kuninya</i>	<i>kaka</i>	<i>yuulu</i>	<i>yankun</i>
	<i>nyaki+nya</i>	<i>matayi</i>	<i>kuni+nya</i>	<i>kaka</i>	<i>yuulu</i>	<i>yanku+n</i>
	this+ABS	him	that one+ABS	yesterday	here	come+FINISHED
	<i>parunu</i>	<i>yayi</i>	<i>yankunkin</i>			
	<i>parunu</i>	<i>yayi</i>	<i>yanku+n+kin</i>			
	again	now	come+CONTINUOUS+SG.ONGOING			

“This is him, that one came here yesterday, and now keeps coming again”.

In (7), the speaker is intending to go to the camp in the *future*, so you use *pana* here. In (8), the man came yesterday, so there is no future intention or hypothetical action happening here in this sentence, and we use *kuni*.

Sometimes (but not always), *kuni* or *pana* can be translated using what’s called a *relative pronoun* in English, like “which”, “who”, or “where” (see section 2.2). For example, (8) could be translated as “this is him *who* came here yesterday, and now keeps coming again”, so *kuni* is translated as “who” rather than “that one”. Both translations are equally possible here.

Summary:

- To form a complex sentence in Ngadju, simply add the subordinate clause after the main clause.

Subordination in Ngadju: A Preliminary Analysis

- If you want to show that the main clause happened *because of* or *after* the subordinate clause, just add the ending *-nta* instead of the aspect ending to the verb in the subordinate clause (e.g. *nyinan* → *nyinanta*).
- You can use the pronouns *kuni* and *pana* to mean “that one” to link between sentences.
- Use *pana* where the clause involves a future intention or hypothetical action, and use *kuni* everywhere else.