Marking Time in Mirniny

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Abstract

Mirniny, Ngadju and Kaalamaya are three sleeping languages from the southwest of Western Australia, that have been placed into the Mirning Subgroup. This group is distinct from Noongar, along the coast and the Wati dialects in the interior of the state. A long-term typology project being carried out by linguists at the Goldfields Aboriginal Language Centre (GALC) has been looking into why this trio has been classed as separate to other codes in the region. Languages are grouped into families because of shared linguistic elements. Each family or group has something specific to itself that is not shared with languages in other families or groups. These elements are usually grammatical rather than phonemic or morphological. For example, Wati languages are attested tense marking languages, whereas Noongar marks verbs aspectually. Wati languages have specific rules about word initial and word final phonemes, whereas the appearance of stops in word final position in Noongar makes the language easily recognisable.

Research conducted by GALC suggests one of the differentiating factors of the Mirning Subgroup is temporal marking. Reynolds (2024) has recently demonstrated that Ngadju is aspectual. Being that it is part of a familial grouping, it follows that Kaalamaya and Mirniny will also be aspectually marked. This paper discusses patterns of temporal marking in Mirniny, arguing that the tense marking so far uncovered in this code is too simple for that of a tense marking language.

1.0 Introduction

In 2024, a group of Mirniny Elders initiated a revitalisation project with linguists from GALC. Their language, once spoken along the Southern coastline of Australia, suffered devasting loss during the invasion and subsequent colonisation of their lands, and is now classified as sleeping or remembered. Following several workshops where natural and elicited speech forms were collected, the project has amassed a substantial database of lexemes from a range of word classes and domains of use. The informing group of Elders has supplied information about phonemes and graphemes and has agreed upon an orthography for all written resources going forward. Before committing to the project, each member of the group confirmed free, prior and informed consent to the collection of data by GALC linguists. The data provided by speakers is analysed by the linguists. Speakers are able to provide input on accuracy at every stage of collection and analysis. This level of transparency allows the speakers to have confidence in the correct recording and usage of all forms, thanks to the afore-mentioned orthography and speaker agreements.
The first 18 months of the project has been focussed on phonemic and morphological analysis. Now this very important basic groundwork has been completed, linguists are looking to examine semantics and syntax, specifically the tense, aspect and mood marking systems of the language (TAM). Mirniny has historically been classified as part of the Mirning subgroup of languages, alongside Ngadju and Kaalamaya. This marks the code as separate to Noongar along the southwest coast of Western Australia, and the Western Desert, or Wati family in the interior, to the northeast. Wati languages are attested tense marking languages, while Noongar is understood to be aspectual. Reynolds (2024) has demonstrated that Ngadju is aspectually marked, and research into Kaalamaya is ongoing. Mirniny and Kaalamaya have been classified separately from Western Desert languages in Western Australia and Mirniny is differentiated from the Thura Yura family in South Australia. Add to this their placement into a family grouping with Ngadju, and it would seem likely these two codes will be shown to be aspectually marked.
Initial analysis on the data provided by Mirniny speakers agrees with this hypothesis.

2.0 Notes on orthography, pronunciation and data sources.

As Wirangu is contiguous with Mirniny, and given the speakers named as informants in Hercus' work are apical ancestors of the informants whose work is analysed in this paper, Hercus' research on Wirangu is often referred to when there are linguistic questions that cannot otherwise be answered.

It should be noted that previous research published by GALC has demonstrated the alveolar nasal and retroflex nasal are used in free variation. Furthermore, Hercus (1999) found Wirangu speakers did not differentiate between these two phonemes. Therefore, these two consonant phonemes will be considered indistinguishable within Mirniny.

The Goldfields Aboriginal Language Centre uses the orthography approved by Mirniny speakers and Elders who are leading this research project. It is identical to a West Australian orthography in that the retroflex alveolar, retroflex nasal and retroflex lateral are represented as /rt/, /rn/ and /rl/ respectively. The alveolar rhotic is written as /rr/ and the retroflex rhotic /r/. There are no diphthongs in Mirniny. Analysis of recorded forms shows semi vowels /y/ and /w/ are used to glide between vowels that may at first glance appear to be diphthongs.

3.0 Simple tense-marking suffixes

One very simple clue as to the how a language marks TAM is to look at the contents of the lexicon. Aspect marking languages will have databases that contain more descriptors than verbs and a tense marking language will have more verbs (roots, verbalisers and tenses) than descriptors (Clare Bowern, personal communication). A quick inspection of the GALC Mirniny database reveals three simple tenses in repeated forms, two of which are used in free variation. For a contrastive example, Pitjantjatjarra, a tensing language from the Wati family uses up to 14 different TAM markers (Goddard & Defina, 2020; Eckert & Hudson, 2010).

Table 3.0 Tense suffixes in Mirniny

Root	PAST	PRES	IMP	FUT	NEG maka
ngarl (eat, to)	zero 2 examples	zero 18 examples	zero 1 example	2 examples	3 examples
nyina- (sit/ exist, to)	-rn 1 example	-rn 6 examples -nyi 1 example	-ka 1 example	no data	no data
inka- (play, to)	no data	-rn 1 example	no data	no data	no data
wangka- (talk/speak, to)	-rn 1 example	-rn 1 example	-ka 1 example -rn 1 example	no data	maka 1 example
naka- (see/look, to)	zero 1 example -rn 8 examples	-rn 1 example	zero 4 examples -ka 1 example	no data	maka 1 example
marri- (get, to)	-n 1 example	no data	-ka 3 examples	no data	no data
yungka- (give, to)	no data	-rn 1 example	zero 2 examples -ka 1 example	no data	no data
kamp-	-irn 3 examples	-arni 1 example	-ika 1 example	no data	no data

(cook/roast/burn, to)		-irn 2 examples			
mira- (hear/listen, to)	no data	no data	-ka 3 examples	no data	no data
tjurra- (tell, to)	-n 1 example	no data	no data	no data	no data
ula- (cry, to)	no data	-nyi 1 example	no data	no data	no data
urlt- (come, to)	no data	-an 2 examples -arni 1 example -irn 2 examples	-ika 1 example	no data	no data
win- (go, to)	no data	-arn 3 examples -in 2 examples	-ika 2 examples	no data	no data
kunta- (strike/ hit, to)	-rna 1 example -rn 1 example	no data	-ka 1 example	kati 2 examples	no data

Table 3.0 shows temporal marking for 14 common verbs. It will be noted that three examples: win-; urlt- and kamp- appear as consonant final (C final). Prideaux, Haseldine, Haseldine, Catsambalis, Haynes and Gorring (2025), have demonstrated that verb roots in traditional Mirniny may have been C final and not vowel final (V final). It is argued the V final form has become frozen in place as colonisation and placement of speakers in missions encouraged the loss of traditional, more complex forms.
The data in Table 3.0 has been taken directly from examples provided by speakers and demonstrates they are comfortable talking about events or situations that occur in the past, present or future (PAST, PRES, FUT) making commands (IMP) and using the maka lexeme to negate an action, situation or outcome (NEG).
The simplicity of tense forms is the first clue as to the TAM marking system of this language. This is because the data as it is presented in Table 3.0 is too simple for that of a tense marking language.

Table 3.1 Frequency of Suffix forms in Mirniny

Form	PAST	PRES	IMP	FUT	Totals
zero marked	3	18	7	-	28
-n	2	0	0	-	2
-rn	11	10	1	0	22
-nyi	0	2	0	0	2
-irn	3	4	0	0	7
-arni	0	2	0	0	2
-rna	1	0	0	0	1
-arn	0	3	0	0	3

-an	0	2	0	0	2
-ka	0	0	11	0	11
-ika	0	0	4	0	4
kati	0	0	0	4	4
Totals	20	41	23	4	88

Table 3.1 shows the frequency of use of the suffixes from Table 3.0.
Information from this table demonstrates;

- Zero marking is the most common form of marking. This is used mainly on the verb ngarl, *eat, to.* Speakers have offered a PRES tense suffix for this verb, but have not provided sentential examples. It is possible that ngarl is a short form verb (Hercus, 1999). The data shows evidence of as many as three of these short form verbs: ngarl; parl and mirn (*eat, punch* and *listen/notice*).
- The second most common form is -rn. It is used on PRES and PAST actions. The V-initial variation -arn is only used on the C-final roots: kamp-; urlt- and win-.
- -ka is the third most common form and is only ever used as the IMP. The variation -ika is considered the same form, because it is only used with the three C-final roots: kamp-; urlt- and win-.
- The remaining suffixes -nyi, -rni and -rna are outliers. Combined, they make up only five examples from 88. They are shared with Wati languages and may be an influence from Koonibba Mission days. On the mission, Mirniny people lived with Kukata and Wirangu speakers in a language contact situation. The Mirniny Elders who initiated this project all grew up at Koonibba.

In summary; zero marking is most-commonly used on the short from verbs. Events from the PAST and PRES is represented by -n and -rn forms in free variation. The IMP is only ever represented by -ka and the future, or things that are yet to happen are indicated with the kati lexeme.

The data as presented in Tables 3.0 and 3.1 suggests the language does not differentiate between events or situations that occurred in the PAST or PRES. We know this cannot be true. All languages have ways of marking and discussing time (Saheed, 2016). Languages that do not mark the *event in time* will mark *time in the event* (Reimer, 2010).
During language workshops, speakers provided linguists with time-marking lexemes that shall be labelled Time Adverbials or TAs (Goddard & Defina, 2020). These are not tenses, but their purpose is to mark time nevertheless.
These TAs are discussed in the next section.

4.0 Time adverbials

During analysis GALC linguists noted the use of a group of five lexemes that seemed to have the role of placing events and situations in time. These were used in combination with the tense markers discussed in the previous section and had the effect of placing the event onto a timeline, that resulted in a more specific period than the tenses alone.

Table 4.1 Time adverbials

	Distant past	Past	Before	Present	Immediate Future	Future	Distant Future
wiltjarra	long ago						
iitjarra		still, continuing					
-minytji		always, all the time					
kati					about to, soon		
katinga						later on	

Table 4.1 is a visual representation of the five Mirniny time adverbials found in the data. It is broken into seven different periods ranging from the distant past on the far left, to the distant future on the far right. It will be noted there is no lexeme used to talk about the distant future. This is not uncommon in Australian languages. It is rare to find a language group that has the means to refer to the distant future, because the nature of a traditional life (before invasion) meant the future was not certain (Dixon, 2011). By contrast, the distant past played a very important part in the lives of First Nations Australians, this is spoken about and referred to almost on a daily basis (Dawn Hadfield, personal communication).

Firstly, let's assume the time of the speech act, discussing the event in question is located in the present moment (Klein, 2009). When these time adverbials are paired with verbs in a sentence, they place the event in a more specific time.

4.1 Nyinarn wiltjarra
nyina+rn wiltjarra
be+PAST long_ago
(he) Sat there a long time ago.

4.2 Ngananga nyupili tjurran wiltjarranga. You got yuri wiya.
ngana+nga nyupili+0 tjurra+n wiltjarra+nga you got yuri wiya
1SG+SUB N.SG+OBJ tell+PAST long+ago you got ears NEG
I told you fellas a long time ago. You got no ears.

The verb root nyina, *be* is marked with -rn. However, there are also examples of this same suffix being used to represent the PRES. Compare the following

4.3 Pupa ngayuku warnanga nyinarn.
pupa ngayu+ku warna+nga nyina+rn
dog 1SG+GEN sea+LOC be+PRES
My dog is sitting at the beach.

Example 4.3 uses the same form as example 4.1 but one is glossed as PRES and the other PAST. The only difference being the addition of wiltjarra, *long ago*. It will also be noted that in Example 4.2 the locative (LOC) has been attached to wiltjarra. Both Examples 4.1 and 4.2 have included wiltjarra to refer to an event that happened in the distant past and is complete. If the sitting was still occurring, the sentence would be formed as something like 'he is still sitting there' or 'he has been sitting there for a long time'. Similarly in Example 4.2; if someone is told a piece of information, we can assume that person still knows it, no matter how much time has passed. The two events discussed in these examples are in the perfect aspect (PERF) because they are completed.

If wiltjarra is used to refer to the distant past, it will only appear with PAST tense references. It is therefore argued that wiltjarra is a time adverbial that acts to place events in the distant past, before the time of speaking.

4.4 Kitjarra muka iitjarra warnanga inkarn.
kitjarra muka iitjara warna+nga inka+rn
child PLURAL still sea+LOC play+PRES
The kids are still there, playing in the sea.

4.5 Iitjarra nyinarn.
iitjarra nyina+rn
still be+PRES
Still there.

Example 4.4 is quite similar to the sentence presented at Example 4.3 and 4.1 in that the 'be' verb nyina+rn is used in all three examples. In 4.1 it is combined with wiltjarra to refer to an event in the distant past. In Example 4.3 is used on its own to refer to an event in the PRES. In 4.4 it is combined with iitjarra, to refer to an event that is *still happening*. That is to say, the children began playing in the sea some time ago, before the time of utterance, and they are still there now (Klein, 2009). The play in the ocean is *ongoing*. We can describe the events in Examples 4.4 and 4.5 as being progressive (PROG).
Further, it is unclear whether these two events are expected to continue into the future, after the time of utterance. It is unlikely to be the case, otherwise the speakers would have used a label for that. Such as -minytji, '*all the time'*.

4.6 Tarltaminytji.
tarlta+minytji
INT+all the time
Goodness knows where.

4.7 kunaminytji
kuna+minytji
defecate+all the time
Pooing all the time.

There were only three examples of -minytji in the database, but it was described by speakers as '*all the time'*. At Example 4.7 it is used to discuss someone needing to defecate frequently. Of course, it is not possible to do this literally all the time, so there is an element of the meaning of sentence vs meaning of utterance in this example (Saeed, 2016).
Example 4.6 is somewhat different in that the combination of interrogative (INT) *where* and all the time, is used to create a phrase meaning no idea, or goodness knows where (it could be).

Events that are yet to occur are discussed using the kati lexeme. Speakers glossed this as *'directly'* or *'soon'*. It is taken to refer to an immediate future (FUT).

4.8 Maka yamurru wangkaka. Nyuni ngana imirn kati.
maka yamurru wangka+ka nyuni+0 ngana+0 imirn kati
don't like_that talk+IMP 2SG+SUBJ 1SG+OBJ curse directly

Don't talk like that. You'll curse me.

4.9 Here, ngana nyuni kuntarn kati?
here ngana+0 nyuni+0 kunta+rn kati
here INT+SUBJ 2SG+OBJ hit+PRES directly
Here, who are you going to hit ?

4.10 Kitjarra muka anku kati.
kitjarra muka anku kati
child PLURAL asleep directly
The kids will be asleep soon.

4.11 Ngangkari wiina mutukanga urltarn Tjutuna kati.
ngangkari wiina mutuka+nga urlt+arn tjutuna kati
doctor woman motorcar+LOC come+PRES Ceduna directly
The lady doctor is coming to Ceduna in her car.

Examples 4.8, 4.9 and 4.10 suggest the event is about to occur. They are imminent, or in the immediate future. Example 4.11 implies the event, the doctor coming to Ceduna, has already begun. It is underway, but the goal or endpoint; the arrival of the doctor, is in the immediate future.
Compare Example 4.9 with the following

4.12 Murti ngananga kuntarn.
murti ngana+nga kunta+rn
knee INT+SUBJ hit+PAST
Who hit (my) knee?

4.13 Karnti-karnti kuntaka.
karnti+karnti kunta+ka
stone+REDUP hit+IMP
Hit (him) hard.

The composition of kunta+rn at Example 4.12 is identical to that of 4.9, yet one is glossed as a PAST while the other is set in the immediate future thanks to the use of the kati lexeme in Example 4.9. The imperative (IMP) is clearly stated in Example 4.13 being that -ka is used on the verb kunta- '*hit, to'*.
These comparisons show the role kati plays in the sentence at 4.9.
Example 4.10 assures the listener the kids will be asleep soon. At Example 4.13, they are already asleep.

4.13 Kitja muka anku.
kitja muka anku
child PLURAL asleep
The kids are asleep.

The children are already asleep. There is no lexeme to refer to the immediate future.

4.13 Katinga.
kati+nga
directly+LOC
Later on.

Speakers compared kati, to katinga; soon or directly and later on. The inference being that kati is in the immediate future, but katinga is occurring at a point after that.
There are no sentential examples of katinga in the database, but it should be noted that the LOC -nga has been suffixed to the particle kati. Locatives are commonly used with nominals to mark the object or purpose of the sentence (Austin in Hercus, 1999). It is argued that the use of the LOC marker on kati is to express the event occurring at some point in the future.

5.0 Conclusion

All languages have a system for marking time (Reimer, 2010). This paper has argued that the data collected so far shows a system of verbal suffixing that is too simple for a tense marking language. In Western Australia the Wati family of dialects are recognised as tense marking codes. These languages are possessed of rich and complex tensing systems of up to 14 different suffixes in some codes (Eckert & Hudson, 2010). In contrast, Mirniny has three suffixes used in conjunction with verbs; two common forms that are interchangeable between PAST and PRES, and a single IMP suffix. The language also uses one separate lexeme for referring to events that are yet to occur. This research has demonstrated how events can be placed more specifically in time when the three tense suffixes are combined with Time Adverbials. The use of these TAs was argued as proof of an aspectual system over tense marking. This makes it a shared feature with Ngadju in terms of TAM and means that two thirds of the Mirning subgroup use aspect in favour of tense to mark verbs. All of this provides evidence to support GALC's theory that TAM is the reason why Ngadju, Mirniny and Kaalamaya have been placed into their own family separate to that of the Wati dialects.

6.0 References

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7.0 Glossary

ASP: aspect
TENSE: tense
MOD; mood
SIMPLE; simple aspect
PERF: perfective aspect
PROG: progressive aspect
PERF PROG: perfect progressive aspect
TRANS: transitive
INTRANS: intransitive

PAST: past tense
PRES; present tense
IMP: imperative tense/ command
FUT: future tense
MU: meaning of utterance
SU: meaning of sentence