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The Munyypata Language

of

North-West Australia

by

Michael James Walsh

A thesis submitted in conformity with
the requirements for the degree of
Doctor of Philosophy at the Australian
National University.

September 1976
For my parents.

Unless otherwise acknowledged this thesis is the original work of the author.

Michael Walsh

Michael James Walsh
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Mr Harry Luke Kalambujut (palada or ɲiŋlɛŋ) was my principal informant, assisted by his wife, Irene (ŋadąŋ). Mr Jumbo Dulla (ɗala) also gave generously of his knowledge. Without their knowledge, interest and tremendous patience in answering what must often have been tedious questions this description would not have been possible. Amongst other informants who contributed to the data described below are the late Joe Birari (ɗungguŋ), Nym Bundak (baŋɔŋ), Indjì (yinŋyɛŋ) and Charlie Rock (ŋanbe).
PLEASE NOTE

pp. 170 - 171, bound in wrong order, p. 170 should be p. 171 and p. 171 should be p. 170.

also

Abstract

This study presents a synchronic description of the main dialect of the Mu Jinyinta language of North-West Australia.

It is divided into six chapters. The first is introductory placing Mu Jinyinta in the context of Australian languages, giving some background to the area in which the language is spoken and assessing previous work on this group. The second chapter provides a phonological description and an account of morphophonological change. The segmental phonology is presented in a distinctive feature format. Some tentative rules are advanced to account for stress. The third chapter establishes the word classes of Mu Jinyinta, briefly discussing their defining characteristics. A preliminary discussion on noun classification is embarked upon which is given a fuller semantic basis in chapter six. Chapter four presents the morphological facts of the language: data which assist the description of verbal morphology are presented in Appendices 2 and 3. Chapter five provides a preliminary discussion of Mu Jinyinta syntax. A brief account of the semantics of the language is given in chapter six, with particular emphasis on noun-classification. Three sample texts are provided in Appendix 4.

The bulk of the text is concerned with synchronic description of the phonology and morphology of the language. Their unusual complexity demand lengthy discussion with a more detailed account of the syntax and semantics being reserved for a later study.
Abbreviations and Conventions.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
<td>absolutive case</td>
</tr>
<tr>
<td>Aux</td>
<td>auxiliary</td>
</tr>
<tr>
<td>BEN</td>
<td>benefactive</td>
</tr>
<tr>
<td>COM</td>
<td>comitative</td>
</tr>
<tr>
<td>DAT</td>
<td>dative</td>
</tr>
<tr>
<td>du</td>
<td>dual number</td>
</tr>
<tr>
<td>DUB</td>
<td>dubitative</td>
</tr>
<tr>
<td>EMPH</td>
<td>emphatic</td>
</tr>
<tr>
<td>ERG</td>
<td>ergative case</td>
</tr>
<tr>
<td>exc</td>
<td>exclusive (pronoun)</td>
</tr>
<tr>
<td>FEM</td>
<td>feminine (at least one member of the group is female)</td>
</tr>
<tr>
<td>FUT</td>
<td>future tense</td>
</tr>
<tr>
<td>HAB</td>
<td>habituative/habitual</td>
</tr>
<tr>
<td>IMPRF</td>
<td>imperfective aspect</td>
</tr>
<tr>
<td>inc</td>
<td>inclusive (pronoun)</td>
</tr>
<tr>
<td>INST</td>
<td>instrumental case</td>
</tr>
<tr>
<td>INTERROG</td>
<td>interrogative</td>
</tr>
<tr>
<td>LOC</td>
<td>locative</td>
</tr>
<tr>
<td>MASC</td>
<td>masculine (the group consists entirely of males)</td>
</tr>
<tr>
<td>MP</td>
<td>morphophonological rule. A particular rule is identified by a number eg. MP-6 [2.1.10.17].</td>
</tr>
<tr>
<td>NC</td>
<td>noun classifier</td>
</tr>
<tr>
<td>NEG</td>
<td>negative</td>
</tr>
<tr>
<td>NI</td>
<td>number indicator</td>
</tr>
<tr>
<td>NP</td>
<td>noun phrase</td>
</tr>
<tr>
<td>PERF</td>
<td>perfective aspect</td>
</tr>
</tbody>
</table>
pc  paucal number (from three to around ten)
pl  plural number (more than paucal ie. about ten or more)
RECIP reciprocal
REDUP reduplicated
REFL reflexive
RR  redundancy rule
SBR syllable boundary rule
sg  singular number
SIB "sibling". Used to refer to a group whose members
     are of the same subsection
SR  stress rule
TOPIC topicalizer
VR  verb root

1  first person
2  second person
3  third person

Person-number "status" combinations for pronouns appear as
  2sg
  1 du exc MASC
  3 pc SIB

( ) indicates optionality
{ } indicates that at least one of the enclosed
     must be chosen
when appearing before a form or sentence indicates unacceptability for native speakers (whether a grammaticality or semantic anomaly) or otherwise indicates an underlying form to which a morphophonological rule must be applied before it attains an acceptable surface form.

When appearing after some word in a text it refers to a footnote at the bottom of that page.

Mujinypata sentences are generally supplied with an interlinear gloss, morpheme-by-morpheme, together with an English translation of the complete sentence. Non-pronominal NP's do not specify number or definiteness while pronominal NP's are particularly detailed in their reference: in the interests of readability the former tend to be overspecified in the English translation while the latter are underspecified:

' the/a old man/men/boss(es) is/are sitting over there (remote)'

might be rendered as "the old man is sitting over there" (Mujinypata : pule pangu)

and "we two exclusive non-siblings at least one of whom is female will wash the lower legs of you few (three to about ten) siblings" which represents a fairly full translation of the Mujinypata word: manantarmupujungindo is simplified in its translation.
The forms are given in underlying form in the morpheme-by-morpheme presentation since it is not possible to non-arbitrarily assign morpheme cuts to a form after the morphophonological rules have acted on the form.

syllable boundary
Contents.

1 Introduction

1.1 Linguistic Type 1
1.2 Dialect Situation 4
1.2.4 A Language Map of Port Keats Area 5
1.3 Surrounding Languages 7
1.4 Language Names 9
1.5 Background 15
1.6 Recent History of the Area 16
1.7 Previous Work 19

2 Phonology

2.1 Segmental Phonology 24
2.1.1 Inventory 24
2.1.2 Residual problems in the Inventory 25
2.1.3 Comparison with other Australian languages 26
2.1.4 Phonemic Contrasts 27
2.1.5 Realisations of Consonant Phonemes 31
2.1.6 Distribution of Phonemes 34
2.1.7 Vowels 45
2.1.8 Discussion of Interpretation of Stop Phonemes 49
2.1.9 Distinctive Feature System 53
2.1.10 Morphophonemic Change 69
2.2 Suprasegmental Phonology 104
2.2.1 Syllables 104
2.2.2 Stress 106
3 Word Classes

3.1 Nominal

3.1.1 Pronoun
3.1.2 Noun-classifier
3.1.3 Adjective
3.1.4 Noun

3.2 Other word classes

3.2.1 Adverb
3.2.2 Adjective/Adverb Qualifier

3.3 Criteria for Identification of a Word

3.3.1 Mobility
3.3.2 Isolabability
3.3.3 Pausing

3.4 Verb

3.5 Interjection

3.6 Semantic Content of the Open Word Classes

3.6.1 Nouns
3.6.2 Adjectives
3.6.3 Verbs

3.7 Particles

3.8 Shared Characteristics of the Word Classes

3.9 Noun-Classification

3.9.1 Inventory
3.9.2 Discussion

3.9.2.8 Map of Daly Family Languages

4 Morphology

4.1 Morphology of Nominals

4.1.1 Pronominal Morphology
4.1.2 Case Inflections
4.1.3 Demonstratives 173
4.1.4 Body Part Incorporation 175
   - in nominals 175
   - derivational affix, -ma 183
4.1.5 ma- 192
4.1.6 Number Systems 194
4.1.7 Special Non-Singulars 199
4.1.8 Reduplication 201
4.2 Verbal Morphology 202
4.2.1 General Statement on Verb Complex 202
4.2.2 General Statement on Auxiliaries 212
4.2.3 Tense and Mood 213
4.2.4 Negation in Verbs 215
4.2.5 Analysis of Auxiliaries 218
4.2.6 Impersonal Verbs 231
4.2.7 Middle Verbs 234
4.2.8 Reflexives 234
4.2.9 Reciprocals 236
4.2.10 Secondary Auxiliary 239
4.2.11 Reduplication in Verbs 240
4.2.12 Co-occurrence Restrictions between any verb root and the Auxiliaries 243
4.3 Particles 243
4.3.1 yi 244
4.3.2 a 245
4.3.3 kame(yye) 245
4.3.4 mağa 247
4.3.5 mananga 247
4.3.6 nukun
4.3.7 ṣate
4.3.8 yiğa
4.3.9 diyiğə
4.3.10 wağa
4.3.11 manı
4.3.12 yuwu
4.3.13 ninipunv
4.3.14 katu
4.3.15 wątu
4.3.16 ḡara
4.3.17 kanggan
4.3.18 pepe

4.4 Interrogative Words
4.4.1 ḡa
4.4.2 tąŋku
4.4.3 naŋkal
4.4.4 minŋyŋle
4.4.5 nan

4.5 Universal Affixes
4.5.1 -ka
4.5.2 -wa
4.5.3 -ya
4.5.4 -te/-je

4.6 Ordering of Affixes in Nominals

5 Syntax
5.1 Discussion of "Sentence"
5.2 The Simple Sentence
4.3.6 nukun 247
4.3.7 ñata 247
4.3.8 yi'de 248
4.3.9 ñi'ye 248
4.3.10 wâda 248
4.3.11 manl 250
4.3.12 yuwu 250
4.3.13 ñinlpunY 251
4.3.14 katu 251
4.3.15 wa'nu 252
4.3.16 ñara 252
4.3.17 kangal 253
4.3.18 pepo 254

4.4 Interrogative Words 254
4.4.1 ñara 254
4.4.2 tan'ku 256
4.4.3 nan'kal 257
4.4.4 mini'yu'le 259
4.4.5 nan 260

4.5 Universal Affixes 260
4.5.1 -ke 261
4.5.2 -wa 262
4.5.3 -ya 263
4.5.4 -te/-je 263

4.6 Ordering of Affixes in Nominals 265

5 Syntax 270
5.1 Discussion of "Sentence" 271
5.2 The Simple Sentence 273
1.1 Linguistic Type.

1.1.1 Muñîynpata is an Australian Aboriginal language spoken (as a first language) by about five hundred people mostly at Port Keats, N.T. The language makes up a separate language family in itself, apparently unrelated to its linguistic neighbours [Wurm 1972:122]. It is not a typical Australian language although it is typical for its area.

The languages of the north-west of Australia are typically prefixing, and, either dual classifying or multiple-classifying [Capell 1940:244-5]. The Daly Family languages to the north and east of Muñîynpata all show noun classification of some sort, generally multiple classification [Tryon 1974:289, 293-4]. To the south of the traditional territory of the Muñîynpata is the Djambidying Family; this has four members one of which, Nungali, is said to be multiple-classifying while the other three are non-classifying [Bolt, Cleverly, Hoddinott 1970:593; Wurm 1972:122]. Languages of the north-west are characterized by verb morphologies with a large number of form classes and by the use of auxiliaries [Birk 1974], [Capell and Elkin 1937], [Coate and Oates 1970], [Love 1938], [Metcalf 1972], [Tryon 1974] et al.

Muñîynpata is a multiple-classifying, prefixing language with complex verb morphology including auxiliaries. It is thus typical for its area - the more so since the writer's own fieldwork indicates that Djambidying, a member of the Djambidyingan family bordering on Muñîynpata, is multiple-classifying despite the statement to the contrary above.
1.1.2 Phonologically Mijinyupata is quite unusual in Australia in having a voiced/voiceless distinction in stops. Essentially [2.1] there is a five-place stop-nasal series: bilabial, apico-alveolar, apico-domal, lamino-palatal and dorso-velar. There are three laterals corresponding to the non-peripheral places of articulation of the stop-nasal series. In these two respects at least, Mijinyupata follows Australian phonological patterns [Dixon 1970]. There are two semivowels, labio-velar and palatal and three rhotics: a resonant and trill with apico-alveolar articulation and an apico-domal resonant. There is a four-vowel system, the two parameters being relative highness versus lowness and relative frontness versus backness. In initial position the language allows any of the stops and nasals, the semivowels, the apico-alveolar lateral, l, and very occasionally the apico-alveolar resonant rhotic, l. Three words begin with a vowel viz. awu "no"; a "or", possibly a loan word from English; eyn'd'ul "angel", certainly an English loan word. Words may end in most consonants or in a two-member cluster. Intervocally two and three-member consonant clusters occur. The assignment of stress is rather complicated and will be treated later [2.2]. Words may have anything from one to fifteen (or more) syllables.

1.1.3 The parts of speech (word classes [3] ) are as follows: noun, noun-classifier, pronoun, adjective, verb, adverb, adjective/adverb qualifier, particle, and interjection. There are ten noun-classifiers [3] which precede the noun they classify. The pronouns distinguish four numbers:
singular, dual, paucal and plural in all persons. First person has an inclusive/exclusive distinction in dual and paucal numbers. There is a two way distinction in duals and paucals between groups made up of members of the same subsection and groups not so composed. There is a further distinction for the latter between groups which are all masculine and those which are not. Third singular pronouns show a distinction between masculine and feminine. All pronouns may inflect in an absolutive-ergative pattern as do nouns.

1.1.4 Nouns, noun-classifiers, pronouns (and adjectives) may appear with case-suffixes for absolutive, ergative, instrumental and dative case functions. Other functions are signalled by prepositions, post positions, or both together, or, by word order.

1.1.5 Verbs have an extraordinarily rich morphology. Principal syntactic functions are signalled by cross-referencing bound pronouns. These pronouns appear in a nominative-accusative pattern. Indirect objects are also cross-referenced. There are a large number of verb classes conjugated by auxiliary somewhat like Ngarinyin [Coate and Oates, 1970:54] but more similar to Malak Malak [Birk 1974] in that any verb may occur with a number of auxiliaries (provided it is semantically feasible).

1.1.6 Sentence modification is carried out by particles which convey temporal, aspectual and locational information.
1.2 Dialect Situation.

1.2.1 The term "Mujinypata Language" is a cover term for three separate speech forms. The usage follows that of the local population who say 'There are three "ways of talking": Mujinypata, Mujinykuja and Mujinydiminin but these are all Mujinypata'. The speakers of the Mujinypata dialect predictably claim that their dialect is the best, clearest and most euphonious of the three. The name itself is suggestive of this bias:

\[
\text{mujin}^y\text{-pata} \\
\text{language-good} \\
"\text{good language}"
\]

The other two dialects come out as:

\[
\text{mujin}^y\text{-kuja} \\
\text{language-water} \\
"\text{water language}" \\
\]
and

\[
\text{mujin}^y\text{-diminin} \\
\text{language-gravel} \\
"\text{gravel language}"
\]

1.2.2 It is difficult to say why these descriptions have been used. These names may suggest the geographical locations of the traditional areas in which the dialects were spoken: Mujinykuja has a border on the water while Mujinydiminin is inland (although the country is not notable for its gravel).
Furthermore the use of the term
da njimmim
place gravel
"gravel country"

was not considered appropriate for the traditional dialect
area of Mujinydjiminin.

1.2.3 Informants offered some metalinguistic suggestions
but these have not been closely checked and cannot be
held as being reliable. Mujinydjiminin was said to be so
named because it was a "rough" language:

pewetipewet njipun y njimmim
rough like gravel
"rough like gravel"

Mujinykura, however, was so-called because it is "soft"
(see also Falkenberg [1962:13]).

The other metalinguistic parameter employed was "heavy"
vs. "light". "Lightness" was considered a virtue in a
language; Mujinnerata is "light". Mujinykura and Mujinydjiminin
were said to be "heavy" and thus not so easily understood.
Informants complained of the writer's lack of clarity in
diction for the reason that his speech (often described as
Broad Australian) was "heavy - like a Yankee"!.
1.2.4. A Language Map of Port Keats Area.
1.2.4 The distribution of dialects is given in the map (1.2.4.A). For the distribution of clans and hordes see Falkenberg [1962:pp21ff. esp. 23].

1.2.5 What little has been collected of Mujinykuja and Mujinydiminin indicates that they are very closely related (over 80% shared vocabulary, there being similar percentages between Mujinypata and the other dialects). It has not been possible to elicit reliable names for the three dialects in the Mujinykuja or Mujinydiminin. The practice through this work will be to use the name of a language in that language. Throughout the description (unless otherwise stated) the term Mujinypata will apply to the Mujinypata dialect of the Mujinypata language. (See also [1.4]).

1.2.6 Presently most speakers of Mujinypata live at Port Keats Mission (formerly Mujinypata territory). There are some speakers at Kunumurra W.A. and a few speakers working at stations to the south. Mujinypata acts as a lingua franca for the Port Keats area: nearly the total population of Port Keats (c.1000) understand and regularly use Mujinypata even if it is not their first language. Perhaps a third to a half of the population have Mujinypata as their "first language" although the term is dubiously applied when there is much tribal intermarriage and very many people are bi- or multi-lingual.
1.3 Surrounding Languages.

1.3.1 No detailed discussion of the surrounding languages and their relationship with Mu-jinypata will be given here.

Tryon [1974] gives an account of the Daly Family languages which covers the northern and eastern linguistic neighbours of Mu-jinypata.

The southern linguistic neighbour, the Djamindjungan Family, is described by Cleverly [1968]; Bolt, Cleverly and Hoddinott [1970] and Bolt, Hoddinott and Kofod [1971].

1.3.2 Lexically Mu-jinypata is not closely related to its neighbours. Tryon (personal communication) indicates that Mu-jinypata shows few cognates with any of the Daly languages. Street [1973b] conducted a survey at Port Keats in which the Brinken and Tyemerí subgroups of the Daly Family [Tryon: 1974, xiii] and Djamindjung are compared with Mu-jinypata. The writer has compared Mu-jinypata vocabulary from his own field notes with Tryon's word lists for the Daly Family languages [1974:267-286] and with vocabulary from Cleverly's [1968] Djamindjung vocabulary. This is given in the table: 1.3.A. The results essentially agree with those of Street.
1.3.A Percentages of shared cognates between Mujinypata and its linguistic neighbours: Djamindjung and the Daly Family.

<table>
<thead>
<tr>
<th>Language</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djamindjung</td>
<td>9.0</td>
</tr>
<tr>
<td>Mullukmulluk</td>
<td>3.5</td>
</tr>
<tr>
<td>Tyeraity</td>
<td>5.8</td>
</tr>
<tr>
<td>Matngala</td>
<td>3.5</td>
</tr>
<tr>
<td>Yunggor</td>
<td>1.8</td>
</tr>
<tr>
<td>Kamor</td>
<td>4.1</td>
</tr>
<tr>
<td>Marithiel</td>
<td>8.7</td>
</tr>
<tr>
<td>Marityaben</td>
<td>10.5</td>
</tr>
<tr>
<td>Mare Ammu</td>
<td>9.9</td>
</tr>
<tr>
<td>Maridan</td>
<td>8.2</td>
</tr>
<tr>
<td>Maramanandji</td>
<td>8.7</td>
</tr>
<tr>
<td>Marengar</td>
<td>10.5</td>
</tr>
<tr>
<td>Maranunggu</td>
<td>8.1</td>
</tr>
<tr>
<td>Ami</td>
<td>8.1</td>
</tr>
<tr>
<td>Manda</td>
<td>7.6</td>
</tr>
<tr>
<td>Pungupungu</td>
<td>5.2</td>
</tr>
<tr>
<td>Wadyiginy</td>
<td>5.2</td>
</tr>
<tr>
<td>Batyamal</td>
<td>5.8</td>
</tr>
<tr>
<td>Ngangikurrunggurr</td>
<td>9.9</td>
</tr>
<tr>
<td>Ngengomeri</td>
<td>9.9</td>
</tr>
</tbody>
</table>

Percentages of shared cognates within the Daly Family is given in Tryon [1974:xiv]. Predictably the percentages are marginally higher for those languages which are geographically closer to Mujinypata.
1.4 Language Names.

Nomenclatures in the literature dealing with the Port Keats area have presented a confused picture. This is because too little attention has been paid to what a language name can refer to.

Falkenberg and Stanner recognized that "each tribe has its own names for itself and surrounding tribes" [Stanner 1960:18] so that "When a person speaks of another tribe, he usually does not use that tribe's term of self-designation". "Therefore, if one wishes to know the correct name of a tribe, one must ask a member of that tribe." [Falkenberg 1962:11]. But in addition there are often a number of designations for a given language within that language, see, for example, Rigsby [1976:68-9] and Sutton [1975].

One source of confusion has been the perpetuation of a distinction between Garama and Mu-jinypata. Davidson [1938] refers to Karaman (=Garama) "south-west of Katherine, on the Daly River". This is reiterated by Tindale [1940:218]. Capell refers to Garama [1940:244] without mention of Mu-jinypata and again in his survey of Australian languages [1963:Area N,8] this time mentioning Mu-jinypata (Murinbada Area N,16) but not linking it with Garama. O'Grady, Voegelin and Voegelin [1966:76] give Garama and Murinbata as the two members of the Garaman family. This is reiterated by Oates and Oates [1970:21] but Tindale more recently [1974:140,232] gives Karama (Garama, Garaman) as alternative names for Murinbada. This is based on information he received from Stanner and is essentially correct.
The situation now seems to be clear although not simple. Garama is the term used by the Djamindjung group (south of the Fitzmaurice River) to refer to the group of dialects known by their speakers as Mu'jinympa (1.2.1). It might be useful to refer to the cover term as Mu'jinympa, and the particular dialect as Mu'jinympa. The writer's Djamindjung informants [Walsh 1972] indicated that their term, Garama, corresponded to Mu'jinympa. Although they were aware that there were at least two dialects, Mu'jinympa and Mu'jinykuja they did not have names in common use which would distinguish them. They did provide descriptive labels for these dialects which were literal translations of the Mu'jinympa names:

lin' - d'alag
language - good
"Mu'jinympa" (good language)

lin' - gugu
language - water
"Mu'jinykuja" (water language)

but admitted that these were not in common use.

A Mu'jinympa man could give Garama as the language he spoke (especially if he was in a situation where it was appropriate for him to use the Djamindjung label). However, one could not tell from this whether he spoke Mu'jinympa or Mu'jinykuja. In fact it is likely that he would speak Mu'jinykuja rather than one of the other two dialects. This is just because a large number of
Mujinyuwa speakers have moved away (to the south) either to Kununurra or to stations where there are Djamindjung speakers (this information comes from my own fieldnotes). In this way Mujinypata, people who are most in contact with those who use the term "Garama" viz. the Djamindjung tend to be Mujinyuwa.

This assessment of the situation is supported by a number of observations. Tindale [1974:140], discussing Murinbata tribal structure, notes:

"A few informants have been met away from their country in the lower Victoria River area. Among them was a Murinbata man who preferred the name Karama for his tribe." "He did not mention the name Muringura although it is very likely he was one of the people so called, in process of being absorbed into the Murinbata."

The Mujinypata man prefers the name "Karama" because he is living in traditional territory of the Djamindjung and it is indeed very likely that he was one of the Mujinyuwa.

Mujinyuwa was termed Garama by the informants of Hale [MS] and Capell [MS]. Checking these data with informants showed that the speechform was Mujinyuwa. It was no doubt under the guise of Garama that this dialect entered O'Grady, Voegelin and Voegelin (op. cit.)'s classification and assumed status as a separate language. Tindale's suggestion that '... Karama (probably means "water folk")...' [1974:232] is
not borne out by Djamindjung speakers who say "it is just a name". Tindale also gives Mariwada and Mariwuda as alternatives for Mujinypata. The latter term is used by the Majinger tribe to refer to Mujinypata₁ and Mujinypata₂. In Majinger "maj" means "language or tribe" while "wuda" is said to have no meaning, "just a name". The Majinger call Mujinykuja, Majiwudi:

maji - wudi
language - water
"water language"

They also gave a literal translation of Mujinypata₂ but said that it is not actually used:

maji - gadi
language - good
"good language"

Tindale also lists Nagor and Nangu (op. cit. 232) as alternatives (see also Stanner [1933]) but Falkenberg has pointed out this is only a horde name [Tindale 1975:140]. Although it is only a horde name it does occur among the range of terms the Mujinypata₁ use to refer to speech forms.

Thus some Mujinypata₁ will refer to their language as Mujinynangu i.e. "Nangu language" because their country (qa) lies in that area. At another level they are Mujinypata₂ speakers since the Mujinypata₂ dialect traditionally covered that horde area of Nangu. Alternatively they may call their
language, Yak (or Jak) nangu, (the prefix, yak= - Jak= indicating language of, people of"). This prefix may be used with place names which are more geographically specific than those used to refer to horde areas - for example, it may be used with a name for a sacred site which is particularly associated with that person (his totem site for example).

Also, a Mujinyypata₁ may designate his language in terms of his principal totem. For example, a man whose principal totem is "sugarbag" may refer to his language as:

\[
\text{mujin} \quad \text{t} \quad \text{yitayyi} \\
\text{language - sugarbag (generic)}
\]

"sugarbag language" ie language of a person of the sugarbag totem.

Since white contact (see [1,6]) the bulk of the Mujinyypata₁ have lived at the Port Keats Mission. The Mission area occupies what was traditionally the clan area of Yidiyi (Falkenberg's Idiji [1962:23]). A Mujinyypata₁ may now refer to his language in terms of its geographical location, labelled by the term for a traditional clan area. Thus a man who lives in the Yidiyi clan area will say his language is Mujiny-yidiyi, the language spoken by the people who presently occupy but are not traditionally associated with the clan area of Yidiyi. His clan area may in fact be Nangu in which case he would speak Mujinyypata₂ but if his clan area is Yidiyi we would not expect his language to be Mujinyypata₂ (although that is what he would most commonly speak) but Mujinyyiriminin. In this way, it is feasible for a particular person

\[1\] Jak- = yak- may not be prefixed to a totem name.
to provide the following names for what he speaks:

<table>
<thead>
<tr>
<th>Term</th>
<th>Designation in terms of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Musinypata</td>
<td>&quot;his language&quot;</td>
</tr>
<tr>
<td>Musinydimin</td>
<td>&quot;his dialect&quot;</td>
</tr>
<tr>
<td>Musinynangu</td>
<td>&quot;his clan area&quot;</td>
</tr>
<tr>
<td>Musinyyidiyi</td>
<td>&quot;where he now lives&quot;</td>
</tr>
<tr>
<td>Musinytyitayyi</td>
<td>&quot;his principal totem&quot;</td>
</tr>
<tr>
<td>Musinybatuk</td>
<td>&quot;the place name of his totem site&quot;</td>
</tr>
<tr>
<td>Yak- - juk-</td>
<td>&quot;place name associated with him&quot;</td>
</tr>
<tr>
<td>and Musinptyipmam</td>
<td>&quot;Aboriginal language, literally 'black language'&quot;</td>
</tr>
</tbody>
</table>

In conclusion, a language name may consist (sometimes) of parts which come from different languages. This is said to be only a "joke", referred to as:

\[
\text{musin}^\prime \text{- d}^\prime \text{eg}^\prime \text{eg}
\]

language - play
"play language"

\[
\text{musin}^\prime \text{- kumuga}\text{t}
\]

language - "joke"
"joke language"

but informants have produced such forms spontaneously. An example would be:

\[
\text{musin}^\prime \text{- kati}
\]

language - good
"Musinypata"
"mujin" is from Mijnypata and "kati" from Majingar. Perhaps a rough equivalent would be for a speaker of English to refer to his language as

"englische talk" or "anglais lingo"

1.5 Background.

The traditional territory of the Mijnypata was fairly flat, lightly wooded country bordering onto extensive mangrove swamps and then to the sea. For an account of the topography of this area see Flood [1966:1-4] and Keast [1953].

To enter into an account of the traditional life of the Mijnypata here would merely be repetitious. See Stanner [1936, 1964] and Falkenberg [1962].
1.6 Recent History of the Area.

Port Keats was discovered by Captain Philip Parker King on the 6th September 1819. A Mr Septimus Roe explored some of the area on foot; at his request the bottom of the port was named after Vice Admiral Sir Richard G. Keats G.C.B. [King, 1827:277]. Signs of Aborigines were seen here (footprints and fires) and the people themselves were sighted further south on Lacrosse Island [King, 1827:289].

Later a Captain Stokes made contact with the local population in a more dramatic way. While ashore at Point Pearce (in the Nangu area) Stokes was speared only just managing to escape with his life:

"Another moment, and ours would have been the fate of so many other explorers; - the hand of the savage almost grasped our throats - we should have fallen a sacrifice in the cause of discovery, and our bones left to moulder on this distant shore, would have been trodden heedlessly under foot by the wandering native". [Stokes, 1846:110].

It is fortunate for the Aboriginal population that Port Keats has been so isolated. Stokes was obviously disappointed about not being able to launch a punitive expedition:

"Several excursions were made during our stay in search of the natives, but without success. An encampment was found in the neighbourhood, near a small fresh-water swamp, and by the things that were left behind it was evident that a
hasty retreat had been made. It would have been as well if we could have punished these people in some way for their unprovoked attack; but to have followed them far into the bush would have been quite useless." [Stokes, 1846:111]

Likewise Alfred Searcy over fifty years later regrets that there are too many witnesses to start shooting when he is merely threatened for his trespass:

"I am certain of one thing, if the niggers had shown up to my mates and myself when we were out of sight of the boat, and had behaved in a similar manner, they would have had a bad time. It was not wise to have too many witnesses when inflicting summary punishment. The coxswain of my boat was a man not to be trusted." [Searcy, 1906:197].

Despite the isolation older people among the Mardinpata speak of whites having shot relations of theirs (see also Flynn and Willey,[1963:135]). No-one has spoken of poison food or of the planned punitive expeditions found in other parts of Australia.

If whites killed natives sporadically it may account for the local hostility towards whites. The most famous instance is the murder of three Japanese by Nemariuk (nimalak "type of spring"; placename) described in a highly fanciful way by Idriess [1941] and more accurately by Brother Pye MSC [1972, 1973], also by Willey [1964:142-144], Willey [1965]; Flynn and Willey [1963:144-145].
It is claimed that prior to 1935 the Munjinpata were a hostile people killing whites and fighting with other tribes and amongst themselves. It is rather difficult to estimate the truth of this claim since there was practically no white contact before that time. (The accuracy of what has been recorded is rather dubious since local people do not corroborate the white man's account.)

In 1935, Fr R. Docherty MSC accompanied by Dr W.E.H. Stanner (now Emeritus Professor of the Australian National University) founded a Roman Catholic mission at Port Keats. The Munjinpata, who had been occupying traditional territory were brought together into one community. In the early days Fr Docherty had groups of people work for two weeks at the mission and then "go bush" for two weeks. In this way, people retained their links with the land and had the opportunity to resume their former life-style. Gradually people have become more and more established in the township and the returns to the land are becoming less frequent. Other tribal groups have moved in so that former enemies now live side by side. The former religion described in such detail by Stanner [1964] has been largely eradicated although some token gestures are made in the liturgy of the local church. Aborigines eat white "food", (tea, sugar, flour, tinned meat and tobacco) instead of their abundant and varied traditional diet: fish, turtles, oysters, crabs, mangrove worms, ducks, geese, bustard, emu, brolga, lizards, native fruits, yams etc.

The language appears to be gradually dying out to the despair of those who have known pre-mission days. It is to be
hoped that the bilingual education programme being undertaken by Chester and Lyn Street of S.I.L. (commenced 1973) will avoid this gloomy prospect.

What remains of traditional life? The bark paintings (see also [1.7.1]) being produced at Fort Keats today are only a recent innovation - not even a development out of something traditional. Some of this art can only be viewed as a pandering to the white man's thirst for the exotic (see Stanner [1968:38-39]) not something that springs from the culture itself. Old men have said that the dancing which is made much of is "not what we did in the old days". Perhaps it is only the music which lasted through. The kirman (songman) says that a songman has to remember songs and music that have come before and to compose his own. He is still composing and still singing the songs of men long dead but what will happen after him?

1.7 Previous Work.

1.7.1 Non-Linguistic. Two figures stand out among those who have studied the Mujinypata: Stanner and Falkenberg. The Port Keats area and the Mujinypata specifically appear frequently in the literature on Australian Aborigines. This is not so much because there has been a lot of study conducted specifically on the Mujinypata but rather through comments or studies derived from Stanner and Falkenberg's work.

Stanner's association with the Mujinypata goes back to the first significant white contact (see [1.6]). He has kept up contact with the Mujinypata since the mission was set up.
Stanner's published work has engendered much discussion in other more general works. On kinship and totemism, for example, Elkin [1950] and Yengoyan [1968] have drawn on Stanner [1936]. The monograph on religion is referred to in Berndt [1974], Eliade [1973], Hiatt [1971], Maddock [1970], Nevermann, Worms, Petri [1968], and Weidkuhn [1965] to mention a few.

Falkenberg's work was carried out in 1950 giving a later perspective on Stanner's studies of the middle thirties. Falkenberg's studies on kinship and totemism are described in "Kin and Totem: Group Relations of Australian Aborigines in the Port Keats District" [1962]. Many writers have followed up this work placing it in a more general picture. A recent instance is Birdsell [1970].

The reason there has been so much secondary work on the Mjurinypata would seem to stem from the quality and comprehensiveness of these two scholars. In attempting to give a general picture of social organization in Australia it is quite difficult to find accounts with the detail needed.

Likewise derivative is much of the published mythology of the Mjurinypata such as Greenway [1965], Poignant [1967] and Robinson [1956, 1966]. These derive from material contained in Stanner's monograph on Aboriginal religion [Stanner, 1964] (Robinson had access to unpublished material by Stanner).
Apart from Stanner and Falkenberg, there has been a study of the bark paintings conducted by Dr H. Groger-Wurm in 1967. The results have not yet been published. Examples of the bark painting of the Mutinyalpa can be found in AIAS [1965], Kupka [1965] and Robinson [1956, 1965]. Louis A. Allen, a private art collector from Palo Alto, California, has an extensive collection of paintings from Port Keats and intends to write a book on the art of the Australian Aborigines incorporating these. The recent trends are described by Rev F. Flynn [Flynn and Willey, 1963:215-221].

Stanner [1960] has worked on rock art to the south of Port Keats but indicates that the art was not produced by any known tribe extant now. Another site, Papangala (papa- "war-cry", qala "big"), to the north east has a few paintings but again local people evince no knowledge of their origin (see also Flynn and Willey, [1963:134].

Mulvaney has excavated in the Port Keats area while Flood has made a detailed study of Yarar rock shelter [1966, 1970].

Some song materials have been recorded by Hoddinott, Maddock and Moyle and lately by Walsh (1972-74). These recordings are held in the tape archive of the AIAS.

1.7.2 Linguistic.

1.7.2.1 Capell in the late thirties collected material in Garuma (ie Mutinyalpa) following his own Materials [1945]. This is generally accurate but misses (as does everyone else) the palatal nasal in the word for "language": mujiny.
1.7.2.2 The Rev W.H. Flynn MSC was a missionary stationed at Port Keats shortly after the war. His is the earliest extended study of Mijnypata. The writer has seen his MS studies in about a dozen exercise books. Flynn is reported to have been a fine linguist (ie polyglot) but had little if any strictly linguistic training. The result is typical of an amateur even an intelligent one: initial velar nasals are often not recognized and retroflexes are rarely recorded. The verbs are conjugated after the style of a Latin primer, completely disguising the remarkable richness of pronouns in Mijnypata [4.1]. In addition, the material elicited has a strong bias towards missionary use rather than towards traditional life and culture.

1.7.2.3 Kenneth Hale collected a little material; basic vocabulary and some sentence elicitation in the space of a few hours from an itinerant, Mijnypata camel-driver outside Alice Springs in the early sixties. The language was given as Garama and did turn out to be Mijnynkwa. Hale kindly made available to the writer in 1972 this material with some analysis.

This is by far the most accurate of any of the previous work on the language. The sketch phonology is essentially correct while the ergative/instrumental suffix is given which is most surprising since ergative case marking is nearly always so redundant (see [4.1]) that it is not given spontaneously.
1.7.2.4 Another missionary, Rev M. Bailey MSC, was an extremely talented amateur. He has produced an excellent coverage of the language (held at Missionaries of the Sacred Heart Monastery, Kensington, Sydney). This concentrated on the very complex verb morphology. Phonetically it is generally accurate and is the first to recognize the prevalent morphophonemic alternation [2.10] (although he admitted that he could find no motivation for the alternations).

1.7.2.5 A third missionary, Rev I.M. Sims MSC, has had some linguistic training and could have made a good job of recording Mujinypata. Unfortunately after having acquired a good speaking knowledge he was transferred to Bathurst Island Mission after only a few years (1967-1970). He has recorded a little Mujinypata (AIAS Archive Tape: A1419) which is the earliest recorded material of this dialect readily available.

1.7.2.6 Currently Chester and Lyn Street of the Summer Institute of Linguistics are working on Mujinypata with a view to producing literacy materials. They have produced preliminary descriptions of the phonology [Street and Street 1974] and of the verb structure [Street and Street 1975].
2 PHONOLOGY

2.1 Segmental Phonology

2.1.1 Mujinypata has twenty-seven segmental phonemes: twenty three consonants and four vowels. These are as follows:

<table>
<thead>
<tr>
<th>Voiceless stop</th>
<th>Lamino-</th>
<th>Apico-</th>
<th>Apico-</th>
<th>Lamino-</th>
<th>Dorso-</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bilabial</td>
<td>alveolar</td>
<td>alveolar</td>
<td>palatal</td>
<td>velar</td>
<td>Glottal</td>
</tr>
<tr>
<td>Voiceless stop</td>
<td>p</td>
<td>(ʔ)</td>
<td>t</td>
<td>tʰ</td>
<td>tʰ</td>
<td>k</td>
</tr>
<tr>
<td>Voiced stop</td>
<td>b</td>
<td>d</td>
<td>d̪</td>
<td>d̪ʰ</td>
<td>d¹</td>
<td>g</td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td>n</td>
<td>n̪</td>
<td>n¹</td>
<td>n̪</td>
<td>⁰</td>
</tr>
<tr>
<td>Lateral</td>
<td>l</td>
<td>ɬ</td>
<td>ɬ̪</td>
<td>ɬ̪ʰ</td>
<td>ɬ̪</td>
<td>⁰</td>
</tr>
<tr>
<td>Resonant</td>
<td>r̥</td>
<td>r̥</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resonant trill</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semivowel</td>
<td>w</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>y</td>
</tr>
</tbody>
</table>

2.1.1.A Mujinypata Consonantal Phonemes.

Vowels

<table>
<thead>
<tr>
<th>Vowels</th>
<th>front</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>low</td>
<td>e</td>
<td>a</td>
</tr>
</tbody>
</table>

2.1.1.B Mujinypata Vocalic Phonemes
2.1.2 However, there are two residual problems in the phoneme inventory of consonants. /ʃ/ and /ʔ/ have been put in brackets because of their doubtful phonemic status.

2.1.2.1 There is just one minimal pair contrasting a voiceless lamino-dental stop with a voiceless apico-alveolar stop: [tʰɛ], "white egret"; [tʰɛ], "tree". Informants insist that each of these should be given a separate pronunciation. They also stated that neither word was a loan from another language although they have volunteered such information for other words. What is problematic is the fact that in every other case [tʰ] and [tʰ] are in free variation. Thus /tek/ "black cockatoo" has among its realisations: [tʰɛk] and [tʰɛk].

2.1.2.2 There is also another phonemic problem associated with the single occurrence of a glottal stop. [ʔ] occurs in [mʊʔmʊŋ] "water-rat" but in no other word in the language. Informants claim that this is not a loan word. Furthermore, neighbouring languages to the south: the Djamindjangan family (see Cleaverly, Bolt, Hoddinott 1970) do not have the glottal stop nor do languages to the east and north: the Daly family (see Tryon, 1974:287-289). Any attempt to leave out the glottal stop [mʊʔmʊŋ] or replace it with some other stop eg [mʊkʊmʊŋ] was rejected by informants. There does not appear to be any phonological conditioning which could account for the presence of a glottal stop.
Thus words such as [múŋu] "bone"; [khúmuŋu] "blood"; [mánman] "butterfly (generic)" and [múkmuk] "brain" have phonetic environments similar to that of [múmumun] but may not have a glottal stop. In view of informants' insistence that the glottal stop is distinctive in this word it will be tentatively entered in the phonemic inventory. However /ʔ/, like /ɡ/, will not play any further part in the phonemic description and no attempt is made to include them in the phonological description in terms of distinctive feature matrices (2.1.9).

2.1.3 Apart from these two problems Muûnypata is a fairly typical Australian language in its phonology. Basically, it has a stop system with five places of articulation. There are five nasals corresponding in place of articulation to the stops and three laterals corresponding in point of articulation, to the non-peripheral stops and nasals. The general pattern for Australian languages west of the Gulf of Carpentaria is for there to be n-2 laterals associated with n stops and nasals, the two peripheral points of articulation accounting for the reduction from n. In addition, Muûnypata follows the general Australian pattern [Dixon 1972:2-3, Dixon 1970:80-84] in having two semivowels, a labial, w, and a palatal, y.

Muûnypata is atypical in having a distinction in voice for the stop series and in having three r-sounds instead of the usual two, a semi-retroflex continuant and a flap. Also it has four vowels rather than the most common three vowel system.
2.1.4 Phonemic Contrasts.

The phoneme is regarded as the smallest unit in the phonological description which can distinguish meaning. Since phonetic similarity is necessary before two phones may be allocated to the one phoneme minimal pairs will be provided only for suspicious pairs eg. contrasts such as j/ʃ are stated because it is reasonable that they might be allophonic variants. However such contrasts as p/ɡ illustrated by a pair like [piː:] "string" and [ŋiː:] "death adder" are not considered to be significant.

The basis of the phonemic analysis is illustrated by the following sets of words contrasting realisations of the putative consonant phonemes in identical or near identical phonetic environments.

2.1.4.1 Initial Contrasts.

\[\xi/t\]  ṭayi  "white egret"
    tayi  "tree"

\[t/ʃ\]  ṭalman\textsuperscript{y}d\textsuperscript{y}i  "music"
    ṭalman\textsuperscript{y}  "insect (sp.)"

\[t/d\textsuperscript{y}\]  tamul  "neck"
    \(t^\text{y}\)aban  "initiation ceremony"

\[d/ɡ\]  daʃipi  "skin"
    ɡaʃanin  "forked sticks"

\[d/d\textsuperscript{y}\]  deʃe  "ant (sp.)"
    d\textsuperscript{y}aj\textsuperscript{i}  "(hot) wind"
2.1.4 Phonemic Contrasts.

The phoneme is regarded as the smallest unit in the phonological description which can distinguish meaning. Since phonetic similarity is necessary before two phones may be allocated to the one phoneme minimal pairs will be provided only for suspicious pairs eg. contrasts such as j/t are stated because it is reasonable that they might be allophonic variants. However such contrasts as p/ŋ illustrated by a pair like [pi:] "string" and [ŋi:] "death adder" are not considered to be significant.

The basis of the phonemic analysis is illustrated by the following sets of words contrasting realisations of the putative consonant phonemes in identical or near identical phonetic environments.

2.1.4.1 Initial Contrasts.

\[ t/t \]
- tayi "white egret"
- tayi "tree"

\[ t/t \]
- talman\textsuperscript{y}d\textsuperscript{y}i "music"
- t\textsuperscript{y}alman\textsuperscript{y} "insect (sp.)"

\[ t/t\textsuperscript{y} \]
- tamal "neck"
- t\textsuperscript{y}aban "initiation ceremony"

\[ d/d\textsuperscript{y} \]
- da\textsuperscript{j}ipi "skin"
- qa\textsuperscript{j}anin "forked sticks"

\[ d/d\textsuperscript{y} \]
- d\textsuperscript{y}e\textsuperscript{j}i "ant (sp.)"
- d\textsuperscript{y}e\textsuperscript{j}i "(hot) wind"
<table>
<thead>
<tr>
<th>p/b</th>
<th>pi</th>
<th>&quot;string&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bi</td>
<td>&quot;mudfish&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>t/d</th>
<th>tajal</th>
<th>&quot;headband&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>deset</td>
<td>&quot;mob&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>t/g</th>
<th>tyranny</th>
<th>&quot;ear&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>dyg</td>
<td>&quot;crab (sp.)&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>k/g</th>
<th>ke</th>
<th>&quot;bloodwood tree&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>gek</td>
<td>&quot;(a) spurt of water&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>n/g</th>
<th>ninl</th>
<th>&quot;water buffalo&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>nan</td>
<td>&quot;what's it's name?&quot;</td>
</tr>
<tr>
<td></td>
<td>qiq</td>
<td>&quot;dream&quot;</td>
</tr>
<tr>
<td></td>
<td>n'ini</td>
<td>&quot;this&quot;</td>
</tr>
</tbody>
</table>

There are no initial contrasts for the laterals, resonants or vowels since /l/ is the only one of these to occur initially. y/v are not distinguished for obvious reasons.

*See spectrograms in Appendix 1 for contrast of [p] and [b] initially and medially.*
2.1.4.2 Medial Contrasts.

<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>t/t\ć</td>
<td>&quot;seek, look for&quot;</td>
<td>pewetipewetį &quot;rough&quot;</td>
</tr>
<tr>
<td>t/t\v</td>
<td>&quot;good&quot;</td>
<td>pata</td>
</tr>
<tr>
<td></td>
<td>&quot;foreign&quot;</td>
<td>bətvu</td>
</tr>
<tr>
<td>t/d/ŋ</td>
<td>&quot;personal name&quot;</td>
<td>muta</td>
</tr>
<tr>
<td></td>
<td>&quot;definitely not&quot;</td>
<td>wuda</td>
</tr>
<tr>
<td></td>
<td>&quot;now&quot;</td>
<td>wada</td>
</tr>
<tr>
<td>d/d\v</td>
<td>dual, non-feminine marker</td>
<td>ninda</td>
</tr>
<tr>
<td></td>
<td>place name</td>
<td>kanindęten</td>
</tr>
<tr>
<td>p/b</td>
<td>&quot;below&quot;</td>
<td>pepe</td>
</tr>
<tr>
<td></td>
<td>&quot;vomit&quot;</td>
<td>bebe</td>
</tr>
<tr>
<td></td>
<td>(illustrated by spectrograms for two different speakers)*</td>
<td></td>
</tr>
<tr>
<td>t/ŋ</td>
<td>does not occur in the corpus</td>
<td></td>
</tr>
<tr>
<td>t\v/d\v</td>
<td>&quot;3sg is sweating&quot;</td>
<td>den\vty\l</td>
</tr>
<tr>
<td></td>
<td>&quot;noun classifier&quot;</td>
<td>nan\vdy\l</td>
</tr>
<tr>
<td>k/g</td>
<td>&quot;soft&quot;</td>
<td>pekpek</td>
</tr>
<tr>
<td></td>
<td>&quot;bark (of dog)&quot;</td>
<td>begbeg</td>
</tr>
<tr>
<td>q/ʃ [ʃ]</td>
<td>&quot;belly&quot;</td>
<td>maʃa</td>
</tr>
<tr>
<td></td>
<td>&quot;today&quot;</td>
<td>məʃa</td>
</tr>
<tr>
<td>n/q</td>
<td>&quot;3sg will go&quot;</td>
<td>punu</td>
</tr>
<tr>
<td></td>
<td>&quot;grass (sp.)&quot;</td>
<td>paçu</td>
</tr>
</tbody>
</table>

*See Appendix I.
<table>
<thead>
<tr>
<th>n/y</th>
<th>nyini</th>
<th>&quot;this&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>nyini</td>
<td>&quot;2sg. pronoun&quot;</td>
</tr>
<tr>
<td>l/l</td>
<td>graphql</td>
<td>&quot;breast&quot;</td>
</tr>
<tr>
<td></td>
<td>graphql</td>
<td>&quot;I will wash 3sg.&quot;</td>
</tr>
<tr>
<td>l/ly</td>
<td>palin</td>
<td>&quot;handle&quot;</td>
</tr>
<tr>
<td></td>
<td>palir</td>
<td>&quot;rock&quot;</td>
</tr>
<tr>
<td>l/r</td>
<td>yara</td>
<td>snail (sp.)</td>
</tr>
<tr>
<td></td>
<td>yara</td>
<td>place name</td>
</tr>
<tr>
<td></td>
<td>yara</td>
<td>place name</td>
</tr>
<tr>
<td>l/r</td>
<td>merej</td>
<td>&quot;journey&quot;</td>
</tr>
<tr>
<td></td>
<td>merej</td>
<td>&quot;type of nut&quot;</td>
</tr>
<tr>
<td>l/r</td>
<td>purunu</td>
<td>&quot;3sg. will move&quot;</td>
</tr>
<tr>
<td></td>
<td>purunu</td>
<td>&quot;3pl. will move&quot;</td>
</tr>
</tbody>
</table>

2.1.4.3 Final Contrasts.

<table>
<thead>
<tr>
<th>t/t</th>
<th>wast</th>
<th>&quot;flying fox&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>net</td>
<td>&quot;boil&quot;</td>
</tr>
<tr>
<td></td>
<td>nat</td>
<td>&quot;2sg. brought it&quot;</td>
</tr>
<tr>
<td>t/tv</td>
<td>tut</td>
<td>&quot;woomera (type)&quot;</td>
</tr>
<tr>
<td></td>
<td>tvet</td>
<td>&quot;possum (sp.)&quot;</td>
</tr>
<tr>
<td>d/q</td>
<td>none attested</td>
<td></td>
</tr>
<tr>
<td>d/dv</td>
<td>none attested</td>
<td></td>
</tr>
</tbody>
</table>
p/b  ylrtyp  "cat"
    dyebdyeb  "food"

t/d  none attested

t/q  panmat  "he hit him"
    baqbaq  "right (vs. left)"

tv/dv  none attested

k/g  pekpek  "soft"
    begbeg  "bark (of dog)"

n/q  nan  "what's its name?"
    nηη  "dream"

n/nv/n  mun  "lily root (sp.)"
    puny  "initiation ceremony"
    peη  "rubbish"

l/l  qantal  "I bite off (a piece of food)"
    qantaļ  "I open (the door)"

l/lv  none attested

2.1.5  Realisations of Consonant Phonemes.

2.1.5.1  All stops have unaspirated allophones and unreleased allophones. Voiceless stops also have aspirated allophones which share the highest frequency with the unaspirated allophones. Peripheral stops and apico-alveolar stops have fricative allophones with corresponding places of articulation. These tend to be the lowest in frequency of the allophones for those
phonemes. /p/ also has a labiodental fricative allophone [f]. The apico-alveolar stop phonemes have apico-alveolar, apico-dental and lamino-dental allophones, apico-alveolar being the most common. Laminal stop phonemes have alveolar and alveo-palatal affricate phonemes. /u/ is sometimes rounded at the lips but is more commonly unrounded with the articulation at the lips slightly further forward than would be normal for English. /j/ is realised as an apico-alveolar continuant [ɻ] most commonly but also as an apico-alveolar flap [ɾ]. There is no significant allophonic variation for the other consonant phonemes.
### 2.1.5.2 Allophones of Stop Phonemes

<table>
<thead>
<tr>
<th></th>
<th>Aspirated</th>
<th>Unaspirated</th>
<th>Unreleased</th>
<th>Fricative</th>
<th>Affricate</th>
<th>Stop</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p/</td>
<td>pʰ</td>
<td>p</td>
<td>p⁻</td>
<td>ɸ</td>
<td>f</td>
<td></td>
</tr>
<tr>
<td>/t/</td>
<td>tʰ</td>
<td>t</td>
<td>t⁻</td>
<td>θ</td>
<td>(lamino-dental)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tʰ</td>
<td>t ʰ</td>
<td>t⁻</td>
<td>(apico-alveolar)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>tʰ</td>
<td>t ʰ</td>
<td>t⁻</td>
<td>(apico-dental)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/tʃ/</td>
<td>tʃʰ</td>
<td>tʃ</td>
<td>tʃ⁻</td>
<td>ts</td>
<td>tʃ</td>
<td></td>
</tr>
<tr>
<td>/k/</td>
<td>kʰ</td>
<td>k</td>
<td>k⁻</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/b/</td>
<td>bʰ</td>
<td>b</td>
<td>b⁻</td>
<td>β</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/d/</td>
<td>dʰ</td>
<td>d</td>
<td>d⁻</td>
<td>(lamino-dental)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>dʰ</td>
<td>d</td>
<td>d⁻</td>
<td>(apico-alveolar)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>dʰ</td>
<td>d</td>
<td>d⁻</td>
<td>(apico-dental)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/g/</td>
<td>gʰ</td>
<td>g</td>
<td>g⁻</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/dʒ/</td>
<td>dʒʰ</td>
<td>dʒ</td>
<td>dʒ⁻</td>
<td>dz</td>
<td>dʒ</td>
<td></td>
</tr>
<tr>
<td>/ɡ/</td>
<td>ɡʰ</td>
<td>ɡ</td>
<td>ɡ⁻</td>
<td>ɣ</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.1.5.3 Distribution of Allophones.

The aspirated allophones of stops occur word initially, finally and intervocalically but not as the first member of a consonant cluster. Note that only voiceless stops have aspirated allophones. The unaspirated allophones may occur in any position and are the most commonly occurring in each position. The fricative allophones only occur intervocalically. The allophones of the alveolar phonemes with dental articulation occur much less frequently in the same positions as their alveolar counterparts but have been observed most commonly in initial position. The affricate allophones of the laminal stop phonemes occur word initially and word finally. The alveolar and dental allophones of /n/ are in free variation; \( [\eta] \) has been observed most commonly in initial position. The most fronted variety of /w/ occurs before /u/.

The apico-alveolar flap [r] occurs intervocically between segments specified as \[ + \text{ syllabic} \] \[ \text{ie.} /a/ \text{ and} \]
\[ \text{a low} \]
\[ \text{-u front} \]

/r/ (see [2.1.9]). Voiced stops tend to get devoiced in final position.

2.1.6 Distribution of Phonemes.

2.1.6.1 Word initial.

Stops, nasals and semivowels may occur initially. Of the laterals only /l/ has been observed in initial position, and then only infrequently. /j/ has been observed initially in a few words Ḡajiman "name of a spirit", Jidye "razor", as has /a/. /e/ has been observed initially in one loan
word from English, əynədəyəl "angel".

2.1.6.2 Word final.

Stops, nasals, vowels may occur finally. Two of the laterals, /l/ and /ɾ/ occur finally, and two of the resonants /j/ and /ɾ/; /y/ may occur finally. /w/, /ɬ/ and /ɾ/ do not occur finally. Voiced stops occur very infrequently in final position: they are often devoiced in final position cf. German.

2.1.6.3 Intervocalic.

All non-vocalic segments may occur intervocalically.

2.1.6.4 Consonant Clusters.

2.1.6.4.1 Intramorphemic.

2.1.6.4.1.1 Two member clusters.

Because there are relatively many consonants viz. 23 in Mu-jinypata the number of combinations of any two consonants which can be generated is correspondingly quite large (529 ie. 23²). Of the 529 possible combinations only 93 occur so that it will be more revealing if we list combinations of classes of consonants in a number of separate charts.

From these charts a number of generalisations emerge:

(1) The second member of two member intramorphemic cluster tends to be peripherally articulated (57 of the 93 observed clusters follow this tendency).
(2) Liquids as first members of clusters form a proportionally large number of clusters (34 of the 93 observed). Apart from these some weaker observations can be made.

(a) Nasal-stop clusters tend to have the stop member voiced.
(b) Heterorganic nasal-stop clusters tend to have a peripheral stop (following (1)).
(c) Clusters consisting of two stops tend to agree in voicing.

### 2.1.6.4.1.1.A Nasal-stop clusters

<table>
<thead>
<tr>
<th>2nd</th>
<th>p</th>
<th>t</th>
<th>t̂</th>
<th>t̄</th>
<th>k</th>
<th>b</th>
<th>d</th>
<th>d̄</th>
<th>g</th>
</tr>
</thead>
<tbody>
<tr>
<td>m</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>/</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>n</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>n̄</td>
<td>/</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n̄̄</td>
<td>/</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n̄̄̄</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>/</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Where / indicates just one occurrence observed; X indicates at least two occurrences observed.

### 2.1.6.4.1.1.B Nasal - nasal

<table>
<thead>
<tr>
<th>2nd</th>
<th>m</th>
<th>n</th>
<th>n̄</th>
<th>n̄̄</th>
<th>n̄̄̄</th>
<th>n̄̄̄̄</th>
</tr>
</thead>
<tbody>
<tr>
<td>m</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td></td>
</tr>
<tr>
<td>n</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n̄</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>n̄̄</td>
<td>/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n̄̄̄</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n̄̄̄̄</td>
<td>/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 2.1.6.4.1.1.C Stop - stop

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>p</th>
<th>t</th>
<th>t̂</th>
<th>t̄</th>
<th>k</th>
<th>b</th>
<th>d</th>
<th>ɻ</th>
<th>d̄</th>
<th>g</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>t̂</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>t̄</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>X</td>
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<td></td>
<td>X</td>
<td></td>
<td></td>
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<td>/</td>
<td></td>
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<tr>
<td>b</td>
<td></td>
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<td>d</td>
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<tr>
<td>ɻ</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>d̄</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>g</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

### 2.1.6.4.1.1.D Stop - nasal

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>m</th>
<th>n</th>
<th>ɳ</th>
<th>n̄</th>
<th>g</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t̂</td>
<td>(/)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t̄</td>
<td>/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ɻ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d̄</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/</td>
</tr>
</tbody>
</table>
In addition the following two-member clusters have been observed:

nasal - semivowel
\[ \text{ny} \quad X \quad (\eta w) \]

semivowel - consonant
\[ \gamma t \quad / \]
\[ \gamma k \quad X \]
\[ \gamma w \quad / \]
\[ \gamma y \quad X \]

stop - semivowel
\[ p w \quad / \]

2.1.6.4.1.2 Three member clusters.

The following three-member intramorphic clusters have been observed:

\[ y t p \quad t a y t p i r \quad "true" \]
\[ t a y t p i \quad "lip, mouth" \]
\[ m a n d a y t p e \quad "place name" \]
\[ l k m \quad m e l k m e l t a y y l \quad "spoonbill" \]
\[ ( l k t \quad m e l k m e l t a y y i \quad "spoonbill" )^* \]
\[ l m b \quad w a l m b u r \quad "testicles" \]
\[ w a l m b u \quad "place name" \]
\[ r k p \quad d a k i r k p a n \quad "loin cloth" \]
\[ p u r p u r k \quad "dance" \]
\[ r n k \quad w e r n k u \quad "wild" \]
\[ r n k \quad t a r n k i n \quad "taipan" \]

*Possibly this word is dimorphemic: melkmelk - tayyi
\[ ? \quad - lip, mouth \]

Stress can sometimes be used as a diagnostic for morpheme breaks (2.2.2.5) but here the stress pattern is suggestive but not conclusive: melkmelktayyi SSSU
It can be seen that such clusters are not common. Excepting ytp, three member clusters consist of a lateral or rhotic followed by two peripheral consonants (nasals or stops) ie.

\[
\begin{align*}
\text{l} & \{ \text{peripheral stop} \} \text{ peripheral stop} \\
\text{r} & \{ \text{peripheral nasal} \} \text{ peripheral nasal}
\end{align*}
\]

2.1.6.4.2 Intermorphemic Clusters.

2.1.6.4.2.1 Two member clusters.

The distribution of two member inter-morphemic clusters is quite different from that of the intramorphemic clusters. It will be seen that phonological changes occur across morpheme boundaries (2.1.10.17). This means for example that an intramorphemic cluster such as ny can never occur as an inter-morphemic cluster because of MP-2 or MP-3 (2.1.10.18). Similarly while nd occurs intramorphemically it is ruled out intermorphemically by MP-9 which converts nd to nd; the geminate cluster nn which appears in the fairly common word punnu "liver" is impossible intermorphically because of the geminate nasal reduction rule expressed by MP-11 (or MP-11').

The chart given contains many "accidental gaps" ie. there is no special reason why these clusters should not occur but they have not
been observed. The clusters which have been observed number 162.

The combinations which do appear in the chart are based on the terminal consonants of the most commonly occurring affixes in the language. These are:

-\text{nu}
-\text{te-we}
-\text{wa}
-\text{ka}
-\text{ya}

which may be suffixed to any nominal or verbal root in the language. In addition the incorporated body part terms (4) and incorporated pronouns (4) may be suffixed to verbal auxiliaries and to adjectival roots. In summary we have -\text{C} for body parts and pronouns as:

\begin{center}
\begin{tabular}{cccc}
  p & t & t\text{Y} & k \\
  b & d & \tilde{d} & \\
  m & n & n\text{Y} & \eta \\
  w & (\gamma) & \\
\end{tabular}
\end{center}

2.1.6.4.2.1.A Initial Consonants of frequently occurring morphemes.

These may be suffixed to verbal auxiliaries where the final \text{consonant} (others end in vowels)
is m or n and adjective roots which may end in \( p t k n^y \) as well as \( t \) and \( t^y \) although the latter have a limited distribution since some of the combinations are not semantically feasible. In summary these are:

\[
\begin{array}{cccc}
p & t & (t) & (t^y) & k \\
m & n & n^y \\
\end{array}
\]

2.1.6.4.2.1.B Final consonants of frequently occurring Morphemes.
<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>x x</td>
</tr>
<tr>
<td>t</td>
<td>x x</td>
</tr>
<tr>
<td>y</td>
<td>x x</td>
</tr>
<tr>
<td>k</td>
<td>x x</td>
</tr>
<tr>
<td>b</td>
<td>x x</td>
</tr>
<tr>
<td>d</td>
<td>x x</td>
</tr>
<tr>
<td>g</td>
<td>x x</td>
</tr>
<tr>
<td>m</td>
<td>x x</td>
</tr>
<tr>
<td>n</td>
<td>x x</td>
</tr>
<tr>
<td>nd</td>
<td>x x</td>
</tr>
<tr>
<td>nny</td>
<td>x x</td>
</tr>
<tr>
<td>nny</td>
<td>x x</td>
</tr>
<tr>
<td>liy</td>
<td>0 0 0</td>
</tr>
<tr>
<td>liy</td>
<td>0 0 0</td>
</tr>
<tr>
<td>w</td>
<td>x x</td>
</tr>
<tr>
<td>y</td>
<td>x x</td>
</tr>
<tr>
<td>r</td>
<td>x x</td>
</tr>
</tbody>
</table>

where x = cluster occurs (observed in at least two forms)
0 = cluster cannot occur because the first member of the hypothetical cluster does not occur morpheme finally.
(x) = cluster cannot occur because of morphophonemic rules (2.1.10)
2.1.6.4.2.2 Three-member Intermorphemic Clusters.

These have much in common with three member intramorphemic clusters in that the first two members of the cluster must be l or r followed by a peripheral stop or nasal, or y followed by a voiceless stop (yɨ has not been observed):

\[
\begin{align*}
\text{l} & \quad + \text{peripheral stop} \\
\text{r} & \quad + \text{nasal} \\
y & \quad + \text{voiceless stop}
\end{align*}
\]

To these can be added:

-nu, -te/-je, -wa, -ka, -ya

The adjective root, tawaytɨ "slow", may form a three member cluster with any of the consonants given in 2.1.6.4.2.1A provided the result is semantically feasible. For example, we have

\[
tawaytɨ-ɨ-me
\]

slow-3sg-foot

"He is slow of foot"

but hardly

\[
*tawaytɨ-ɨ-tɨ\]

slow-3sg-breast

?
2.1.6.4.2.3 Other Clusters.

There are no vocalic clusters nor are there four member consonant clusters.

2.1.7 Vowels.

2.1.7.1 Mújinypata has four vowels which contrast phonemically. Phonemically the relevant contrasts are relative highness versus relative lowness and relative frontness versus relative backness. Thus in purely articulatory terms the vowel phonemes could be represented as in this table:

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>low</td>
<td>e</td>
<td>a</td>
</tr>
</tbody>
</table>

2.1.7.2 Allophonic Variation in Vowels.

2.1.7.2.A Approximate Positions of Vowel Allophones.*

*This plotting must be considered very approximate especially in view of Ladefoged's findings on judgments of cardinal vowel positions [1967:50-142].
Approximate positions of allophones are illustrated in 2.1.7.2.A. Lengthened varieties of allophones may occur in stressed syllables especially in monosyllabic words; they are also common before fricative allophones of stops and semivowels.

For /a/ a low front unrounded allophone [ɔ] has been heard in a few words eg /pemar/ [pʰemar] "head hair"; /matYitY/ [matYitY] "matches (<English)". [ɔ] in these positions varies with [ɛ] and is therefore assigned to /a/.

[ɔ] occurs as an allophone of /a/ in two words: /lawali/ [lɔwɔlː] "upper leg"; /lawanga/ [lɔwɔŋa] "wallaby". In these words it varies with [ʌ] and is thus assigned to the phoneme, /a/. Perhaps the more common [ʌ] is backed to [ɔ] by the presence of [w]. Against this is the fact that other occurrences of /a/ before or after /w/ do not allow as an allophone eg /wawa/ [wɔwɔw] "edible root".

*[wɔwɔw]*

[ɔ] also occurs as an allophone of /a/ in a few words. /tʰaiŋ/ [tʰaiŋ] "house"; /tʰaiŋ/ [tʰaiŋ] "belt". In these words it varies with [ʌ] and it might be supposed that [ʌ] has been fronted to [ɔ] by the preceding palatal. Because [ɔ] varies with [ʌ] it is assigned to /a/.

[ɛ] tends to occur in unstressed syllables. The most commonly occurring allophones are [ɛ] for /ɛ/; [a], [ʌ] and [ə] for /a/ and [w] for /u/.
2.1.7.3 Vowel Contrasts.

2.1.7.3.1 Medial Positions.

The contrast between /e/ and /a/ is one of the most significant in the language since it is just this contrast which distinguishes reflexive from non-reflexive verb forms in the paradigms of many verbs. /e/ and /a/ also contrast in non verbal items.

mempuŋ  "I washed myself"
mempuŋ "I washed 3sg 3sgi 3sg.j*"
yulun  "salmon"
yulun  "ashes"
tamal  "neck"
tamal  "spear"
mel  "sandfly"
mel  "fly (generic)"
wiwi  "bush tobacco"
wawa  "edible root (sp.)"
qega  "sun"
qega  "frog (sp.)"
wulbirk  "sugarbag (sp.)"
merk  "moon"

* i, j... indicate referential indices.
2.1.7.3.2 Final Position.

pi "string"
pe "lily nut (sp.)"

"weapon (generic)"
"2sg. will sit"

ba "wasp (generic)"
bi "blue swimmer crab"

ke "panimenko nut"
ku "meat/animal (generic)"
ka "interrogative particle"

pigunu "3rd person paucal sibling pronoun"
piguna "3rd person dual sibling pronoun"

2.1.7.4 Interpretation of Diphthongs.

These phonetic diphthongs have been observed:

\([a^1] \sim [\alpha^1]; \ [e^i] \sim [\epsilon^i] \) and \([u^i] \sim [\omega^i] \sim [\varepsilon^i] \).

There is no phonetic diphthong \([i^i] \) nor are there any diphthongs with labio-velar glides. Phonetic diphthongs are interpreted as a vowel followed by a semivowel in the phonemic description. Thus \([kha^1\ kha^1] \) "shout" is represented phonemically as /kaykay/.

The alternative solution would be to treat a diphthong phonemically as a sequence of two vowels.

Blake and Breen [1971:31-32, 42] in describing Pitta-Pitta have phonemicized glides with their corresponding vowels since the occurrence of a glide rather than its syllabic
equivalent was predictable from the environment. If this approach were adopted [kʰa₁'kʰa₁] "shout" would be phonemicized as /kʰaikai/. Roots with the other diphthongs such as [tʰe₁'ɪ] "listen" and [pʰang-gi:'] "long" would be phonemicized as /tʰeɪi/ and /pʰang-gi:/. If the vowel plus semivowel interpretation is adopted the kinds of syllables which can occur can be simply stated by the expression: CV(C)(C). Otherwise additional syllable types have to be included - for /pang-gi:i:/ above, for example, we would need CVC, CVV and WV, ie pan-gui:ii. Secondly realisation rules will have to be set up to decide when a given written vowel symbol (in the phonemic orthography) is to be interpreted as syllabic or non-syllabic. Thus given a word like [na₁'wo₁-yii] "jellyfish" if we phonemicize it as /naiuii:/ we must have realisation rules which will assign syllabicety to the correct phonemic segments. Adopting the vowel plus semivowel interpretation we have /naywuyi:/ wherein the syllabic boundaries (as observed) can be stated by the following single expression:

\[ \phi + ./ \text{CV} \]

In the alternative solution we must have complicated rules which will avoid the interpretation of /naiuii:/ as \#([na_yo_wi_yi].

2.1.8 In the section on allophonic variation in consonants (2.1.5.2) we saw that the apico-alveolar stop phonemes have lamino-dental, apico-dental and apico-alveolar stop allophones. Of these allophones the lamino-dentals occur least commonly
equivalent was predictable from the environment. If this
approach were adopted [khe̞íkhe̞í] "shout" would be
phonemicized as /kaikai/. Roots with the other
diphthongs such as [tve̞ítve̞í] "listen" and [pʰe̞ŋŋo̞i̞:i̞:] "long" would be phonemicized as /tve̞itve̞í/ and /pʰe̞ŋŋo̞i̞:i̞:/.

If the vowel plus semivowel interpretation is
adopted the kinds of syllables which can occur can be
simply stated by the expression: CV(C)(C). Otherwise
additional syllable types have to be included - for
/pangui̞:i̞:/ above, for example, we would need CVC, CVV
and VV, ie pangui̞:i̞:. Secondly realisation rules will
have to be set up to decide when a given written vowel
symbol (in the phonemic orthography) is to be interpreted
as syllabic or non-syllabic. Thus given a word like
[na̞i̞wɔi̞:i̞i̞] "jellyfish" if we phonemicize it as /na̞i̞uui̞i̞/ we
must have realisation rules which will assign
syllability to the correct phonemic segments. Adopting
the vowel plus semivowel interpretation we have /na̞yuyuyi̞/
wherein the syllabic boundaries (as observed) can be stated
by the following single expression:

\[ \phi \rightarrow . / CV \]

In the alternative solution we must have complicated
rules which will avoid the interpretation of /na̞i̞uui̞i̞/
as *[na̞.wɔ.wi̞.yi̞:i̞].

2.1.8 In the section on allophonic variation in consonants
(2.1.5.2) we saw that the apico-alveolar stop phonemes have
lamino-dental, apico-dental and apico-alveolar stop allophones.
Of these allophones the lamino-dentals occur least commonly
while the apico-alveolar allophones occur the most commonly. Lamino-dental stop phones are in free variation with apico-alveolar stop phones.

However Street and Street [1974] in what is admittedly a preliminary phonological description assign the lamino-dental phones to the same phoneme as they assign the laminal palatal phones while the apico-alveolar (and presumably the apico-dental) phones are assigned to an apico-alveolar phoneme. They claim that [ʂ] and [tʂ], and, [d] and [dʐ] should be assigned to laminal phonemes represented either as /ʂ/ and /ʐ/ or, /tʂ/ and /dʐ/. The lamino-dental phones are said to be in complementary distribution with the apico-alveolar phones. Before a vowel [tʐ] and [dʐ] are said to occur only before the front vowels, viz. /i/ and /e/ while [ʂ] and [ʐ] occur only before the back vowels, viz. /a/ and /u/. Other environments have not been dealt with. Such an interpretation is supported by the similar pattern found in many Australian languages [Dixon 1970] where there is a single laminal with the same sort of allophonic variation as has been suggested for Murrinhpatha.

The Streets claim therefore that there is a consistent phonemic opposition between lamino-dental stops and apico-alveolar stops. This section shows that such a view will not hold (with the single exception already mentioned [2.1.2.1]). The distributional argument has a large number of counter-examples. A non-exhaustive list of forms in which a lamino-palatal stop precedes a back vowel follows. The writer's phonemicisation is given for each form together with a typical phonetic shape for the form - to include all the
phonetic realisations for each form would not be practicable.

\[t\nu\] [\textit{t\nu}]  
"weapon"

\[b\dot{t}\nu\] [\textit{b\dot{t}\nu}]  
"foreign"

\[\textit{t}\nu\text{nura}\textit{ka}\] [\textit{t\nu\nu\nu\nu:\textit{ra}\textit{k}\nu\nu}]  
"paddle"

\[t\nu\textit{ki}\textit{n}\] [\textit{t\nu\nu\nu\nu\nu}]  
"sock" (English loan word derived from "stocking")

\[t\nu\textit{na}\textit{ji}\] [\textit{t\nu\nu\nu\nu\nu}]  
subsection name

\[t\nu\textit{nala}\] [\textit{t\nu\nu\nu\nu\nu}]  
subsection name

\[t\nu\textit{bityin}\] [\textit{t\nu\nu\nu\nu\nu}]  
subsection name

\[t\nu\textit{ba}\textit{ŋ}\] [\textit{t\nu\nu\nu\nu\nu}]  
"a stage in an initiation ceremony"

\[t\nu\textit{manin}\] [\textit{t\nu\nu\nu\nu\nu}]  
"type of bush country"

\[t\nu\textit{ndu}\] [\textit{t\nu\nu\nu\nu\nu}]  
"boat"

\[t\nu\textit{plput}\] [\textit{t\nu\nu\nu\nu\nu}]  
"house"
tyalpuŋ [tyalpuŋ]
"rat (esp.)"

tyamapaye [tyamapaye]
"wax"

tyawunj [tyawunj]
"cloth"

tyaguda [tyaguda]
"rat-hole"

tyambity [tyambity]
"unmarried man"

tyama [tyama]
"food-trading"

tyaliŋ [tyaliŋ]
"belt"

tyandumaga [tyandumaga]
"dish"

miŋyadjawur [miŋyadjawur]
"scraper"

maŋiyambaŋ [maŋiyambaŋ]
"edge"
A rather large number of examples has been provided because it was argued by Street and Street [op.cit.] that the few counterexamples they had noted could be treated as exceptions to the general pattern they were setting up. The exceptions noted were mostly the subsection names. A good case could be put for the subsection-names being recent borrowings especially since the subsection system was only introduced recently [Stanner 1936] and therefore likely candidates for a "special" phonological system [Henderson 1951:74] within the language. However the semantic range represented by the examples given above which, with the exception of t'ukin, are not considered loan words by native speakers renders the claim that there are a few exceptions scarcely credible.

The interpretation adopted here is to assign [t] to /t/ (with one exception [2.1.2.1]) and [d] to /d/. Native speakers freely vary [t] with [t] and [d] with [d] while any attempts to vary "across phonemic borders" are rejected. [t'] and [d'] are assigned to /t'/ and /d'/ respectively.

2.1.9 Distinctive Feature System.

2.1.9.1 The features adopted in the phonological description of Nuujinypata are for the most part articulatory. They have been drawn partly from Chomsky and Halle [1968] and partly from McCawley [1967] while the others have been devised independently to suit the language-specific situation.

Features have been chosen with a view to accounting for the phonetic facts of the language and to express the
morphophonemic alternation in a compact and revealing way. Fant [1971:179] has objected to the encoding of classes of sounds by distinctive feature specifications in a way which is phonetically unrealistic. "It is questionable whether an inhibition of the lateral command (ie. [- lateral]) in the production of an [1] automatically results in an [r] - sound. Additional adjustment may be necessary. These examples are analogous to the [- coronal, + anterior]encoding of labial consonants which I consider more objectional." This account attempts to avoid such objections.

No attempt has been made to include the two suspicious phonemes /h/ and /ʔ/ which have only one occurrence each in the entire corpus and thus could not be expected to take part in general phonological processes.

2.1.9.2 Description of the Features.

2.1.9.2.1 Major Class Features.


Sonorant. Sonorants include all sounds which are not stops or nasals, those sounds being non-sonorants, or, obstruents. Obstruents involve an obstruction which prevents a continuous flow of air during the sound.
For an acoustic definition see Ladefoged [1971:109] and acoustic correlates of this and the other major class features see Fant [1971:177-178].

Consonantal. Consonantal sounds are "produced with a radical obstruction in the midsagittal region of the vocal tract; nonconsonantal sounds are produced without such an obstruction" [Chomsky and Halle, 1968:302]. This feature separates off semivowels and vowels ([-CONSONantal]) from stops, nasals and liquids.

Nasal. A further feature, [NASAL] is required to subdivide the class of sounds specified by the features [+ SONORANT ] ie. nasals and liquids.

Nasal sounds have air flow through the nasal cavity throughout the sound. Non-nasal sounds do not have an air flow through the nasal cavity.

The four major class features redundantly specify the phonetic classes as follows:

<table>
<thead>
<tr>
<th></th>
<th>Syllabic</th>
<th>Sonorant</th>
<th>Consonantal</th>
<th>Nasal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stops</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Nasals</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Liquids</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Semivowels</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Vowels</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

2.1.9.2.1.A Redundant Matrix showing Phonetic Classes.
2.1.9.2.2 Cavity Features.
PERIPHERAL - Peripheral sounds are sounds formed at the lips or in the dorsal region i.e. at the periphery of the vocal tract. [PERIPHERAL] is the converse of the feature [CORONAL] in the Chomsky-Halle system so [+ PERIPHERAL] is equivalent to [- CORONAL] and [- PERIPHERAL] is equivalent to [+ CORONAL]. The feature, [PERIPHERAL], is adopted, following other Australianists e.g. Crowley [to appear], Eades [1976], and McKay [1975].

APICAL - Apical sounds are articulated with the tip (apex) of the tongue; non-apical sounds are not articulated with the tip of the tongue. This feature serves to distinguish apical consonants from laminal consonants i.e. it subdivides the class of sounds characterised by the feature set:

\[
\begin{array}{c}
\text{[- SYLLABIC]} \\
\text{[- PERIPHERAL]}
\end{array}
\]

This subdivision is effected by the feature [LAMINAL] in feature systems adopted by Austin [1975:2] and by Dixon [to appear]. Within the Chomsky-Halle framework a subdivision of this set of sounds is effected by the feature [ANTERIOR] but with the difference that alveolars, being [+ ANTERIOR], are set apart from dorsals which, together with palatals, are [-ANTERIOR]. It is appropriate for the Australian situation to have one feature which separates apicals from laminals.
HIGH - A further feature is required to distinguish apico-alveolar consonants from apico-domal consonants. The feature, [HIGH], is described by McCawley [1967:525] as "... the [+ high] segments ... are the segments whose primary constriction or closure is above a line drawn from the rear of the alveolar ridge to the uvula". Non-high sounds are sounds whose primary constriction or closure is below a line drawn from the rear of the alveolar ridge to the uvula. This feature will be used only for [- SYLLABIC] segments, unlike McCawley who includes vowels.

LATERAL - A feature is required to differentiate lateral liquids from non-lateral liquids. Lateral sounds are characterised by a complete closure by the tongue tip in the oral cavity with a release of air over the side of the tongue. Non-lateral sounds do not have a lateral release of the air flow.

Classes of sounds, grouped by point of articulation may be redundantly specified by the features [PERIPHERAL], [APICAL] and [HIGH] as shown in the chart.

<table>
<thead>
<tr>
<th></th>
<th>PERIPHERAL</th>
<th>APICAL</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>labials</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>dorso-velars</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>apico-alveolars</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>apico-domals</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>lamino-palatals</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

2.1.9.2.2.A Cavity Features.
2.1.9.2.3 Source Features.

**VOICE.** Voiced sounds involve vibration of the vocal cords throughout the sound. Non-voiced sounds do not have vibration of the vocal cords. This feature serves to distinguish voiced stops from voiceless stops.

**HEIGHTENED SUBGLOTTAL PRESSURE.** Of the [- SYLLABIC] segments there is only one pair which do not each have unique feature specifications. This is the pair /ɾ/, /ɾ/. Chomsky and Halle [1968:318] distinguish between the tap [ɾ] (one of the major allophones of Mujinypata /ɾ/) and the trilled [ɾ] in terms of subglottal pressure. "The distinction between the tap [ɾ] and the trilled [ɾ] is produced by a difference in subglottal pressure: the trilled [ɾ] is produced with heightened subglottal pressure; the tap [ɾ], without it." "The vibrations of the tongue tip ... are produced by the drop in pressure which occurs inside the passage between the tip of the tongue and palate when the air flows rapidly through it (Bernoulli effect). The trill is thus a secondary effect of narrowing the cavity without actually blocking it." Sounds which have heightened subglottal pressure are marked [+ HEIGHTENED SUBGLOTTAL PRESSURE] sounds which do not have it are specified [- HEIGHTENED SUBGLOTTAL PRESSURE]. This feature is relatively costly in the system in that it has been introduced just to separate off one segment. However it will only be explicitly specified when there is a need to distinguish all
the non-lateral liquids (rhotics).

All the features (cavity and source features) described above are only specified for segments which are [- SYLLABIC]. [+ SYLLABIC] segments have a separate feature system.

**Vowel Features.**

**Low.** Low sounds have the highest point of the tongue relatively low during the articulation of the vowel. Non-low sounds do not have the highest point of the tongue relatively low during the articulation of the vowel.

**Front.** Front sounds have the highest point of the tongue relatively forward in the oral cavity during the articulation of the vowel. Non-front sounds do not have the highest point of the tongue relatively forward.

The designation of the features which differentiate the [+ SYLLABIC] segments is deliberately looser than the other definitions because the phonetic variability of the [+ SYLLABIC] segments is broader than that of the [- SYLLABIC] segments. Thus we have /a/ and /e/ having [u] as an allophone and /u/ and /o/ having [o] as an allophone. To mirror the relative phonetic freedom of these segments their phonetic specification has been made freer.
2.1.9.2.1 Redundant Matrix of Musinypata Segments.

<table>
<thead>
<tr>
<th>SYLLABIC</th>
<th>SOUSONANT</th>
<th>CONSONANTAL</th>
<th>NASAL</th>
<th>PERIPHERAL</th>
<th>APICAL</th>
<th>HIGH</th>
<th>LATERAL</th>
<th>VOICE</th>
<th>HEIGHTENDED</th>
<th>SUBCLTAL</th>
<th>PRESSURE</th>
<th>LOW</th>
<th>FRONT</th>
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<tr>
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2.1.9.3 The Redundancy Rules.

2.1.9.3.1 Statement of Rules.

RR-1 $^*$ \([-\text{SONORANT}] \rightarrow \left[ \begin{array}{c} -\text{SYLLABIC} \\ +\text{CONSONANTAL} \\ -\text{NASAL} \\ -\text{LATERAL} \\ -\text{H.S.P.} \end{array} \right]$

RR-2 \([-\text{VOICE}] \rightarrow \left[ \begin{array}{c} -\text{SYLLABIC} \\ -\text{SONORANT} \\ +\text{CONSONANTAL} \\ -\text{NASAL} \\ -\text{LATERAL} \\ -\text{H.S.P.} \end{array} \right]$

RR-3 \([-\text{SONORANT}] \rightarrow \left[ \begin{array}{c} -\text{SYLLABIC} \\ +\text{CONSONANTAL} \\ -\text{NASAL} \\ -\text{LATERAL} \\ -\text{H.S.P.} \end{array} \right]

RR-4 \([+\text{NASAL}] \rightarrow \left[ \begin{array}{c} -\text{SYLLABIC} \\ +\text{SONORANT} \\ +\text{CONSONANTAL} \\ -\text{LATERAL} \\ +\text{VOICE} \\ -\text{H.S.P.} \end{array} \right]$

*Note that RR-1 is redundant in terms of RR-2 and RR-3, and is not necessary for the generation of the non-redundant matrix of Mjijnypata segments. It serves, however, to define the class of stops.
RR-5  [+ LATERAL] → [+ SYLLABIC
  + SONORANT
  + CONSONANTAL
  - NASAL
  - PERIPHERAL
  + VOICE
  - H.S.P.]

RR-6  [- SYLLABIC ] → [+ SONORANT
  [- CONSONANTAL]
  - NASAL
  - APICAL
  - LATERAL
  + VOICE
  - H.S.P.]

RR-7  [+ SONORANT ] → [- SYLLABIC
  [- CONSONANTAL]
  - NASAL
  - APICAL
  - LATERAL
  + VOICE
  - H.S.P.]

RR-8  [+ SONORANT ] → [- SYLLABIC
  [+ CONSONANTAL
  - NASAL
  - LATERAL
  - PERIPHERAL
  + APICAL
  + VOICE

RR-9  [+ SYLLABIC] → [+ SONORANT
  - CONSONANTAL
  - NASAL
  - LATERAL
  - APICAL
  + VOICE
  - H.S.P.
RR-10 \[ - \text{SYLLABIC} \] + \[ - \alpha \text{HIGH} \]
\[ - \text{CONSONANTAL} \]
\[ \alpha \text{PERIPHERAL} \]

RR-11 \[ - \text{SYLLABIC} \] + \[ - \alpha \text{PERIPHERAL} \]
\[ - \text{CONSONANTAL} \]
\[ \alpha \text{HIGH} \]

RR-12 \[ - \text{SYLLABIC} \] + \[ - \alpha \text{PERIPHERAL} \]
\[ \alpha \text{APICAL} \]
\[ \alpha \text{HIGH} \]

RR-13 \[ + \text{PERIPHERAL} \] + \[ - \alpha \text{APICAL} \]

RR-14 \[ + \text{APICAL} \] + \[ - \text{PERIPHERAL} \]

RR-15 \[ + \text{VOICE} \] + \[ - \text{SYLLABIC} \]

RR-16 \[ - \text{H.S.P.} \] + \[ - \text{SYLLABIC} \]

RR-17 \[ + \text{LATERAL} \] + \[ - \text{SYLLABIC} \]
\[ + \text{SONORANT} \]
\[ + \text{CONSONANTAL} \]
\[ - \text{NASAL} \]
\[ - \text{PERIPHERAL} \]
\[ + \text{HIGH} \]
\[ + \text{VOICE} \]
\[ - \text{H.S.P.} \]
2.1.9.3.2 Redundancy Rules — Discussion.

A matrix of features defines each minimal phonological unit i.e. phoneme. The primary function of the redundancy rules is to specify values for every unspecified feature in every matrix.

Redundancy rules reduce the number of features in
a matrix to just those which are necessary to
define that segment. In the case of /r/ only one
feature with its particular value is necessary to
define the segment viz. [+ HEIGHTENED SUBGLOTTAL
PRESSURE]; (henceforth: H.S.P.), the other nine
features with their values are unambiguously
recoverable by a redundancy rule (NR-19). Sometimes
a segment may be defined by more than one minimal
set of features because redundancy rules may
overlap. For example, /m/ may be defined as

\[
\begin{bmatrix}
  + \text{NASAL} \\
  + \text{PERIPHERAL} \\
  - \text{HIGH}
\end{bmatrix}
\quad \text{or} \quad
\begin{bmatrix}
  + \text{NASAL} \\
  - \text{APICAL} \\
  - \text{HIGH}
\end{bmatrix}
\]

Choosing one set rather than the other is arbitrary
except when one choice renders a phonological rule
more revealing.

The redundancy rules will not be used as
realisation rules in this study. For an account
of this and of redundancy rules see Brown [1972:35-46]
and Stanley [1967].

It will be seen that the redundancy rules may
be used to define classes of sounds in a compact
way. For example, the class of voiceless stops
may be expressed by [- VOICE]. The different voice-
less stops are then disambiguated by adding
appropriate values for the three place-of-
articulation features, [PERIPHERAL], [APICAL], [HIGH].
The first nine redundancy rules define classes of sounds by manner of articulation. RR-1 defines the class of stops, RR-2 and RR-3 divide stops into voiceless and voiced, respectively. RR-4 defines nasals while RR-5 defines laterals. The class of semivowels may be defined by either of RR-6 or RR-7. RR-8 defines the class of resonants (sometimes called "rhotics"). RR-9 defines the class of vowels.

RR-10 and RR-11 make the point that for a semivowel the value of its peripherality is opposite that of its highness and vice versa. RR-12 states that a segment whose apicality and highness have the same value will have an opposite value for its peripherality. By means of this rule labials and dorsals need not be specified for peripherality. In the case of dorsals this information may be gathered from RR-14. It should be noted that the converse of rules RR-13 and RR-14 do not hold. Furthermore, it is worth pointing out the feature [- SYLLABIC] could be eliminated by a redundancy rule of a trivial nature of the form of RR-15 or RR-16.

These are examples of a general phenomenon in this phonological feature system. That is, any segment which is specified for the features: [PERIPHERAL], [APICAL], [HIGH], [LATERAL], [VOICE] or [H.S.P.] is redundantly [- SYLLABIC]. Finally there are some examples given of redundancy rules which define single segments. RR-17 defines /IV/
since of the laterals there is only one which is non-apical. Similarly RR-18 defines /l/ which is the only non-high lateral. As pointed out above /r/ may be defined by just one feature the rest being recoverable from RR-19. The two rules, RR-20 and RR-21 tell us that alveolar segments ie. \([ + \text{APICAL} ] \) are redundantly non-peripheral \([- \text{HIGH}] \) and that laminal segments ie \([ - \text{PERIPHERAL} ] \) \([ - \text{APICAL} ] \) are redundantly high.

The table shows the segments non-redundantly specified. All the redundancy rules except RR-7 and RR-11 have been employed. If RR-7 and RR-11 had been used the feature specifications would have been slightly different but still non-redundant. RR-12 is only used for the dominals not for the labials, their apicality being specified by RR-13. The labials could as well have been specified as \([ - \text{APICAL} ] \) \([ - \text{HIGH} ] \).
2.1.9.3.A Non-redundant Matrix of Features for
Muñinypata Segments.

<table>
<thead>
<tr>
<th>SYLLABIC</th>
<th>SONGRANT</th>
<th>CONSONANTAL</th>
<th>PALATAL</th>
<th>APICAL</th>
<th>HIGH</th>
<th>LATERAL</th>
<th>VOICE</th>
<th>HIGHER</th>
<th>SUBMUTUAL</th>
<th>PRESSURE</th>
<th>LOG</th>
<th>FRONT</th>
</tr>
</thead>
<tbody>
<tr>
<td>p t i j y</td>
<td>k b d g k</td>
<td>g m n y n g</td>
<td>m n j</td>
<td>i j y</td>
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2.1.10 Morphophonemic Change.

2.1.10.1 At morpheme boundaries there are a considerable number of predictable alternations. The purpose of this section is to state what the alternations are, set up single underlying forms for morphemes which have alternants and supply a set of ordered rules which derive the alternants in the appropriate phonological environments.

In the statement of the rules the conventions used are those of Harms [1968]. The braces (curly brackets) notation of Harms is used but applies vacuously. According to the braces convention stated by Harms [1968:59] the expansion calls for the interpretation as a series of ordered rules with higher line expansions preceding lower line expansions. For a cautionary note on the use of curly brackets see McCawley [1973:54].

Only one or two examples of each alternation have been given here for reasons of space. The alternations, however, are very common since many of them arise from an incorporated body part term being suffixed to commonly occurring verbal auxiliaries (see [2.1.6.4.2]).

2.1.10.2 It can be seen by comparing forms such as those below that there is alternation between /u/ and /p/.

(1)*

\[
\text{mam-ŋj-we-pu}\]

3sg.-1sg.-head-wash
"He washed my head"

*It should be pointed out that the glosses for the examples are underspecified at this stage since full glossing would assume knowledge given in [4].
(2) mam-pa-pu
3sg.-3sg.-head-wash
"He washed his head"

(3) mam-pun-pa-pu
3sg.-epl.-head-wash
"He washed their heads".

We must decide whether the underlying form for "head" in incorporated form is /-we-/ or /-pe-/ . In favour of a rule of the form:

\[ p \rightarrow w/X \_ Y \]

ie. /p/ becomes /w/ in the environment, X\_Y, where X and Y have yet to be specified, is the fact that rules of this form, ie. lenition rules, are quite widespread in Australia, especially diachronically eg. Hale [1976a], [1976b], Rigeby [1976]. Against the adoption of a rule of the form:

\[ w \rightarrow p/X' \_ Y' \]

is the fact that hardening rules are less common in Australia. However, there are two good reasons for adopting the hardening type of rule. Firstly, /w/ becomes /p/ in a simply stated environment viz. when preceded by a non-high nasal. Secondly, every occurrence of /w/ becomes /p/ in this environment. By contrast, if we adopt the lenition type of rule we must specify X (in the rule we have stated generally above) in a
more complicated way viz., X is all segments which are non-high nasals. The rule becomes:

\[
\begin{align*}
p + w / & \quad \{ \text{stops} \} \\
& \quad \{ \text{laterals} \} \\
& \quad \{ \text{high nasals} \} \\
& \quad \{ \text{rhotics} \} \\
& \quad \{ \text{semivowels} \} \\
& \quad \{ \text{vowels} \} \\
& \quad Y
\end{align*}
\]

Assuming, then, that "head (incorporated form)" has an underlying form /-pe-/ (4) before the application of the rule, is:

(4) \text{mam-qi-pe-pui}

and after the application of the rule:

(5) \text{*mam-qi-we-wui}

Because forms such as (5) must be starred it appears Y is non-null and must be specified at least so as to exclude -ui. Furthermore, merely to further specify the rule as

\[
\begin{align*}
p + w / & \quad \{ \text{stops} \} \\
& \quad \{ \text{high nasals} \} \\
& \quad \{ \text{laterals} \} \\
& \quad \{ \text{rhotics} \} \\
& \quad \{ \text{semivowels} \} \\
& \quad \{ \text{vowels} \} \\
& \quad u
\end{align*}
\]

is not sufficient since /-pun-/ alternates with /-wun/
"3rd pl. incorporated direct object pronoun" but not in the way stated by the last rule. Many more examples could be provided so that it would seem that there must be a morphological conditioning (in Y) if the lenition rule is to be preserved perhaps signalled by setting up two underlying /p/’s: /p₁/ and /p₂/ where /p₁/ triggers a rule such as

\[
\begin{align*}
p₁ & \rightarrow w/ \\
& \begin{cases}
\text{stops} \\
\text{lateral s} \\
\text{high nasals} \\
\text{rhotics} \\
\text{semivowels} \\
\text{vowels}
\end{cases}
\end{align*}
\]

but /p₂/ does not. The alternative is to set up underlying forms in /w-/ for those forms which do alternate thus the rule is stated as

\[
w + p/ \begin{bmatrix} m \\ n \end{bmatrix}
\]

One further objection to the hardening rule is the fact that it claims alternations for environments which have never been attested. Thus, amongst other things the hardening rule claims this alternation

\[
p(1) + w/γ
\]

although /rp/ is unattested. The rule adopted makes claims for alternation only for environments which have
been attested.

Hardening rules appear synchronically both in Australia and elsewhere. Ngandi, an Australian language of North-East Arnhem Land, has a rule which converts a palatal semivowel, y, to a (voiced) palatal stop, j, when preceded by a coronal stop (Heath [to appear a]: P-5, Hardening III, and Heath [to appear b]). Brown [1972:150] gives a diachronic (?) hardening rule for Lumasaaba which hardens voiced non-stops to corresponding voiced stops, following a nasal.

The reasons for choosing one interpretation for an alternation over another will be much the same for the alternations discussed below and for that reason will not be discussed in such detail again.

2.1.10.3 An alternation between /y/ and /t'/: occurs in forms such as the following:

(6) mam-ŋi-yi-ŋuŋuŋuŋuŋu
3sg.-1sg.-breast-wash
"He washed my breast(s)"

(7) man-yi-ŋu

(8) tutut-ŋi-ŋuŋuŋuŋuŋu
3sg.-3sg.-breast
"He washed his breast(s)"

(8) tutut-ŋi-ŋu

"I am a person with excised breast(s)"
(9) tututt-ŋ-t\(\gamma\)
    cut off-3sg.-breast
    He is a person with excised breast(s).

(10) mam-pun-t\(\gamma\)-pu!
    3sg.-3pl.-breast-wash
    He washed their breasts.

A dubitative particle /ya/ may be suffixed to any of
the morpheme final phonemes asserted by our rule to
trigger the alternation. However, the alternation does
not take place. Thus we have:

(11) putput-ya
    pregnant-DUB
    "Pregnant, perhaps?"

rather than the expected *putput\(\gamma\)ya. The rule must be
further modified to exclude the /y/ of /ya/, as follows:

\[
y + \text{ty} / \begin{cases}
m \\ n \\ \text{voiceless stops}
\end{cases} + \_X
\]

Condition: \(X \neq \#\) where \# = word boundary.

The condition will suffice since /ya/ when suffixed
always appears word finally.

The alternative, leniting rule would involve a complicated
environment:

\[
\begin{align*}
&\emptyset \\
&\emptyset \\
&\emptyset \\
&tY + y \\
\end{align*}
\]

voiced stops
lateralis
rhotics
semivowels
vowels

Apart from the fact that many of these environments in fact never occur we would have to further specify the environment so as to ensure that many occurrences of \( t^Y \) occurring in the above environment which do not change to \(/y/\) were not subject to the application of the rule.

It can be seen in (7) that there is also an alternation between \(/m/\) and \(/n^Y/\). So we will need two rules, one which accounts for the alternation of \(/m/\) and \(/n^Y/\) and one to account for the alternation of \(/y/\) and \(/t^Y/\). The latter rule may be of two forms:

\[
\begin{align*}
y &\rightarrow t^Y/X \_ Y \\
t^Y + y &\rightarrow X' \_ Y'
\end{align*}
\]

The first type is used since there is an alternation just for the environments stated and these environments are more easily statable than the environments for the
second type. (6), (7) and (10) illustrate this alternation:

\[ y + t^y/ \left\{ \begin{array}{c} m \\ n \end{array} \right\} + \]

(8) and (9) illustrate part of a more general process:

\[ y \rightarrow t^y/ \ \text{voiceless stops} \]

These two emerging rules can be linked by the braces convention:

\[ y + t^y/ \left\{ \begin{array}{c} m \\ n \\ \text{voiceless stops} \end{array} \right\} + \]

This rule needs further specification since there are a few instances of intramorphemic /ny/ clusters in the corpus. These can be eliminated by specifying that the rule operates across a morpheme boundary:

\[ y \rightarrow t^y/ \left\{ \begin{array}{c} m \\ n \\ \text{voiceless stops} \end{array} \right\} + \]

In terms of features our hardening rule is fairly simply stated as:
\([-\text{CONSONANTAL}] + [-\text{VOICE}] / \left[ \begin{array}{c} \text{[-VOICE]} \\ \text{+NASAL} \\ \text{-HIGH} \end{array} \right] + \left[ \begin{array}{c} \text{PERIPHERAL} \\ \text{-APICAL} \end{array} \right] \ \ X \]

Condition: \( X \neq \# \) (where \( \# \) = word boundary).

Applying this tentative rule to the underlying form for (7) vi\(z\); \(\text{mam-}\text{yi-pu}\) we have \(\text{*mamtyipu}\).

There is still need for a rule which assimilates /m/ to the following stops. Such a rule might look like this:

\[ m + n^y / \_ + t^y \]

These two rules applied in turn would derive the correct form: \(\text{man}^y\text{t}^y\text{ipu}\). However since we have forms such as \(\text{namam-t}^y\text{m}^m\)

2sg.talk-2sg. sit

"you are sitting, talking" we will have to stipulate that the rule, \(m + n^y / \_ + t^y\), only operates when it is "fed" (see Kiparsky [1968]) by the rule:

\[ y + t^y / \left[ \begin{array}{c} m \\ n \end{array} \right] + \_ X \]

\[ \left[ \begin{array}{c} \text{voiceless stops} \end{array} \right] \]

Now, with this extra condition, the rules will generate just those forms which can occur but the disadvantage is that we now have a condition on a rule which checks on the derivational history of a form which could be a possible input for that rule. To avoid this we can
combine the two interdependent processes

\[ y + t^y/ \, m + \_ \]

\[ m + n^y/ \_ + t^y \]

in one rule in a transformational format (see Schane [1973:66-7]).

S.D. \[ m + y \, X \]

1 2 3 4

OBLIG \[ \rightarrow \]

S.C. \[ n^y \, 2 \, t^y \, f \]

(replace 1 by \( n^y \), 3 by \( t^y \))

Condition: \( X \neq a \, \# \)

Having adopted this rule, we must modify the rule to

\[ y + t^y \bigg/ \bigg| \begin{array}{c}
\underline{n} \\
\text{voiceless stops}
\end{array} \bigg| + \_ \, X \]

The loss in generality of this rule is compensated by avoiding the extra condition which examined the derivational history. There is only one feature to be added to the modified rule in feature notation:

\[
[- \, \text{CONSONANTAL}] \rightarrow [- \, \text{VOICE}]\left\{\begin{array}{c}
[- \, \text{VOICE}] \\
[- \, \text{PERIPHERAL}] \\
[- \, \text{APICAL}] \\
[- \, \text{HIGH}]
\end{array}\right\} + \left\{\begin{array}{c}
[- \, \text{NASAL}] \\
[- \, \text{APICAL}]
\end{array}\right\} X
\]
An additional simplification is that there is no longer any need for an ordering relation between the rules.

An exception to these rules is the alternation of /m/ to /n'/' before /t'/ occurring in the verb root /t'ir/ "sweat". We have these forms:

(12) \textit{dem-qi-t'ir}

3sg.-1sg.-sweat

"I'm sweating"

(13) \textit{*dem-\dash y'ir} \rightarrow \textit{deny'ir}

3sg.-3sg.-sweat

"He's sweating"

The rules would generate \textit{*dem-y'ir} but they are retained since this appears to be the only exception.

2.1.10.4 Another widespread alternation is that between /y/' and /n'//. The forms below exemplify this alternation:

(14) \textit{dam-qi-yelelel}

3sg.-1sg.-irritate

"I have something irritating my skin"

(15) \textit{dam-qi-yer}

3sg.-1sg.-itch

"I'm itchy"
(16)  \( \text{dam-}g\text{-}n\text{yelele} \)
3sg.-3sg.-irritate
"He has something irritating his skin"

(17)  \( \text{dam-}g\text{-}n\text{yer} \)
3sg.-3sg.-itch
"He's itchy"

Once again a decision must be made between a rule
of the form

\[
y \to n^y / X_{\_\_} Y
\]

and

\[
n^y \to y / X_{\_\_} Y
\]

The former type of rule is adopted for reasons similar
to those posited above for the morphophonological
rules: the conditioning environment for the rule is
more simply stated and refers only to combinations
of segments which do occur.

The rule may be stated, taking into account that
the alternation also occurs after /n/ as

\[
y \to n^y / | \_\_ \_\_ | Y
\]

Since there are a few instances of the intramorphemic
cluster /ny/ we need to specify that the alternation
occurs only across morpheme boundaries. Also, to
exclude the dubitative particle, /ya/, it is necessary to put a condition on the preliminary form of the rule.*

Incorporating these extra conditions, we have:

\[ y + n^y / \begin{array}{c} m \\ n \end{array} + \_ X \]

**Condition** \[ X \neq a \# \]

The problem here is that we now have rules which change /y/ either to /t^y/ or /n^y/ in the same environment. However it is certainly the case that some instances of underlying /y/ are changed only to /t^y/ and not to /n^y/ while other instances are changed only to /n^y/ and not to /t^y/. Thus we have:

(18) \[ \text{man}niyipu] \]
"He washed my breasts"

(19) \[ \text{man}n^tyipu] \]
"He washed her breasts"

but not

(20) * \[ \text{man}n^ypu] \]
"He washed her breasts"

This form in fact means "He washed you"

* Alternatively, /-ya/ could be added after the phonological rules had applied.*
To account for these facts we propose setting up two distinct underlying /y/’s which each trigger a different rule. The two /y/’s will be distinguished by subscript numerals as /y_1/ and /y_2/.

The three rules involving an underlying /y/ must now be modified:

S.D. \[ m + y_1 X \]
\[ 1 \quad 2 \quad 3 \quad 4 \]

OBLIG. \[ \Rightarrow S.C. \]
\[ n^y \quad 2 \quad t^y \quad 4 \]

**Condition:** \( X \neq \# \)

\[ y_1 + t^y / [ \begin{array}{c} n \end{array} ] + \quad X \]
\[ \text{voiceless stops} \]

\( y_2 + n^y / [ \begin{array}{c} m \end{array} ] + \quad X \]
\[ [n] \]

2.1.10.5 The ergative-instrumental suffix on nominals and an homophonous temporal suffix show an alternation /-te/ and /-je/. Thus we have noun phrases such as the following:
palgun - te
woman - ERG
kigayl - je
youth - ERG

/-je/ occurs after nominals whose final consonant is a vowel or a semivowel i.e. segments characterised as [- CONSONANTAL] while /-te/ occurs after nominals ending in a stop, a nasal, a lateral or a rhotic i.e. segments which are [+ CONSONANTAL]. However, this is not quite true since stems ending in /x/ may have either /-te/ or /-je/. So for segments which are [+ H.S.P.] the alternants are in free variation but not so for segments which are [- H.S.P.]. Informally the alternation could be captured by the expression:

\[
\begin{array}{c}
\text{stops} \\
\text{nasals} \\
\text{laterals} \\
\text{non-trilled rhotics}
\end{array}
\]

\[
\text{or } /x/ \rightarrow \left\{ \begin{array}{c}
\text{[- CONSONANTAL]} \\
\text{[- H.S.P.]} \\
\text{e} \\
\#
\end{array} \right.
\]

The reasons for choosing /je/ as the underlying form will become clear when two other alternations involving /j/ are discussed.

2.1.10.6 There is an alternation between /m/ and /n/ illustrated in the following examples:
(21)  mam-ŋi-ʒi-puʃ
      3sg.-1sg.-buttocks-wash
      "He washed my buttocks"

(22)  mam-ŋi-di-puʃ
      3sg.-3sg.-buttocks-wash
      "He washed his buttocks"

(23)  mam-ŋi-daŋj-puʃ
      3sg.-1sg.-back-wash
      "He washed my back"

(24)  mam-ŋi-ŋi-puʃ
      3sg.-3sg.-back-wash
      "He washed his back"

(25)  mam-ŋi-tarmu-puʃ
      3sg.-1sg.-lower leg-wash
      "He washed my lower leg"

(26)  mam-ŋi-tarmu-puʃ
      3sg.-3sg.-lower leg-wash
      "He washed his lower leg"

In (21), (23) and (25) /mam-/ represents 3rd person singular pronominal incorporated subject while in (22), (24) and (26) this is represented by /man-/. 

A rule of the form:
\[ m + n \left/ \begin{array}{l} j \\ d \\ t \end{array} \right\} \]

will generate the appropriate forms. Suppose the suffix, /-te - je/, is added to a stem ending in /m/. According to the rule as it stands the initial /t/ or /j/ of the suffix will trigger an alternation from underlying /m/ to /n/. However, this is not the case since we have forms such as:

\begin{verbatim}
ku       bamo-te
NC:meat  white-ERG
"white man-ERG"
\end{verbatim}

but not *ku bamosante.

We propose to order the rule:

\[ j \rightarrow t \left/ \begin{array}{c} + \text{CONSONANTAL} \\ - \text{H.S.P.} \end{array} \right\} \quad \epsilon \# \]

before this rule thus bleeding the environment of /j/ but feeding it with /t/’s. Then a condition is needed for the rule which says that it does not operate if the conditioning /t/ belongs to /te/. Thus the rule in modified form is:

\[ m + n \left/ \begin{array}{l} j \\ d \\ t \end{array} \right\} \begin{array}{l} \epsilon \# \end{array} \]

Condition: \( Y \neq \epsilon \# \)
2.1.10.7 It can be seen from (22) that an additional rule is needed to account for the alternation of /ʃ/ and /d/ in the morpheme meaning "buttocks". Such a rule might look like this:

\[ \text{ʃ} \rightarrow \text{d} / \text{n} \]

Thus the derivation would look like this:

\[
\begin{align*}
\text{man-ʃjɪ-pu} & \\
\text{man-ʃjɪ-pu} & \\
\text{man-ʃdɪ-pu}
\end{align*}
\]

The alternation could be viewed then as a simultaneous change in two segments. Such a change we have already seen can be simply stated by a rule in transformational format:

\[ m \rightarrow n \ d \]

However we will continue for the moment in a non-transformational format.

2.1.10.8 From (23) and (24) it can be seen that another rule is required to account for the alternation in the morpheme for "back". A rule such as

\[ d \rightarrow \phi / n + \]

would account for this alternation. It is necessary for this rule to specify that it operates across
morpheme boundaries since there are attested cases of the intramorphemic cluster, /nd/, which does not reduce to /n/ as predicted by the rule. The derivation for "He \textsubscript{1} washed his \textsubscript{3} back" is as follows:

\begin{verbatim}
mandali
mandali
mandali
\end{verbatim}

2.1.10.9 Let us now look at the proposed rules for alternations involving apical segments:

(a) \[
\begin{array}{c}
\text{stops} \\
\text{nasals} \\
\text{laterals} \\
\text{non-trilled rhotics}
\end{array}
\]

(b) \[
\begin{array}{c}
j \\
d \\
tV
\end{array}
\]

\text{Condition: } Y \neq e \#

(c) \[ j \rightarrow d / n \]

(d) \[ d \rightarrow \# / n + \]

We have already seen that we need an ordering relation between (a) and (b). Now (b) is in a feeding relationship with (c) and (d) and so must be ordered before them. We also need to order (c) and (d). The ordering must
produce a bleeding relationship by having (d) precede (c). If we do not (c) and (d) could as well be condensed to

\[ \_ \rightarrow \_ / n + \_ \_ \]

since (c) would feed (d). Such a rule would produce the form *man[pu] for "He_1 washed his_1 buttocks" which is wrong. Summing up the ordering for these four rules we have

\[
\begin{align*}
(a) \\
X(b) \\
X(d) \\
X(c)
\end{align*}
\]

2.1.10.10 Akin to (d) and to one of the alternations expressed in (b) is the alternation illustrated by these examples:

(27) \text{man-qi-qi-pu]\} \\
3sg.-1sg.-tooth-wash \\
"He washed my teeth"

(28) \text{man-gi-i-pu]\} \\
3sg.-3sg.-tooth-wash \\
"He_1 washed his_1 teeth"

2.1.10.11 Akin to part of (b) viz. \( m + n / \_ \_ + d \) is the alternation of /m/ and /g/ shown in (27) and (28). This
alternation could be captured by an analogous rule of this form:

\[ m \to \eta / \_ \_ \_ \_ \_ d \]

Then, to account for the final form in (28) we need a rule analogous to (d):

\[ d \to \phi / \eta + \_ \_ \_ \_ \_ \]

This rule is fed by the rule \[ m \to \eta / \_ \_ \_ \_ \_ d \] thus it is ordered after it. Once again it would be possible to express the two simultaneous changes in one transformational rule informally stated as:

\[ m + d \to \eta \]

2.1.10.12 An alternation between /ŋ/ and /q/ occurs in forms such as these:

(29) pa-\text{dゥqi-\text{nu}}

3sg.- put on -PUT

"She will put (it) on"

(30) ben-\text{nuq̃i}

3sg.- put on

"She put it on"

It is simplest to set up the underlying segment as /q/ and devise a rule which converts it to /ŋ/ when preceded by /n/ i.e.
\[ d + \eta / n \]

2.1.10.13 The alternation between /b/ and /m/ is exemplified by these forms:

(31) \textit{mem-ŋi-be-pu!}
3sg.-1sg.-arm-wash
"He washed my arm"

(32) \textit{pan-ŋi-baŋ}
3sg.-1sg.-hit
"He hit me"

(33) \textit{mem-ŋi-e-pu!}
3sg.-3sg.-arm-wash
"He\textsubscript{1} washed his\textsubscript{1} arm"

(34) \textit{pan-ŋi-maŋ}
3sg.-3sg.-hit
"He hit him"

The alternation can be most simply treated by setting up an underlying /b/ and devising rules which derive the appropriate forms. Two rules will accomplish this:

\[ b \rightarrow \emptyset / m + \_ \]

which is analogous to \[ d \rightarrow \emptyset / n + \_ \]

\[ d \rightarrow \emptyset / n + \_ \] and the other rule is:

\[ b \rightarrow m/n+\_ \]
which is analogous to

\[ \theta + \eta \rightarrow \eta \]

The generalisation seems to be that a voiced stop is deleted following a homorganic nasal and converted to a homorganic nasal when following /n/.

2.1.10.14 Yet another rule is required for the reduction of identical contiguous nasals at a morpheme boundary. These forms illustrate this phenomenon:

(35) \text{mam-\textsc{\textregistered}-ma-pu}]
    3sg.-1sg.-foot-wash
    "He washed my foot"

(36) \text{pu-na-bad-nu}
    3sg.-3sg.BENEF.-hit-FUT.
    "He\textsubscript{i} will hit him\textsubscript{j} for him\textsubscript{k}"

(37) \text{mam-\textsc{\textregistered}-e-pu}]
    3sg.-3sg.-foot-wash
    "He\textsubscript{i} washed his\textsubscript{j} foot"

(38) \text{pan-a-bad}
    3sg.-3sg.BENEF-hit
    "He\textsubscript{i} hit him\textsubscript{j} for him\textsubscript{k}"

Now in these examples I have deleted underlying segments from particular morphemes: in fact it would not of
course be possible to decide which segment had been deleted, in (38), for example, the /n/ of /pan/ or the /n/ or /na/. That it is to say there is no way of deciding between the two sets of rules:

\[
\begin{align*}
  m & \rightarrow \emptyset / m + \_ \\
  n & \rightarrow \emptyset / n + \_ \\
\end{align*}
\]

and

\[
\begin{align*}
  m & \rightarrow \emptyset / \_ + m \\
  n & \rightarrow \emptyset / \_ + n \\
\end{align*}
\]

The issue can be left open by adopting the neighbourhood convention wherein the environment bar is dispensed with [Hurms: 1968, 66-67], [Bach, 1968] and the rule simply states that one of two contiguous identical high nasals is deleted:

\[
\begin{align*}
  m & \rightarrow \emptyset / m \\
  n & \rightarrow \emptyset / n \\
\end{align*}
\]
2.1.10.A Unamplified* List of Rules

(1) \( w \rightarrow p / m \)
(2) \( w \rightarrow p / n \)
(3) \( y_1 \rightarrow t^y / m + ___ X \) Condition: \( X \neq a \theta \)
(4) \( y_1 \rightarrow t^y / n + ___ X \)
(5) \( y_1 \rightarrow t^y / \text{voiceless stops} ___ X \)
(6) \( m \rightarrow n^y / ___ \) Condition: (6) only if (2)
(7) \( y_2 \rightarrow n^y / m + ___ X \) Condition: \( X \neq a \theta \)
(8) \( y_2 \rightarrow n^y / n + ___ X \)
(9) \( j \rightarrow t / \text{stops} + ___ e \theta \)
(10) \( j \rightarrow t / \text{nasals} + ___ e \theta \)
(11) \( j \rightarrow t / \text{lateral} + ___ e \theta \)
(12) \( j \rightarrow t / \text{non-trilled rhotics} + ___ e \theta \)
(13) \( m \rightarrow n / ___ j \)
(14) \( m \rightarrow n / ___ d \)
(15) \( m \rightarrow n / ___ tY \) Condition: \( Y \neq e \theta \)
(16) \( m \rightarrow n / ___ d \)
(17) \( d \rightarrow \phi / n + ___ \)
(18) \( q \rightarrow \phi / n + ___ \)
(19) \( q \rightarrow n / n + ___ \)
(20) \( j \rightarrow d / n + ___ \)
(21) \( b \rightarrow \phi / m + ___ \)
(22) \( b \rightarrow m / n + ___ \)
(23) \( m \rightarrow \phi / m \)
(24) \( n \rightarrow \phi / n \)

* rules which have used labels for classes of sounds such as "lateral" are less simplified than those which only involve single segments. However for the purposes of this exercise we will allow such rules in the list.
2.1.10.15 These changes are expressed by many rules which are partly similar. It is therefore possible, and is certainly desirable for the simplicity of the overall grammar, to link partly similar rules. (1) and (2) may be combined to give

\[ w + p \]
\[ \{ m \} \]
\[ \{ n \} \]

and similarly rules (3), (4), (5):

\[ y_1 + t^y \]
\[ \{ m \} \]
\[ \{ n \} \]
\[ \{ \text{voiceless stops} \} \]

Condition: \( X \neq a \# \)

The whole list could be summarised like this; below the numbered braces convention is used [Harms: 1968:59] in (8)', (10)' and (11)'

(1)' \[ w + p \]
\[ \{ m \} \]
\[ \{ n \} \]

(2)' \[ y_1 + t^y \]
\[ \{ m \} \]
\[ \{ n \} \]
\[ \{ \text{voiceless stops} \} \]

Condition: \( X \neq a \# \)

(3)' \[ m + n^y \]
\[ \{ t^y \} \]

Condition: (3)' only if (2)'
This list is a considerable improvement for the grammar since we now have eleven rules and six ordering relationships whereas before we had twenty four rules and eight ordering relationships. However there are many other ways of simplifying the original list and
capturing significant generalisations. Rules (17), (18), (21) are very similar: they concern the deletion of a voiced stop following its homorganic nasal. These three rules could be summarised by the expression:

\[
\begin{align*}
\{b\} & \to \emptyset \{m\} + \_ \\
\{d\} & \to \{n\} + \\
\{l\} & \Rightarrow \{n\} +
\end{align*}
\]

Rules (19) and (22) are also very similar. They state that certain voiced stops become nasals when following /n/:

\[
\begin{align*}
\{b\} & \to \{m\} / n + \\
\{d\} & \Rightarrow \{n\} +
\end{align*}
\]

An analogous change for /d/ after /n/ would appear as:

\[
d + n / n + 
\]

Now, if such a rule were applied the geminate cluster /nn/ would be reduced by (24) to /n/, provided the rule was ordered before (24).

A more general statement to account for all these changes is: a voiced stop becomes a nasal when following a homorganic nasal or /n/. The geminate nasal clusters which result from the application of this
rule would be reduced by the already existing rules (23) and (24) together with a new rule which reduces geminate retroflex nasal clusters.

\[ n \rightarrow \emptyset / n \]

This rule can be combined with (23) and (24) and then ordered after the new rule for the nasalisation of voiced stops:

\[
\begin{align*}
\{ b \} & \rightarrow \{ m \} / \{ n \} + \emptyset \\
\{ d \} & \rightarrow \{ m \} / \{ n \}
\end{align*}
\]

\[
\begin{align*}
\{ m \} & \rightarrow \emptyset / \{ m \} \\
\{ n \} & \rightarrow \emptyset / \{ n \}
\end{align*}
\]

These two rules do the work of (17) to (19) and (21) to (24).

By bracketing different rules different generalisations may be captured. For example, (14) and (16) together make the point that a bilabial nasal is assimilated to a homorganic nasal when followed by an apical voiced stop.

\[ m \rightarrow \{ n \} / \{ d \} \]
However this statement, true as it is, cuts across the generalisation made by (6)'. What emerges from such "clashes" as these is the fact that there is a degree of arbitrariness in what the 'final' simplified list of morphophonemic rules will look like.

It is intended to give a final list and then state these rules in terms of distinctive features. The purpose of the discussion above has been to indicate that this is only one of many such lists which could be compiled.

2.1.10.16 Transformational Rules.

We have already seen that (3) and (6) can be combined as one transformational rule. Similarly (13) and (20) can be combined:

\[ m \rightarrow n \rightarrow d \]

but this does not greatly simplify the grammar since there are instances of an underlying /n/ appearing before an underlying /\j/ and this /\j/ obligatorily changes to /\d/. So we still need a rule:

\[ \j \rightarrow d / n + \_ \_ \_ \]

or to put it another way

\[ n \rightarrow \j + n \rightarrow d \]
Thus the only transformational rule to be adopted in our final summary will be that combining (3) and (6). The value of this rule is that it avoids the condition which reviews the derivational history.

2.1.10.17 Summary of Rules.

(1) \[ w \rightarrow p / [m] + \_
\]

(2) SD: \[ m + y_1 X \]
    \[ 1 \ 2 \ 3 \ 4 \]
    \[ \rightarrow SC: nV 2 tV 4 \]

(3) \[ y_1 \rightarrow tV / \begin{cases} \text{voiceless stops} \\ n \end{cases} + \_
\]
    \[ X \]
    Condition: \[ X \neq \# \]

(4) \[ y_2 \rightarrow nV / [m] + \_
\]
    \[ X \]

(5) \[ j \rightarrow t / \begin{cases} \text{stops} \\ \text{nasals} \\ \text{laterals} \\ \text{non-trilled rhotics} \end{cases} + \_
\]
    \[ e \# \]

(6) \[ m \rightarrow \begin{cases} [n] \\ [p] \end{cases} + \begin{cases} j \\ tV \\ d \end{cases} \]
    Condition: \[ Y \neq e \# \]
2.1.10.18 Morphophonological Rules in Feature Format.

(1) \([-\text{CONSONANTAL}] \rightarrow [-\text{VOICE}] / \left[ +\text{NASAL} \right] + \left[ \begin{array}{c} \text{-HIGH} \\ +\text{PERIPHERAL} \end{array} \right] \]

(2) S.D.: \left[ +\text{NASAL} \right] + \left[ +\text{PERIPHERAL} \right] / \left[ -\text{SYLLABIC} \right] \left[ -\text{CONSONANTAL} \right] \left[ -\text{PERIPHERAL} \right]

   \begin{array}{c}
   \text{1} \\
   \text{2} \\
   \text{3} \\
   \text{4}
   \end{array}

+ S.C.: \left[ -\text{PERIPHERAL} \right] / \left[ -\text{PERIPHERAL} \right] \left[ -\text{APICAL} \right] \left[ -\text{VOICE} \right]

   \begin{array}{c}
   \text{1} \\
   \text{2} \\
   \text{3} \\
   \text{4}
   \end{array}

Condition: \( X \neq a \theta \)
(3) \([-\text{CONSONANTAL}] \rightarrow [+\text{CONSONANTAL}] / \)
\([-\text{VOICE}] / \)
\([-\text{VOICE}] + [+\text{NASAL}] / \[+\text{SYLLABIC}] / \]
\[+\text{NASAL}] / [+\text{APICAL}] / [-\text{PERIPHERAL}] / \]
\[+\text{APICAL}] / [-\text{HIGH}] / \]

Condition: \(X \neq \emptyset\)

(4) \([-\text{CONSONANTAL}] + [+\text{NASAL}] / \)
\[+\text{NASAL}] / [-\text{HIGH}] / \[+\text{PERIPHERAL}] / \]
\[-\text{PERIPHERAL}] / [-\text{APICAL}] / \]

Condition: \(X \neq \emptyset\)

(5) \([+\text{SONORANT}] \rightarrow [-\text{VOICE}] / \)
\[+\text{CONSONANTAL}] / [-\text{H.S.P.}] / \[+\text{SYLLABIC}] / \emptyset \]
\[-\text{NASAL}] / [+\text{FRONT}] / \]
\[+\text{APICAL}] / [+\text{LOW}] / \]
\[-\text{HIGH}] / \]
\[-\text{LATERAL}] / \]

In the feature format (6) is divided into two rules:

(6) (a) \(m + n / \_ t Y\)

Condition: \(Y \neq \emptyset\)
(6) (b) \[ m \rightarrow \{ n \} \rightarrow \{ l \} \]

(6) (a) \[ [- \text{APICAL}] + [+ \text{APICAL}] \]

\[
\begin{bmatrix}
+ \text{NASAL} \\
- \text{HIGH}
\end{bmatrix}
+ \begin{bmatrix}
+ \text{APICAL} \\
- \text{HIGH} \\
- \text{VOICE}
\end{bmatrix}
\]

Condition: \( X \neq e \neq Y \)

(6) (b) \[ [- \text{APICAL}] + \begin{bmatrix} + \text{APICAL} \\
\alpha \text{HIGH} \end{bmatrix} \]

\[
\begin{bmatrix}
+ \text{NASAL} \\
+ \text{APICAL} \\
\alpha \text{HIGH} \\
- \text{LATERAL} \\
\dagger \text{VOICE} \\
- \text{H.S.P.}
\end{bmatrix}
\]

(7) \[ [- \text{SONORANT}] + [+ \text{NASAL}] \]

\[ + \text{VOICE} \]

\[
\begin{bmatrix}
+ \text{NASAL} \\
- \text{HIGH}
\end{bmatrix}
+ \begin{bmatrix}
- \text{APICAL} \\
- \text{HIGH}
\end{bmatrix}
\]

\[ + \text{APICAL} \]

\[ \alpha \text{HIGH} \]

\[ - \text{LATERAL} \]

\[ \dagger \text{VOICE} \]

\[ - \text{H.S.P.} \]
(8) \([-\text{SONORANT}] \rightarrow [+\text{NASAL}] / +\text{VOICE}\)

\[+\text{NASAL} \quad + \quad \underline{\quad} \quad +\text{APICAL}\]
\[-\text{HIGH} \quad + \quad \text{HIGH}\]

(9) \([-\text{Sonorant}] \rightarrow \emptyset / [+\text{NASAL}] + \underline{\quad} \quad +\text{APICAL}\]
\[-\text{HIGH} \quad + \quad \text{APICAL}\]
\[-\text{HIGH} \quad + \quad \text{APICAL}\]

(10) \([+\text{Sonorant}] \rightarrow [-\text{Sonorant}] / \)

\[+\text{NASAL} \quad + \quad \underline{\quad} \quad -\text{NASAL}\]
\[+\text{APICAL} \quad + \quad -\text{APICAL}\]
\[-\text{HIGH} \quad + \quad -\text{HIGH}\]
\[-\text{LATERAL} \quad -\text{LATERAL}\]
\[+\text{VOICE} \quad +\text{VOICE}\]
\[-\text{H.S.P.} \quad -\text{H.S.P.}\]

(11) \[+\text{NASAL} \quad \rightarrow \emptyset / [+\text{NASAL}] \]
\[\alpha\text{APICAL} \quad / \quad \alpha\text{APICAL}\]
\[-\text{HIGH} \quad / \quad -\text{HIGH}\]

(11) may be stated as:

(11)' \[+\text{NASAL} \quad + \quad \emptyset / [+\text{NASAL}] \]
\[\alpha\text{PERIPHERAL} \quad / \quad \alpha\text{PERIPHERAL}\]
\[-\text{HIGH} \quad / \quad -\text{HIGH}\]
Note that rules (2), (3) and (4) do not recognize the fact that there are two underlying /y/’s: /y₁/ and /y₂/. I know of no suitable notation to capture this fact in the generative phonological framework.

These rules will be abbreviated as MP-1, MP-2 etc.

In the remainder of the description multimorphemic forms will be presented in underlying form unless otherwise stated. It is a simple matter to convert such forms into their surface forms by applying the rules.

2.2 Suprasegmental Phonology.

2.2.1 Syllables.

An examination of a large number of words indicates that there are three prevalent syllable types:

CV
CVC
CVCC

eg. /ba/ "wasp"; /meʃ/ "sandfly"; /merk/ "moon". These three syllable types can be combined in any order, for non-mono-syllabic words.

Syllable boundaries then can be assigned to any word in a simple way. Syllable boundaries are placed at word boundaries by this rule:

(a) ≠ → · / ≠
where \( \theta \) = word boundary and \( . \) = syllable boundary.

Syllable boundaries, within the word, are then assigned by a rule which puts a syllable boundary before any CV:

(b) \( \theta \) + . / ___ CV

Thus a string such as:

(39) kelet\( y \)kelet\( y \)wunku\( ñ \)i\( n \)inda

"they two non-sibling males are adept at learning languages"

is assigned syllable boundaries as follows:

.kelet\( y \)kelet\( y \)wunku\( ñ \)i\( n \)inda. by (a)
.ke.let\( y \).ke.let\( y \).wun.ku.\( ñ \).i.ni.na by (b)

or walmbur

"testicles"

by (a) becomes .walmbur.

by (b) .walm.bur.

The exceptions to the three syllable types stated, CV(C)(C), are all of the form, V, and occur in these words:

a "or" (perhaps a loan from English)
awu "no"
appe "dumb; unable to speak"

The two syllable boundary rules (SBR) are abbreviated as

SBR-1 for (a) above and SBR-2 for (b).
2.2.2 Stress

2.2.2.1 Stress is not entirely predictable in Mojínypata but is subject to a few simply stated tendencies.

The basic pattern is covered by the expression:

\[(SU)^n(S) \text{ for } n \geq 0\]

where S indicates a stressed syllable and U an unstressed syllable. From this formula it can be seen that monosyllabic words are stressed, then two syllabled words have the pattern \(SU\), three \(SUS\), four \(SUSU\), five \(SUSUS\), etc.

ie. there is an alternation of stressed and unstressed syllables. Now we turn to the less usual pattern. If the first syllable of a two or more syllabled word is unstressed we may still have an alternation of stressed and unstressed syllables like this: for a two syllabled word the pattern is US

three \(USU\)

four \(USUS\)

five \(USUSU\)

etc.
There is an important difference: in this pattern words with an odd number of syllables now have less stressed syllables than unstressed syllables. However the preferred pattern in Mujinypata is for any word with an even number of syllables to have the same number of stressed syllables as unstressed; the less usual pattern is for the word to have one extra stressed syllable. For a word with an odd number of syllables the preferred pattern is to have one more stressed syllable than the number of unstressed syllables. The less preferred pattern is to have more unstressed than stressed syllables. For example the preferred pattern for an eight syllabled word is to have four stressed and four unstressed syllables while the less preferred but not very uncommon pattern is to have five stressed and three unstressed syllables. For a nine syllabled word the preferred pattern is five stressed and four unstressed with a less preferred pattern of four stressed and five unstressed syllables.

Here are a few examples which illustrate this basic pattern:

\[\text{wàra} \quad \text{SU} \quad "dog"
\]
\[\text{nìgunù} \quad \text{SUS} \quad "she"
\]
\[\text{kànanàndà} \quad \text{SUSU} \quad "emu"
\]
\[\text{kòleòtòkòleòtò} \quad \text{SUSUS} \quad "fast voice"
\]

However the most revealing way to exemplify stress in Mujinypata is through verb morphology since most verbs
are multimorphemic. The number of syllables for a verb can be altered one at a time by substitution of different morphemes in a given structural position.

In a word each morpheme tends to be stressed on its first syllable. In this way each morpheme (which has a phonological realisation) is marked by stress on the first syllable. Thus one would expect in a three syllabled word consisting of three morphemes, eg.

(40)  pan-qi-bad

3sg.-1sg.-hit

for there to be three stressed syllables: SSS

*pānjibaṭ

However this does not occur because there is a constraint* on more than two contiguous stressed syllables. Also SSS contravenes the tendency to have an alternation between stressed and unstressed syllables. The stress pattern which actually occurs in SUS ie.

pānjibaṭ

---

*The few exceptions result from morphemes with reduplicated stress.

as in dyebdyeb-qi-tuyi SSSUU
food-1sg.-lip (?)
"I'm greedy"

If "food" did not have inherent reduplicated stress we would expect SUSSSU following the morphemic integrity tendency.
This pattern agrees with the tendency to have alternating stressed and unstressed syllables, the tendency to have more stressed syllables than unstressed syllables in a word with an odd number of syllables and has as many morphemes stressed on the first syllable as is feasible.

Let us consider now a five syllabled word:

(41) ṇam-yi-1u-wewu

1sg.-2sg.-forehead-pour (water) on
"I poured water on your forehead"

Following the principle that each morpheme is stressed on its first syllable we would expect:

\[ \text{ṇ̄am} \text{y} \text{i} \text{l} \text{ú} \text{w} \text{u} \] \[ \text{SSSSU} \]

This cannot occur because there cannot be more than two contiguous stressed syllables.

What actually occurs is:

\[ \text{ṇ̄am} \text{y} \text{i} \text{l} \text{ú} \text{w} \text{u} \] \[ \text{SUSU} \]

Why does not SSUSU occur since this would break up the inadmissible sequence of four stressed syllables and would mark as many morphemes on the first syllables as the pattern which actually occurs? There appears to be another tendency which is to avoid having the first
two syllables of a word stressed.

If we consider another five syllabled word where the morpheme breaks occur in different places we get a different result:

(42)  nam-p-tarmu-wawu

lsg.-3sg.- lower leg - pour (water) on
"I poured water on his lower leg"

If we have a stress on the first syllable of each morpheme we have:

*namtärmuwéwu  SSUSU

What actually occurs is:

namtärmuwéwu  USUSU

This has the less preferred pattern of more unstressed syllables than stressed syllables but avoids having the first two syllables stressed.

2.2.2.2 What we see in the stress patterns of Muyinypata is a number of tendencies which act together to produce acceptable combinations. At this point let us summarise these tendencies.
Stress Rules.

SR-1 Stress is assigned to the first syllable of as many morphemes as can be consistent with the other rules.

SR-2 No more than two contiguous syllables may be stressed.

SR-3 In any word the preferred pattern is for the number of stressed syllables to be equal to or greater than the number of unstressed syllables.

SR-4 The preferred pattern is for stressed and unstressed syllables to alternate.

SR-5 The preferred pattern is for one of the first two syllables to be unstressed and the other stressed.

SR-6 The first syllable of the word is preferred to be stressed.

In this tentative set of rules, rule of quite different types have been lumped together. SR-1 and SR-2 are definite directives while the other four rules describe preferred patterns. SR-3, 4, 5, 6 need not apply to any string but often do so unlike the morphophonemic rules which must always apply to appropriate inputs these rules summarise frequently occurring combinations.
They are not ordered with respect to each other; any one of the four may feed or bleed [Kiparsky 1968] the other two.

Note on SR-3.

The rule can be further refined. The preferred pattern for words with an even number of syllables is for there to be an equal number of stressed and unstressed syllables. The preferred pattern for words with an odd number of syllables is for the number of stressed syllables to be one more than the number of unstressed syllables.

SR-1 is quite different. It always applies first. The other five rules act as a filter on the output of SR-1 to produce an acceptable terminal output.

Consider this string, for example:

(43) .netbeans-ntarkut

1sg.-2sg.-lower leg-put oil on.
"I put oil on your lower leg"

The application of the constraints produces:

ηάmnvítármutůk  SSSUS  by SR-1
*nήάmnvítármutůk  SSSUS  by SR-2
nόmnvítármutůk  SUSUS  by SR-4

and SR-5
and SR-6

SR-3 is not applicable.
A similar string with one less syllable gives a different pattern:

(44) ʁam-ʁ-tarmu-tuk

1sg.-3sg.-lower leg-put oil on

Here the constraints give:

ŋamṭarmutuk SSUS SR-1
ŋamṭarmutuk USUS SR-4
SR-5

If SR-6 were invoked the pattern would be SUUS but SR-4 would be contravened.

A string of the same number of syllables but a different morphemic composition produces different stress patterns indicating that morphemic structure and stress assignment are interlinked:

(45) ʁam-ny1-we-tuk

1sg.-2sg.-head-put oil on
"I put oil on your head"

Applying the rules, we have:

ŋämnyiwētuk SSSS SR-1
ŋämnyiwētuk SSSS SR-2
ŋämnyiwētuk SUSU SR-4
SR-5
SR-6
It should be pointed out that all six rules are necessary to derive the appropriate stress patterns.

If SR-1 were not significant then the other five rules would predict the pattern SUSU for

\[ \text{ŋamtermutuk} \]

The fact that ŋamtermutuk is unacceptable is a reflection of the fact that only one of the three (phonologically overt) morphemes receives stress on its first syllable. SR-1 rules out the SUSU pattern and contributes to the correct output.

Assuming that SR-1 is adopted we need SR-2 to rule out unacceptable strings such as

\[ *\text{ŋa}^{\text{m}}\text{m}^{\text{n}}^{\text{i}}\text{wēluk} \quad \text{SSSS} \]

If there was not a rule such as SR-3 many of the unacceptable patterns would not be ruled out. In fact there are sixteen possible combinations of stressed and unstressed syllables for a four syllabled word (i.e. 2^4). Of these three (viz. SSSS, SSSU and USSS) are ruled out by SR-2 while SR-3 rules out five more (USUU, UUSU, UUUS, UUUU and SUUU). With the application of just two rules half the possibilities are ruled out. Rules, SR-4 and 5, tend to reject six other combinations leaving just SUSU and USUS. SR-1 and SR-6 then choose a unique stress pattern, SUSU, which is in fact the only one that occurs for that word.
This indicates that even though there is a certain amount of flexibility built into the statement of the stress rules a given word will require the use of all the rules.

Although the application of constraints just presented assigns a unique stress pattern for the word there can be ambivalence in stress patterns under certain conditions.

2.2.2.3 Where a morphophonemic change blurs the syllabic boundaries of morphemes SR-1 is less rigidly applied. In underlying form we have a verb which appears as:

(46) mam-dudud-ṇanam

1sg.-3sg.-poke-lsg.HABITUATIVE

(action with hand)

"I habitually poke him with my hand"

By the morphophonemic rules this form is derived to become:

mandududganam MP-6
manududganam MP-9

Whether the /n/ of /manudud/ is an assimilation of /m/ from underlying /mam/ or an assimilation of /d/ from underlying /dudud/ is not non-arbitrarily decidable.

The morphophonemic rules set up above (2.1.10.17) claim that the remaining /n/ is from /mam/. However even if
these morphemic divisions were decided upon, the syllabic patterning must be

\texttt{ma.nu.dud.qa.nam} by SBR-2

and it is the syllable on which stress falls or does not.

The stress pattern for \texttt{ma.nu.dud.qa.nam} is ambivalent: either the blurred morphemic division is recognized and we get:

\texttt{manududqanam} \quad \texttt{USUSU}

which accords with SR-1,2, SR-4,5, but not SR-3, SR-6, or it is not recognized and we get:

\texttt{manududqanam} \quad \texttt{SUSSU}

which accords with all the rules except SR-4. The preferred stress pattern for this form is in fact

\texttt{SUSSU}

This stress pattern marks the entry of all new morphemes which are clearly recognizable and has the preferred pattern of one extra stressed syllable for an odd syllabled word.

Predictably, when the morphemic division becomes clear there is no ambivalent stress pattern:

\texttt{SUSSUSU}
(47) mam-$\nu$-dudud-$\gamma$anam
lsg.-2sg.-poke-lsg.HABITUATIVE

(action with hand)
"I habitually poke you with my hand"

Another example illustrates the same point:

(48) nam-$\nu$-ma-d\textsuperscript{\textnu}n
lsg.-3sg.-hand-kiss

"I kissed her hand"

This underlying string of morphemes is realised as
(by MP-11) nam\textsuperscript{\textnu}n and the morphemic division between
/\textnu/an/ and /\textma/ is blurred. The preferred pattern is
SUS. We also get USU which recognizes the morpheme
/\textma/. When /\textma/ is easily recognizable it is stressed
as in:

(49) nam-$\nu$-ma-d\textsuperscript{\textnu}n-nu
lsg.-3sg.-hand-kiss-FUT

"I will kiss her hand".

The preferred stress pattern here is USUS. If the
future tense morpheme, /\textnu/, is deleted (as it often
is) the stress pattern which is preferentially used
is USU so that we have two homophonous forms with
different preferred stress patterns determined by
their morphemic composition:

\*Henceforth abbreviated as HAB.
When an underlying morpheme "straddles" a syllable boundary ambivalence of stress assignment occurs.
Consider for example the morphemic shape of the incorporated form for "face" or "eye": /ŋka/.
Now we have seen in the section on syllables [2.2.1] that every syllable in Muyinypata is covered by the expression: CV(C)(C). When /ŋka/ appears in a word a part of the morpheme viz. /ŋ/ will appear in one syllable combined with a distinct morpheme while the other part of the morpheme viz. /ka/ appears in a separate syllable. Thus in a word such as ɁeɁwɨnɁjŋka "I'm beautiful", the morphemic divisions are as follows:

\[(50) \quad \text{le}\text{.lu.\textit{win}\text{-\textit{ŋi}-\textit{ŋka}}} \]
\[\text{beautiful-lsg.-face} \]

but the syllabic divisions are:

\[\text{le.lu.\textit{win}\text{-\textit{ŋi}-\textit{ŋka}}} \quad \text{(by SBR-2)} \]

Applying SBR-1 we have:

\[\text{le\textit{lu.\textit{win}\text{-\textit{ŋi}nk}}} \quad \text{SUUSS} \]

but SBR-4 is invoked to give:

\[\text{le\textit{lu.\textit{win}\text{-\textit{ŋi}nk}}} \quad \text{USUSS} \]
Why isn't SR-6 invoked? The only reason I can suggest is that there is a pecking order in the rules. In fact the numbers which have been assigned to the rules seem to reflect the pecking order although more data are required before this can be established.

Consider a form such as:

(51)  ṅa-růnku-ŋkámíjekmíjek-nů

lsg.-2du.sib.-abuse without reaction-FUT

"I'm going to abuse you two of the same subsection who will not react to that abuse (I predict)"

Now SR-4, SR-6 would predict for a nine syllabled word:

    SUSUSUSUS

and this pattern does occur. This is surprising since the verb root is very likely tril-morphemic: /ŋka/
and reduplicated /míjek/. If this were the case and SR-1 were followed throughout we would have:

    SSUSUSUSUS

This does not occur though because it violates SR-5. Instead we get a second pattern in free variation with the first:

    ṅaŋánkumíjekmíjeknů USUSUSUSUS
which recognizes all the morphemic boundaries except /ŋa/, also it follows SK-4 fairly closely and agrees with SK-3 (five stressed syllables in a nine syllabled word).

Why is the basic pattern followed when it fails to recognize in terms of stress either /naku/ or /ŋka/?
The best explanation from looking at this and other ambivalences in stress patterning is that when the morphemic divisions become unclear either through morphophonemic change or through a morpheme straddling a syllable boundary the language reverts to the basic pattern. With very few exceptions (eg. nukunu "he, it" SUS or USU) all instances of ambivalence in stress assignment arise from these two factors.

2.2.2.4 Further illustrations of stress placement.

(52)  ḡan-ṯu:wí:n-y-ṯu:wí:ty-ŋé:nə:n
lsq.-poke out anthill-poke out anthill-lsq.HAB
"I habitually poked out anthills (with a stick)"

Number of syllables: 9
Pattern predicted by SK-1: SSUSSUUSU
Actual pattern: USUSSUSSU
Rules: SK-3, SK-4 and SK-5
(53)  ḡan-mbɑ-turwity-turwity-ɟanam
lsg.-2sg.BEN*-poke-poke-lsg.HAB
"I habitually poked out anthills (with
a stick) for you"

Number of syllables:  10
Pattern by SR-1:    SSUSUSUSSU
Actual pattern:  SUSUSSUSSU

(54)  ḡan-nar-ụ-turwity-turwity-ɟanam
lsg.-2du.sib.BEN-poke-poke-lsg.HAB
"I habitually poke out anthills (with
a stick) for you two of the same subsection"

Number of syllables:  11
Pattern by SR-1:    SSUSUSUSSU
Actual pattern:  USUSSUSSUSSU

(55)  ḡan-nar-ụ-turwity-turwity-ginda-ɟanam
lsg.-2du.BEN-poke out anthill-poke out anthill-
dual.fem-lsg.HAB
"I habitually poked out anthills (with a stick)
for you two at least one of whom is female"

Number of syllables:  13
Pattern by SR-1:    SSUSUSSUSUSSU
Actual pattern:  USUSSUSSUSSUSSU

*Benefactive
(56) ɲam-punku-Iga-3ijek-3ijek-ninda-3anen

lsg.-3du.-face-abuse-abuse-du.MASC-lsg.HAB

"I habitually abused two males (not of the same subsection) who did not react to the abuse"

Number of syllables: 12
Pattern by SR-1: SSUSSUSUSUSU
Actual pattern: USUSSUSUSUSU
Rules: SR-4, SR-5

2.2.2.5 Deviation from Norm Stress Pattern as a Diagnostic for Morpheme Cuts.

A very large proportion of words correspond to the basic stress pattern given by (2)(i) in [2.2.2.1]. However, in the course of the investigation, it has been found that some forms obligatorily deviate from this pattern. A four syllabled word has a basic pattern of SUSU however these forms must be USUS

\text{t̪yipin'le}  "tomorrow"
\text{kuqini'le}  "yesterday"

two time words of similar appearance are:

\text{t̪yipin'i}  "evening"
\text{kuqini}  "afternoon"
Now there is a temporal suffix whose precise meaning is unclear /je/. In view of the stress deviation it might be argued that t̪ɪl̪ɪn̪ɪje and kuqɪn̪ɪje are dimorphemic a fact recognized by the stress given to the /je/ syllable. This might have occurred diachronically and has now become frozen.

Likewise the stress pattern for /ŋkamiʃekmiʃek/: SSUSU would suggest that the verb root is trimorphemic and this would be supported by the fact that many other verb roots appear to have incorporated body parts which, with the basic verb root, have become frozen forms.

2.2.2.6 Stress and Intonation.

Two syllabled vocatives in Muriyapata deviate from the basic stress pattern. The citation forms for "mother" and "father" for example are:

<table>
<thead>
<tr>
<th>Word</th>
<th>Type</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kale</td>
<td>SU</td>
<td>&quot;mother&quot;</td>
</tr>
<tr>
<td>yile</td>
<td>SU</td>
<td>&quot;father&quot;</td>
</tr>
</tbody>
</table>

but the vocatives are:

<table>
<thead>
<tr>
<th>Word</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>kale</td>
<td>US</td>
</tr>
<tr>
<td>yile</td>
<td>US</td>
</tr>
</tbody>
</table>

The stress on the final syllable is associated with a rise in intonation characteristic of vocatives.
Sentence Intonation.

Declarative sentences may be distinguished from interrogative sentences having the same segmental phonology by intonation. For example,

(57) \[ n\check{y}n\check{y}i-\text{ke matar} \]
2sg.-TOPIC ill
"Are you ill?"

(58) \[ n\check{y}n\check{y}i-\text{ka matar} \]
2sg.-TOPIC ill
"You are ill"

In narrative there is a characteristic device of lengthening out the final syllable of key words with an accompanying rise in intonation.
3. Word Classes.

Nine word classes with mutually exclusive membership can be established for Muyinypata. These are:

Noun

Noun-Classifer

Pronoun

Adjective

Adverb

Adjective/Adverb Qualifier

Verb

Particle

Interjection

The word classes are defined according to a number of criteria. Some word classes share characteristics but differ in at least one of the criteria.

This section will present the defining characteristics of the word classes and discuss the shared characteristics of some of the word classes. There is a brief account of the semantic content of the word classes with more detail later [6]. Most of the morphology will be left to the following chapter [4].

3.1 Nominal.

Nominals are characterised by the ability to appear with these suffixes [4.1.2]:

-\(\text{-te} \sim \text{me}^*\) ERGATIVE/INSTRUMENTAL

-\(\text{-nu}\) DATIVE

*Morphophonemic alternation is described in [2.10]*
Nominals are treated in the description as appearing with an unmarked ABSOLUTIVE [4.1.2] suffix, -∅ but this is of course not used as a distinguishing criterion.

These suffixes are accordingly called nominal inflections.

One example from each category of the class, nominal, appears in the examples:

<table>
<thead>
<tr>
<th>Nominal</th>
<th>Gloss</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>paŋun</td>
<td>&quot;woman&quot;</td>
<td>NOUN</td>
</tr>
<tr>
<td>kaŋu</td>
<td>&quot;person&quot;</td>
<td>NOUN-CLASSIFIER</td>
</tr>
<tr>
<td>nukunu</td>
<td>&quot;he&quot;</td>
<td>PRONOUN</td>
</tr>
<tr>
<td>ñaŋa</td>
<td>&quot;big&quot;</td>
<td>ADJECTIVE</td>
</tr>
</tbody>
</table>

(59) paŋun e nukunu panbaŋ
"woman hit him"

(60) kaŋu e nukunu panbaŋ
"person hit him"

(61) nukunu e paŋun panbaŋ
"he hit woman"

(62) paŋun ñaŋa e nukunu panbaŋ
"big woman hit him"

(63) kaŋu e nukunu panbaŋ paŋunu
"person hit him for woman"

*Morphophonemic alternation [2.10]. More detailed glossing of verb forms [4.2].
(64) 
\[ \text{pa} \text{nunu} \text{e nuku} \text{nun p} \text{nana} \text{bog ka} \text{gunu} \]
"woman hit him for person"

(65) 
\[ \text{pa} \text{nunu} \text{e ka} \text{gu p} \text{nana} \text{bog nuku} \text{nunu} \]
"woman hit person for him"

(66) 
\[ \text{nuku} \text{nunu} \text{e ka} \text{gu p} \text{nana} \text{bog pa} \text{lun galanu} \]
"he hit person for big woman"

3.1.1 Pronoun.

Pronouns form a closed system and may be defined by supplying an exhaustive listing [4.1.1].

3.1.2 Noun-Classifier.

Noun-Classifiers (abbreviated as NC) also form a closed system [3.9] but are further distinguished by the fact that they are negated by a special negative prefix, ma-
[4.1.5]. An explanation is provided for the apparent exception, da, to this generalisation.

3.1.3 Adjective.

Adjectives are one of the two open classes of nominals. Adjectives may appear with intensifiers such as "very" and other qualifiers such as "a little", "too much" [3.2.2]. Pronouns may be cross-referenced to an adjective appearing as a suffix to the adjective root. Such pronouns appear in bound direct object form [4.2]. Thus as an alternative to:
(67) n̄lv̄ȳ waq̄̄
"you are thin"

where n̄lv̄ȳ is the free form for the second person singular pronoun, we have:

(68) waq̄̄n̄ȳ

where the bound form pronoun appears as -n̄ȳ. In the case of adjectives such pronominal suffixes behave as stem-forming affixes:

(69) waq̄̄n̄ȳje nukunu tanbaq̄̄
"you who are thin hit him"

For some adjectives body part nouns may appear as stem-forming suffixes to the adjective root [4.1.4.1]. Thus

(70) n̄lv̄ȳ n̄iȳ waq̄̄
"you are thin of arm / you have thin arms"

is alternatively expressed as

(71) waq̄̄n̄ȳbe

where -be is the bound form for the body part noun "arm" which appears as n̄iȳ in free form.

(72) waq̄̄n̄ȳbeje nukunu tanbaq̄̄
"you who have thin arms hit him"
3.1.4 Nouns are also an open class and are negatively defined as those nominals which do not meet the criteria of the other nominals.

3.2 Other word classes.

3.2.1 Adverb.

All roots in the adverb class will be found in the class of adjectives although the converse is not the case. Adverbs are distinguished from adjectives by taking no affixes but are linked to them by their ability to appear with intensifiers and the other qualifiers mentioned for adjectives. Adverbs modify the action of a verb: every adverb has an homophonous counterpart which qualifies a noun (and is therefore an adjective). For example, tawayty appears either as an adjective, "slow":

nindu tawayty "slow horse" or as an adverb

(73) qumnu tawayty

"I will go slowly"

By contrast, waqi, an adjective meaning "thin" has no adverbal counterpart.

3.2.2 Adjective/Adverb Qualifier.

This word-class is characterised by the necessity of its members to immediately follow the word it qualifies. This is unusual in Nuinyapta since although there are preferred word orderings there are no other words which must appear in a particular position [5].
This word class has few members - only five observed -
but it is not really possible to say its membership is
closed. The qualifiers are as follows:

3.2.2.1 dargini
This seems to mean something like "a little bit",
"slightly", "rather", "somewhat" or some such.

(74) kunumanka dargini
small "little bit"
"pretty small; fairly small"

(75) palung muwuwiŋka dargini
woman beautiful little-bit
"a not entirely unattractive woman"

3.2.2.2 qada "too much"

(76) tungu taktakmam qada
fire(wood) wet too
"the firewood is too wet"

(77) t'yu wembel yittvit qada
NC: weapon type-of-club heavy too
"the club is too heavy"

3.2.2.3 taytpir "really" "very"
taytpir also appears as an adjective meaning
"true" so that it is not unlike the English
use of "truly" as an adjectival intensifier.
(78) tamul nyin'la paqap taytpir
spear 2sg. light true
"your spear is very/really light"

(79) maqinbyi mujuwuŋke taytpir
girl(teenager) beautiful true
"a very beautiful girl"

3.2.2.4 ŋala
This is another intensifier meaning "very";
independently as an adjective ŋala means "big".

(80) mujiny pana-ko pata ŋala
news that(near)-TOPIC "important"(good) big
"that news is (very) important"

3.2.2.5 kununganke
This word also appears as an adjective meaning
"small", "little". Its function as an
adjective/adverb qualifier is essentially
the same as dergini.

(81) nil'îme bukmender kununganke
shirt red little
"a shirt the colour of which partakes to
a limited extent of the quality of redness
ie. a pink shirt".
Similarly

(82) lawalma t'ipmam kunuŋaŋka
trousers black little
"grey trousers"

Likewise with other adjectives and adverbs it has the converse effect of qala in that it diminishes the quality denoted by the adjective or adverb:

(83) tamal panguyí kunuŋaŋka
spear long little
"a not particularly long spear"

(84) qayi ṣuṣumu pitpit kunuŋaŋka
lsg lsg will move fast little
"I will not come overly quickly"

3.2.2.6
Note: Reduplication of a noun phrase containing an adjective can intensify the adjective.

(85) kaçu panguyí kaçu panguyí
NC: man long NC: man long
"a very tall man"

(86) pañun muwuŋka pañun muwuŋka
woman beautiful woman beautiful
"a very beautiful woman"
3.3 Criteria for Identification of a word.

It might be argued that a morpheme which obligatorily follows some other morpheme has a dubious status as a separate word. Why should it not be treated as a suffix?

There are three criteria involved in determining what is a word in Mwinyupa:

3.3.1 (1) Mobility.

In a string of discourse, those parts of the strings which are words may be permuted. Parts of words may not be permuted. Thus we have from (73):

(87)  tawaytawunjunu

but not

(88)  *unjunu waytawta

(89)  *unjunu tawaytawu

and so on.

3.3.2 (2) Isolability.

Native speakers readily isolate words and will discuss these in isolation but will not, or, are very reluctant to, isolate parts of words. Thus one may address a question to a native speaker of the form: "What doesunjunu mean?" but not "What does un mean?" although the latter question may be a reasonable one in the
context of the linguist's description of the language.

3.3.3 (3) Pausing.
In a string of discourse pauses can be noted between those parts of the discourse which are words but not those parts which are only parts of a word.

For the class of adjective/adverb qualifiers the second and third criteria are invoked. For all other word classes all three defining characteristics apply.

3.4 Verb.
It is sufficient to define a verb as a non-nominal which appears with cross-referenced pronominal affixes. Verbs have open membership.

3.5 Interjection.
Interjections form a word class with closed membership, and thus may be defined by an exhaustive listing. They have no syntactic function. Often they make up a complete utterance in themselves or otherwise commence an utterance; in any case they make up a sentence in themselves [5.1].

**yuwu** yes; registering attention to the addressee, similar to English "mm".

**yukuwi** yes; frequently but not always more emphatic than yuwu.

**awu** no
awwuda*  emphatic awu: No!!; certainly not!

yakay  expresses sudden emotion, most often surprise mingled with joy (it is thus ideally suited to serendipitous situations) but sometimes surprise mingled with grief the difference being indicated by context and intonation - in this way it is similar to the considerably tamer English "golly!".

When expressing high emotion yakay, which is always stressed on the second syllable, lengthens out the second syllable.

batañu  look out!; beware!

kuguk  wait (a moment)!

beje  it's finished; that's that; in narrative a sort of verbal pause like English "ummm".

ya  "I don't know"; a verbal shrug of the shoulders.

bejeñun  "that's right"; "you've got it (the message)"

ka  rather like a verbal question mark. It could be paraphrased in English by "Eh?"; "What?" or perhaps non-verbally by interrogatively raised eyebrows.

*Alternatively this expression may be viewed as two words since a very definite pause is often heard between awu and wuda [3.3.3].
kama "perhaps"; "maybe"; expression of uncertainty.

na "that's right, isn't it?" strong expectation of a positive reaction.

ba "excuse me"; "pardon me"; sometimes used to indicate deferential hesitancy (thus sometimes used by members of the madingbuy age-grade to the author).

Kayi [koyi] "come here!"

Ma "Oh!"

Payi [payi] "go away!"

Wekoy very similar to bewe - this word is probably a loan into Mujinypata from neighbouring Daly River Languages.

In Australia there are at least three interjections with wide geographical distribution [Dixon 1972:18-19]; two of these appear to be represented in Mujinypata: yuwu related to yuwuy which is widespread throughout Australia. (It may turn out that yuwu is more similar than it appears when the precise phonetic value of yuwuy is known.); and yakay which is surely related to yagay.
ka and ya also occur as suffixes [4.6].

Two of the interjections are known to take the emphatic suffix, -ya, viz. kama and yakay so that we have:

kamayya   (the final vowel of kama is diphthongized
by following y in a regular way)
yakayya

It is just feasible that kama, "perhaps", may be
dimorphemic consisting of the interrogative interjection affix
ka and the "having" suffix -ma [4.1.4.2]. This would mean that
kama breaks down into:

(90) ka - ma
    INTERROG - having
    "having a query = uncertainty"

3.6 Semantic Content of the Open Word Classes.

3.6.1 Nouns.
Included in this class are terms referring to fauna and
flora and to parts thereof some of which have no everyday
English counterpart eg. tunmu "occipital protuberance".
Environmental features such as "water", "earth", "sky",
"rock", "fire" are described by nouns as well as topography
"mountain", "sea", "river" etc.; features of the weather
"rain", "cyclone", "wind", "lightning"; aural phenomena
such as language, song, music and some noises are described
by nouns: it should be noted that many noises eg. "bang",
"creak", "squeak" are described by verbs; familial
relationships such as "mother", "brother", "mother's brother" and social phenomena such as age-grades: "baby just born", "young man just initiated", "old woman"; names of totems, sub-sections, moieties and rituals; to spirits and supernatural phenomena "spirit-children", "the Rainbow Serpent"; to artefacts "spear", "club", "fishing net"; proper names for individuals and places; abstract notions of time and space "size", "shape", "shadow", "time"; to some other abstract notions eg. "pain", "dream". However most abstract notions are described by adjectives and verbs.

3.6.2 Adjectives.
Adjectives describe colour; dimension: "big", "short", "small", "long", "wide"; weight: "heavy", "light"; physical properties: "hard", "soft"; taste: "sweet", "bitter"; evaluation: "good", "bad", "easy", "difficult"; human description: "fat", "thin", "grey-haired", "lame"; some human properties: "greedy", "ashamed", "angry", "quiet" but not "hungry", "afraid" for example which are both expressed by verbs; age "young", "old". There is an extensive cardinal number system and a few ordinals [4.1.6]. Some notions which would be looked upon as antonym-pairs are not expressed by the same word class in Majinypata eg. "hot" must be expressed by a verb while "cold" must be rendered as an adjective.

3.6.3 Verbs.
Verbs refer to physical, social and mental activities of all sorts: "sweat", "sleep", "cough", "run", "cut", "talk", "
"marry", "kiss", "give", "think", "dream", "ridicule" etc.

The bulk of the abstract notions are covered by verbs.

3.7 Particles.

This word-class includes what would be described in a
traditional grammar of English as conjunctions and prepositions
ie. words such as "not", "and", "although", "if"; "to", "from",
"inside" etc. Particles are negatively defined as those non-
nominals which do not exhibit any of the defining characteristics
of the other non-nominals. They will be dealt with later [4.3].

3.8 Shared Characteristics of the Word-Classes.

If we look at the defining characteristics of the word classes
we will see that nouns, verbs and adjectives are interrelated
so that while nouns and verbs are different in quite important
respects adjectives form a middle ground. This is by no means
surprising among the languages of the world; for example, in
has discussed the interrelatedness of these three categories in
English.

Looking at two defining characteristics: the ability of a
word to appear with nominal inflections (NI) and the ability of a
word to appear with cross-referenced bound pronouns (XRPr) we can
establish a matrix:
### 3.8.A Defining Characteristics of some Major Word Classes.

Nouns may be distinguished from the other non-adjectival nominals by introducing the notion of open membership. Then nouns are those non-adjectival nominals which have open membership.

The matrix may then appear as:

<table>
<thead>
<tr>
<th></th>
<th>NI</th>
<th>XR Pron</th>
<th>Open Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Adjective</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Verb</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

### 3.8.B Defining Characteristics of Word Classes with Open Membership.

It is indicative of the importance of these two features involving nominal inflection and pronominal cross-reference accounts for the bulk of the lexicon. The remaining combination \([-\text{NI} \atop -\text{XR Pron}\)]\) defines the lexically small classes of adverb, particle, interjection and adjective/adverb qualifier.

---

*This excludes the small set of nouns which allows incorporation of cross-referencing bound pronouns [4.1.4.1].
3.9 Noun-Classification.

There are ten noun classes in Munginpata. The basis for a noun's membership in one of these classes is semantic (see [6] for details). Noun classes are marked with noun-classifiers (NC). Noun classifiers appear with nominal inflection under certain conditions [4.1.2].

3.9.1 The noun-classifiers are as follows:

1. ka đu human beings: age-grades, kin-terms, titles of occupations; some spirits
e.g. ka đu pa ngu "woman"
ka đu mu t' inga "old woman"
ka đu wa nangai "doctor"

2. ku non-Aboriginal human beings; particularly when being contrasted with Aborigines.
ku wa nangai "(white) doctor"
non-human animate nouns and products derived from them
ku t' yin mei "seagull"
ku t' yi tay yi "sugarbag"
some spirits
ku kaj aytv "devil"
female genitalia
ku mi dut "vulva"
ku t' yimu "clitoris"
3. miª non-flesh food; faeces
   mi tuwigka "nut"
   mi nukin "faeces"

4. t¥u offensive weapons excluding spears; lightning
   t¥u wembel "type of club"
   t¥u mandadayt "lightning"

5. tamul types of spear
   tamul kuwilar "fighting spear"

6. tungu artefacts and phenomena associated with fire
   tungu mevity "matches"
   tungu tayl "firestick"

7. kuja sources of, and, derivatives from fresh water
   kuja nimalak "spring"
   kuja burbur "soft drink"

8. lalingin phenomena associated with salt water
   lalingin qalbagalbak "ocean swell"
   lalingin la "neap tide"

9. ジャー nouns associated with place and time ie.
   place-names, specialised parts of the environment
   eg. totem-site, buildings; time periods eg.
   seasons of the year, "historical" periods.
   ジャー nangu Nangu (place-name)

*Capell [1956:41] lists the class prefixes for a large number of languages
of north-west Australia. He draws attention to mi- and what are presumably
reflexes of it: m-, ma- and mu-. Dixon [1968:115-116] reports on the wide
geographical spread of mayi in Australia while Tryon [1974:293] shows that
this pattern is prevalent in the Daly River Languages. None of the other
Mujinypita noun classifiers seem to be related to other languages.
10. nanpylv residue class. Includes body-part terms, artefacts, natural phenomena; machines and introduced items in the culture.

nanpylv tyjimeme "navel"
nanpylv majimaji "knife"
nanpylv nghe "sun"
nanpylv kanamalbal "aeroplane"
nanpylv payp "(smoking-) pipe"

3.9.2 Stanner [1964:73-78] observed that the Muyinypata had a number of classes of nouns. He chose not to use the term "noun class" because "as far as I have been able to determine, there are no grammatical consequences or correlations" [1964:73]. This is not quite true in that noun-classifiers are distinguished from other word classes by the fact that they may appear with a negative prefix, ma- [4.1.5]. However noun classifiers in Muyinypata do not show the concord through the noun phrase reported for the Daly Family languages by Tryon [1970, 1974]. The basis for recognition of noun classes in Muyinypata is primarily semantic. This differs from other Australianists eg. Dixon [1968, 1972], Capell [1937], Worsley [1954] and deserves further comment.

All the forms labelled "noun-classifier" in this description appear independently as generic nouns:
kađu
"person; man"

ku
"meat; animal"

mi
"plant; food"

t'yu
"weapon"

tamul
"spear (generic)"

tungu
"fire"

kuja
"(fresh) water"

łallogin
"salt water; the sea"

g'a
"place; time"

nanYdYlı
"'thing'"
Explanation for the origin of noun-classifiers* (in the more widely used concordial sense which is not used here) are by no means recent. Bleek [1862:104-105] shows that the concord prefixes of Bantu languages arose from nouns which originally had "separate value and meaning, and that nouns formed with them were compounded, and that when the parts to be determined lost their meaning as separate words (i.e., became obsolete) those nouns originally compound, became derivative". Dixon [1968:115-116] suggests that noun-classifiers developed from generic nouns as does Worsley [1954:287]. Assuming such an explanation is correct Mu'inympata presents a puzzling situation. Linguistic neighbours to the south and south-west have noun-classifiers which are concordial prefixes [Capell 1956:41] [Bolt, Cleverly, Hoddinott 1970] [Capell 1940:265] while at least some of the northern and north-eastern neighbours have concordial prefixes as reported by Tryon [1974:294]. The situation to the east of Mu'inympata is not known.

Mu'inympata noun-classifiers do not show concord and can be shown to be separate words by the relatively strong mobility criterion [3.3.1]. A noun-classifier may be detached from the noun it classifies:

(91) \[ \text{ŋəy! nənyəy! ħənyəy! iłypur} \]

[sg. NC:thing lag.have axe]

"I have an axe"

*See also Ibrahim [1973:63-90]
This sentence is quite acceptable even though there is a norm word ordering \([5.4]\). of noun-classifier immediately preceding the noun:

\[(92) \quad \text{ناي ناندو ليمور ناندوين}
\]

There is a widespread development from a generic noun first being associated with a specific term and then becoming an affix to the specific noun*. Why should Mūjinypata be so different from its neighbours? It might be claimed that Mūjinypata is at an earlier stage than its neighbours. One might suppose that in the future the contemporary preferred ordering of noun-classifier before noun would become obligatory; later the noun-classifier would become prefixed and perhaps still later these prefixes would be reduced, disyllabic forms reducing to monosyllables, for example. On the other hand though, one could speculate that the present situation of Mūjinypata is a development out of an earlier stage in which the language had concordial prefixes.

For the Daly Family Tryon [1974:294] summarises concord as follows:

*The suffixes, -dom, -hood, -ship and the like which used to be separate nouns at an earlier stage of English are somewhat comparable.
Mulluk Group

1. Mulluk SG  + (4)  -  +
2. Daly SG  + (4)  -  -

Brinken-Wogait Group

1. Brinken SG  + (7)  +  +
2. Maranunggu SG  + (6)  -  -
3. Wogaity SG  + (4)  -  -

Tyemer Group  + (7)  +  +

3.9.2.A Noun-Class Concord in Daly River Languages

Birk [1974:139-147] shows that there is only limited concord with adjectives in Malak-Malak: concord only takes place with a small sub-set of the adjectives and the semantic field of nouns taking a particular adjectival concord does not coincide with the semantic fields covered by the noun-classes for those nouns. Looking at the geographical placement of these languages [3.9.2.B] it can be seen that there is a progression from no concord whatsoever: Mujinypata, the Maranunggu and Daly sub-groups to limited concord: the Mulluk sub-group to concord with adjectives and possessive adjectives: the Tyemer Group and the Brinken sub-group. The writer's own fieldwork on Maringarr (Tryon's Marengar) indicates that there is no concord for noun-classes in that language.

It might be suggested that the area of noun-class concord is "shrinking". Tryon's fieldwork on Maringarr was carried out mainly at Daly River Mission from 1967 to 1970. The languages spoken at the Daly River Mission are mostly from
the Tyemerri group and Brinken sub-group, (predominantly Ngangigurrunggurr in fact), which are all languages exhibiting concord with noun-classes. The writer's fieldwork on Maringarr was carried out at Port Keats mainly in 1973 and 1974. The predominante language at Port Keats is Mujinypata which shows no concord. Perhaps Maringarr has been influenced by Mujinypata. It is difficult to do more than speculate with the data available but it may happen that all the Daly River languages will lose the use of concord with noun-classification.
3.9.2.B Map of Daly Family languages (reproduced from D.T. Tryon [1974] "Daly Family Languages, Australia" (Canberra: Pacific Linguistics) with the permission of the author).
3.9.2. B Map of Daly Family languages (reproduced from D.T. Tryon [1974] "Daly Family Languages, Australia" (Canberra: Pacific Linguistics) with the permission of the author).
4 Morphology

4.1 Morphology of Nominals

4.1.1 Pronominal Morphology

4.1.1.1 All the pronouns take the nominal inflections, -te ~ -ne and -nu may occur with the universal affixes [4.6] as do other nominals.

The unbound pronouns of Muñinypata may be listed as follows (in the absolutive case):

<table>
<thead>
<tr>
<th>Number</th>
<th>Group contains speaker &amp; addressee</th>
<th>Group contains speaker but not the addressee</th>
<th>Group contains addressee but not the speaker</th>
<th>Group contains neither addressee nor speaker</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group consists of exactly one individual</td>
<td>-</td>
<td>nayi</td>
<td>n'yn'nl</td>
<td>nukunu</td>
<td>Masculine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n'yn'nl</td>
<td></td>
<td>n'yn'nl</td>
<td>Feminine</td>
</tr>
<tr>
<td>Group consists of exactly two individuals</td>
<td>neki</td>
<td>nankunjnda</td>
<td>nankunjnda</td>
<td>peninda</td>
<td>Group has all masculine members</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>nankunjnda</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>nanku</td>
<td>nanku</td>
<td>piguana</td>
<td>Group has all members from same subsection</td>
</tr>
<tr>
<td>Group consists of no less than three individuals and up to about ten individuals</td>
<td>nekinema</td>
<td>nankuneme</td>
<td>nankuneme</td>
<td>penene</td>
<td>Group has all members masculine</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>nekineme</td>
<td>nankuneme</td>
<td>nankunene</td>
<td>penene</td>
<td>Group has at least one member feminine</td>
</tr>
<tr>
<td></td>
<td>nankunjme</td>
<td>nankunjme</td>
<td>nankunjme</td>
<td></td>
<td>(Group has all members from same subsection)</td>
</tr>
</tbody>
</table>

4.1.1. A Muñinypata Unbound Pronouns.
The twenty five pronominal forms are distinguished in terms of three dimensions: number, person and "status".

Number is a four-term system:

- singular (sg)
- dual (du)
- paucal (pc)
- plural (pl)

Unlike many other Australian languages in which there is a bipartite or tripartite distinction in non-singualrs, the plural form cannot be used as a cover term for non-singular. To use the plural form for a group consisting of two or a few individuals is ungrammatical. The boundary between paucal and plural numbers is fuzzy as it is between "a few" and "a lot" in English. Person is also a four-term system:

- first person inclusive (1 inc)
- first person exclusive (1 exc)
- second person (2)
- third person (3)

The third system has been labelled "status" although this is not really adequate. It is a three-term system distinguishing between groups all of whose members belong to the same subsection and groups which do not have such a composition (for details of the subsection system see Falkenberg [1962:206ff] and Stanner [1936]). Native speakers describe the distinction in terms of whether all the people in the group are "brothers and sisters" or not. The groups whose members are not all
of the same subsection are further divided into those
groups all of whose members are masculine and groups
in which at least one person is feminine (i.e. the
exact converse of the French non-singular third person
pronouns, ils and elles). This three-term system will
be described as:

mascuine  (MASC)
feminine   (FEM)
sibling*  (SIB)

but the more precise descriptions given above should
be kept in mind.

There is one problem remaining in the forms given in
[4.1.1.A]. qanki, qanki and pigunu each refer to two
quite distinct groups: pc SIB, and, pl.
Thus each of these forms has two functions. Native
speakers, by contrast, describe the situation in these
terms: there is one form for each function (even
though the two forms happen to be homophonous) so
that there are two distinct words, qanki, 1 pc SIB
and qanki, 1 pl:

(93)  qanki pekengu-ka qanki qatan yi qanki
      "qanki" two -TOPIC "qanki" brother and "qanki"
wunaŋat
      mob
      "There are two "qanki"'s, brother "qanki" and
      mob "qanki".

*Following the native speaker description.
It should be noted that a form such as neki in which three distinct functions (exemplified by its exclusive counterparts: ṣankuninda, ṣankużyinda and ṣanku) are subsumed under one form is considered by native speakers to be one word:

(94) neki-ka mujin’ numi

"neki"-TOPIC word one

"neki" is one word

Following the native speaker reaction, the analysis of pronouns in this description will include three pairs of homophonous but non-synonymous forms:

<table>
<thead>
<tr>
<th>Person Number</th>
<th>1 inc</th>
<th>1 exc</th>
<th>2</th>
<th>3</th>
<th>&quot;Status&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>sg</td>
<td>-</td>
<td>ṣayi</td>
<td>n’inyi</td>
<td>nukunu</td>
<td>MASC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n’inu</td>
<td>FEM</td>
</tr>
<tr>
<td>du</td>
<td>neki</td>
<td>ṣankuninda</td>
<td>nankuninda</td>
<td>peninda</td>
<td>MASC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ṣankujinda</td>
<td>nankujinda</td>
<td>peniğinda</td>
<td>FEM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ṣanku</td>
<td>nanki</td>
<td>nigunda</td>
<td>SIB</td>
</tr>
<tr>
<td>pc</td>
<td>nekineme</td>
<td>ṣenkuneme</td>
<td>nankuneme</td>
<td>peneme</td>
<td>MASC</td>
</tr>
<tr>
<td></td>
<td>nekiğime</td>
<td>ṣankujime</td>
<td>nankujime</td>
<td>peniğime</td>
<td>FEM</td>
</tr>
<tr>
<td></td>
<td>ṣanki</td>
<td>nanki</td>
<td>nigunda</td>
<td>SIB</td>
<td></td>
</tr>
<tr>
<td>pl</td>
<td>ṣanki</td>
<td>nanki</td>
<td>nigunda</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

4.1.1.5 Mujinypata Pronouns (showing abbreviations)
It might be thought that it would be revealing to display a system which involves three sets of variables in a three-dimensional matrix (cf. Turkish vowel system [Gleason, 1961:267]). However this would be by no means simple since each set of variables has at least three members. Each face of the "cube" (as a representation of the three-dimensional matrix) could be divided into a number of areas corresponding to the number of variables in that set of variables; each pronoun could then be represented as a particular fixed trajectory through this 3-space (cf. Cherry's [1957:94] description of phonemes as a trajectory through an n-space where n is the number of binary (note that Cherry's system is different although analogous to what is referred to here) features used to describe the phonological system).

More revealing is a dependency tree showing the pronouns in terms of eight binary features (see also [Hale 1973:322ff] for a feature representation of a more simple pronoun system):

\[ \text{+sg} \]
\[ \text{+du} \]
\[ \text{+pc} \]
\[ \text{+3 (3rd person vs non-3rd person)} \]
\[ \text{+2} \]
\[ \text{+inc} \]
\[ \text{+SIB} \]
\[ \text{+MASC} \]
Each terminal node represents a distinct pronominal form (with the exception of the two non-distinct forms produced by the tree, with the functions 1 pc inc SIB and 1 pc exc SIB, which are correctly subsumed under one form in [4.1.1.8]) the function being determined by the branchings in the tree:
Dependency Tree Array of Mujiyapata Pronouns.

Branching to the left is positive for the feature presented in each margin; branching to the right is negative for that feature. For example, qayi is + SINGULAR, - 3RD PERSON, - 2ND PERSON.
4.1.1.2 Analysis of the Pronominal Forms.

In the dual and paucal pronouns there are four recurring elements, termed number indicators (NI) and glossed as:

\[
\begin{align*}
\text{ninda} & \quad \text{du MASC} \\
\eta\text{ninda} & \quad \text{du FEM} \\
\text{neme} & \quad \text{pc MASC} \\
\eta\text{ime} & \quad \text{pc FEM}
\end{align*}
\]

These could be analysed as consisting of two parts, a sex marker:

\[
\begin{align*}
\eta- & \quad \text{MASC} \\
\eta- & \quad \text{FEM}
\end{align*}
\]

and a number marker:

\[
\begin{align*}
-\text{inda} & \quad \text{du} \\
-\text{eme} & \quad \text{pc} \\
-\text{ime} & \quad \text{pc}
\end{align*}
\]

However, such an analysis would have to specify that -eme is only attached to n- and -ime to \(\eta\)-. Reflexes of -eme - -ime in neighbouring languages \(4.1.1.4\) suggest that there may have once been just one form -ime which would give more symmetry to the system.

The first person exclusive and second person pronouns can be analysed as follows:

\[
\begin{align*}
\eta- & \quad 1 \text{ exc} \\
n- & \quad 2
\end{align*}
\]

*Last unacceptable forms *nime or *neme be generated.
To this prefix is attached a form which indicates ±sg [4.1.1.C]:
-øyí  ±sg
-ŋnk  -sg

To the non-singuliiars is attached a form indicating ±pl:
-u   -pl
-ŋi  +pl

To the -pl form is attached a form indicating ±SIB:
-ŋ  +SIB
-ŋi  -SIB

Thus a form such as ŋankuŋime lpc exc FEM is analysable as:

(95) ŋ - ŋnk - ū - ŋime
FEM - -sg - -pl - -SIB

ŋankuŋime, then, is analysed as feminine, non-singular, non-plural, non-sibling with the number indicator being analysed separately as above.

Such an analysis generates all first person exclusive and second person pronouns except the problematic paucal sibling forms: ŋankí 1 pc exc SIB and nankí 2 pc SIB. However it would also produce for the second person singular the unattested form:

*nayı

(what actually occurs is nyín yi)
The first person inclusive pronouns:

neki 1 du inc
nekineme 1 pc inc MASC
neknjime 1 pc inc FEM

can be analysed as an element

neki 1 inc
to which is attached φ in the case of the dual and the appropriate number indicator for the paucal forms.

The third person pronouns, similarly, cannot be analysed economically. The dual and paucal non-sibling forms are analysable as an element to which two elements distinguishing sex are added:

φ   MASC
- nl  FEM

To the resulting forms are attached the appropriate number indicators. The forms:

piguna 3 du SIB
pigunu 3 pc SIB/3 pl

are distinguished by the final vowel.

The analysis given here is not supposed to be overly useful. An analysis which requires twelve elements:

η-, n-, ayi, ank; u, i; φ, n, o, inda, ena - lme,

and instructions for how they are to be put together in order to attempt to describe sixteen forms (viz. first person exclusive and second person pronouns) can hardly be called economical. This section is included simply to draw attention to some partial
regularities in the pronoun system.

4.1.1.3 Special uses of Pronouns.

4.1.1.3.1 The non-singular 3rd person pronominal forms may be used as vocatives.

(96) peninda - ka
    3 du MASC - TOPIC
    "Hey, you two (males not of the same subsection)!"

The second person pronominal forms which would be expected as vocatives may also be used for this function, thus (96) is alternatively expressed by:

(97) nankuninda - ka
    2 du MASC - TOPIC
    "Hey, you two (males not of the same subsection)!"

4.1.1.3.2 nukunu is sparingly used as an anaphoric form for non-human nominals and rarely for non-animate nominals.

(98) ku lawenge-wa
    NC:meat wallaby - EMPH
    "(There's) a wallaby!"

ηayi - je nukunu-φ pen(-φ) -baŋ
1sg - ERG 3sg(MASC)-ABS 1sg(-3sg)-strike
"I'll hit it"
Non-singular third person pronominal forms are occasionally used referring to non-human, animate nouns but have not been observed used to refer to inanimate nouns.

4.1.1.3.3 The first person dual inclusive pronoun, neki, is used for ganki in two situations:

(a) when one wants to emphasise the intimacy of the group being described although there are more than two.

(b) when the effect is "all-inclusive" for example:

(99) kala neki
mother i du inc
"Mother of us all ie. the Virgin Mary"

In both cases there is a tacit assumption that the addressee is included in the group: native speakers considered the suggestion that the addressee not be included as absurd.

4.1.1.4 Relationship with Daly River Pronominal System.
Nganggikurrunggurr and Ngengomari (see map [3.9.2.B]) have identical forms to Musinpata for the first and second person pronouns. The paucal number indicator (neme - jima) might be supposed to have reflexes in such forms as 1st person plural inclusive:
Marithiel ŋan̪ki
(Maramanandji ŋan̪kiwin̪yim)
Marengar kaŋkinim
Nganggikurrungurr nayinime
Ngengomeri nayinime

Perhaps too the 1st person plural form, ŋanki, in Muyinypata can be related to ŋanki - kaŋki in the first three forms above.

In addition similar forms to the Muyinypata pronouns appear in the Daly 1st person dual inclusive pronouns*:

Marithiel ŋanki
Maramanandji ŋanki
Marengar kaŋki
Maranunggu ŋanku
Manda ŋanku
Ami ŋanku
Pungupungu ŋanka
Wadyiginy ŋanke

There are no other significant similarities between pronoun paradigms of Muyinypata and the Daly Family Languages.

*These and the 1st person plural inclusive pronouns are taken from Tryon [1974:295].
4.1.2.1 Case inflections.

Ergative - Instrumental. The two case functions, ERGATIVE and INSTRUMENTAL are marked by the case inflection, /-te - -je/, which is suffixed to the nominal stem. /-je/ occurs after stems ending in vowels, semivowels and /r/ while /-te/ occurs after stems ending in stops, nasals, l laterals and rhotics. Thus after stems ending in /r/ either alternant may occur. The alternation is predicted by the morphophonological rule, ME-5 [2.1.10.5].

Ergative NP's are cross-referenced into the verb by bound pronouns in auxiliaries [4.2] so that in most cases the ergative inflection is redundant [5.5]. This is because if the syntactic function of a nominal is marked in the verb then to explicitly mark that nominal with an inflection is redundant. The nominal inflections cease to be redundant when the markings in the verb do not distinguish between different syntactic functions. When it is redundant it generally does not occur.

Absolutive is unmarked.

Dative is marked by the case inflection /-nu/. For a description of the uses of Munganya case inflections see [Walsh 1976].
<table>
<thead>
<tr>
<th>Nominal Stem</th>
<th>Absolutive</th>
<th>Ergative/Instrumental</th>
<th>Dative</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;NC: man&quot;</td>
<td>kaŋu</td>
<td>kaŋuŋe</td>
<td>kaŋunu</td>
</tr>
<tr>
<td>&quot;Rainbow serpent&quot;</td>
<td>kunmangur</td>
<td>kunmangurŋe</td>
<td>kunmangurŋu</td>
</tr>
<tr>
<td>&quot;woman&quot;</td>
<td>paŋun</td>
<td>paŋunte</td>
<td>paŋunnu</td>
</tr>
<tr>
<td>&quot;quiet man&quot;</td>
<td>manŋe</td>
<td>manŋe</td>
<td>manŋu</td>
</tr>
<tr>
<td>&quot;cat&quot;</td>
<td>yirtŋip</td>
<td>yirtŋipte</td>
<td>yirtŋipnu</td>
</tr>
<tr>
<td>&quot;who&quot;</td>
<td>ngaŋal</td>
<td>ngaŋalte</td>
<td>ngaŋalnu</td>
</tr>
<tr>
<td>&quot;kaykay&quot; (personal name)</td>
<td>kaykay</td>
<td>kaykaye</td>
<td>kaykaynu</td>
</tr>
<tr>
<td>&quot;1st person singular&quot;</td>
<td>ŋayi</td>
<td>ŋayiŋe</td>
<td>ŋayinu</td>
</tr>
<tr>
<td>&quot;good&quot;</td>
<td>peta</td>
<td>petaŋe</td>
<td>petaŋu</td>
</tr>
</tbody>
</table>

4.1.2.A Examples of Case Inflections on Nominals.

4.1.2.2 Case Marking in Australian Languages.

In most languages in Australia noun and adjective inflect for case and do so in the same way. A few languages have been reported as lacking any case inflections: these languages are in the northern part of the Northern Territory, for example Nunggubuyu [Heath to appear c], Maung [Capell and Hinch: 1970] and Gunwinggu [Oates, 1964]. In these languages the case relations of (at least) subject and object are indicated by cross referencing. Case-specified incorporated pronominal forms are prefixed to verb stems [4.2].
Some languages which have such pronominal affixation (sometimes bound pronouns are suffixed, as in Southern Baagandji [Hercus: 1974]) also have case marking on NP's representing subject and object. The case marking most commonly brackets the three functions: transitive subject (direct) object and intransitive subject in either of two ways. A nominative-accusative pattern brackets transitive subject and intransitive subject and labels it "nominative" which is distinguished from "accusative", the labelling for (direct) object function. Ergative-absolutive patterns bracket intransitive subject and (direct) object functions and label them "absolutive" which is distinguished from "ergative" the label for transitive subject function. (The term "nominative" has often been used in the past for "absolutive" but the latter term will be used in this discussion.) Most languages in Australia follow an ergative-absolutive pattern for nouns, nominative-accusative for pronouns. A few of these have both pronouns and nouns following an ergative-absolutive pattern, for example, Walbiri [Hale, 1970:776-9] and Nijinypata.

In these two languages pronominal cross-referencing follows a nominative-accusative pattern. Such languages redundantly identify the main syntactic case functions on nominals as well as by cross-referencing in verbs. In some of these languages case marking on nominals becomes optional and rarely used just because there is redundancy. One such language: southern Baagandji usually does not mark the ergative [Hercus: 1974]. Similarly Nijinypata rarely marks ergative using the case marking only when emphasis is required.
or to avoid ambiguity [5.5]. A language such as Nunggubuyu might be viewed as having lost its ergative marking because there was no need for it. A language such as Walbiri which appears to still use its ergative marking albeit redundantly [Hale 1973: 328-330] could be viewed as being earlier on an evolutionary scale. Muinypata is further along this scale towards loss of nominal ergative than Walbiri but plainly not so far as Nunggubuyu.

The form of the case marking for ergative NP's is very similar in very many languages of Australia. The inflection is frequently -(ŋ)gu - lu on nouns ending in a vowel but a homorganic stop plus -u when the noun ends in a nasal. Otherwise the common ending is -lu (or -l̪u only after a vowel). Some languages have both -(ŋ)gu and -lu - -lu as allomorphic alternants after a vowel. There are also some languages with an ergative case marking system which evidence more varied allomorphic alternation in the case marking. For example, Walmadjari [Hudson: to appear] has six allomorphs for the ergative case-marking:

- lu after a stem of three syllables or more ending in a vowel.
- -nu after a stem of two syllables ending in a vowel.
- -u after a stem ending in a liquid.
- -du after a stem ending in a bilabial or apico-alveolar nasal or stop.
- -du after a stem ending in an apico-dental nasal or stop.
- -d̪u after a stem ending in a dorso-velar or laminal nasal or stop.
What is important for our purposes here is the fact that regardless of a rather restricted alternation the ergative suffix is monosyllabic.

Another wide-spread pattern in Australia is for a language which has an ergative to have an identical marking for instrumental case function. Most languages have a locative inflection on nouns and adjectives. Typically this is the same as the ergative marking except for a change in the final vowel, -a being substituted for -u. The alternations for ergative are generally the same for locative, Thus, Walmadjari has as locative inflection -ja ~ -ŋa ~ -a ~ -da ~ -dɑ ~ -ddɑ in the corresponding environments. These very wide-spread patterns show other instances of the case markings for ergative, instrumental and locative case functions being monosyllabic.

In some languages of the north-west one or more of these case markings is disyllabic. For example, in Maringarr the ergative/instrumental case marking on nouns and adjectives is -parən (Walsh). In Djeraidj the instrumental is -nəwəŋ; for Nganggikurunggurr -nɨŋɨ; for Maranunggu -nunu; for Ami and Manda -nene; for Wadyid'ny -karaŋ [Tryon: 1974]. Miriwaŋ has no ergative marking but has an instrumental, -beri - wuri [Kofed to appear]. Most of the Daly River languages have disyllabic locative case markings (although Maringarr has (-na))— but not obviously relateable to the instrumental inflections. Muŋinypata has no locative case inflection but has a disyllabic locative preposition, qalwa.
4.1.2.3 A Speculative Historical Excursus.

In most discussions of Australian case systems languages of the north-west have been considered exceptions. I would like to suggest an explanation here for the apparently aberrant pattern.

Most Daly River languages have a disyllabic ergative/instrumental but scattered through are some with monosyllabic forms: Malag Malag, -waŋ; Matngala and Gamor -ni and Maridhiel, -kin [Tryon:1974]. Mujinypata, a non-Daly River language, has the monosyllabic, -te -je. Djamindjung has a monosyllabic ergative/instrumental/locative: -dl - -(n)m -kl [Hoddinott and Kofod:to appear]. The scattering of monosyllabic or disyllabic forms suggests that disyllabic suffixes may have been widespread in this area and then have been reduced to monosyllables in some languages by deletion of one syllable, generally the first. The reason for viewing the phenomenon this way rather than as an accretion of a syllable onto an original monosyllabic form is discussed below.

Contiguous languages such as Djeradja and Malag Malag have ergative/instrumental case inflections -nōwaŋ and -waŋ respectively. I would speculate that the Malag Malag form developed from -nōwaŋ, by the deletion of the first syllable. Now Tryon [1974:xiii] groups these two languages together into one sub-group, Mulluk. The languages contiguous to Mulluk (see map [3.9.2.8]) Matngala and Gamor have -ni as the ergative/instrumental marking. These languages make up the sub-group, Daly, which,
with the sub-group, Mulluk, make up the group, Mulluk. We might speculate that Proto-Mulluk had an ergative/instrumental suffix:

\[ *-n\text{Waq} \]

The sub-group, Proto-Daly, deleted the final syllable to give the modern forms. The sub-group, Proto-Mulluk, retained \[ *-n\text{Waq} \] and gave rise to \[ -\text{Waq} \] in the modern language, Malag Malag, by deletion of the first syllable while Djeridj retained the disyllabic form; \[ -n\text{Waq} \].

Now this is plainly speculation but is intended to illustrate how apparently unrelated case markings in contiguous languages may be related to a common source.

Let us speculate further that the ergative-instrumental case marking arose from an earlier disyllabic form. Suppose Proto-Mujinypata had as part of its case system:

- **ERG/INST.** *ŋaŋe*
- **LOCATIVE** *ŋaŋe*

Maringarr, a neighbouring language with much in common (despite being placed in a separate family), has the ergative/instrumental marking : *ŋaŋin*. Analogously to the situation for Malag Malag and Djeridj we might suppose that an earlier language which later gave rise to Mujinypata and Maringarr had a disyllabic ergative/instrumental marking* *ŋaŋe*. Mujinypata deleted the

*But hardly from the source *ŋaŋe.*
languages we have just -ra

Ngarinjin
Munumburu
Woljamidi

in some -ŋa appears

Yuulngu
Lardil
Dhalandji
also Adjnjamadhanha (to the south)
(Jigalong ŋka)

More often the two reflexes are allomorphic variants:

Yulberidja -ŋka - -la (tja)
Walmadjari -ŋa - -la
Walbiri -ŋga - -la
Pitjantjatjara -ŋga - -la (Ta)
Bandjima -ŋka - -la
Yindjibarndi -ŋka - -La (Ta)
Ngarluma -ŋka - -La (Ta)
Thargari -ka - -ra (Ta)
Yinggaarla -ŋka - -la (Ta)
Nanda -ŋka? - -la
Nyangumarda ŋy tjir(tj)

A few languages retain a disyllabic form:

Yuulngu ŋura
Gunwinygu kore
Bayungu ŋura
perhaps Unggumi wiren*

Muninyinpa ŋara

*This and the case markings given above in this list are from Blake [1974].
first syllable to get modern -je while Maringarr retained the disyllabic pattern. The alternant -te in Mu\-inyypata arose from the hardening rule described earlier [MP-5]. The environment for such a hardening rule to apply only became possible after the initial syllable of the protoform had been deleted. Synchronic alternations involving hardening of continuants to stops are part of a general phonological process in Mu\-inyypata [MP-1, 3, 4, 5, 10]. Additionally, we would claim that the locative case form -ŋana in proto-Mu\-inyypata has become a preposition in the modern language. What is appealing about these forms now is that like most Australian languages Proto-Mu\-inyypata has an ergative/instrumental case marking differing from the locative just in the final vowel.

Maringarr has a modern locative expression, na, which may have arisen from a disyllabic locative in Proto-Mu\-inyypata - Maringarr which lost its initial syllable. On a wider scale we might speculate that the locative over a large part of north Australia was disyllabic. The first syllable was ŋa and the second syllable was an apico-alveolar segment (specifically, a liquid, perhaps) followed by a:

*ŋala

Reflexes of this proto-form appear in a large number of modern languages. By deletion of one syllable we either have *ŋa or *la, depending on whether the second or first syllable was deleted. In these
I have indicated above (in some cases) that languages allow more than two variants. Significantly, the third variant tends to also be an alveolar segment. Thus it may be that we would need to posit a proto-locative which has an initial velar (nasal) followed by /a/:

\[
\begin{array}{c}
\eta^a \\
L \\
a \\
T
\end{array}
\]

Of course there are considerable difficulties in these suggestions. What has motivated the change of vowel (from the wide-spread \(*u\) to \(*e\) for the ergative/instrumental inflection? For the locative inflections although there is a "frame" of an initial velar in the first syllabic and an initial alveolar in the second syllable there is considerable fluctuation in the vowels. Perhaps the proto-form would be better posited as:

\[
\begin{array}{c}
\eta^u \\
L \\
V \\
T
\end{array}
\]

Furthermore Halle [1976] has suggested that the allomorph \(-ugu\) arose from \(-lu\ -du\) through a morphological reanalysis following a change in the phonotactics of the language. If this is so then it does not support the posited dimorphemic proto-ergative/instrumental. Perhaps one could explain the dimorphemic ergative/instrumental in terms of the "double" ergative marking found in some Australian languages, eg. Walbiri.
Dative.

Typically Australian languages have as the case marking for dative (and allative) function: the suffix -gu. Languages around the Daly River more often have an initial alveolar nasal:

- Mujinypata: nu
- Malag Malag: nö
- Djeridj: nö
- Madngala: nŋ
- Camor: nŋ
- Ami: nö
- Manda: nö
- Maringarr: nŋ
- Magatige: nŋ

The languages of the Daly River – Port Keats area have no proven genetic relationship with the bulk of Australian languages. While a tenuous link is suggested between the ergative/instrumental case marking of these languages and the widespread Australian pattern no attempt is made here to posit a connection between the dative marking of the languages of this area and the general Australian pattern.

4.1.3 Demonstratives.

There are four demonstratives in Mujinypata. These may be described in terms of two binary oppositions:

- Relative closeness to speaker: relative distance from speaker
  - (i.e. "here")
  - (i.e. "there")

and near : remote
The forms are:

<table>
<thead>
<tr>
<th></th>
<th>here</th>
<th>there</th>
</tr>
</thead>
<tbody>
<tr>
<td>near</td>
<td>kanɨi</td>
<td>pana</td>
</tr>
<tr>
<td>remote</td>
<td>nɨini</td>
<td>pɑŋu</td>
</tr>
</tbody>
</table>

4.1.3. A Demonstratives.

In the opposition kanɨi: nɨini, kanɨi is the unmarked term which may cover the semantic range of both terms; pɑŋu is the unmarked term in the other opposition. The marked terms could be glossed as:

nɨini  "here but not so close"
pana  "there but not so far away"

while the unmarked terms when used in contrast with the marked members can be glossed as:

kanɨi  "right here; just here"
pɑŋu  "over there; way over there"

The reference of the four terms sometimes overlaps especially for nɨini "here (remote)" and pana "there (near)" so that it is not surprising that the two terms whose reference is most distinct should become the unmarked terms. Demonstratives behave syntactically like nominals, in that they can occur with nominal inflections:

(100) pæŋun kanɨi-je nɬaɭi-菲 pan-ŋi-baŋ
woman here-ERG 1sg-ABS 3sg-1sg-strike

"This woman hit me"
and (more specifically) like adjectives they have
adverbial counterparts:

(101) ŋayi-ka  kenyi  ŋem
      lsg.-TOPIC here  lsg.sit
      "I'm sitting here"

4.1.4.1 Body Part Incorporation in Nominals.
We saw [3.1.3] that adjectives occur with incorporated
body part nouns i.e. an affix to the adjective stem
which denotes a body part term. The forms that body
part terms take when they are incorporated are given
below [4.1.4.1.A]. Besides adjectives, incorporated
body part terms occur with a very restricted set of
nouns. This set comprises a subset of the nouns
denoting body parts, the two nouns: ɲeŋ "boil" and
lirwi "sore", and a few other nouns denoting sound
and motion, food and husband, which, however, are
extremely restricted in the body part terms they will
incorporate so that they are better treated as idioms.

A nominal which incorporates a body part term also
incorporates a pronominal affix in the direct object
form [4.2.1]. The number indicator of the pronominal
form [NI] comes after the incorporated body part term
while the remainder of the pronominal form precedes
the body part term and follows the nominal root. These
suffixed to the nominal root are stem-forming; such
derived nominals may take the full range of nominal
inflections in a scheme like this:
<table>
<thead>
<tr>
<th>Incorporated Form</th>
<th>Independent Form</th>
<th>Approximate Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>j1</td>
<td>lumbu</td>
<td>buttocks</td>
</tr>
<tr>
<td>jidañi</td>
<td>mudidi</td>
<td>area just above buttocks</td>
</tr>
<tr>
<td>tama</td>
<td>tamal</td>
<td>neck</td>
</tr>
<tr>
<td></td>
<td>tunmu</td>
<td>nape</td>
</tr>
<tr>
<td>tanme</td>
<td>t'Yemen</td>
<td>tongue</td>
</tr>
<tr>
<td>tarmu</td>
<td>termu</td>
<td>lower leg</td>
</tr>
<tr>
<td>tayi</td>
<td>wanteyi</td>
<td>armpit</td>
</tr>
<tr>
<td>tayyi</td>
<td>taytpi</td>
<td>lip; mouth</td>
</tr>
<tr>
<td>tawi</td>
<td>taytpi yutpany</td>
<td>lip; mouth</td>
</tr>
<tr>
<td></td>
<td>taytpi</td>
<td>chin</td>
</tr>
<tr>
<td>wan</td>
<td>panga</td>
<td>area between legs</td>
</tr>
<tr>
<td>we</td>
<td>pelpliya</td>
<td>head</td>
</tr>
<tr>
<td></td>
<td>pemar</td>
<td>head hair</td>
</tr>
<tr>
<td>wîgke</td>
<td>pi'gkal</td>
<td>knee</td>
</tr>
<tr>
<td>ye</td>
<td>t'ye</td>
<td>ear</td>
</tr>
<tr>
<td>yi</td>
<td>qapulu</td>
<td>breast</td>
</tr>
<tr>
<td></td>
<td>tyilmu</td>
<td>ear</td>
</tr>
<tr>
<td>yiçi</td>
<td>tyîji施展me</td>
<td>area around navel</td>
</tr>
</tbody>
</table>

4.1.4.1A Incorporated Forms for Body Part Terms

This is simply a listing of incorporated forms for body-part terms. Semantic issues are dealt with below [6. Forms are listed in (English) alphabetical order using the initial segment of the incorporated form. For these purposes the alphabetical listing is a b d ġ ḍ ӗ e ę g i k l l  mutable. The list does not pretend to be exhaustive; a few examples are given of distinct independent body part terms being subsumed under one incorporated form. For instance nît' yi "arm" and nît' yi k'weq "elbow" are subsumed under the incorporated form, be.
Adjectives such as the one exemplified next are composite:

(102) ngunu mujuwulŋke
she beautiful
"She's beautiful"

This becomes more evident when there is a non-zero pronominal affix incorporated into the form:

(103) gai mujuwulŋiŋka
lsg beautiful-lsg-face
"I am beautiful"

In fact to gloss mujuwul as "beautiful" is not quite accurate since we have expressions such as:

(104) kaŋu mujuwul-be
person "beautiful" - arm

This does not mean "man with beautiful arms" but rather someone who is particularly adept in activities which involve the use of arms. Such a term then might
be applied to a fine spearman. mujuuwul can be crudely glossed as "having desirable characteristics" where what is desirable is of course culture - specific. In its adverbial form mujuuwul has differing meanings according to context.

(105) ṣayi ṣem mujuuwul
      lsg lsg sit "having desirable characteristics"
      "I sat comfortably"

(106) ṣayi ṣujiinida mujuuwul
      lsg lsg "came" "having desirable characteristics"
      "I came without mishap; I had a good trip"

The adjective tuttut "cut off" commonly incorporates body part terms. An amputee may describe himself as

(107) ṣayi tuttut - ṣi - ṣurmw
      lsg cut off - lsg - lower leg
      "I am a person with my lower leg(s) cut off"

A bullock may be described as:

(108) ku tuttut - ṣ - waimbur
      NC:meat cut off - 3sg - testicles
      "an animal with testicles cut off; castrated beast"

The terms, ṣet "boil" and lirwi "sore", may appear with any body part terms which can be incorporated. It is feasible for ṣet or lirwi to be associated with
daipi "skin" but daipi does not have an incorporated form and may not occur with geources or liirwi in the sort of construction being discussed here. Native speakers said

(109) geources daipi
    boil LOC skin
    "boil on skin"

was marginally acceptable but preferred the more specific renderings such as:

(110) geources - geources - ma
    boil - 3sg - hand/finger
    "He has a boil on his hand/finger"

and

(111) liirwi - oj - oj
    sore - 1sg - buttocks
    "I have a sore on my buttocks"

geources and liirwi were checked with the other body part terms and produced acceptable combinations although the reading of the expression may be restricted:

(112) geources - oj - oka
    boil - 1sg - face/eye
    "I have a boil on my [face]
        * eye"
Other nouns, nugar and nugaln, both meaning "husband" are so restricted in the body part terms they will incorporate that the resulting expressions might be labelled idioms:

(113)  paŋun nugar+nugaln - φ - be
          woman  husband       - 3sg-arm
           "married woman"

Similarly muril "feather" appears only with the incorporated form for "arm" to give the generic term for "bird":

(114)  muril - be*
          feather - arm
           "bird (generic)"

dYedYeb "food" occurs only with "lip/mouth" to produce:

(115)  dYedYeb - φ - tayyi
          food - 3sg - lip/mouth
           "He's greedy for food (vegetable)"

Similarly,

(116)  mujinY - ηι - tayyi
          language/word - 1sg - lip/mouth
           "I am a person who talks too much;
            I'm a chatterbox"

* Incorporated pronominal forms have not been included for expressions which have human reference since it is difficult to contrast zero with any of the overt pronominal markings for these nouns.
The body part term kulpuu "non-head hair" may incorporate most body part terms:

(117) kulpuu - q1 - da1
non-head hair - 1sg - back
"I have a hairy back"

The more restricted term pemar "head hair" is, predictably, very restricted in that it only appears with the incorporated body part terms for "head":

(118) pemar - q1 - we
head hair - 1sg - head
"I have (much) head hair"

Such an expression may be negated:

(119) kadu mana nga pemar - f - we
NC:person NEG head hair - 3sg - head
"person without head hair ie. bald man"

It is obvious that combining pemar with other body parts will produce anomalous expressions such as:

(120) *kadu pemar - f - da1
NC:person head hair - 3sg - back
"person with (profuse) head hair (growing) on his back"
4.1.4.2 The derivational suffix, -ma, is identical in phonological form to the incorporated body part term for "hand/finger" [4.1.4.1] but has quite different functions.

4.1.4.2.1 The comitative (following the terminology adopted in Dixon ed. [to appear], -ma, is suffixed to nouns and noun-classifiers. When attached to body part terms the comitative has two special functions:

(a) sore; painful
(b) developing; large relative to the norm; well endowed with.

One might speculate that the first function arises from a word of related meaning mator "sick, ill", the suffix, -ma being a contraction of what was once a separate word.

(121) kâu tarmu-ma
NC:person (lower) leg-COM
"man with sore leg"

(122) pal"gum kamał-ma
woman face/eye-COM
"woman with sore face/eye"

Such expressions may appear in a sentence with a nominal inflection:
(123) pašğun kamal-ma-je  qayl-q
woman face/eye-COM-ERG leg-ABS
pan-ni-baq
3sg-lsg-strike
"The woman with a sore face/eye hit me"

(122) may have another interpretation:

(124) pašغن kamal-ma
woman face/eye-COM
"woman with keen eyesight"

Similarly, an expression involving týimu "nose" has two interpretations:

(125) kağu týimu-ma
NC:person nose-COM
"person with sore nose" / "person with keen sense of smell"

Some body part terms select just one of the functions of the comitative and this selection appears to be semantically motivated. Thus qağade "ankle" always interprets -ma as "sore" or "painful":

(126) kağu qağade-ma
NC:person ankle-COM
"person with sore ankle(s)"

but a body part term such as qapulu "breast" may
occur with any of interpretations in (a) and (b):

(127)  kəğu  ɲəpulu-mə
  NC:person breast-COM
  "person with painful breasts" ;
  "person with budding breasts" ;
  "person with larger breasts than the norm"

It might be thought that one expression with three quite distinct meanings would result in ambiguity. In fact context will normally make it clear which reading is to be taken; otherwise there are alternative means of expression which are not ambiguous:

(128)  kəgu  ɲəpulu wiyə
  NC:person breast bad
  "person with painful breasts"

(129)  kəgu  ɲəpulu nəlo
  NC:person breast big
  "person with large breasts"

Because a nominal with non-specific reference has been used in (127) three readings can be assigned to the sentence. If mut'inya "old woman" is introduced into that sentence at least one of the readings is excluded:
(130) mut'inya ọpulu-ma
old woman breast-CON
"old woman with painful breasts"
*"old woman with budding breasts"
?"old woman with breasts larger than the norm"

If ma'jinbuyi "young girl" is used the reading "with budding breasts", is possible but the reading "with breasts larger than the norm" is unlikely:

(131) ma'jinbuyi ọpulu-ma
young girl breast-CON
"young girl with painful breasts"
"young girl with budding breasts"
?"young girl with breasts larger than the norm"

When the comitative is used with body parts, incorporated pronominal forms are suffixed to the nominal stem*:

(132) ọayı-ka ọđaga-ŋi-ma
lsg-TOPIC ankle-lsg-CON
"I am a person with sore ankles";
"I have sore ankles"

* All examples mentioned so far have been third person singular
with is zero so that strictly the examples have been underglossed.
(126), for example, should strictly be:

(133) ka’du țarmu-ŋ-ma
NC:person (lower)leg - 3sg - CON
"person with sore leg"
Such expressions may occur with nominal inflections:

(134) ŋaŋaŋaŋa-ŋa-ma-je*
  ankle-1sg-COM-ERG
  maŋe-ny1-ma-ŋa  pan-ŋy1-baŋ
  hand-2sg-COM-ABS 1sg-2sg-strike
  "I, with sore ankles, hit you who had
  a sore hand"

4.1.4.2.2 When -ma is used with nominals which are not body part terms (with just three exceptions which are mentioned below) the meaning is: "habitually associated with". In this function -ma behaves much more like the usages of the comitative observed in other parts of Australia [Dixon ed. to appear]. It is not always so easy to interpret forms with -ma but the core meaning does appear to be "habitually associated with"

(135)  kaŋu  tamul-ma
  NC:person  spear(generic)-COM
  "man habitually associated with spears"

This could be a hunter or, in a modern setting, someone who spend much of his time making spears and then selling them. Loan concepts may be used with -ma:

*It is shown later [4.6.4] that ŋaŋaŋaŋaŋa-ma maŋen1-ma pan-ŋ1-baŋ could also be interpreted as: "When I had sore ankles I hit you who had a sore hand."
(136) kaːɗu piritə-ma  
NC:person picture-COM  
"man habitually associated with pictures  
ie. photographer"

(137) kaːɗu beneɗy’il-ma  
NC:person pencil-COM  
"person habitually associated with pencil"  
(applied to fieldworkers, including the writer)

More commonly the suffix is added to indigenous words;

(138) kaːɗu naneɗy’il-ma  
NC:person thing-COM  
"persons habitually associated with things  
(posessions)"

This expression could be applied to a storeman or to a hoarder of goods.

(139) kaːɗu tengu-na  
NC:person fire-COM  
"person habitually associated with fire"

This is rather difficult to interpret but if tengu is taken in its sense as a generic for "objects and phenomena associated with fire" [3.9.1] then the expression kaːɗu tengu-na could apply to someone with a lot of guns (cf. tengu gen "gun"; tengu tayi
"fire-stick i.e. shotgun").

-<em>ma</em> is also suffixed to human nouns:

(140) palgum nugal-in-me

woman husband-COM

"woman habitually associated with
husband i.e. married woman"

(141) palgum mangan-wa wakal-in-me

woman NEG child-COM

"woman not habitually associated with
children, i.e. childless, barren woman"

In just two cases the negative prefix, <em>ma</em>-, [4.1.5]
appears in constructions with -<em>ma</em>, the combined
effect being privative: "not having" or "without";

(142) palgum mal-kaju-me

woman NEG-NC:person-COM

"woman without a man i.e. spinster"

(143) kaju ma-nan-dy1-in-me

NC:person NEG-NC:thing-COM

"man without possessions"

Expressions with the negative prefix, <em>ma</em>- and the
comitative suffix operate like a normal nominal
syntactically. Thus they appear with nominal
inflections and universal suffixes [4.6]:
(144) \( \text{palo\-n} \text{ ma-ke\-\text{gu-ma-je-wa}} \)
woman NEG-NC:person-COM-ERG-EMPH
\( \text{na\-y\-i\-}\) \( \text{pan-\-qi-ba\-}\)
3sg-ABS 3sg-3sg-strike
"It was the spinster who hit me!"

It will be seen later [4.1.5] that elsewhere expressions using \( \text{ma-} \) have a very limited syntactic usage.

Expressions such as (141) also behave as a single nominal:

(145) \( \text{palo\-n} \text{ ma\-\text{qo\-n}a\-}\text{ wak\-\text{e-}\text{ma-je}} \) \( \text{na\-y\-i\-}\) \( \text{pan-\-qi-ba\-}\)
woman NEG child-COM-ERG 3sg-ABS 3sg-3sg-strike
"The barren woman hit me"

Finally there are three instances of \( \text{-ma} \) used with body part terms:

(146) \( \text{n\text{a\-w}y\text{\text{\-y\-i-ma}}} \)
NC:thing arm-COM
"thing habitually associated with arms i.e. shirt"

(147) \( \text{n\text{a\-w}y\text{\-i-}} \text{l\text{a\-w}a\-\text{i-ma}}} \)
NC:thing (upper) leg-COM
"thing habitually associated with upper leg i.e. trousers"
Significantly "man with sore (upper) legs/thighs" is not rendered by:

(148)   *kaçu  lawali-ma
        NC:person  (upper)leg-COM

as would be expected [4.1.4.2.1] but by:

(149)    kaçu  lawali  wiye
        NC:person  (upper)leg  bad
        "man with sore legs"

It was pointed out that kaçu lawalima sounded like "trouser man" which is absurd!

(150)    kaçu  şil-ma
        NC:person  penis-COM
        "man habitually associated with the penis"

Native speakers described kaçu şilma as a "surgeon": in fact, it refers to the person assigned the role of circumcising at initiation ceremonies. (150) may have other readings:

"person with sore penis"

"person with developing penis (said of a young boy)"

"person with penis larger than the norm"
4.1.5  ma-

ma- is a negative prefix attached only to noun-classifiers. This sort of negation only appears to occur in what might be called negative existential sentences. A complete sentence may be formed by prefixing ma- to any noun-classifier in which case the noun-classifier is interpreted according to its generic sense [3.9.1]:

(151)  ma- mi

NEG - NC:food

"There's no food"

Such a sentence might be a response to a question such as:

(152)  nyinyl* ml-ka tanγdγin yuwu

2sg  NC:food-TOPIC 2sg have INTERROG

"Do you have (any) food?"

A more specific question such as:

(153)  nyinyl mi-lawam-ka tanγdγin yuwu

2sg  NC:food-flour-TOPIC 2sg have INTERROG

"Do you have (any) flour?"

prompts a correspondingly specific response in which there is a specific noun with a noun classifier with a negative prefix, ma-:

* The verb for "have" in Mušinypata behaves as an intransitive verb to the extent that although there is an object, the subject cannot have an ergative case marking.
(154) ma-mi lawam
    NEG-NC:food flour
    "There's no flour"

Alternatively this may be expressed as:

(155) lawam mami

or

(156) mi lawam mami

Similarly, we have:

(157) ma-kuja tuuluk
    NEG-NC:water foam
    "There's no beer"

(158) ma-kaçu bukmandar
    NEG-NC:person red
    "There are no half-castes (lit. there are no red people)"

(159) ma-ku kulerkurk
    NEG-NC:meat brolga
    "There are no brolgas"

(160) ma-tyu malandyt
    NEG-NC:weapon lightning
    "There is no lightning"
Any of the expressions exemplified by (154) follow the pattern of (155) and (156).

The residue noun-classifier, nanżyi, follows the pattern for the other noun-classifiers.

(161)  man-nanżyi majuk
       NEG-NC:thing didjeridu
       "There are no didjeridus"

but regularly substitutes mananga for mananżyi:

(162)  mananga majuk
       NEG      didjeridu
       "There are no didjeridus"

mananga, whose functions are discussed more later [4.3] may also substitute for any of the other noun-classifiers taking ma- but is not preferred.

Negative existentials using mananga may alternatively be expressed following this pattern:

(163)  majuk mananga
(164)  nanżyi majuk mananga

4.1.6 Number systems.

4.1.6.1 The cardinal numbers, in common use, are:
numi  "one"
pekengu  "two"
pekenguneme/pekengunum  "three"
pekengoipegengu  "four"
mane numi  "five" ("one hand")
dejat  "a lot"
dejatdejet  "a considerable number"

In addition there is an extended number system which is based on those in common use. This does not appear to be merely a curiosity of the contact situation since native speakers who were already young men at the time of the first significant white contact (1935) claim that the system was in use long before white contact. McConvell [personal communication] reports on an indigenous number system for Guurindji which has numbers up to forty-eight but it is thought that this is only a marginal feature of the language said to "come from the west".

The extended cardinal number system uses four primitives:

numi  "one"
pekengu  "two"
mane  "hand i.e. five"
me  "foot i.e five"

The first five terms are as above, followed by:
mænenuminumi
hand one + one

mænenumipekëngu
hand one + two

mænenumipekekergunumi
hand one + two + one

mænenumipekekergupekergu
hand one + two + two

mænenumimeagenumumi
hand one + hand one

mænenumimeagenumimenumumi
hand one + hand one + (foot) one

mænenumimeagenumimepekergu
hand one + hand one + (foot) two

mænenumimeagenumimepekergunumi
hand one + hand one + (foot) two + one

mænenumimeagenumimepekergupekergu
hand one + hand one + (foot) two + two

mænenumimeagenumimenumumi
hand one + hand one + foot one
magenimagenimatemnumimenumimi
hand one + hand one + foot one + one

magenimagenimemenimipekengu
hand one + hand one + foot one + two

magenimagenimemenimimenimi
hand one + hand one + foot one + foot one

magenimagenimemenimimenimimenimi
hand one + hand one + foot one + foot one + (hand) one

magenimagenimemenimimenimimenimapekengu
hand one + hand one + foot one + foot one + (hand) two

magenimagenimemenimimenimimenimimeni
hand one + hand one + foot one + foot one + hand one

magenimagenimemenimimenimimenimimenimimeni
hand one + hand one + foot one + foot one + hand one + one

and so on.

It is easy to see that there is recurring ambiguity in this number system: the forms for 11 and 15, for 21 and 25, for 31 and 35 and so on are identical*.

*Such ambiguity can be resolved by circumlocutions in Muijinypata just as ambiguous kin terms like "grandfather" or "uncle" in English can be disambiguated if need arises. McConvell also reports identical forms for different numbers in Guurindji.
in either of two ways:

(a) to indicate "five"
(b) to mark the end of one "unit" of ten.

Each set of ten numbers appears to be treated as one unit; to simply add numi "one" to the end of magenunimenini "ten"

(165) *magenunimeninumini "eleven"

would blur the boundary of this unit in that one would tend to associate that numi with the preceding mage numi (on the pattern of 5 or 26). After a "unit of ten" when one reaches five in the counting, the term mage (or me) numi ensures that this part of the number will not be associated with the preceding ten in the way that pekengu, for instance, would be.

The number system quickly becomes cumbersome but appears to be used with considerable facility by native speakers. One native speaker with practically no formal education readily produced the number term for "one hundred" which consists of seventy syllables!

4.1.6.2 There is a limited system of ordinals. "First", "second" and "third" are:
kumbaja  "first"; "chief"
kanaru   "second"; "middle"
tinayi   "third"; "last"

4.1.7 Special Non-singualrs.
Plurality is usually unmarked in Mu-jinypata nominals but may be marked by reduplication [4.1.8]. For a few nouns special non-singular forms have been observed. The incorporated form of the direct object pronoun for 3 du SIB is added to the root to indicate duality:

<table>
<thead>
<tr>
<th>Root</th>
<th>Dual form</th>
</tr>
</thead>
<tbody>
<tr>
<td>wakal</td>
<td>wakalpunku</td>
</tr>
<tr>
<td>newuy</td>
<td>newuypunku</td>
</tr>
<tr>
<td>nugan</td>
<td>nuganpunku</td>
</tr>
<tr>
<td>pugali</td>
<td>pugaliwunku</td>
</tr>
<tr>
<td>pujiya</td>
<td>pujiyawunku</td>
</tr>
<tr>
<td>tamuny</td>
<td>tamunypunku</td>
</tr>
<tr>
<td>maqinbuyi</td>
<td>maqinpunku 2</td>
</tr>
</tbody>
</table>

"child"
"daughter" 1
"husband"
"cousin"
"wife"
"grand-daughter (d.d.)"
"young girl"

For nouns with human reference, the sibling form of the pronoun is reflected in the meaning:

(166) tamuny-punku
d.d. – du SIB
"two daughter's daughters of the same subsection"

1 Only approximate glosses have been given for kin terms here, see Falkenberg [1962] and Stanner [1936] for details.

2 This is the only instance of a change in the root in the non-singular form.
but for non-human nouns, the sibling form of the pronoun has no effect, as one would expect:

(167)  \text{lit}'ypur-punku}
\text{axe - "du SIB"}
"two axes"

Nouns with human reference may suffix paucal non-sibling forms of pronouns to indicate groups of a few; for example:

(168)  \text{pujima-wunku-ŋime}
\text{wife-du/pc-pc FEM}
"three (or so) wives"

but nouns with non-human reference may not:

(169)  *\text{lamul-punku-ŋime}
\text{spear-du/pc-pc MASC/pc FEM}
"three (or so) spears"

(169) perhaps does not occur since it requires the native speaker to employ a distinction (viz. sex) for nouns where such a distinction is not otherwise used.

Plural and paucal sibling forms are not used with any sort of noun. Nor are dual non-sibling pronoun forms used even with human nouns. The distributional facts, then, are puzzling; indeed this whole phenomenon must be regarded as marginal to the language since there are native speakers who would reject any of the examples above, substituting:
For (166) and

(171)  pujima pekaŋnumi
   wife  two-one
   "three wives"

for (168).

4.1.8 Reduplication.

Reduplication is infrequently used in Nujinyapta to
emphasize plurality in a nominal. An unreduplicated
nominal can refer to any number of objects:

(172)  nayi lawanga pam(- $) - ŋkaŋu
   lsg  wallaby lsg (- 3sg)* - see
   "I saw wallaby/wallabies"

but the reduplicated nominal always refers to more than one:

(173)  nayi lawanga lawanga pam-ŋkaŋu
   lsg  wallaby wallaby lsg - see
   "I saw wallabies"

* Non-human nominals in absolutive case function are not cross-referenced by bound pronouns [4.2.] but it is difficult to decide whether or not the 3rd person singular is an exception (being $%).
The reduplicated nominal is treated as two words (see [3.3.1]). By contrast, nominals which have what might be called inherent reduplication are treated as one word. Examples of inherent reduplication include yittvit "heavy", kalakkalk "cloud", putput "pregnant" and so on; such forms cannot be split any more than expressions in English such as "pell-mell" or "willy willy" can. Forms with inherent reduplication have reduplicated stress [2.2.2.1].

Of the nominals only nouns and adjectives can be reduplicated. Although the result is treated as two words, in fact it is only the latter word which may suffix nominal suffixes or universal affixes.

(173) is commonly expressed as:

(174) nayl iswange deret pam-ŋaŋu
lsg wallaby mob  lsg-see

"I saw wallabies"
4.2 Verbal Morphology

The verb in Mushinypata is typical of the north-west of Australia in showing considerable complexity ([Birk 1974], [Metcalf 1972], [Tryon 1974], for example). The complexity arises from a relatively large number of form classes, twenty-four conjugations, together with cross-referencing bound pronouns for three major syntactic functions. Over much of Australia there are just two conjugational subtypes [Nafe 1970:760], [Dixon 1972:13-14] but Mushinypata has a system somewhat like Ngarinyin [Coate and Oates 1970:54] in having a large number of auxiliaries. Unlike Ngarinyin Mushinypata verb roots do not always occur with a particular auxiliary but a verb root selects a number of the auxiliaries as happens in Malak-Malak [Birk 1974:188 ff].

4.2.1 General Statement on Verb Complex.

4.2.1.1 Intransitive Verbs.

Auxiliaries provide full specification for the subject noun phrase they cross-reference together with information on tense, mood and aspect. Every verb must have one auxiliary (Aux). Most verbs have a verb root (VR) although a verb may consist of a free standing auxiliary:

(175) ñayi ñunjunu

lsg lsg will move

"I will move"

In this sentence the free-standing pronoun ñayi, "I, we" is cross-referenced into the verb in this case consisting of a single auxiliary. This verb form contains
a tense suffix, -nu, indicating future tense (FUT).

To such a form a verb root may be added:

(176) ŋayi ŋu-u-lll-nu
       lsg lsg move-walk-FUT

"I will walk"

When the subject noun phrase is changed the auxiliary form is changed because it is the auxiliary that cross-references the subject noun phrase.

(177) ŋi'ni' ŋu-u-lll-nu
       2sg  2sg move-walk-FUT

We have mentioned that a verb root selects certain of the auxiliaries. A verb root, kampa, "laugh" might select the auxiliary we have seen:

(178) ŋayi ŋu-u-kampa-nu
       lsg lsg move-laugh-FUT

"I will laugh as I go"*

or another auxiliary such as that represented by

(179) ŋayi ŋi-za-nu
       lsg lsg stand-FUT

"I will stand"

* The stiltedness of the glosses given for the verb forms in this description is by no means a reflection of the Muzinytata language but rather an indication of the inadequacy of English as a suitable medium for rendering its very compact verb morphology.
which would give:

(180)  ṇaŋi ọja-kampa-nu
lsg lsg stand-laugh-FUT
"I will laugh as I stand/I will laugh while I stand"

Of course some verb roots would not select this auxiliary because the combination would be semantically anomalous. Accordingly this is rejected by native speakers:

(181)  *ŋaŋi ọja-lii-li-nu
lsg lsg stand-walk-FUT
*"I will walk while standing"

It will be seen that there is a fixed ordering of elements in the verb. At this stage we can say:

\[ \text{Aux} \pm \text{VR} + \text{tense marker} \]

It will be seen later [Appendix 2] that many of the auxiliary forms in non-singular have number indicators. In general the number indicator follows the tense marker:

(182)  ọnkinem  puru-lii-li-nu-neme
1 pc inc MASC 1 pc inc move-walk-FUT-pc MASC
"We few (inclusive) males will walk"
Thus the schema for a verb must be expanded to include the number indicator:

\[ \text{Aux} \neq \text{VR} + \text{tense marker} + \text{NI} \]

4.2.1.2 Transitive Verbs.

Transitive verbs also have cross-referencing bound pronouns denoting direct objects. Thus the final description of the verb must have an additional slot:

(183) .Claims

\[ 1sg\text{-ERG 2sg-ABS 1sg-2sg-strike-FUT} \]

"I will hit you"

The bound direct object pronominal forms are invariant (in any one tense) so that their description \[4.2.1.2.A\] is considerably less complex than that of the subject pronouns.

The bound direct object pronominal forms are as follows:

<table>
<thead>
<tr>
<th>1 sg</th>
<th>Base</th>
<th>Number Indicator (NI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(\eta^i)</td>
<td>(\eta^i) ninda</td>
</tr>
<tr>
<td>2</td>
<td>(n^j^i)</td>
<td>(n^j^i) (\eta^i) ninda</td>
</tr>
<tr>
<td>3</td>
<td>(\phi)</td>
<td>(\phi) (\eta^i) (\eta^i) ninda</td>
</tr>
<tr>
<td>1 du inc MASC</td>
<td>(n^j^i)</td>
<td>(n^j^i) (\eta^i) ninda</td>
</tr>
<tr>
<td>1 du inc FEM</td>
<td>(n^j^i)</td>
<td>(n^j^i) (\eta^i) ninda</td>
</tr>
<tr>
<td>1 du SIB</td>
<td>(\eta^i)</td>
<td>(\eta^i) (\eta^i) ninda</td>
</tr>
<tr>
<td>1 du exc MASC</td>
<td>(\eta^i)</td>
<td>(\eta^i) (\eta^i) ninda</td>
</tr>
<tr>
<td>1 du exc FEM</td>
<td>(\eta^i)</td>
<td>(\eta^i) (\eta^i) ninda</td>
</tr>
<tr>
<td>Gender/Number</td>
<td>Base</td>
<td>Number Indicator (NI)</td>
</tr>
<tr>
<td>---------------</td>
<td>-------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>2 du MASC</td>
<td>nanku</td>
<td>ninda</td>
</tr>
<tr>
<td>2 du FEM</td>
<td>nanku</td>
<td>ninda</td>
</tr>
<tr>
<td>2 du SIB</td>
<td>nanku</td>
<td>ninda</td>
</tr>
<tr>
<td>3 du MASC</td>
<td>wunku/nku*</td>
<td>ninda</td>
</tr>
<tr>
<td>3 du FEM</td>
<td>wunku/nku</td>
<td>ninda</td>
</tr>
<tr>
<td>3 du SIB</td>
<td>wunku/nku</td>
<td>ninda</td>
</tr>
<tr>
<td>1 pc inc MASC</td>
<td>ṇyi</td>
<td>neme/name</td>
</tr>
<tr>
<td>1 pc inc FEM</td>
<td>ṇyi</td>
<td>ṇime</td>
</tr>
<tr>
<td>1 pc SIB</td>
<td>ṇan</td>
<td>neme/name</td>
</tr>
<tr>
<td>1 pc exc MASC</td>
<td>ṇanku</td>
<td>neme/name</td>
</tr>
<tr>
<td>1 pc exc FEM</td>
<td>ṇanku</td>
<td>ṇime</td>
</tr>
<tr>
<td>2 pc MASC</td>
<td>nanku</td>
<td>neme/name</td>
</tr>
<tr>
<td>2 pc FEM</td>
<td>nanku</td>
<td>ṇime</td>
</tr>
<tr>
<td>2 pc SIB</td>
<td>ṇan</td>
<td>neme/name</td>
</tr>
<tr>
<td>3 pc MASC</td>
<td>wunku/nku</td>
<td>neme/name</td>
</tr>
<tr>
<td>3 pc FEM</td>
<td>wunku/nku</td>
<td>ṇime</td>
</tr>
<tr>
<td>3 pc SIB</td>
<td>wun/n</td>
<td>neme/name</td>
</tr>
<tr>
<td>1 pl</td>
<td>ṇan</td>
<td>neme/name</td>
</tr>
<tr>
<td>2 pl</td>
<td>ṇan</td>
<td>neme/name</td>
</tr>
<tr>
<td>3 pl</td>
<td>wun/n</td>
<td>neme/name</td>
</tr>
</tbody>
</table>

4.2.1.2.A Direct Object Pronominal Forms.

* nku and n occur in verb forms in the future tense and forms based on the future tense [4.2.3]. wunku and wun occur elsewhere.
In addition an indirect object may be cross-referenced into the verb complex by a bound pronominal form, for instance:

(184) ŋayi-je nukunu-ŋ u-mba-baŋ-ŋu
       1sg-ERG 3sg MASC-ABS 1sg-2sg BEN-strike-nu
       n סוגי-nu
       2sg-DAT
       "I will hit him for you"

There is one structural position for two quite different forms: direct object bound pronouns and indirect object (called benefactive (BEN) henceforth) bound pronouns. The benefactive bound pronoun is used whenever that structural position is "vacant" i.e. when there is no direct object to be expressed (see "middle" verbs [ 4.2.6 ]) or in the special case when the direct object bound pronominal form is morphologically zero. To put it another way benefactive bound pronouns are not prefixed to the verb root if there is an overt morpheme in the structural position they may occupy. (184) is acceptable because the direct object bound pronoun is /ŋ/ but (185) is unacceptable:

(185) *ŋayi-je nイト-nu ŋu-na-baŋ-ŋu
       1sg-ERG 2sg-ABS 1sg-3sg MASC BEN-strike-FUT
       nukunu-nu
       3sg MASC-DAT
       "I will hit you for him"
This sentence must be rendered by:

(186) ŋayi-je nỳinyi-ŋ ŋu-ŋỳi-baq-nu

1sg-ERG 2sg-ABS 1sg-2sg-strike-FUT

nukunu-nu

3sg MASC-DAT

"I will hit you for him"

The benefactive bound pronominal forms are as follows:

<table>
<thead>
<tr>
<th>Base</th>
<th>Number Indicator (NI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>ŋa</td>
</tr>
<tr>
<td>2sg</td>
<td>mbe</td>
</tr>
<tr>
<td>3sg MASC</td>
<td>na</td>
</tr>
<tr>
<td>3sg FEM</td>
<td>ŋe</td>
</tr>
<tr>
<td>1 du inc</td>
<td>nye</td>
</tr>
<tr>
<td>1 du exc MASC</td>
<td>ŋem</td>
</tr>
<tr>
<td>1 du exc FEM</td>
<td>ŋam</td>
</tr>
<tr>
<td>1 du exc SIB</td>
<td>ŋam</td>
</tr>
<tr>
<td>2 du MASC</td>
<td>ŋem</td>
</tr>
<tr>
<td>2 du FEM</td>
<td>ŋem</td>
</tr>
<tr>
<td>2 du SIB</td>
<td>ŋem</td>
</tr>
<tr>
<td>3 du MASC</td>
<td>wiyen/nu*</td>
</tr>
<tr>
<td>3 du FEM</td>
<td>wiyen/nu</td>
</tr>
<tr>
<td>3 du SIB</td>
<td>wiyen/nu</td>
</tr>
</tbody>
</table>

*ju and ja occur in verb forms in the future tense and forms based on the future tense [4.2.3]. wiyu and wija occur elsewhere.
<table>
<thead>
<tr>
<th>Form</th>
<th>Base</th>
<th>Number Indicator (NI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pc inc MASC</td>
<td>nVe</td>
<td>nema/name</td>
</tr>
<tr>
<td>1 pc inc FEM</td>
<td>nVe</td>
<td>nema/name</td>
</tr>
<tr>
<td>1 pc SIB</td>
<td>nVe</td>
<td>nima</td>
</tr>
<tr>
<td>1 pc exc MASC</td>
<td>nVe</td>
<td>nema/name</td>
</tr>
<tr>
<td>1 pc exc FEM</td>
<td>nVe</td>
<td>nima</td>
</tr>
<tr>
<td>2 pc MASC</td>
<td>nenu</td>
<td>nema/name</td>
</tr>
<tr>
<td>2 pc FEM</td>
<td>nenu</td>
<td>nema/name</td>
</tr>
<tr>
<td>2 pc SIB</td>
<td>nenu</td>
<td>nima</td>
</tr>
<tr>
<td>3 pc MASC</td>
<td>wim/nu</td>
<td>nema/name</td>
</tr>
<tr>
<td>3 pc FEM</td>
<td>wim/nu</td>
<td>nima</td>
</tr>
<tr>
<td>3 pc SIB</td>
<td>wim/nu</td>
<td>nima</td>
</tr>
</tbody>
</table>

4.2.1.2.8 Benefactive Pronominal Forms

At this stage a tentative schema for the Muqinypata transitive verb can be set up as:

```
Aux + [Direct Object] + VR + tense marker
    | Benefactive
```

As before many non-singular forms have a number indicator:
(187) ɲankuneme-je ɲɪɲɪ-ɚ ɲu-ɲɪ-baŋ-nu-neme
1 pc exc MASC-ERG 2sg-ABS 1 pc-2sg-strike-FUT-pc MASC
"We few (exclusive) males will hit you"

(188) ɲayi-je nankuneme-ɬ ɲu-ɲanku-baŋ-nu-neme
1sg-ERG 2 pc MASC-ABS 1sg-2 pc-strike-FUT-pc MASC
"I will hit you few males"

In (187) and (188) the number indicator is neme. What happens when the subject and either the direct or indirect object require a number indicator?

(189) ɲankuneme-je nankuneme-ɬ
1 pc exc MASC-ERG 2 pc MASC-ABS
ɲu-ɲanku-baŋ-nu-neme
1 pc-2 pc-strike-FUT-pc MASC
"We few (exclusive) males will hit you few males"

This shows that one of the two NI's is deleted but it is only by examining expressions such as:

(190) ɲankunime-je nankuneme-ɬ
1 pc exc MASC-ERG 2 pc MASC-ABS
ɲu-ɲanku-baŋ-nu-neme
1 pc-2 pc-strike-FUT-pc MASC
"We few (exclusive) at least one of whom is female will hit you few males"
(191) qankunene-je  nankunime-ŋ
1 pc exc MASC-ERG 2 pc FEM-ABS
ŋu-nanku-baŋ-ŋu-ŋime
1 pc-2 pc-strike-FUT-pc FEM
"We few (exclusive) males will hit you few
at least one of whom is female"

that it becomes clear that the NI of the subject is
deleted if there would otherwise be two NI's.

The schema for the transitive verb must be expanded to
include the NI:

\[
\text{Aux} + \begin{array}{c}
\text{Direct Object} \\
\text{Benefactive}
\end{array} + \text{VR} + \text{tense marker} + \text{NI}^*
\]

This schema must be further expanded to include incorporated
body part terms [4.1.4.1.A] (henceforth abbreviated as
BP) since these may appear in a verb form:

(192) qoyi-je  tye n'vniŋyi ŋu-nyi-ye-baŋ-ŋu
1sg-ERG ear 2sg 1sg-2sg-ear-strike-FUT
"I will hit your ear; I will hit you in the ear"

The schema becomes:

\[
\text{Aux} + \begin{array}{c}
\text{Direct Object} \\
\text{Benefactive}
\end{array} + \text{BP} + \text{VR} + \text{tense marker} + \text{NI}
\]

* Some verbs require the dual NI to immediately follow the direct
object/benefactive; others allow the NI to immediately precede
the tense marker.
Note that this "final" schema for a transitive verb differs markedly from that of the intransitive verb. Of special importance is the fact that intransitive verb forms do not require a verb root: this fact derives from the nature of the auxiliaries which we will now look at in depth.

4.2.2 General Statement on Auxiliaries.

Auxiliaries in Mušinypata are of two types:

(a) those which generally occur with intransitive verbs.
(b) those which generally occur with transitive verbs.

There is therefore a weak test for transitivity in Mušinypata but it should be stressed that it is weak.

Most (a)-type auxiliaries may appear without a verb root; none of the (b)-type auxiliaries can appear without a verb root. All the (a)-type auxiliaries which can occur without a verb root can be assigned a lexical meaning and this meaning to some extent reflects their meaning when in combination with a verb root. The situation with (b)-type auxiliaries is far less clear-cut.

Free pronouns in Mušinypata have twenty-eight forms [4.1.1.8]. Each auxiliary has a distinctive paradigm for each of its tenses [4.2.3] which includes twenty seven forms corresponding to the free pronouns but with the sex distinction in third person singulars neutralised.

The paradigms of the auxiliaries are provided in Appendix 2.
Auxiliaries of type (a) are labelled like lexical items but in capitals, thus (176) becomes:

(193) ɳəyə- ş ɳu-ų-1ili-νu
       1sg-ABS 1sg MOVE-walk-FUT
"I will walk"

Auxiliaries of type (b) are simply assigned Roman numerals until further semantic specification can be given. Thus (183) becomes:

(194) ɳəyə-je ɳyįyį- ş ɳu-ų-ųbag-νu
       1sg-ERG 2sg-ABS 1sg VIII-2sg-strike-FUT
"I will hit you"

Before turning to an analysis of the auxiliary forms tense and mood will be more fully explained.

4.2.3 Tense and Mood
4.2.3.1 Tense

Muųnypa has a three-term tense system:

Future   (FUT)
Perfect  (PERF)
Imperfect (IMPERF)

In fact it is appropriate to speak of a two-way distinction future vs. non-future, non-future making a distinction between uncompleted action in the past and action which
is not uncompleted in the past. What has been labelled as perfect in fact refers to present time whether the action is completed or not and to past time just in case the action has been completed.

The forms are:

<table>
<thead>
<tr>
<th>Tense</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUT</td>
<td>nu</td>
</tr>
<tr>
<td>PERF</td>
<td>(m)</td>
</tr>
<tr>
<td></td>
<td>(n)</td>
</tr>
<tr>
<td>IMPERF</td>
<td>da</td>
</tr>
</tbody>
</table>

* See auxiliary paradigms, Appendix 2.
4.2.3.2 Mood

Three moods are distinguished:

- indicative
- imperative
- subjunctive

The indicative mood has already been exemplified in the paradigms.

Imperative forms are identical to future indicative forms, for instance

(195) nankuninda-ka tuju-nu-ninda
      2 du MASC-TOPIC 2 du MOVE-FUT-du MASC
      "You two (non-sibling males), be off!"

The subjunctive mood is evidenced in two tenses: future and non-future. The future positive subjunctive has the same form as the future negative indicative [4.2.4] except that the negative particle, maŋa, does not appear and the subjunctive particle nukun appears. The non-future subjunctive is the same as the past negative except that it does not have the negative particle, maŋa. Subjunctives are used to describe hypothetical states on actions rather than actual events.

4.2.4 Negation in Verbs.

Negation is marked by a negative particle, maŋa.
Future Negative Indicative is based on the Future Positive Indicative, with nu omitted and the addition of the particle, nukan.

(196) ŋayi ŋuru-nu
       1sg 1sg MOVE-FUT
       "I will go"

(197) ŋayi maŋa ŋuru nukan
       1sg NEG 1sg MOVE IRREALIS
       "I will not go"

In addition, there is a change in the initial segment of many of the third person forms of the auxiliaries. Initial p becomes k except in the first group of transitive type verbs:

(198) nukanu maŋa kuru nukan
       3sg MASC NEG 3sg MOVE IRREALIS
       "He will not go"

(199) nukanu-we pelipit ŋyin-ŋi pe-ŋyí-we-yeṭy-ŋu
       3sg MASC-ERG head 2sg-ABS 3sg I-2sg-head-shave-FUT
       "He will shave your head".

*The term, IRREALIS, is adopted as a cover term for this particle which signals future subjunctive and future negative: it signals states and actions which will not actually occur.
(200) nukuŋu-je pelpiŋi yinŋi-ŋ maŋa
3sg MASC-ERG head 2sg-ABS NEG
ka-ŋyĩ-we-yeyty nukuŋ
3sg-2sg-head-shave IRREALIS
"He will not shave your head"

A future positive subjunctive is based on the future negative indicative (without maŋa):

(201) nukuŋu-ka kuŋu katu nukuŋ ŋaŋa
3sg MASC-TOPIK 3sg MOVE towards IRREALIS CONDITIONAL
ŋayi-wa ŋuŋu nukuŋ waŋu
1sg-EMP! 1sg MOVE IRREALIS away
"If he were to come, I would go. (ie., if he were to move towards I would move away)"

The future negative subjunctive is identical to the future negative indicative but context makes it clear what is meant.

Imperatives in the negative have the same form as the corresponding second person negative indicative form.

Perfect negative indicative is exactly the same as the future negative indicative but with nukuŋ omitted.

Past negatives are rather more complicated. Among the intransitive-type auxiliaries, SIT, STAND, LIE, BE ALOFT and DO are identical to the imperfect (positive) paradigm, BECOME is identical to the auxiliary base forms of its
future positive paradigm but with do substituted for nu. 
MOVE, USING FOOT, HAVE and HAB are irregular and are given 
in the appendix.

The transitive type auxiliaries form their past negatives 
in no very consistent way. The forms are shown in the 
appendix.

The non-future negative subjunctives are identical to 
the past negatives.

4.2.5 Analysis of Auxiliaries.
Each auxiliary paradigm can be analysed in terms of:

(a) six "principal parts"* viz. the three singular 
and three plural forms (for each tense).

(b) a set of rules for deriving the remainder of the 
paradigm from the "principal parts".

4.2.5.1 Rules for so-called "intransitive"-type auxiliaries.
4.2.5.1.1 Formation of duals.

1. 1 du inc (SIB) = 3 sg for future tense. 
   2 sg for perfect and imperfect

*The term, principal parts, is borrowed from traditional grammarians 
of Latin and Greek who likewise presented a small number of 
key forms from which many other forms could be derived according 
to stated rules, eg. Goodwin [1894:93].
2. 1 du exc non-SIB, 2 du non-SIB, 3 du non-SIB are based on the corresponding plural form plus a dual number indicator. For perfect tense, ka is added to the plural form. There are a number of exceptions to this rule.

4.2.5.1.2 Formation of paucals.
1(a) 1 pc inc SIB = 1 pc exc SIB = 1 pl.
(b) 2 pc SIB = 2 pl
(c) 3 pc SIB = 3 pl

2. 1 pc inc non-SIB = 1 du inc non-SIB + paucal number indicator.

3. Other pc non-SIB's = du non-SIB + paucal number marker.

The paradigms for BECOME provide an instance of these five rules at work (consider the past negative as imperfect in form).

4.2.5.1.3 Statement of Exceptions.
However there are many exceptions to the basic rules laid down for intransitive auxiliaries.

All the perfect tense paradigms are regular with the exception of STAND. A distinction is made between 3 pc SIB kibim and 3 pl pibim; this is the only instance of such a distinction in form. 3 du SIB is based on 3 pc SIB with ka added while 3 pc non-SIB is based on 3 pl plus ka, not on the
3 du SIB form as the rules would predict.

The future and imperfect paradigms are much more irregular. The auxiliaries, LIE, BE ALOFT, DO, HAVE, BECOME and SAY/DO all have regular paradigms in the future and imperfect.

The future paradigms of SIT and HAB are irregular in that 1 du exc SIB, 2 du SIB and 3 du SIB are based on the corresponding singular forms with the final vowel of the Aux Base changed from i to e. The future of USING FOOT is similarly irregular but the final vowel of the Aux Base in each singular form is changed from u to a. The future of MOVE does not base the 1 du exc SIB, 2 du SIB and 3 du SIB forms on the plurals but has suppletive forms na, ne, pa. In addition, a unique distinction is made between 1 pc inc SIB and 1 pc exc SIB, the 1 pc inc SIB being identical to 3 du SIB while 1 pc exc SIB is regularly formed.

The imperfect paradigms likewise become irregular when the 1 du exc SIB, 2 du SIB and 3 du SIB are not based on the plurals as the rules predict. For SIT, STAND, MOVE, USING FOOT and HAB, these forms are based on the plurals but with the final vowel of the Aux Base is changed to /e/. The 1 du exc SIB of SIT is *njineda where *njineda would be predicted; the 1 pc exc non-SIB are based on the expected 1 du exc SIB *njineda.
4.2.5.2 Analysis of "transitive-type" auxiliaries.

It is useful to distinguish three groups of "transitive-type" verbs:

Group 1  I – VII
Group 2  VIII
Group 3  IX – XIII

4.2.5.2.1 The first group of "transitive-type" auxiliaries, I-VII, follow the rules for the intransitive-type auxiliaries. The element, ka, which appears in some forms of the perfect paradigm, is deleted in this group of verbs whenever there is a phonologically overt cross-referenced pronominal object (whether direct or indirect) in the verb complex. For an example of this process see the perfect paradigm of "strike" (Aux:I) in Appendix 2.

4.2.5.2.2 The second group of transitive-type auxiliaries has one member, VIII, which conjugates like the first group but has two special features:

ka is optionally deleted when there is an overt pronominal object (the deletion was obligatory in the first group).

the plurals of the perfect paradigm are based on the first singular perfect form with the addition of num (1 pl), num (2 pl), pum (3 pl). This is quite similar to the third group.
4.2.5.2.3 The third group is characterised by its formation of the plurals. For each of the three basic tenses, the first singular of that tense is used as the base for the plural a prefix being added to the base as follows:

\[ \mu + 1\text{ sg} = 1\text{ pl} \]
\[ \nu + 1\text{ sg} = 2\text{ pl} \]
\[ \rho u + 1\text{ sg} = 3\text{ pl} \]

It will be noticed that for each of the five types of auxiliaries (IX-XIII) in the third group, the first singular and third singular forms are identical. Thus the principal parts could be reduced to two: 1 sg, 2 sg (or 2 sg, 3 sg) and then giving two rules specific to this group, the one just stated and

\[ 1\text{ sg} = 3\text{ sg} \]

In the third group, XIII poses a problem since it behaves like other members of its group but differs from any of the other transitive-type auxiliaries in that it can be seen to have a lexical meaning: USING HAND and may occur without a verb root. When it appears without a verb root it normally has the meaning: "say" or "talk to":
(202) ēayi-∅ nankunda-nu
   1sg-ABS 2 du MASC-DAT
   me-naJu-da-ninda
   1sg XIII-2 du BEN-TMPERF-du MASC
   "I was talking to you two non-sibling males".

Marginally acceptable is a reading "I was making it/doing it (using my hands) for you two non-sibling males", but more usual is a form using a verb root:

(203) ēayi-ka nankunda-nu
   1sg-TOPIC 2 du MASC-DAT
   me-naJu-wata-da-ninda
   1sg XIII-2du BEN-make/do-TMPERF-du MASC
   "I was making it for you two non-sibling males".

XIII is intermediate between the intransitive and transitive type auxiliaries. The fact that it has a recognisable meaning when behaving as a transitive type auxiliary:

(204) ēayi-je tama! nyin'iy
   1 sg-ERG neck 2sg
   mam-nyi-tama-yeyt'y
   1 sg XIII (USING HAND) PERF-2sg-neck-cut
   "I cut your neck (throat)"

*Note that the initial y of the verb root is actually y₂ so that according to MP-4 [2.1.10.17] we have mamYeyt'y "I cut him" (from *mam + y₂eyt'y).
is probably deceptively atypical for the transitive
type auxiliaries. Native speakers were readily
able to characterise this auxiliary whereas
attempted characterisations of other auxiliaries
were found to have numerous exceptions. It may
be that the other auxiliaries have no semantic
motivation by which they select particular verb
roots or that the semantic bases are covert
categories in Munyupa (see [6.5]).

4.2.5.3 Analysis of Auxiliary Bases.
No attempt is made to provide an analysis
the auxiliary "bases" into numerous parts although
a glance at the auxiliary paradigms (Appendix 2)
will show that this is possible. What has resulted
so far in each attempt is an analytical machinery
which hardly justifies the effort.

For instance, an analysis of USING FOOT might progress
along these lines:

Each form consists of:

(a) personal prefix eg. ə = 1 sg.
(b) an auxiliary root eg. un = USING FOOT.
(c) a suffix to the auxiliary root which further
    specifies person and number eg. e = 1 du exc SIB,
    2 and 3 du SIB; 1 pc exc non-SIB, 2 and 3 pc non-
    SIB (for past negative and imperfect paradigms only).
Even for this auxiliary which is not especially irregular (compared to SIT, for instance) an additional auxiliary root, \textit{uv}, has to be posited just for the third singular and third dual non-sibling forms of the past negative paradigms.

The suffix to the auxiliary root in the perfect paradigm of USING FOOT is

\[ \text{u}g\text{am/u}g\text{amka} \]

These forms can be further analysed as:

\begin{itemize}
  \item \textit{ug} marks perfect paradigm of USING FOOT
  \item \textit{m} perfect tense marker (akin to \textit{nu} and \textit{da}).
  \item \textit{ka} dual sibling and paucal non-sibling forms except 1 inc.
\end{itemize}

Perhaps we would also posit a zero morpheme which contrasts with \textit{ka} in a particular structural position.

However this "solution" still has problems since the third singular and third dual non-sibling pronouns for the perfect paradigm do not have \textit{un} as their auxiliary root unless we claim a rule which deletes \textit{u} of the root for 3 sg and 3 du non-SIB forms. Suppose then that we alter the analysis and posit /\textit{n}/ as the auxiliary root then 3 sg becomes:
\( \phi \) 3 sg personal prefix.

\( n \) Aux root: USING FOOT.

\( u\eta \) Special (for USING FOOT) perfect tense marker.

\( m \) General perfect tense marker.

As much as it was appropriate to evaluate competing analyses in the treatment of morphophonological alternation [2.1.10] alternative solutions with greater analytic possibilities than the ad-hoc offerings above must be evaluated against stated criteria. A casual glance at the paradigms (in Appendix 2) suggests that three separate roots will have to be posited for the future of MOVE; the roots for the future paradigms of SIT and DO might be \( i \) or \( \phi \) and even if one did not have to resort to \( i \)

vs \( i \) or \( \phi \) vs \( \phi \) to distinguish them problems would arise from the plural forms of the imperfect paradigm of STAND. It is proposed, therefore, to treat what have been called auxiliary bases as portmanteau morphemes without entering into their internal composition, an exercise of dubious value in this case.

However some informal observations are made on the initial segments and their correlation with pronominal cross-reference. In general, 1 sg and 1 pl forms have \( \eta \) as their initial segment: this is so for all the intransitive-type auxiliaries and the first group of transitive-type auxiliaries. The exceptions occur in the third group of transitive type auxiliaries and in the perfect paradigm of the second group.
The exceptions have as initial segment:

\[ p, b, \text{ or } m \]

In general it can be said that any 1 pl auxiliary (and all the forms derived from it) has initial ə while any 1 sg auxiliary has an initial peripheral stop or nasal, most commonly ə.

The 2 sg and 2 pl forms are not so regular. The possibilities are: \[ t, t', d, n \]. Significantly, \( t \) only occurs before low vowels while \( t' \) only occurs before high vowels. Distributional facts of this sort lend credence to the interpretation of stop phonemes adopted by Street and Street [2.1.8].

2 pl always has an initial n; in 2 sg, initial d and n occur infrequently, the other auxiliaries having initial, t or t'.

The 3rd sg and 3rd pl forms most often appear with an initial peripheral stop, p, b, k but the exceptions of which there are many do not appear to follow any particular pattern: \[ t, d, d', m, n, w, y \].

4.2.5.4 Examples of usage of "Intransitive-type" Auxiliaries with Verb Roots.

SIT This auxiliary may indicate that the agent is sitting down otherwise it can mean that there is just one action involved (cf. HAB, STAND, MOVE).

VR murk "eat"
FUT ่นิมุรก I will eat; I will eat while sitting.

PERF ่นิมุรก I am eating. I have eaten.

IMPERF ่นิมุรก I was eating.

HAB
(a) action takes place over a period of time (continuative).
(b) action is repeated frequently.

VR pad "abandon, leave behind".

FUT ่นันิพาดน I shall leave (it) behind for a time;
I shall often leave it behind. (For example, said of money kept in a bank).

(205) นาย-ka นันย-dyî ปายิร ่นันิ-pad-nu

lg-TOPIC NC:thing rock 1 sg HAB-abandon-FUT

น่าา ขา แบงก

LOC place bank

"I'm going to make a habit of leaving my money behind in the bank".

PERF ่นานัมพ "I left (it) behind".

IMPERF น้าระมาณยูงดา "I was continually looking for sugarbag".

(VR = มาณยูง "seek sugarbag")

STAND
(a) agent is standing
(b) a continuous course of action

*Nugeman* text. Appendix 4.
(206) ŋi:uju-role-nu
1 sg STAND-eat-FUT
"I will eat while standing"

(207) ŋi:uju-pu-dy-nu
1 sg STAND-throw away-FUT
"I shall throw (it) away frequently"

MOVE
(a) agent is moving about
(b) habitual action
ŋu:umurknu "I will eat as I go; I will go about eating"

USING FOOT
action (generally) involves the foot.

(208) ŋunu-pa-dy-nu
1 sg USING FOOT-break-FUT
"I will break it with my foot (as breaking something by treading on it)".

(209) ŋunu:am-nVi-baq
1 sg USING FOOT PERF-2 sg-strike
"I struck you using my foot ie. I kicked you"

BE ALOFT
(a) agent is aloft.
(b) action involves some object being aloft.
qindamurknu "I will eat while aloft (eg up a tree)"
qindakilkikllknu "I will hold on (to an object)
above (my head)"

LIE
agent is lying down.

(210) qumurknu "I will eat while lying down"
qv-pup-nu "I will die (literally "I will
1 sg LIE-lie-FUT lie down while lying down")"

DO
action is not specified very closely compared to the
other auxiliaries.

(211) qii-pup-nu
1 sg DO-lie-FUT
"I will lie it down (flat)"

HAVE
agent takes up or gains possession of something
involved in the action.

(212) qan'v-dV-inaqawlit
1 sg HAVE PERF-take up
"I took (it) up".

SAY/DO and BECOME
These have not been seen to appear with verb roots but
behave like the other auxiliaries in their paradigms.
4.2.6 Impersonal Verbs.

Impersonal verbs in Mijinypata are of two types:

(i) having an overt but inanimate subject.
(ii) having no subject stated at all.

4.2.6.1 Inanimate subjects.

Inanimate nominals may appear with the ergative-instrumental case-marking in the examples given below; the case-marking is interpreted as signalling ergative function in that the norm position for such noun phrases is the same as the norm position for noun phrases which are recognizably ergative. Compare:

(213) iilingin-te ñayi-ŋ dam-ŋi-winɨɨmadapa

sea-ERG lsg-ABS 3sg I PERF-lsg-oppose

"The sea opposed me; I went against the tide".

with

(214) nukunu-je ñayi-ŋ dam-ŋi-winɨɨmadapa

3sg MASC-ERG lsg-ABS 3sg I PERF-lsg-oppose

"He opposed me i.e. he refused me, he said no to me".

Other examples are:

(215) kuja-re ñayi-ŋ dam-ŋi-me-tut

water-ERG lsg-ABS 3sg I PERF-lsg-foot-cover

"Water covered my feet".
(216) kwa-wa ŋayi-ŋ be-ŋi-me-li-p-nu
water-ERG 1sg-ERG 3sg IX-1sg-foot-cool-FUT
"Water will cool my feet"

(217) tungu-wa ŋayi-ŋ pa-ŋi-ji-yeyek-nu
fire-ERG 1sg-ABS 3sg I-1sg-buttocks-affect -FUT
"Fire caused me to fart or defecate"

(218) tungu-wa nanvdi glas-ŋ pa-ŋ-bukal-nu
fire-ERG NC:thing glass-ABS 3sg "I"-3sg-melt-FUT
"Fire melted the glass"

In (218), the vowel, a, of the auxiliary base becomes e.
The motivation for this change (which also occurs for
impersonal verb forms in other conjugations) is not
yet known.

4.2.6.2 Impersonal verbs without subjects.
This construction appears to apply just to physical
conditions of human beings: similar constructions
appear in neighbouring languages [Hoddinott and Kofod, 1976]

(219) dam-ŋi-bu-la
3sg I PERF-1sg-upper leg-cramp
"I have a cramp in my upper leg"

* yeyek appears to be frozen with a particular incorporated
body part to give the particular meaning: "cause to fart or
pass solid excretion". yeyek does not appear without ji.
(220) pemar ɲayi-ريد pa-ɡi-we-de-gnut
head hair lsg-ABS 3sg l-1sg-head-ruffle-FUT
"My (head) hair will be ruffled"

(221) ɲayi-صيد dam-ɡi-kuley
lsg-ABS 3sg I PERF-lsg-(cause to) belch
"I belched (ie. it caused me to belch)"

Again there can be a change of vowel in the auxiliary
base from a to e; it is difficult to see what motivates
this. Compare:

(222) ɲayi-صيد dam-ɡi-1uq
lsg-ABS 3sg I PERF-lsg-(cause to) shiver
"I shivered"

with

(223) dam-ɡi-1ur*
3sg "1" PERF-lsg-(make) hot
"I am hot; it heats me"

and

(224) ba-ɡi-me-bur-nu
3sg IX-lsg-foot-cold-FUT
"My feet will feel cold"

*The usual Muinypata word for "hot" is dendur, presumably arising
from *dem-ɡi-1ur [2.1.10.17] "it is hot".
4.2.7 Middle Verbs.

Some verbs in Muyinyapa can be described as "middle verbs" ie. they can only govern an indirect object never a direct object. The subjects of such verbs cannot appear with an ergative case-marking: they take the unmarked absolutive case-marking:

(225) nekiqime-ŋ puma-ŋu-nu-ninda
1 pc inc FEM-ABS 1 pc inc XIII-3 du BEN-FUT-du MASC
peninda-nu
3 du MASC-DAT
"We few inclusive one of whom is female will talk
to them two non-sibling males"

(226) nayi-ŋ na-gae-windipal-nu-nani
1sg-ABS 1sg I-3sg FEM BEN-berate-FUT-1sg HAB
nigunu-nu
3sg FEM-DAT
"I will berate her continuously"

4.2.8 Reflexives

Reflexives are generally signalled by a change in the auxiliary base. Usually this is a change in the final vowel of the auxiliary base, for instance:

(227) nayi-çe mage nyinji-ŋ ma-nyi-ма-pu|-nu
1sg-ERG hand 2sg-ABS 1sg XIII-2sg-hand-wash-FUT
"I will wash your hand(s)"
(228) ṇaγí-φ meγe-φ me-ṃa-puṣ-nu
lsg-ABS hand-ABS lsg XIII (REFL)-hand-wash-FUT
"I will wash my (own) hand(s)"

Otherwise the reflexive is marked by a prefix which
immediately follows the Aux Base, for example:

(229) ṇaγí-je meγe nviŋvi-φ ηiše-nvi-me-bayd́y-nu
lsg-ERG hand 2sg-ABS lsg II-2sg-hand-look-FUT
"I will look at your hand(s)"

(230) ṇaγí-φ meγe-φ niša-nu-ma-bayd́y-nu
lsg-ABS hand-ABS lsg II-REFL-hand-look-FUT
"I will look at my (own) hand"

Often a reflexive form will show a change of vowel in the
Aux Base and the use of the reflexive prefix:

(231) ṇaγíje meγe nviŋvi njišaŋmebabyd́pดาŋini
"I was looking at your hand(s)"

(232) ṇaγi meγe nišiŋnumbabyd́pดาŋini
"I was looking at my (own) hand(s)"

*Recalling [4.2.5] it would be reasonable in analysing the Aux
Base to claim that a = non-reflexive contrasting with e =
reflexive, while m = lsg subject contrasting with n = 2sg
subject: what is left over viz. φ presumably is the Aux
root but note that this φ must be distinguished from any other
φ in this structural position.
There is no simple pattern for the formation of the reflexives in the various conjugations. The auxiliaries, II, III, V, VI and X use the reflexive prefix, nu, and the only one of the intransitive-type auxiliaries for which reflexives have been elicited viz. HAVE has nu with no other change:

(233) nukunu-∅ kanvdvin-nu-maŋa
3sg MASC-ABS 3sg HAVE PERF-REFL-chest
"He is holding it to his breast"\(^1\)

The principal parts of the paradigms for the reflexives are listed in Appendix 3.

4.2.9 Reciprocals.

4.2.9.1 Reciprocals have the same form as reflexives, lacking of course any singular forms.

(234) ṅayi-je manvdvi-∅ pa-mba-mudmud-nu
1sg-ERG NC:thing-ABS 1sg I-2sg BEN-give-FUT
nvdvin-yi-nu
2sg-DAT
"I will give it to you"

(235) neki manvdvi penumudmudnu\(^2\)
"You and I will give each other things"

\(^1\) Also nigung kanvdvinumaŋa "She nurses (a baby)"

\(^2\) It might be expected that the reciprocal subject of a three place-predicate would allow an ergative marking. Unfortunately, there is no conclusive answer since ergative markings are always sparingly used and never spontaneously in this context.
4.2.9.2 Reciprocal Verbs.
Munjinpata has some verbs which can be described as reciprocal verbs as English has some verbs which require a plural subject eg. assemble (intransitive).
Such verbs require a non-singular subject, for instance:

(236) qeñkuninda-u qeñ-ninda-li-yiyi
1 du MASC-ABS 1 du (RECIPI) PERF-du MASC-argue
"We two exclusive non-sibling males argued with each other; he and I argued (heatedly)"

Suggested forms such as:

(237) *qayi qendi-yiyi
"I argued with myself"

were rejected (as one would expect) by native speakers.

4.2.9.3 Distinguishing between Reflexives and Reciprocals.
Contexts occasionally arise (or can be easily constructed) in which the congruence in form of reflexives and reciprocals leads to ambiguity.

(238) qeñkunindo pankin qumem-da-li-pu|-ninda*
1 du MASC back 1 du (RECIPI/RECIPI) PERF-back-wash-du MASC
"He and I washed our backs"

* This becomes qumena|pu| by MP-6 and MP-9 [2.1.10.17].
OR "He and I washed each other's backs"

There are two methods employed in Muinypata to resolve this sort of ambiguity. The first is to split up the offending sentence, for instance:

(239) ŋayike paŋkin menajipu! nukunuwe menajipu!
"I washed my (own) back and he washed his"

(240) ŋayi le paŋkin nukunu menajipu! nukunu re paŋkin ŋayi menajipu!
"I washed his back and he washed mine!"

However this method is plainly impractical when there is an unlimited number of individuals involved:

(241) ŋanji paŋkin ŋumenaŋipu!
"We all each washed our own backs"

OR

"We all washed each other's backs"

To resolve this ambiguity, Muinypata uses an idiom involving meŋa "hand":

(242) ŋayi-ke ŋi-nu-qi meŋa-gayi
lag-TOPIC lag DO-FUT-lag SIT hand-lag
"I will do it (by) myself; I will do it 'under my own steam'!"
meŋa with a suffixed personal pronoun form referring
to the subject stresses that the agent is responsible
for the action of the verb.

When this device is used with expressions such as
(241) it engenders a reflexive reading:

(243) ṣaŋki paŋkĩ ŋuŋmeŋi-puŋ maŋeŋaŋki
 "We all each washed our own backs"

4.2.10 Secondary Auxiliary.

"Intransitive-type" auxiliaries can be suffixed to a
verb form to qualify the action of the main verb:

(244) ṣayi-ka maŋa me-maŋa-pul-nu-ŋu
 lsg-TOPIIC belly lsg XIII (REFL)-belly-wash-FUT- lsg LIE
 "I will wash my belly while I'm lying down"

The auxiliaries used most frequently in this way are:

SIT indicating agent is seated or that a single action
 is involved.
HAB indicating habitual mode of action.
STAND indicating agent is standing, or, more commonly,
 a repeated action.
MOVE indicating motion.

There is not a great deal of difference between the
qualification given to a verb by HAB and STAND but
particular verbs appear to prefer one over the other.
No principled motivation has been discovered for this preference.
4.2.11 Reduplication in Verbs.

Reduplication in the verb in Mijinyupata generally signals repeated action. Thus (217) has the verb root reduplicated when there is repeated action:

(245) tunguŋe ŋayi paŋjiyeýeyektyeyeknu*

"Fire caused me to fart or defecate many times"

This sort of reduplication should be distinguished from inherent reduplication where a form contains like parts but cannot be split up. Thus kilkik "hold up" in (never appears as *kilk. The sort of reduplication in (246) can be viewed as a process of converting a root into its reduplicated form: mel "squash" becomes melmel "squash repeatedly" in reduplicated form:

(246) ŋayi əndamelmelnungi

"I will squash it repeatedly (by sitting on it)"

Apart from total reduplication, partial reduplication occurs, for instance; ŋunuŋrunu "I will pull it" becomes

(247) ŋayi ŋunuŋrununu

"I shall pull it repeatedly"

Partial reduplication of this sort is quite obvious but much of this process is far less obvious in the signalling of repeated action in Mijinyupata verbs. For instance,

*γ is hardened to τγ by the preceding stop.
(248) ŋayi-we ɲ'inya-l ŋa-ɲyĩ-winyaŋikapak-nu
lsg-ERG 2sg-ABS lsg I-2sg-accompany-FUT
"I will accompany you"

(249) ŋayi-we ɲ'inya ɡañyĩwinynakpaknu
"I will accompany you continuously"

It is only by looking at a number of other examples
of the same process that it becomes clear what has happened
in (249):

(250) ŋayi ɡa-winymadapak-nu
lsg lsg I-pour fluid into container-FUT
"I will pour fluid into a container"

(251) ŋayi ɡawinymadapalainu
"I will pour fluid into many containers"

(252) ŋayi ɡa-nedum-nu
lsg lsg I-fasten two things together (with one
instrument)-FUT
"I will fasten two things together (with one instrument)"

(253) ŋayi ɡanananunu
"I will fasten many things together; I will fasten
many pairs of things together with many instruments
(eg. bolts)."
From these and other examples it can be stated that there is one type of partial reduplication which involves inserting the final consonant of the verb root immediately before the initial consonant of the root's final syllable. The otherwise puzzling form in (253) is then derivable from:

\[
\begin{align*}
\text{nadum} & \quad \text{UNREDUPLICATED ROOT} \\
*\text{nandum} & \quad \text{REDUPLICATED ROOT} \\
*\text{nandum} & \quad \text{MP-6} \\
\text{nanum} & \quad \text{MP-9}
\end{align*}
\]

However this is only an attempt towards one of the many forms of partial reduplication. Other processes are at work just in these two verbs:

(254) ꯾yi ꯾-na-wilad-nu nukunu-nu
    lsg lsg I-3sg MASC BEN-give much-FUT 3sg MASC-DAT
    "I will give much to him"

(255) ꯾yi ꯾nawiladadnu nukunuunu
    "I will give much to him many times"

(256) ꯾yi ꯾-rå-jîdud-nu nág nga-ra
    lsg lsg I-light fire-FUT LOC grass
    "I will light fire in the grass"

(257) ꯾yi ꯾lîdudunu ngu ngaga-ra
    "I will light many fires in the grass"
 Practically every verb root has a reduplicated form (in the sense used here) but there is just not sufficient checked data to give an overall account of this phenomenon.

4.2.12 Co-occurrence Restrictions between any verb root and the Auxiliaries.

One of the most intriguing questions that arises from the discussion is whether there is a principled motivation for which auxiliaries a given verb root selects. What is required is an account of a large number of verb roots (the present corpus for Mulinyepata runs to around a thousand) and their selectional possibilities with a representative sample of native speakers.

This sort of task was undertaken in part by Birk [1974:188ff] with a sample, however, of only 350 verb roots and a couple of native speakers. It may be that this is another task which is really beyond the non-native speaker linguist: it is certainly beyond the scope of this study. What has been done so far is not conclusive nor sufficiently broadly based.

4.3 Particles.

Particles form a word-class [3.7] the members of which cover the functions of "so-called" prepositions and conjunctions in English. The particles of Mulinyepata provide logical (eg. "and", "or") and modal (eg. possibility, conditionals) qualifications to a sentence. They also yield locational information on nominals and verbs, for instance, the location of the referent
of some nominal or the direction of the action described by some verb.

4.3.1 yi

yi indicates conjunction either of nominals or verbs.
When yi is used it must appear between each pair of conjuncts:

(258) kađu kunugunu yi ku wananggal yi kađu
NC:person old woman and NC:meat doctor and NC:person
kumbaja pumbenka-qime
first 3pc MOVE PERF-pc FEM
"An old woman, a (white) doctor and a chief came"

(259) qayi-ka kuja ti bim-kuduk yi
1sg-TOPOIC NC:water tea 1sg X PERF-drink and
ngunu-wa mi-dampa qim-murk
3sg FEM-EMPH NC:food-damper 3sg SIT PERF-eat
"I drank some tea and she ate some damper"

These sentences can also be expressed by deleting each instance of yi so that (258) becomes:

(260) kađu kunugunu ku wananggal kađu kumbaja pumbenka-qime

Although yi must appear between each pair of conjuncts it is permissible to interpolate words other than conjuncts eg. a verb into such a construction:
(261) ŋayi tamul me-wata-da-ŋini  
    lsg spear lsg XIII-make-IMPERF-lsg SIT and
    kujakade
    boomerang
    "I was making a spear and a boomerang"

4.3.2 a

This is the only particle which is phonologically aberrant, being one of the few words in M̱ajinypata which commences with a vowel [2.1.7]. a marks disjunction of nominals and verbs so that it is possible that it has been borrowed from English "or" although native speakers deny this. Analogously to yi, a must appear between each pair of disjuncts but unlike yi, a cannot be deleted nor can elements be interpolated into a construction consisting of a and a pair of disjuncts.

(262) nvinʔi-ke ŋayi a majimajil a litypur
    2sg-TOPIC spear or knife or axe
    tanYdʔin       yuwu
    2sg HAVE PERF INTERROG
    "Do you have a spear or a knife or an axe?"

4.3.3 kama(ʔya)

This particle has an identical counterpart among the interjections [3.5]. Like the interjection it can be glossed as "perhaps, maybe". The particle has two functions:

(a) most commonly qualifying a whole sentence in which case it indicates uncertainty.
(b) appearing after each nominal indicating alternative possibilities; a less positive a.

(263) nukunu-ŋ kamayya puwu-nu tįpinıyje
   3sg MASC-ABS perhaps 3sg MOVE-FUT tomorrow
   "Perhaps he will come tomorrow"

(264) tangu nỳinyü-ka tam-ŋkaŋu yuwu
   what 2sg-TOPIC 2sg X PERF-see INTERROG
   "What did you see?"
   ñayi ñam-yekum ku munduwiguwu kamayya
   lsg lsg I PERF-forget NC:meat bustard perhaps
   ku kulerkurk kamayya ku kanangandaŋ kamayya
   NC:meat brolga perhaps NC:meat emu perhaps
   "I forget; maybe [it was] a bustard, maybe a brolga, maybe an emu"

Dixon [1972:363-4] draws attention to two types of disjunction:
   closed - the stated alternatives are claimed to exhaust all the possibilities.
   open - likely alternatives are stated but there may be other alternatives.

I suspect (but it requires checking) that a indicates closed disjunction while /kamayya/ represents open disjunction.
Interestingly it is suspected that a is a loan from English, "or", which represents only closed disjunction.

*This expression is more positive than an expression using a subjunctive form: nukunu kuu nukun tįpinıyje
   "He might come tomorrow"
4.3.4 maŋa
This indicates negation for verbs [4.2.4]. For verbs with future reference the particle, nukun [4.3.6], is also used; otherwise maŋa alone with systematic changes in the auxiliary forms.

4.3.5 mananga
This particle indicates negation for nominals [4.1.5].

(265) kanVl-ka mananga nindo
this (near)-TOPIC NEG horse
"This is not a horse!"

(266) nindo pangu-ke mananga gala
horse that (remote)-TOPIC NEG big
"That horse is not big"

It appears that mananga is being generalised in its function by younger speakers to become a verbal negator as well.

4.3.6 nukun
This particle, labelled IRREALIS, appears in future negative and subjunctive expressions [4.2.3.2], [4.2.4].

4.3.7 ngata "if" signals conditionals (eg. (201)). This particle tends to appear at the end of the protasis but need not. Typically the subjunctive form of the verb is used in conditionals although it may be difficult to establish whether a form is subjunctive when the subjunctive particle, nukun, has been deleted.
(267) nukunu-je kaļu qatan ǧayl ku-š-baṭ
   3sg MASC-ERG NC:person brother 1sg 3sg VIII SUBJ-3sg-strike
qata ǧay-l-ka nukunu-wa nu-š-baṭ
   if 1sg-TOPIC 3sg MASC-EMPH 1sg VIII-3sg-strike
"If he were to hit my brother, I would hit him"

4.3.8 ǧîyi đa "because"
This particle tends to appear at the end of a causal clause although it need not. Analogous to (267) is:

(268) nukunuwe kaļu qatan ǧayl panmaq ǧîyi da qaylka nukunuwa ɣubâqnu
   "Because he hit my brother, I will hit him"

4.3.9 ǧîyi da "in turn, again"
(7,16),(991,988)

4.3.10 waḍa(271,744),(551,744),(551,779),(271,779)
waḍa has a number of quite different functions:
(a) the actor tried to carry out some action but did not fully complete it. Generally used with imperfect tense forms:

(271) ꦩꦱ꧀ꦭ-ꦏꦴ tamul waɗa ꦱꦼ-ꦮꦱꦢ-ꦢꦱ
1sg-TOPOC spear nearly 1sg XIII-make-IMPERF
"I nearly made a spear"

(b) the action happened just at the time of reporting it: "just now"; "right now". Generally used with perfect tense forms.

(272) ꦤꦼꦏꦸꦤ-ꦂ waɗa ꦩꦸꦱ꧀-ꦢꦸꦁ-ꦢꦺꦶ* 3sg MASC-ABS now 3sg SIT PERF-vomit

(c) the action is just on the point of happening: "soon". Generally used with future tense forms.

(273) ꦫꦒꦱ-ꦂ waɗa ꦁꦤ-ꦢꦸꦁ 3du SIB-ABS "soon" 3du SIB MOVE-FUT
"They two siblings are just about to go"

(d) sometimes the particle has an inchoative force, "become". Generally occurs in non-verbal sentences.

(274) ꦰ ꦢꦥ ꦱꦼ-ꦮꦱꦢ wunmuk
NC:meat meat INCHOATIVE rotten
"The meat has gone rotten"

*This form becomes ꦱꦸꦱ꧀ꦩꦺꦧꦶ by MP-7 and MP-11 [2.1.10.17].
The inchoative sense applies for future and non-future actions:

(275) ʧyɪpɪɲɪje ku ɲɛn waɗa wunmuk
    tomorrow NC:meat meat INCHOATIVE rotten
    "Tomorrow the meat will be rotten"

4.3.11 mani

mani indicates possibility; whether the actor is able to perform such action.

(276) ɲɛnɭʊɭɭ la-wɪnduɭ-nu mani paɭɪɭr kənɭɭ yuwu
    NC:thing 2sg I-lift-FUT be able rock this INTERROG
    "Can you lift this rock?"

With an imperative, mani has a conative force: "try (to do it)"

(277) ta-g-wəɭ-nu mani
    2sg I-3sg-spear-FUT try
    "Try to spear him!"

4.3.12 yuwu

yuwu most often indicates a question eg. (276) but is also may appear in the apodosis of conditionals, its function there being obscure unless it is to be taken in conjunction with ɲəta "if" [4.3.7] in the protasis, confirming the consequence stated in the apodosis: ? "indeed"
(278) nukunu-ka wujl-da qa发生在
3sg MASC-TOIC 3sg MOVE-NON FUT SUBJ if
gyiyi-wa wujl-da yuwu
1sg-EMPH 1sg MOVE-NON FUT SUBJ indeed
"If he had come I would have gone"

4.3.13 qnipun
This particle preceding a noun indicates that that noun
is similar to or like the subject noun phrase of the
sentence. Attempts to use this particle with nouns other
than the subject have been unsuccessful: the result has
always been a separate sentence in which qnipun applies
to a subject noun which had been a non-subject before:

(279) yinyi qnipun qały nam
2sg LIKE 1sg 2sg SAY/DO PERF
"You talk like me"

Interestingly, qnipun means "body, appearance" in other
contexts exactly parallel to English "like" <OE lic "body".

4.3.14 katu
Generally this particle has an allative sense.

(280) tuyu-nu katu
2sg MOVE-FUT towards
"Come here!"

*In rapid speech, the initial segment of katu may be lenited to w.
(281) 꽃ヶ月 꽃간 dawun katu
1sg-LOC 1sg 1sg MOVE PERF Darwin towards
"I went to Darwin"

4.3.15 waŋu "away"

(282) ṭunu-wu waŋu
2sg MOVE-FUT away
"Go away!"

(283) 꽃ヶ月 꽃간 dawun waŋu
"I came from Darwin"

4.3.16 ɲɛrɛ
This particle has a wide range of possibilities for expressing locational and directional information. Some of its glosses are "in", "on", "towards", "away from", "up", "down", "into", "outside", "near", "on top of", "below", "at" etc.

It might be thought that so many different functions would result in ambiguity. However context normally makes it clear what is meant; when it does not further specification is given. For instance, (281) could alternatively be expressed as:

(284) 꽃ヶ月 꽃간 꽃녀 dawun
"I went to Darwin"

However (284) could also express (283). To disambiguate these two readings, ɲɛrɛ can be used with katu or waŋu although either of those particles by itself makes clear what is meant. ɲɛrɛ precedes the noun and katu or waŋu follow it.
(285) ŋəyika ńu var əra davun katu
"I went to Darwin"

(286) ŋəyika ńu var əra damun wam
"I came from Darwin"

Sometimes the meaning of the verb makes clear how əra
is to be interpreted in a sentence:

(287) ŋəyika-ka əna-ja-nu əra tayi
1sg-TOPIc 1sg HAB-climb-FUT up tree
"I will climb up a tree"

(288) nanydi kum əlim əra teybu!
NC:thing bottle 3sg SIT PERF on table
"The bottle is (sitting) on the table"

The preferred reading for əra in (288) would normally
be "on" but additional particles can be used if it is
necessary; for instance, if it was not clear from a context
whether əra was to be interpreted as "on", "above" or
"below", two additional particles can be used either alone
or in conjunction with the 'all-purpose' əra, which will
be glossed as LOC.

4.3.17 kängal
kängal "above", "on top of"

(289) nanydi kum əlim (əra) teybu! kängal
"The bottle is on top of the table"
4.3.18 pepe

pepe "below", "under"

(290) nanɡyì kum ḫim (ŋara) teybul pepe

"The bottle is underneath the table"

4.4 Interrogative Words

Questions are marked by the interrogative particle, yuuwu, [4.3.12], by a characteristic interrogative intonation [2.2.2.6] and by question words.

4.4.1 ḥara

Like the particle, ḥara [4.3.16], this question word indicates location ie. "where".

(291) ḥara nyinyi-Še nukanu-Ø tem-Øŋkaŋu where 2sg-ABS 3sg MASC-ABS 2sg X PERF-3sg-see

"Where did you see him?"


(292) ḥara wauŋu turen where away (from) 2sg MOVE PERF

"Where did you come from?"

In addition, ḥara indicates "what"

(293) ḥara tamkaŋu*

"What did you see?"

*Illicit three member cluster ŋmok is reduced to mk.
In this sense, qara behaves as a nominal appearing with ergative-instrumental inflections:

(294) qara turnu qwu dawun
what-INSTRM Zsg MOVE-FUT LOC Darwin
"How (with what) will you go to Darwin?"

qara, curiously, cannot be used with nu although tangu [4.4.2] can.

qara is used with a word, wiñiki "size" to make inquiries about physical dimensions.

(295) qara wiñiki kura peweti yuwnu
what size water deep INTERROG
"How deep is the water?"

(296) qara wiñiki qipiliny paguyyi
what size creek long
"How long is the creek"

(297) qara wiñiki dawun yuwnu
what size Darwin INTERROG
"How far is it to Darwin?"
OR "How big is Darwin?"

The ambiguity of (297) causes no more confusion when it is put in context than does an English (also elliptical) expression like "How long?: which may be inquiring about a physical dimension or a lapse of time. Of course if it
is necessary to disambiguate (297) one can say:

(298) ṣaṣa wiįiki dawun katu yuwnu
       "How far is it to Darwin?"

A little used variant of ṣaṣa is ṣaŋga.

4.4.2 tanuku
		tanuku also means "what: and behaves like a nominal
		taking the full range of nominal inflections:

(299) tanuku damkeŊu
       "What did you see?"

(300) majuk tanuku-je nam-wata yuwnu
       didjeridu what-INSTRUM 2sg XIII PERF-make INTERROG
       "What did you make the didjeridu with; how did you
       make the didjeridu?"

(301) tanuku-nu tįim-kark
       what-DAT 2sg SIT PERF-cry
       "Why are you crying?"

(302) tanuku-nu pan-ŋi-baŋ
       what-DAT 3sg VIII PERF-1sg-strike
       "Why did he hit me?"

tanuku in the meaning above appears to be interchangeable
with ṣaṣa however tanuku never means "where".
taŋku is used in conjunction with numa to indicate "how much", "how many" (non-human reference only).

(303) taŋku numa¹ ku walandak tam-ŋkaŋu
what number NC:meat pelican 2sg X PERF-see
"How many pelicans did you see?"

(304) taŋku numa nanyŋyi dařimun tanŋyiŋ yuwu
what quantity NC:thing sand 2sg HAVE PERF INTERROG
"How much sugar ("sand") do you have?"

4.4.3 naŋkal

This question word applies to nouns with human reference (including spirits). It behaves like a nominal in that it takes the full range of nominal inflections.

(305) naŋkal-ŋ nuŋku-je pan-ŋ-baŋ
who-ABS 3sg MASC-ERG 3sg VIII PERF-3sg-strike
"Whom did he hit?"

(306) naŋkal-te ŋayi-ŋ pan-ŋi-baŋ
who-ERG 1sg-ABS 3sg VIII PERF-1sg-strike
"Who hit me?"

(307) naŋkal-nu nὶnγyiŋ-je laweŋa-ŋ tam-wai² yuwu
who-DAT 2sg-ERG wallaby-ABS 2sg I PERF-spear INTERROG
"For whom did you spear the wallaby?"

¹Any similarity between numa and "number" is purely coincidental.
²By MP-1 this form becomes tampaŋ. Once again it is difficult to know exactly what the morphemic structure of this verb form is. If laweŋa were cross-referenced into the verb as a bound pronoun it would appear as φ. Native speakers are divided on accepting overt pronominal forms in the verb which cross-reference nouns with non-human but animate reference.
nangkalnu is not cross-referenced into the verb form as a bound pronominal (benefactive) form, for instance:

(308) *nangkalnu nyinje lawanga tannawal yuwu

in which na would cross-reference nangkalnu. Native speakers sensibly point out that there's no need to ask a question about someone if you know who he is! This claim arises from the fact that any of the bound pronoun forms give information about the number, sex or status of the noun phrases they cross-reference. In fact it is quite reasonable to ask a question about a person's identity even if you know that there is only one and that he is male. The native speakers' comment is thus only partly right but indicates the reluctance to give specific information that one truly does not know about some individual or group. When some information is known the question may be expressed in this form:

(309) peneme-ka nangkal-te pumbe-ka -nyi-bad-nema

3pc MASC-TOPC who-ERG 3pc VIII PERF-2sg-strike-PC MASC

"Which few non-sibling males hit you?"

In addition, nangkal may be included as part of a known group:

(310) nangkal-φ ñu-ñu-ninda yuwu

who-ABS ldu exc MOVE-FUT-du MASC INTERROG

"Who (other than the addressee) will come with me?"

Presupposed in (310) is that the speaker and the person to accompany the speaker are male and non-sibling.
4.4.4 miny delimiter

miny delimiter (which has a little-used variant miny delimiter) indicates "when", or, for continuous action "how long".

(311) miny delimiter nuku nu parawiw-nu
when 3sg MASC 3sg arrive-FUT
"When will he arrive?"

(312) miny delimiter nuku nyni-va pennyi baq
"When did he hit you?"

(313) miny delimiter nuku-je nyni-pa
how long 3sg MASC-ERG 2sg-ABS
puny-tuk-da-qini
3sg VIII-2sg-hit often-IMPERF-3sg SIT
"How long was he hitting you for?"

(314) miny delimiter tanypwin yigilnu
when 2sg HAVE PERF pain
"When did you have pain?"

(315) miny delimiter tanypvi-da yigilnu
how long 2sg HAVE-IMPERF pain
"How long have you been having pain?"

(316) miny delimiter tanypvi-da-tvi ni yigilnu
when 2sg HAVE-IMPERF-2sg BECOME pain
"When did you start having pain?"

*The verb baq does not have an imperfect paradigm, the gap being filled by another verb, tuk "hit often".*
4.4.5 nan

nan has its closest equivalent in English "what's its name?", "what do you call it?". It is used when one cannot remember the specific term for some item. It immediately follows a noun-classifier since it is unlikely that one cannot remember the noun class in which an object should appear.

(317) tangu paŋu paŋu-ka ku nan
what that that-TOPIC NC:meat what do you call it
"What's that?" "That's .... what's its name?"
ma yukuwi ku maminn̄aŋa
oh yes indeed NC:meat black cormorant
"Oh, yes; it's a Black Cormorant".

4.5 Universal Affixes

There are four affixes that can occur with almost any type of word.

4.5.1 -ka

This suffix is difficult to give a precise English gloss.

It is somewhat like a topicalizer* but may contribute to the interrogative force of a sentence (cf. the homophonous interjection [3.5]).

(318) ŋayi-ka n̄yin̄i ngu-n̄ȳi-baŋ-nu
1sg-TOPIC 2sg 1sg VII-2sg-strike-FUT
"It is I who will hit you"

*Abbreviated as TOPIC.
is contrasted with

(319) Ḇayl ṅviny1-ka ṅu-nv1-baŋ-ну
1sg 2sg-TOPIC 1sg VIII-2sg-strike-FUT
"It is you (not someone else) who will be hit by me"

These English translations are rather stronger than Muqinypata in the emphasis they place on the affixed words.

4.5.2 -wa

This affix is likewise difficult to gloss but is a stronger form of -ka. It draws attention to the word to which it is suffixed but adds more emphasis. The abbreviation EMPH will be used for this affix.

Corresponding to (318) and (319) we have expressions for which it is difficult not to give a stilted translation:

(320) Ḇayl-wa ṅviny1 ṅu-nv1-baŋ-ну
1sg-EMPH 2sg 1sg VIII-2sg-strike-FUT
"I am indeed the one who will hit you"

(321) Ḇayl ṅviny1-wa ṅu-nv1-baŋ-ну
1sg 2sg-EMPH 1sg VIII-2sg-strike-FUT
"It is indeed you whom I will hit"

-ka and -wa may also appear with verbs (and other parts of speech) drawing attention to parts of the sentences other than nouns:
(322) ꞌgayi n‘iŋyi ꞌgu-n‘iŋ-غا-ŋu-wa
           lsg  2sg lsg VIII-2sg-strike-FUT-EMPH
"I will indeed hit you; hitting is what I will do
to you"

4.5.3 -ya

-ya indicates some doubt about the word to which it is
suffixed. Some qualification is made by the speaker so that
it has an opposite effect to -wa. It might be covered by
English "perhaps". -ya has some interrogative force in
that the speaker is asking, to an extent, his auditors
"Is that right". It indicates that the speaker is dubious.

(323) ꞌgayi kumbit-ya ꞌpan-غا-ŋu-wa
           lsg  kangaroo-DUB lsg VIII PERF-3sg-strike
"I hit a kangaroo, I think (or was it a wallaby?)"

(324) ꞌgan‘un putput-ya
           woman pregnant-DUB
"The woman is pregnant, perhaps?"

This affix may occur attached to a word with -ka (but not
-wa). A small child, feeling neglected, spontaneously
was heard to say:

(325) ꞌgayi-ka-ya
           lsg-TOFIC-DUB
"(Hey), what about me?"

*The suffix is glossed as DUB.
4.5.4 -te/-je

This affix, homophonous with the ergative/instrumental inflection [4.1.2], has temporal reference. It is roughly translatable as "when". The suffix may be attached to any word in a clause although it appears most often to be attached to the verb (if there is one).

(326) paVia-wuVi-di-je fouri-je nVi-nVi-je
woman 3sg move-IMPERF-TEMP lsg-ERG 2sg-ABS
pan-nVi-baG
lsg VIII PERF-2sg-strike

"When the woman came, I hit you"

In fact the suffix draws attention to the time at which the action of the first clause took place in a more pointed way than is expressed by the translation given above. It would be better glossed as: "It was when the woman came that I hit you" or "Do you recall the time when the woman came and I hit you". Although the latter translation is in question form it should be interpreted as a so-called "rhetorical question" not as having any true interrogative force.

This suffix may be attached to a word in a single clause:

(327) fouri-ke-je kuMba-je wuVi-di-je aera waJeYa
lsg-FOCUS-TEMP first 1sg move-IMPERF LOC WaJeYa

"Do you remember the first time I came to WaJeYa
(place name)?"

"It was on the first occasion I came to WaJeYa".
There is a constraint on the occurrence of the temporal suffix and the ergative/instrumental inflection on the one word. Only one of these suffixes may occur on the one word (which must, of course, be a nominal). In fact, it is very unlikely for a situation to arise where the two suffixes would be expected to mark the one word. This is because the ergative/instrumental inflection is sparingly used [5.5] and because the temporal suffix can as well be attached to some other word in the sentence. When there is a possible clash of functions there is no way of telling which function is being represented by the "remaining" suffix:

(328) ɲɛyɪ-je ɲɪɪɲi-ŋ pan-ɲɪ-ɓag
1sg-TEMP-ERG 2sg-ABS 1sg VIII PERF-2sg-strike

"I hit you" or "Do you remember the time I hit you?"

Two occurrences of the suffix, -te -je, can not appear on ɲɛyɪ:

(329) *ɲɛyɪ:ɬɛ je ɲɪɪɲi pannɪbaŋ

There is no restriction on two occurrences of -te -je (with different functions) in the one clause, so that

(330) ɲɛyɪ:ɬɛ je ɲɪɪɲi pannɪbaŋ

or (331) ɲɛyɪ:ɬɛ je ɲɪɪɲi pannɪbaŋɛ*
can be unambiguously interpreted; the first instance of 
-je in each case denotes ERG and the second instance, TEMP.
In (327) -je is unambiguously interpreted as TEMP since 
Jay cannot function as a transitive subject (nor any 
word in that sentence) and thus appear with an ergative 
case marking.

4.6 Ordering of Affixes in Nominals

Four types of roots must be distinguished amongst nominals 
for the purpose of describing the ordering of affixes:

(a) pronominal roots [4.1.1]
(b) adjective roots which incorporate pronouns and/or body 
part nouns
(c) noun roots which incorporate body part nouns [4.1.4.1]
(d) other nominal roots. This category includes some adjectives 
and all nouns except those in (c) and all noun-classifiers.

The pattern for (a) is:

\[
\text{Pronominal Root} + \text{NI} + \text{Case Inflection} + \left\{ \begin{array}{c}
\text{ka (ya)} \\
\text{wa} \\
\text{ya}
\end{array} \right. \\
\left\{ \begin{array}{c}
\text{ka (ya)} \\
\text{wa} \\
\text{ya}
\end{array} \right. + \text{Case Inflection}
\]

for example,

(332) nanku-ninda-\text{wa-je}

2 du pc - du MASC - EMPH - ERG

"You two (at least one male) ERG!"
The other patterns are:

(b) Adjective Root + Direct Object Pronoun (+ Body Part) + NI.
(c) Noun Root + Direct Object Pronoun + Body Part + NI.
(d) Other Nominal Roots.

to any of which may be added:

\[
\begin{align*}
\text{Case Inflection} & + \left\{ \begin{array}{c}
\text{ka (ya)} \\
\text{wa} \\
\text{ya}
\end{array} \right. \\
\text{ka (ya)} & + \text{Case Inflection} \\
\text{wa} & \\
\text{ya} &
\end{align*}
\]

For example,

(333) pata-nanku-gni-da-je-ka

good-2du/pc-du MASC-ERG-TOPIC

"You two good females ERG"

(334) pugi-wunke-be-nindu-nu-ka

long-3du/pc-arm-du MASC-DAT-TOPIC

"On behalf of them two long-armed males"

(335) nej-nanku-je-neme-we-nu

boil-1du/pc exc-buttocks-1pc MASC-EPH-DAT

"For us few at least one of whom is male and not including the addressee with boils on our buttocks"
(336) pən̥uŋu-ya-je ŋəyî-ơ pan-ŋî-bağ
woman-DUB-ERG lsg-ABS 3sg VIII PERF-lsg-strike
"It was a woman, I think, who hit me"

Remaining to be accounted for is the suffix with temporal reference, -je - te [4.6.4]. It is difficult to say exactly what the restrictions are on this affix. It appears to always occur finally except when the nominal root has the potential to appear with an ergative/instrumental suffix. What is truly an ergative/instrumental suffix is very often deleted because the pronominal cross-referencing system [4.2.1] would unambiguously signal the syntactic function of the nominal. Thus the ergative suffix is redundant in:

(337) kaɗu kigayîl-je ŋayî-ơ pan-ŋî-bağ
NC:person youth-ERG lsg-ABS 3sg VIII PERF-lsg-strike
"The youth hit me"

and, being redundant, may be deleted:

(338) kaɗu kigayîl ŋayî penqîbağ
"The youth hit me"

If the translation given by native speakers for a sentence indicates that the temporal suffix should be used, then it is not possible to say what the suffix represents if it has been attached to the ergative (or instrumental) noun phrase:
(339) kaçu kigeyi-je ŋayi-ɗ pan-ŋi-baŋ
NC:person youth-? lsg-ABS 3sg VIII PERF-lsg-strike
"When he was a youth he hit me"

It may be that the ergative suffix, -je, was deleted so that the je in (339) would be interpreted as the temporal suffix. Alternatively it may be that because of the constraint on two occurrences of -je/-te on one word [4.6.4] it is not decidable whether what "remains" (after one of the suffix as has been deleted) is ergative or temporal.

It should be pointed out that Nučinypata words seldom have more than one suffix. Outside elicitation sessions it is unusual to observe more than two suffixes on one word. Native speakers grudgingly accept that one can say (334) but would probably themselves use expressions like:

(340) pe-ninda-nu kaçu-ke kanYdYin-ninda
3du pc-du MASC-BEN NC:person-TOPIC 3 have-du MASC
nityi panguyyi
arm long
"on behalf of them two males; the ones who have long arms"

Dixon [1972:233] provides a cautionary note on glib statements of relative orderings which are probably better handled by a native speaker, trained as a linguist.
Keeping this qualification in mind, a few summary statements will be made. Cross-referencing bound pronouns occur immediately after a root. Body part terms immediately follow the bound pronoun form and immediately precede the number indicator (NI). Note that in verbs [4.2.12] the direct object pronoun must occur immediately before the body part term while the body part term immediately precedes the verb root; the number indicator immediately follows the verb root. The relative order of these three affixes: direct object pronoun, body part term and number indicator, thus remains the same in the verb but the verb root is interpolated between the body part term and the number indicator. The temporal suffix, -je -te, often occurs finally. The other universal affixes [4.5.4] may occur either before or after the case inflections, the resulting combination normally ending the word.
5. Syntax

In Muinypsta, syntactic relations are marked in three ways:

a) case inflections on nominals [4.1.2].

b) cross-referencing bound pronouns prefixed to verb roots [4.2]

c) word order [5.4]

Any combination of these three processes may occur in a particular sentence but in every-day discourse only one or two will be at work, most often (a) being dispensed with, (b) being obligatory [5.5].

Case inflection on nominals follows an ergative-absolutive pattern:

(341) ŋayi-je nViyi-∅ pam-ŋyi-ŋkaŋu
lsg-ERG 2sg-ABS 1sg X PERF-2sg-see
"I saw you"

(342) ŋayi-∅ pam-ŋkaŋu
lsg-ABS 1sg X PERF-see
"I was looking around"

Note also that cross-referencing bound pronouns follow a nominative-accusative pattern.

(341) and (342) illustrate cross-referencing bound pronouns.

Such pronouns in the sentences above redundantly specify the case relations which have already been established by the case inflections on the nominals. Similarly,
(343) nVinYi-jegayi-φ tam-ŋiŋkaŋu
   2sg-ERG 1sg-ABS 2sg X PERF-1sg-see
   "You saw me"

(344) nVinYi-φ tam-ŋkaŋu
   2sg-ABS 2sg X PERF-see
   "You were looking around"

show specification of syntactic relation in three ways: nominal
inflections, cross-referencing bound pronouns and word order [5.4].

The basic medium of syntax is the sentence. Before turning to
different types of sentence a brief discussion follows on what
a sentence is.

5.1 Discussion of "Sentence".

Although the term, "sentence", is frequently used by
grammarians there has been little effort expended in stating
clearly what the term refers to. For the most part, modern
grammarians have turned a blind eye to this difficult
problem. Perhaps this is because so little is known about
structures larger than the sentence that it is almost
impossible to define "sentence" by syntactic criteria:
morphological criteria are hardly applicable (at least
for English and Mavinity) while semantic criteria are
dogged by vagueness and a prevalent lack of verifiability.
On the other hand, traditional grammarians have tackled the
problem but not with a great deal of success, as one of
the greatest points out:
'The definitions of "sentence" are too numerous and too divergent for it to be worth while here to reprint or criticize them all. In so far as they are not merely bogus definitions, in which technical words are used to conceal the want of clear thought, these definitions have taken as their starting point either formal or logical or psychological considerations, while some of them have tried to reconcile two or three of these points of view' [Jespersen, 1924:305].

The notion which seems best to characterise "sentence" is "independence": this is exemplified in the following definitions:

'A sentence is a (relatively) complete and independent human utterance - the completeness and independence being shown by its standing alone or its capability of standing alone i.e. of being uttered by itself' [Jespersen, 1924:307]

'According to Bloomfield a sentence is "an independent linguistic form, not included by virtue of any grammatical construction in any larger linguistic form"' (quoted in Lyons, 1968: 172).

These definitions will be adopted in this study, not because they are invulnerable to criticism but rather so that at least part of what is meant by the term "sentence" is made explicit.
In Muininpata discourse, sentence boundaries are marked by pauses and by the interjection, beje [3.5].

5.2 The Simple Sentence.

Simple sentences are of two types in Muininpata: transitive and intransitive. As shown in (341) and (342) a nominal functioning as a transitive subject receives an ergative inflection while a nominal functioning either as a transitive object or an intransitive subject receive an absolutive (unmarked) inflection.

On the other hand pronominal cross-reference employs a nominative-accusative construction. Thus a nominal which functions as a transitive object receives pronominal cross-referencing in the form of bound direct object pronouns in the verb [4.2.1.2.A] while nominals functioning as a transitive or intransitive subject receives pronominal cross-referencing in the form of Auxiliary bases [4.2].

Most Australian languages follow an absolutive-ergative pattern for nouns but a nominative-accusative pattern for pronouns. Muininpata differs from this scheme in having pronouns inflecting on an absolutive-ergative pattern as does Walbiri [Hale, 1970:776-9].

Sentences with "middle" verbs [4.2.7] follow the usual pattern marking the nominal functioning as (intransitive) subject with the absolutive inflection.
Modification of a simple sentence has already been
treated in other sections: negation [4.2.4], [4.3],
subjunctive mood [4.2.3.2], questions [4.4].

5.3 Non-verbal Sentences.
Apart from the transitive and intransitive sentence types
[5.2], sentences which do not contain a verb are common
in M subdivision.

Sentences of this type often require the English verbs
"be" or "have" in their translation.

(345) paŋu-ka    lawangga
       that (remote)-TOPIC wallaby
"That's a wallaby"

(346) nukunu-ka   kaŋu   batyu
       3sg MASC-TOPIC NC:person foreign
"He's a foreigner"

(347) kanji-ka   nanŋaŋi mediŋi    lurrwity ŋala
       this-TOPIC NC:thing medicine muscle big
"This is strong medicine"

(348) ngayi-ŋ    nanŋaŋi majuk
       1sg-ABS NC:thing didjeridu
"I have a didjeridu"
(349) ngaŋ-la litwi ngaŋa tarmu
    lsg-TOPIC sure LOC (lower) leg
    "I have a sore on my (lower) leg"

(350) paiŋun kanγi-la putput
    woman this-TOPIC pregnant
    "This woman is pregnant"

(351) pule paŋu-la kananara waŋu
    old man that-TOPIC Kunururra away from
    "That old man is from Kunururra"

(352) keŋu lepaŋa nanyi dejet waŋu
    NC:person busy NC:thing mob INCHOATIVE
    "The busy man became rich"

(353) nukunu-la ngaŋa wiŋit
    3sg MASC-TOPIC LOC place bed
    "He's on the bed"

Non-verbal sentences of this type have a head noun with an equational predicate eg. (345-7), (350), or with a locative phrase (351), (353); otherwise the sentence falls into a head noun and some sort of possessive phrase (possession is discussed below [5.6]) (348-9) (352).

Sentences without verbs also appear as a result of ellipsis in discourse. Such reduced sentences also occur in English. In Munjinypata, non-verbal sentences of this type may be responses to questions:
(305) nąŋkəl ńukuńųje paŋmad
"Whom did he hit?"

(354) kaŋu  паɡųyį  паɡųyį
NC:person  long  long
"The very tall man"

comments on the discourse:

(355) ma  kaŋu  паɡųyį  паɡųyį
"Oh! The tall man"

or simply ejaculations:

(356) yekay ku  tiwungu
hey  NC:meat wedge-tailed eagle
"Hey! (It's) a wedge-tailed eagle!"

Expressions involving body part-incorporation or the
comitative [4.1.4.1] may form a whole sentence without a verb:

(357) maŋnąŋa  pęməŋ-ŋi-we-ŋ
NEG  head hair-lsg-head-ABS
"I'm bald"

5.4 Word Order

Word order is quite free in Muxunypata. There are just two
restrictions on word order:

(a) Adjective/Adverb Qualifiers must immediately follow
the word they qualify [3.2.2].
(b) the negative particle, maṣa [4.3.4], must immediately precede the verb it negates; the negative particle, manaŋa [4.3.5], must immediately precede the nominal it negates.

Otherwise there are word ordering preferences. These preferences tend to be invoked when ambiguity would otherwise result [5.5] but any or all of the preferred orderings may be ignored in a given sentence. Word ordering preferences include:

(i) Absolutive NPs precede the verb.
(ii) Ergative NPs precede absolutive NPs.
(iii) Dative NPs follow the verb.
(iv) Instrumental NPs follow dative NPs.
(v) Locative expressions follow instrumental NPs.
(vi) Adjectives (and demonstratives) follow the nouns they qualify.
(vii) Adverbs follow the verb they modify.
(viii) A relative clause [5.9] follows its antecedent.
(ix) Subordinate clauses (other than relative clauses) precede the main clause.
(x) A possessive phrase follows the NP it qualifies.
(xi) Interrogative words (excluding nan) are sentence-initial.

Examples given so far have generally followed the norm word order.

5.5 Admissible deletion and Possible Ambiguity

It has already been observed that there is considerable
redundancy in the marking of syntactic relations in a sentence[5]. Consider:

(358) ṣayi-yi nukunu- chevy n-tu mba-baṣi-yu

1sg-ERG 3sg MASC-ABS 1sg VIII-2sg BEN-strike-FUT

n'yi-n-nu t'yu tayi-yi

2sg-DAT NC:weapon tree-INSTRUM

"I will hit him for you with a stick"

Since the ergative and dative NP's are cross-referenced into the verb the case inflections on those nominals can be (and usually are) deleted:

(359) ṣayi nukunu ṇmba-baṣi-yu n'yi t'yu tayi-yi

Since information on person and number for those two NP's has also been cross-referenced the free-standing pronouns can be deleted:

(360) nukunu ṇmba-baṣi t'yu tayi-yi

Because indirect object pronouns only appear in the verb if the direct object is third singular [4.2.1.2] (or if the verb is middle which baṣ is not) it is generally permissible to delete nukunu.

(361) ṇmba-baṣi t'yu tayi-yi
In fact, the sex of the referent of the direct object is not recoverable in this deletion but context will normally make this clear.

The instrumental noun phrase, ṭu tayiJe, is also redundant. Because of its function in (358) tayi must be an offensive weapon; to specify that it is an offensive weapon by a noun classifier [3.9.1] is unnecessary so that the noun-classifier may be deleted:

(362) نتائجنا tayiJe

The instrumental case inflection is also redundant since the only function tayi could reasonably have in this sentence is instrument:

(363) نتائجنا tayi

Finally the tense markers, nu and da, are optionally deletable:

(364) نتائج tayi

Starting with thirteen morphemes in (358) nine deletions can be made and (364) is still only interpretable as:

"I will hit 3sg for you with a stick"

In fact it is more usual in discourse for free standing pronouns not to be stated. Of course deletions are only
permissible if what is deleted is recoverable. Non-pronominal noun-phrases cannot be deleted.

(365) puλe-je mamayyi-pu-ŋe-baŋ-nu
old man-ERG child-ABS 3sg VIII-3sg FEM BEN-strike-FUT
paŋun-nu tstu tepi-je
woman-DAT NC:weapon stick-INSTRUM
"The old man will hit the child with a stick for the woman"

In (365) all the nominal inflections can be deleted because the word order [5.4] establishes the word order:

(366) puλe mamayyi puŋe-baŋ nu paŋun tu stu tepi

Note that where the word order was free in (365) it is not in (366). The same reading as for (365) applies to:

(367) paŋun(n)u puŋe-baŋ nu tu stu tepi je mamayyi puλe-je

but

(368) mamayyi puλe puŋe-baŋ nu paŋun tu stu tepi

has the preferred reading:

"The child will hit the old man for the woman with a stick"

In general deletions are permissible under two conditions:
(a) the information lost in the deletion is recoverable.
(b) the result does not cause ambiguity.

Both these conditions are considerably tempered by context. A form in isolation may be multiply ambiguous but in discourse it is unlikely to be even two-ways ambiguous. For example, the verb form pannaŋ* has two readings:

(369) pannaŋ-ŋ-baŋ
   3sg VIII PERF-3sg-strike
   "He hit him"

(370) pannaŋ-ŋ-baŋ
   1sg VIII PERF-3sg-str-ke
   "I hit him"

5.6 Possession
Australian languages typically distinguish between alienable and inalienable possession; no such distinction is found in Mulinjapata. Possession is indicated by apposition in which the possessor follows what is possessed:

(371) tamul ŋay
   spear 1sg
   "my spear"

(372) kamaŋ ŋay
   eye 1sg
   "my eye"

* Resulting from MP-7.
The resulting possessive construction behave like other nominals in that they may occur with the full range of nominal inflections, for instance:

(373) qatan ŋay'-je lawange pam-wal
   brother lsg-ERG wallaby 3sg I PERF-spear
   temul ŋay'-je
   spear lsg-INSTRUM
   "My brother speared the wallaby with my spear"

Possession involving a second possessive construction works in the same way:

(374) wanangal ŋayi
   "my doctor"

(375) qatan wanangal ŋayi
   brother doctor lsg
   "my doctor's brother"

(376) yirt'ip qatan wanangal ŋayi
   cat brother doctor lsg
   "my doctor's brother's cat"

Note that the ordering is crucial since the meaning of (375) changes considerably (but predictably) with a change in order:

(377) wanangal qatan ŋayi
   doctor brother lsg
   "my brother's doctor"
5.7 Comparison

Comparison is expressed in Mu·jinyupa by:
(a) opposing opposites.
(b) opposing positive with negative

(378) tamulŋayí pata tamul ńyínŋi wiye
spear 1sg good spear 2sg bad
"My spear is good, your spear is bad; my spear is better than yours"

(379) nukunu-ke ku dejet lawanga
3sg MASC-TOPIC NC:meat mob wallaby
na-pir-do-ŋini
3sg USING FOOT-hunt-IMPERF-3sg SIT
nukunu-we ma-ku
3sg MASC-EMPH NEG-NC:meat
"He was hunting (and got, by implication) a lot of wallabies but he got nothing"

Comparison in terms of similarity is expressed by ṣinipunŋ [4.3.13].

5.8 Derivation

Derivational morphology is as meagre as verbal morphology is rich in Mu·jinyupa. Apart from the comitative suffix -ma [4.1] which derives a nominal from a nominal there are no derivational affixes.

To form a noun from a verb one uses a relative clause [5.9] which in Mu·jinyupa is simply a sentence acting as nominal (under certain conditions) with no overt marking. From a verb root, y1εry'y
"teach", "teacher" is simply expressed as "one who habitually teaches (people)". The resulting expression behaves as a nominal appearing with nominal inflections, for instance:

(380) ğaçi  

wunj-wun-wejITY-wunj-

NC:person 3sg INVISIBLE MOVE PERF-3pl-teach-3sg INVISIBLE MOVE PERF-

* ąçj-ə pan-qə-baŋ

ERG 1sg-ABS 3sg VIII PERF-1sg-strike

"The one who habitually teaches them hit me; the teacher hit me"

There are a few instances of a root appearing in a nominal and a verbal stem but there does not appear to be any general process at work. For example, the form, łuwə, appears as a nominal stem; łuwə "vomit" and as a verbal stem with the auxiliary, SIT; ńjeben ńu "I will vomit". The form, pul, appears reduplicated as a nominal: pulpul "washing" and with an auxiliary (XIII) as a transitive or intransitive verb: mapulis ńu "I will wash (it/him).

There is at best a tenuous link between the adjective, yidiwe "ashamed":

(381) ńçı-če yidiwe kunuŋaŋkə

1sg-TOPIc ashamed little

"I'm a bit ashamed"

and the verb root, wedi "cause (someone) to be ashamed".

*This form becomes wunj-wun-wejITY-wunj-eru by MP-1
then wunj-wun-wejITY-wunj-eru by MP-3
and finally wunj-wun-wejITY-wunj-ante by MP-5
(382) ɲayi-je ɲino-ì vsam-ɲi-wégi
1sg-ERG 2sg-ABS 1sg I PERF-2sg-shame
"I caused you to be ashamed"

In general, expressions which, in other Australian languages, would require an inchoative suffix (he became a young man; he became thin) or a causative suffix (he will make it long) are handled by the inchoative particle, waɗa [4.3.10] as follows:

(383) nukunu-ka kag ū kigayi waɗa
3sg MASC-TOPIC NC:person young man INCHITIVE
"He became a young man"

(384) nukunu-ka wégi waɗa
3sg MASC-TOPIC thin INCHITIVE
"He became thin"

(385) nanɗi ma-wate-nu pàŋu-ka panguyyi
NC:thing 3sg XIII-make-FUT that-TOPIC long
waɗa
INCHITIVE
"He will make it; it will become long i.e. he will make it long"

Many Australian languages use a causative affix on a verb stem to convert an intransitive verb to a transitive verb. Muninyapa just uses different verb roots, as English has separate verb roots "kill" and "die" compared to Turkish "cause to die ("die" plus a causative affix)" and "die"
(386) nayi-ŋ nam-winyaŋ

1sg-ABS 1sg I PERF-make a mistake

"I made a mistake"

(387) nayi-je nvinŋi-ŋ nam-nvi-mawiye

1sg-ERG 2sg-ABS 1sg I PERF-2sg-cause to make a mistake

"I caused you to make a mistake"

(388) ne-nam-nu

1sg I REFL-be frightened-FUT

"I will be frightened"

(389) nayi-ŋ ne-mba-werwer-nu nvinŋi-nu

1sg-ABS 1sg 2sg BEN-frighten-FUT 2sg-DAT

"I will cause you to be frightened"

There are no constructions akin to passive (converting a transitive sentence into an intransitive sentence) or anti-passive (again converting a transitive sentence into an intransitive sentence but in this case converting a deep transitive subject into intransitive subject function, the object going into an oblique case) in Mu-jinypata.

Reflexive and reciprocal constructions [4.2.8-9] convert underlying transitive sentences into intransitive sentences.

The main purpose of this section has been to point out how Mu-jinypata expresses what is carried out largely by derivational morphology in most Australian languages [Dixon, 1972:16].
5.9 Relative Clauses.

Relative clauses in Mu-jinypata can be formed when an NP of any sentence has the same referent as the NP of some other sentence. One sentence can then be embedded in the other with one of the common NP's deleted and the embedded sentence immediately following the remaining NP. There is no other marking of relative clauses. Two sentences can be combined as follows:

(390) mut'ingae pango'wul* mundakayya

"The old woman arrived earlier"

(391) mut'ingae neyi pangibaq

"The old woman hit me"

(392) mut'ingae pango'wul mundakayya'je neyi pangibaq

"The old woman who arrived earlier hit me"

(393) mut'ingae neyi pangibaq pango'wul mundakayya

"The old woman who hit me arrived earlier"

(392) is derived from (391) as matrix sentence into which (390) is embedded as constituent sentence. Note that the constituent sentence is treated syntactically as a NP receiving an ergative case marking, -je. (393) is also derived from (390) and (391) but with (390) as the matrix sentence and (391) as the constituent sentence. Note that it is the antecedent NP which is deleted not the constituent NP, otherwise we would have for (393):

*For the paradigm of the irregular verb "arrive" see Appendix 2 (at the end of the intransitive-type auxiliaries).
Further examples are:

(395) mutỳìnga ŋayi pangìbag  паŋu karìm
   "The old woman who saw me is standing over there"

from

(396) mutỳìnga ŋayi pangìkàgu
   "The old woman saw me"

(397) mutỳìnga паŋu karìm
   "The old woman is standing over there"

and

(398) mutỳìnga paŋu karìm  pangìbag pangìkàgu
   "The old woman saw me whom the old man hit"

from (396) and

(399) paŋu karìm  pangìbag
   "The old man hit me"

ŋayi may also appear before paŋu in (398) instead of after it.

An example of a relative clause with an instrumental NP as its antecedent follows.
(400) үүлэ үэйл түүн күмүүр
father 1sg NC:weapon club

мөөгө-өөтэ үэйл-ны
3sg XIII PERF-1sg BEN-make 1sg-DAT

"My father made a club for me"

(401) үэйл-ңә ңүүңүңүү-өө өүү-ңүү-бағ-ны
1sg-ERG 2sg-ABS 1sg VIII-2sg-strike
tүүн күмүүр-(ңә/)тэ
NC:weapon club-INFSTRUM

"I will hit you with a club"

(402) үэйл-ңә ңүүңүңүү ңүүңүңүңүңүү түүн күмүүртэ үүлэ үэйл
мөөгөөто үэйл-ны

"I will hit you with the club my father made for me"

(402) suggests that it is the common NP in the constituent sentence (400) which is deleted while (393) suggests that it is the co-referent NP in the matrix sentence which is to be deleted; (396) allows either. The answer is difficult to determine since these sentences are rather artificial: they can be elicited and be found acceptable by a consensus but native speakers tend to say "We dont really talk that way". Simple juxtaposition of sentences (without embedding) and the use of affixes like ka and wa [4,5.1-2] are preferred. (402) would be more usually rendered by:

(403) ңүүңүңүңүү түүн күмүүр панака үүлэ үэйл мөөгөөто

"I'll hit you with a club; that's the one my father made for me"
A relative clause may itself consist of more than one sentence provided each sentence has a common NP. For example, these sentences all have a common NP:

(404) pule mananga peman-ŋe-ŋe
old man NEG head hair-3sg-head-ABS
"The old man is bald"

(405) pule lawalima tilmam nityima bukmandar
old man trousers black shirt red
"The old man has black trousers and a red shirt"

(406) pule ɖim qaqa tungu
old man 3sg SIT PERF LOC fire
"The old man is sitting near the fire"

and can be combined into one sentence:

(407) pule mananga pemanwe lawalima tilmam nityima bukmandar ɖim qaqa tungu
"The bald old man with the black trousers and red shirt is sitting near the fire"

(407) in turn can theoretically be embedded into a sentence like (399) but native speakers would not spontaneously make such utterances. Significantly, when native speakers found the sentence resulting from embedding (407) in (399) they would only allow:
(408) pule mananga pemarwe lawalima tiyipnam nityima
bukmandar qiim ngara tungu ngayi pangoibaŋ
"The bald old man with the black trousers and red shirt who is sitting near the fire hit me"

they would not accept:

(409) *pule mananga pemarwe lawalima tiyipnam nityima
bukmandar qiim ngara tungu ngayi pangoibaŋ

nor

(410) *puleje mananga pemarwe lawalima tiyipnam nityima
bukmandar qiim ngara tungu ngayi pangoibaŋ

That is, a case making inflection was not acceptable either on the relative clause as a whole (409) as it was acceptable in (392) nor on the common NP, pule (410). This is not merely because the ergative case-marking is redundant here [5.5]. I suspect (409) is unacceptable for the same sort of reasons as this English sentence is unacceptable:

(411) *The policeman locked the bald old man with the black trousers and red shirt who was sitting near the fire up.

In the English sentence the element "up" of the phrasal verb "lock up" just has too much separating it from "lock". Native speakers of English can only give informal and inconsistent decisions about how much is "too much": I expect the same applies to Mijinyupa speakers!
5.10 Other Subordinate Clauses

Other subordinate clauses do not insist on a common NP in the matrix sentences. Conditional clauses [4.3.7] do not require a common NP in the protasis and apodosis, for example.

Subordinate clauses are either marked by particles [4.3] or appear in two constructions without marking.

Apart from the marked variety of temporal clause which need not be subordinate [4.5.4] temporal differences between clauses are signalled by the syntactic ordering of the clauses. Thus one clause is considered temporally prior to another if it appears before it (and there is no other marking).

(412) pailunj pagendwii puleje ngayi pangibaŋ
"After the woman arrived the old man hit me"

There are also clauses which do not require common NP's nor the same temporal setting:

(413) na-ju puna-gewui-yi-ru
2sg XIII-3du SIB 3du SIB USING FOOT-come out-FUT
"Tell them two siblings to come out"

(414) pan-yekum* naja kama gini-da
3sg I PERF-forget where perhaps 3sg SIT-IMPERF
"He forgot where he was"

* Becomes panYyeyekum by MP-2.
(415) qa-ŋ-tarpu-nu tangu ma-wata-nu
1sg I-3sg-ask-FUT what 1sg XIII-do-FUT
"I will ask him what he intends doing"

(416) nana qunu-nu katu
"Tell him that I will come"

The subordinate clauses in these sentences are like what traditional grammars of English would call noun clauses, (413) or (416) or indirect questions (414-5). Both these constructions in English can be interpreted as embedded sentences which have an "understood" antecedent. Each sentence can be paraphrased along the lines: "He forgot something viz. where he is" or "Tell him something viz. I will come".

However Mujînypata also allows clauses in direct speech:

(417) maa-na ḏu-욤-𝑢- nu katu
1sg XIII PERF-3sg MASC BEN 2sg MOVE-FUT towards
"I told him to come ie. I told him 'Come (here)!'

Typically these sorts of sentences are spoken without a significant pause between their constituent clauses so that it is appropriate to treat them as single sentences. Perhaps one could say they are independent clauses in opposition. More data are required before an adequate account can be given of this construction.
6 Semantics
6.1 Noun-classification

This phenomenon was very briefly discussed earlier [3.9]. This section will attempt to give a more detailed account of the semantic basis of noun classification in Mudinypata. It should be pointed out that the apparent neatness of correlation between formal devices in a language and ideas is illusory. There are always a few "leaks" in the system imposed by the observer as Worsley [1954:287] points out:

"There is, again, no reason to presume that these systems of classification were meant to be absolute and thorough-going by the aborigines. There is a tendency towards over-systematization of modes of thought and behaviour of the aborigines by white observers, a thorough-going systematization which need not actually have ever been intended, let alone practised, by the people themselves. This tendency is particularly apparent in anthropological discussions of totemism, where limited classification of the natural and social orders by the aborigines is presented by white observers as a complete and all-inclusive scheme, or worse, as a failure by the aborigines to complete such a scheme."

With this cautionary note we will look at the noun-classes in turn.

[kadu] was said [3.9.1] to refer to human beings essentially, but some spirits were included. Which spirits? It seems that a spirit or mythological being who is considered more human than not will be assigned the noun-classifier kadu. Conversely a spirit or mythological being considered less than human is assigned to the ku-class. A change of behaviour or status will
engender a switch of noun classifier for a given noun but the precise nature of this switching is by no means clear in all cases. The mythological entity, Mut'inga, "The Old Woman", changed status from ka'u to ku:

"Mut'inga was once Kudu, that is, a truly human person, not one of the self-subsistent spirits recognised within theogony [in the ku category]" [Stanner 1964:42-43].

While Mut'inga is most often assigned to the ka'u category other self-subsistent spirits such as Kunman'gur The Rainbow-Serpent is always assigned to the ku category. Although the Rainbow-Serpent is assigned human characteristics such as being addressed by kin-terms [Stanner 1964:89] he is apparently considered to partake less of humanity than is Mut'inga. Thus one hears:

(418) ka'u   mut'inga
     NC:person  old woman
     "The Old Woman"

and (419) ku   mut'inga
     NC:meat  old woman
     "The Old Woman"

but only

(420) ku   kunman'gur
     NC:meat  Rainbow-Serpent
     "The Rainbow-Serpent"

*ka'u kunman'gur is rejected.
For other mythological entities Stanner notes:

"The mythology, unlike that of some other regions, holds that animals are transformations of the original men. But the visual representations often differ. Mutjingga may be represented as a grotesque figure only in part recognizable as human. One drawing shows her as half-woman, half-snake. On the whole, animal creation seems to be conceived as humanity transformed and deprived of certain powers [italics mine]. But I regard the question as one which is not now fully decidable". [1964:39, fn. 17].

In the myths which deal with the transformation of original men into animals the change of status is directly reflected by a change in the assignment of the noun-classifier. In this sentence once the person has changed status the new status must be recognised.

(421) nukunu-ŋ ɠim-kark  kaŋu  ɣlǐm-pup
    3sg-ABS  3sg SIT PERF-cry  NC:person  3sg LIE PERF-lie
    ku  kajayũ-nu
    NC:meat  spirit-DAT

"He is crying for the dead man".

This sentence consists of two parts:

(422) nukunu ɠimkark ku kajayũnu

"He's crying for the (man's) spirit"

(423) kaŋu ɣlǐmpup

"The man is dead"
It is human beings (ka'du) who can die (423) not spirits (ku); what one is crying for is not the man (ka'du) but his spirit (ku).

Predictably figures in the introduced Christian religion who are held to be first and foremost human are in the ka'du class. Analogies for Christ and the Virgin Mary are derived from traditional culture [Falkenberg 1962:188]:

(424) ka'du    kumbit
NC:person kangaroo (sp.)
"Christ"

and (425) ka'du    baybayye
NC:person female plains kangaroo
"Virgin Mary"

To use the forms, ku kumbit or ku baybayye would be an indication of profound disrespect.

Some spirits are held to be typically non-human so that their norm noun classifier [6.2] is ku. For example, ka'ayT "devil" is held to be very hairy, has no face and offers no resistance to spears (the spears passing right through its body). For these characteristics alone it is scarcely human and would normally occur as ku ka'ayT "devil".

Thus there are some spirits or mythological entities which have a norm characterization as ka'du others with a norm characterization of ku and some which may change from one category to the other.
ka'gu may also be used to specify that a person is an Aboriginal rather than a non-Aboriginal. The expression:

(426) ka'gu wanangal
    NC:person doctor
    "doctor"

may refer to any doctor but in certain contexts if one wishes to specify that the doctor is non-Aboriginal rather than Aboriginal one could say:

(427) ku wanangal
    NC:meat doctor
    "non-Aboriginal doctor"

Thus we can have a clarifying statement such as:

(428) ka'gu pana-kad ka'gu wanangal
    person that (near)-TOPIC NC:person doctor
    mananggku wanangal
    NEG NC:meat doctor
    "That man is an Aboriginal doctor not a white doctor"

It should be pointed out that the distinction is not just between black and non-black since we have:

(429) ka'gu tiymom
    NC:person black
    "black people/person"
as the general term but if the contrast needs to be made then we have:

(430)  ku  tyipman
NC:meat black
"non-Aboriginal black person"

This expression might refer to a Fijian or Black American, for example, just in case the contrast between Aboriginal black people and non-Aboriginal black people needs to be made.

The situation is thus analogous to the English two-term system, man-woman in which one of the terms is homomorphic with the cover term for the system, i.e:

```
man
  /
man   woman
```

For Njinyapata this system * emerges:

```
ku (human beings)
  /
ku  koju (human beings)
  /
ku  non-Aboriginal human beings
```

* Of course one would wonder about the status of "half-caste" since such a term bridges the two categories. For a half-caste one of whose parents is Aboriginal the expression is

koju  bukmandur
NC:person red
"half-caste"

Unfortunately I have not elicited the term for "mulatto" but suspect it would be ku bukmandur.
Turning now to the ku-class it was briefly mentioned [3.9.1] that the ku-class included products derived from non-human animate nouns. Thus "headband" and "pubic tassel" both appear with ku since they are made from opussum fur eg.

(431) ku tassel
   NC:meat head-band
   "head-band"

Sugar-bag (wild honey) of all sorts is assigned to the ku-class because it derives from bees which are for excellence eligible for the ku-class. Items which are superficially similar such as "honey", "treacle" and "sugar" are assigned to the residue class, as loan words:

(432) nan'ydl ani
   NC:thing honey
   "honey"

(433) nan'ydl tjilkal
   NC:thing treacle
   "treacle"

or in directly comparable forms (cf. ku tVitayi "sugarbag (generic)"

(434) nan'ydl tVitayi
   NC:thing sugarbag
   "honey" (as from store)
It should not be thought that concepts not indigenous to the culture are assigned to the residue class. Loan words for "giraffe", "lion", "gun" are assigned to noun classes which are appropriate for these referents:

(435) ku dįlap
NC:meat giraffe
"giraffe"

(436) ku layn
NC:meat lion
"lion"

(437) tungu gan
NC:fire gun
"gun"

The terms "giraffe" and "lion" have non-human animate reference and thus occur in the ku-class while "gun" being associated with fire is assigned to the noun class appropriate for such terms.

It is difficult to say why female genitalia are assigned to the ku-class. The terms involved are as follows: ku t'iminu/ku t'imu "clitoris"; ku wayi "vagina" and ku midut "vulva". Two of the terms appear in the nan'yòyi-class (in which all the other body part terms appear) as nan'yòyi t'imu "nose" and nan'yòyi wayi "hole". It may be that these body parts were assigned to a different noun-class from the rest of the body part terms in order to avoid ambiguity. Native speakers were reluctant to discuss these terms at all so that if there is any reason stemming from mythology or
any other source for the anomaly it will not be easy to discover.
The investigation of the Freudian implications is left to those
more practised in these matters.

In any case it is probable that some individual class memberships
cannot be explained in terms of synchronic knowledge (and diachronic
information is not available) cf. Dixon [1968:122]: "... it seems
likely that some [individual class memberships] are WITHOUT
EXPLANATION (as would be the case in any natural language:
some may have had an explanation in terms of an earlier stage
of the language, but the class assignment has been retained and
the explanation lost as the language has altered.)" Heath
(personal communication) reports that there is no general
semantic basis for non-human noun class membership in
Nunggubuyu.

The mi-class also distinguishes between items derived from the
natural environment and those which do not appear to have an
obvious connection. Flour made from bush products therefore
appears in the mi-class:

\[(438) \text{mi lawam} \]
\[\text{NC:food flour} \]
\[\"(bush) flour" \]

while the flour which appears in a packet in a shop may be
assigned to the residue class if the speaker wishes to specify
that it is not obviously from a natural source:
The terms for "faeces"\(^1\) are assigned to the mi- class perhaps because they are considered to be derived from (vegetable) food, vegetable food being an important part of the diet:

\[(440)\] mi ṣukin

NC:food faeces

"faeces"

\[(441)\] mi ụlụlụ

NC:food diarrhoea

"diarrhoea; liquid faeces"

For the t'yu- class little needs to be said other than pointing out that "weapons" would be not sufficiently specific since terms for "shield" and other defensive weapons appear in the residue class.

Of the remaining classifiers, tungu and kuwa, will be discussed here. The assignment of loan-concepts to a noun-class can help to delineate the semantic boundaries of the noun-class. Terms for "bomb", "shotgun", "matches" are assigned to the tungu-class since they are associated with fire, particularly in the sense of producing fire\(^2\):

\(^1\) "Urine", incidentally, is assigned to the residue class.

\(^2\) cf. Dixon [1968:123] who reports for Dyirbal that "matches" and "pipe" are included in the same class because they are concerned with fire. In Mungulpata "pipe" is in the nan'yu-class.
(442) tungu bom
   NC:fire bomb
   "bomb"

(443) tungu metyly
   NC:fire matches
   "matches"

Potable fluids: beverages, liquid medicines and the like are assigned to the kusa-class:

(444) kusa tuzulk
   NC:water foam
   "beer"

(445) kusa mulak
   NC:water cheeky
   "grog (rum, whiskey, brandy etc.)"

(446) kusa kapi
   NC:water coffee
   "coffee"

(447) kusa medityln
   NC:water medicine
   "(liquid) medicine"

but not fluids which are not drunk such as "oil".

(448) nan'dyl wuyy1
   NC:thing oil
   "oil"
6.2 Membership of Noun-Classes.

Each noun can be shown to have one (and occasionally two eg. wanangal [6.1] noun class of which it is a norm member. This section will show how a number of nouns may appear in more than one noun-class under certain conditions.

How does a particular noun belong to a norm noun-class? Dixon* has suggested a two-way mechanism for assignment of nouns to particular noun-classes: nature and function. According to this proposal the ka'ju, ku and mi classes would be established in terms of the nature of the referents, the tyu- and tamuľ- classes would be established in terms of function (viz. offensive weapon) but some classes would be mixed. Thus ku taluway'ín "lizard (sp.)" is plainly in the ku- class according to the nature of what the noun taluway'ín refers to. On the other hand kamukur "type of fighting-club" is assigned to the tyu-class because of its function as an offensive weapon. Finally the tungu-class (artefacts and phenomena associated with fire) would have some nouns assigned to that class by their nature and others by their function.

In the expression:

(449) tungu yulin
     NC:fire hot coals

"hot coals"

*In a seminar delivered in September 1975 to a colloquium of the Linguistics and Anthropology Departments of the Australian National University, Canberra.
yulîn belongs to the tungu-class by its nature; the term, tayî "stick", enters the tungu-class by its function:

(450) tungu tayî
NC: fire stick
"fire-stick"

Obviously there are instances where it will be difficult to say whether a noun has been assigned to a particular noun-class because of nature or function. Allowing this reservation the distinction is a useful one in the discussion of noun-classification in Mujiinyana.

Most nouns belong because of their nature or function to just one noun class. This is called the norm noun-class for that noun. The norm noun-class for taŋu "barramundi (large)" predictably is ku; kal "water-lily root (sp.)" is mi; lîtypur "axe" is māyî and so on. For nouns whose membership to a particular noun-class is so obvious through the alignment of the nature or function of the referent of the noun with the defining characteristics of the noun-classifiers [3.9.1] the overt use of the noun-classifier is redundant. That is if taŋu must obviously be in the ku-class because it is non-human and animate then to use the noun-classifier, ku, is redundant: ku taŋu gives us no more information than taŋu.

In line with this observation the noun-classifier for a noun may be deleted if it is the norm noun-classifier and very frequently is deleted. In fact the regular use of noun-classifiers is a feature of older speakers although they do allow deletions;
younger speakers seldom use them. Stanner [1964:73] reporting presumably on fieldwork started in the thirties indicates that restrictions on deletion were even tighter earlier on:

"In common speech, the prefixes are sometimes omitted although grammatical speech requires them to be used".

What happens when a noun's basic meaning is changed? We have seen that a noun may be assigned to a different noun-class if there is a change in nature. Thus the original men's change of nature from men to animals [6.1] is reflected in a change of noun-class. There may also be a change of function. For example, kunewi "billy-can" has the norm noun-classifier nan\text{\textit{y}}\text{\textit{i}} but if it has a change of function and becomes an offensive weapon it is assigned to the \text{\textit{tu}}-class:

\begin{verbatim}
(451) \text{\textit{gyi-je}} n\text{\textit{yi}n\text{\textit{y}}}\text{\textit{i}}-\text{\textit{a}} gu-n\text{\textit{yi}}-ba\text{\textit{q}}-nu
    lsg-ERG 2sg-ABS lsg VIII-2sg-strike-FUT
    \text{\textit{tu}}       kunewi-je
    NC:weapon billy-can-INST

"I will hit you with a billy can"
\end{verbatim}

In such a sentence it is still possible to delete the noun-classifier since the context and the instrumental inflection on kunewi indicate that "billy-can" is a weapon. Similarly, consider a context wherein one picks up a dog by its hind leg and hits someone with it (the dog). "Dog" by its nature is assigned to the ku-class but by its function now takes the noun-classifier \text{\textit{tu}}. In the context however it will be obvious although the situation is unusual that "dog" is to be assigned to
that noun-class. There will therefore be no need to state the noun-classifier with "dog". This is somewhat like the covert distinctions made in English. In a sentence like:

(452) Harry drank the tea.

it is obvious that the "tea" referred to is a beverage (not the tea-leaves!). It is still pretty obvious in

(453) Harry consumed the tea.

although the verb "consume" can select non-fluid objects. It only becomes obvious that "tea" can refer to the leaves as in a packet of tea in

(454) Harry consumed the tea even though it was too dry and crunchy for his taste.

Again the preferred reading of "tea" is tea-leaves in

(455) Harry cleared up the remainder of the spilled tea with tweezers.

although the fluid reading is just possible.

It should be pointed out that noun-classifiers may be deleted only if the deletion is recoverable. In the examples given above there has been a context in each case which means that the necessary information to assign the noun to the right noun-class is recoverable from the context. If a noun is in isolation
however it is not so easy to delete the noun-classifier and still know which noun-class the noun is to be assigned to. In a neutral context (if that is possible!) the noun tYinimin will be assigned to the ku-class and will be interpreted correctly as "bat (sp.)". In the context of a Dreamtime myth tYinimin may be interpreted as a mythological figure viz. kaju tYinimin "Tyinimin" or as the animal which Tyinimin became viz. ku tYinimin "bat (sp.)". If tYinimin undergoes a change of function then when quoted in isolation the noun-classifier which signals this norm-shift must be stated. If not, the noun will be interpreted according to its norm noun-class. If the carcase of a bat is being used to hold open a door so that tYinimin has the function of a door-stop then the noun-classifier will be nan’dyi and must appear; if it does not then the norm interpretation will be invoked which in this instance is wrong. The generalisation that emerges is that if a noun is stated in isolation then it need not occur with a noun-classifier if there has not been a shift from the norm so tYinimin is interpreted as "bat (sp.)": if there has been one shift from the norm then the noun must occur with the noun-classifier:

(456) nan’dyi tYinimin
   NC:thing bat (sp.)
   "bat as thing (say door-stop)"

What happens when there are two shifts from the norm? This is not very easy to document since it is very difficult to devise a context in which there is true ambiguity and at the same time to have the double shift. At least one case can be mentioned here.
There is a body part term, пандупан "lung" which, by its nature, is assigned to the nanьдьи class. The same noun may appear with the noun-classifier, ми:

(457) ми пандупан
   NC:food lung
   "lung food ie. cigarette"

It is then possible to devise a context in which "cigarette" has a change of function; as a weapon:

(458) пяйи-je нынью-п ну-нью-даэ-ну
   1sg-ERG 2sg-ABS 1sg VIII-2sg-strike-FUT
   тьу ми пандупан-je
   NC:weapon NC:food lung-INST
   "I'm going to hit you with a cigarette"

In this sentence and in similar contexts there must be two noun-classifiers for one noun. If we deleted both noun classifiers we would have:

(459) пяйи-п нынью ну-нью-даэ пандупан-ре
   "I'm going to hit you with a lung"

which is not the interpretation required. If тьу is not deleted but ми is then the same interpretation applies with тьу appearing redundantly as it would in
(460) ŋayiŋə naŋyiyə ŋunyibedənu tyu tyanə ʃə ʃə
"I'm going to hit you with a shovel"

The norm noun-classifier for tyanə is nanəyə; the noun will be correctly interpreted in the previous sentence even if tyu is deleted. The final possibility is to have tyu deleted but mi included however this sentence is rejected as ungrammatical by native speakers.

(461) ŋayiŋə naŋyiyə ŋunyibedənu mi ʃə ʃə

A possible way of explaining these data is in terms of occurrence of noun classifiers and norm-shift. For each shift from the norm a noun must appear with one noun-classifier to mark that shift. For a noun ʃə ʃə with the basic meaning of "lung":

<table>
<thead>
<tr>
<th>Shift from Norm</th>
<th>Noun-Classifiers</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>lung</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>cigarette</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>lung as weapon (a kind of club?)</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>lung as thing (eg. as paperweight)</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>cigarette as weapon</td>
</tr>
</tbody>
</table>

It should be pointed out that this analysis is only speculative but would gain considerable support from a noun which had three shifts from the norm marked by three noun-classifiers. This remains to be elicited.
6.3 Loan Concepts.

When an Aboriginal group comes into contact with European culture new words must be created to cover the new concepts encountered.

In many cases, an English word is taken over, altered to fit the phonological patterns of the receiving language. Thus Muininypata has:

\[
\begin{align*}
\text{nanydyl tyibaka} & \quad \text{"tobacco"} \\
\text{tungu metvity} & \quad \text{"matches"} \\
\text{kuja kapil} & \quad \text{"coffee"} \\
\text{ku buliki} & \quad \text{"bullock"} \\
\text{nanydyl nil} & \quad \text{"nail"} \\
\text{kagu eyndyel} & \quad \text{"angel"} \\
\text{ku pigipigi} & \quad \text{"pig"} \\
\text{nanydyl kul} & \quad \text{"school"} \\
\text{nanydyl qenynin} & \quad \text{"onion"} \\
\text{nanydyl ylnydyl} & \quad \text{"engine"}
\end{align*}
\]

Often existing words in Muininypata are extended to cover the introduced concept. A loan word expressed by a noun in English might be expressed as a relative clause in Muininypata:

\[
(462) \quad \text{nanydyl kanam-balbal}
\]

NC:thing 3sg HAB PERF-fly

"thing which habitually flies i.e. aeroplane"

---

*This form becomes *kanammalbal by MP-7
kanamalbal by MP-11
Words whose referents are similar in texture or appearance to the loan concept are often used; for instance: nan代表团 "sand" is extended to mean "sugar"; nan代表团 we "bark of the paperbark tree (generic)" is equated with paper money eg. nan代表团 we bukmandar "red paperbark i.e. $20 bill".

Metaphorical naming is also found: kula mulak "cheeky water i.e. grog".

A couple of loan words use the comitative suffix, -ma [4.1.4]:

(463) nityi-ma
arm-COM "shirt"

(464) lawali-ma
lower leg-COM "trousers"

Sometimes a change of noun class will signal a loan concept. ku tityiayi "sugarbag (generic)" is assigned to the ku- class because sugarbag is known to be derived from animate beings (viz. bees); by contrast, the honey one gets in a jar from a store does not have so obvious an animate provenience and is assigned to the inanimate residue class: non代表团 tityiayi "honey" (see also [6.1]).
Particularly interesting are those words which are not obviously loans from another language nor are they extensions of meanings of words already in the language:

nanYdYl kum "bottle"
nanYdYl kunawl "billy (-can)"
nanYdYl mangu "cup"
nanYdYl wudawal "store; shop"
nanYdYl wudawul "(water-) pipe"

None of the items in this sample list have meanings other than those stated. They do not appear to occur in neighbouring languages and native speakers assert that they are neither loan words nor words which earlier had an additional meaning.

6.4 Metaphorical Naming with Body Part Terms.
We have already seen [4.1.4] that body part terms as incorporated forms play an important role in the lexicon. Body part terms as free forms appear regularly in compounds (see also Rigsby [1976b] and Haviland [1975]). In such compounds the modifying body part term follows the noun it modifies.

(465) t'Yalput pelipitY  
       house head  
"house-head; head of house i.e. roof"

Similarly,

(466) t'Yalput guju  
       house side  
"house-side; side of house i.e. wall"
Curiously body part terms which are normally taboo are not considered "bad talk" (μυζίν μύλε) when they appear in compounds:

(467) peyp ὡι
pipe penis
"shaft of pipe"

(468) peyp ωει
pipe hole
"interior of bowl of pipe" (the bowl itself is peyp pελπιτυ)

Such forms behave as nouns taking noun-classifier and nominal inflections. The compound select its noun-classifier according to the overall meaning of the expression. Thus τυελπυt pελπιτυ
is in the nanιyλι-class, but

(469) wεμβελ pελπιτυ
type of club head
"head of club"

may be in the τυu-class (following wεμbελ) although it wεμбελ
pελπιτυ is just a description of part of the club it would be
in the nanιyλι-class. Similarly types of spear are in the tamu-class but

(470) тαμυλ tαυτπι
spear lip
"spear-lip ie. tip of spear"

is in the nanιyλι-class.
Sometimes body part terms are used metaphorically in compounds:

(471) ḋukin kamal
      faeces eye
      "anus"

(472) mudika me
      motor-car foot
      "tyre"

A body part term can be used for geographical features for instance: ḋukin "back" is used for "ridge".

A body part term used metaphorically may also undergo incorporation into the verb:

(473) qayl-ka ba-yi:l-tal-nu
      lsg-TOPIC lsg IX-navel-cut-FUT
      "I will cut off a knob (lit. navel) from a tree"

6.5 Verb Semantics.

We saw [4.2.12] that a given verb root occurs with one or more auxiliaries. It is obvious that there will be co-occurrence restrictions on which auxiliaries occur with a given verb root. Some auxiliaries cannot occur with a given verb root, some verb roots may appear with four or five auxiliaries.
The description of Mijinypata verbs needs an account of the co-occurrence restrictions of all the auxiliaries with each verb root. Such information would need to be a part of the entry in the lexicon for each verb root. Birk [1974:188ff] gives this information for a sample 350 verb roots of Malag Malag.

The data for such an account of Mijinypata verbs are not yet available. What material has been collected indicates that this is a separate study in itself. Many queries can be straightforwardly accepted or rejected but as many border on acceptability. For example,

(474) 'nem-bebe

1sg SIT PERF-vomit

"I vomited (while sitting)"

(475) nadjim-bebe

1sg STAND PERF-vomit

"I vomited (while standing)"

are readily acceptable while

(476) nadjim-bebe

1sg LIE PERF-vomit

?"I vomited (while lying down)"

is grudgingly considered acceptable although it is plainly feasible but
(477) ṃunu-bebe
lṣg MOVE PERF-vomit
?? "I vomited (as I went along)"

is considered definitely marginal.

A transitive verb root such as puŋ "wash" readily occurs with one auxiliary, marginally with another and definitely not with another:

(478) mam-nY1-puŋ
lṣg XIII-PERF-2sg-wash
"I washed you (using hands)"

(479) gunuŋam-nY1-puŋ
lṣg USING FOOT-PERF-2sg-wash
?*"I washed you (using (my) feet)".

(480) pan-nY1-puŋ
lṣg VIII PERF-2sg-wash
*"I washed you"

The grammaticality judgments in this area I would expect to be as inconclusive as for English. Consider, for example, the researcher investigating the verbs, "kick" and "punch", in English. The folk definitions might be given as:

"kick" is "strike with the foot"
"punch" is "hit with the fist"
The informant is then presented with the context of the man who has had his hands and feet amputated, the hands being sewn onto the ankles and the feet onto the wrists. The investigator then seeks judgments on sentences like:

(481) I punched the man in the face, stubbing my toe.

(482) When I kicked Harry, I broke a fingernail.

Informants' reactions are split but some accept such sentences in spite of the definitions they had previously given: some consider such sentences ridiculous, others say that "I can say it but I wouldn't".

In short I suspect a full treatment of the co-occurrence of the auxiliaries with verb roots in Nginympa is a major undertaking - one that would need, in the end, a native speaker linguist to adequately carry out.
Appendix 1. Sonagrams

Sonagrams for two speakers uttering two words, pepe "below" and bebe "vomit" are presented here to illustrate the contrast between voiceless and voiced stops in Muinypata. These are just a sample but seem worth including in view of the fact that this distinction is quite unusual in Australian languages especially in non-medial position.

The first two words were produced by Mr Harry Kulambujut the second pair by Mr Jumbo Đala.
### Future Paradigm of SIT

<table>
<thead>
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<th></th>
<th>Aux Base</th>
<th>NT</th>
<th>Tense Marker</th>
</tr>
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<tr>
<td>1 sg</td>
<td>ɳi</td>
<td>nu</td>
<td></td>
</tr>
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<td>t'yi</td>
<td>nu</td>
<td></td>
</tr>
<tr>
<td>3 sg</td>
<td>pi</td>
<td>nu</td>
<td></td>
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<td>pi</td>
<td>nu</td>
<td></td>
</tr>
<tr>
<td>1 du exc MASC</td>
<td>ɳi</td>
<td>ninda</td>
<td>nu</td>
</tr>
<tr>
<td>1 du exc FEM</td>
<td>ɳi</td>
<td>qinda</td>
<td>nu</td>
</tr>
<tr>
<td>1 du exc SIB</td>
<td>ɳe</td>
<td>nu</td>
<td></td>
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<tr>
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<td>t'yi</td>
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*dim is used for NP which is close-up; kem for NP which is relatively remote.*
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**Future Paradigm of USING FOOT**

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**Note:** Each form is generally followed by a corresponding form from the paradigm of the auxiliary SIT. Thus 1 sg is more fully ɲununungi and the 1 pl ɲununuguyu. The number indicators of the second auxiliary are dropped.
Perfect Paradigm of USING FOOT

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*This form and its derivatives viz. 3 du MASC/FEM are replaced by kunuŋam when the sense is "he is on his way now", "they are on their way now". Each form is followed by the appropriate form of the auxiliary SIT.*
### Imperfect Paradigm of USING FOOT

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plus suffixed forms of the auxiliary SIT.
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Note: These forms do not have suffixed form from the SIT auxiliary paradigm, unlike the other tenses.
### Future Paradigm of BE ALOFT

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**Note:** Paradigm needs further checking (with more informants).

Plural forms are rendered by HAB auxiliary with verb root Ʉa "climb" eg. qoniʃunu "we will all climb".
**Perfect Paradigm of BE ALOFT**

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Imprecise Paradigm of BE ALOFT

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Neg past is identical except ə substitutes for nY in each form thus 1sg əɪndanYi 2sg təɪndanYi etc.
### Future Paradigm of LIE

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<td>ꙑinda</td>
</tr>
<tr>
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<td>-</td>
<td>-</td>
<td></td>
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<tr>
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<td>ꙛu</td>
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<td>3 du FEM</td>
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<td>ꙑinda</td>
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<tr>
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Missing forms in the paradigm are normally expressed by the appropriate form of the auxiliary SIT with the verb root Ꙑur kurk "lie" as: 1 pl Ꙑuyurkurknu. Plural forms like 1 pl Ꙑuyurkurknu have also been observed but 1 pl Ꙑunu is not acceptable.
Perfect Paradigm of LIE

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</tr>
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<td>꜃ibim</td>
<td>(near)</td>
</tr>
<tr>
<td></td>
<td>꜃ëbim</td>
<td>(remote and invisible)</td>
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<td>1 du exc FEM</td>
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<td>꜃inda</td>
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<td>1 du exc SIB</td>
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<td>2 du MASC</td>
<td>꜃Vibim</td>
<td>꜃inda</td>
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<tr>
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<td>꜃Vibim</td>
<td>꜃inda</td>
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<td>2 du SIB</td>
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<td>꜃inda</td>
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<td>3 du FEM</td>
<td>꜃ibim/ᴋabim (as above)</td>
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<tr>
<td>1 pc inc FEM</td>
<td>꜃Vibim</td>
<td>꜃ime</td>
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No other forms attested.

Note that this is a vindication of the interpretation of auxiliary paradigms which generates the paradigm from the singular and plural forms. In this paradigm there are no plural forms and it is just those forms which are generated from plural forms that do not appear, all the forms which we would expect to be generated by the singular forms do in fact appear. However the future paradigm of "LIE" with its "tenuous" plural forms vacillates, having paucal non-sibling forms but not having dual sibling forms from which they are formed, the dual sibling forms themselves being formed from plurals.

The missing forms are rendered by forms from the auxiliary SIT with the verb root ꜃urkurk "lie" eg. ꜃imurkurk "we all lay down".
Imperfect (and Past Negative) Paradigm of LIE

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<td>da</td>
</tr>
<tr>
<td>3sg</td>
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<td>da</td>
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No other forms attested. See note to perfect paradigm of "lie".
### Future Paradigm of DO

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<td>du FEM</td>
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<td>du SIB</td>
<td>p1</td>
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**Note:** It is only in the SIT suffix that we can get different forms from the future paradigm of SIT. 1 du exc SIB, 1 pc SIB and 1 pl
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* We would expect *nanYdin kanone for tanYdin neme and *
* panYdin kanone for panYdin neme
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Note: Each form **must** appear with the appropriate form of the auxiliary SIT suffixed eg. 1 pc exc MASC ganYdYidanemegai.me. There is no future paradigm for HAVE.
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What we would expect for 1 du exc SIB is qīnīnu, for 2 du SIB nīnīnu etc and paucal forms based on these: 1 pc exc MASC qīnīnu nīme etc. What occurs results in identical forms for 1 sg, 1 du exc SIB, 1 pc SIB and 1 pl.
### Perfect Paradigm of BECOME

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**Note:** There is no imperfect paradigm for BECOME.
Listed here are paradigms for the verb "arrive".

This verb root is exceptional in having a unique auxiliary paradigm. Any other auxiliary appears with a number of verb roots (or none at all).

There is no good reason to assign this auxiliary either to the "intransitive" or "transitive" types.
Future and Perfect Paradigms of "arrive".

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1. Not yet elicited.
2. On the basis of the other "intransitive" auxiliary paradigms we would expect ṅañandojajuwini.
3. This form results from MB-10 [2.1.10.17].
4. By MP-11 we would expect ṅañandojajuwini but the form above has also been accepted.
Past Negative Paradigm of "arrive"

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2. Paradigms of "Transitive-type" Auxiliaries.

Each auxiliary is shown with a sample verb root.
A Roman numeral is used to identify each auxiliary
eg. VIII for the "strike" paradigms.
### Future paradigm of "follow"

<table>
<thead>
<tr>
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<th>Forms with 3sg direct object</th>
<th>Forms with non-3sg direct object</th>
<th>Direct object</th>
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<td>ɲanYi:iwaknu:nda</td>
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<td>ɲanYi:iwaknu</td>
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Perfect Paradigm of "follow"

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*Forms are given in this paradigm as they would appear after all phonological adjustments have been made. Thus ṭandiwaŋ comes from nam + jiŋjaŋ [2.1.10.17]*
## Imperfect Paradigm of "follow"

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</table>
II. Principal Parts of ɲɪbɛbayɗy nu "I shall look at it".  
VR = bayɗ "look at"

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plus suffixed form of SIT.

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</table>
III. Principal Parts of *gilabiblinu "I will polish it"

VR = bilbil "polish"

<table>
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<td>*plilabiblinu</td>
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<tr>
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<td><em>gilamilbil</em></td>
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<td>*tyilaba(#)bilbilda</td>
<td>*nilaba(#)bilbilda</td>
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</tr>
</tbody>
</table>

*This form comes from *gilam + bilbil which becomes

*gilam + milbil MP-7

gilamilbil MP-11

cf. *gilangebilbilda "I polished it for her".
IV. Principal Parts of ṣuqunyẹt lvítv nu "I will teach him"

VR = ye'tlvítv "teach"

**Future**

<table>
<thead>
<tr>
<th></th>
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**Perfect**

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<td>ṣuqanlvítv nu*</td>
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**Past Negative**

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<td>ṣuqiylvítv yda</td>
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</tbody>
</table>

*This comes from *ṣuqan + ye'tlvítv which becomes ṣuqanlvítv nu MP-2

is. the y of the verb stem is y1

cf. ṣuqanlvítv yda "I taught you"
V. Principal Parts for օնաղկայեյերթն u "I will punish him"

\[ VR = օկայերթ "punish" \]

<table>
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</tr>
<tr>
<td>2 sg</td>
<td>տէնաղկայերթն</td>
<td>2 pl</td>
</tr>
<tr>
<td>3 sg</td>
<td>նէնաղկայերթն</td>
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<table>
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</thead>
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<td>տէնաղամակայերթ</td>
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</thead>
<tbody>
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<td>1 pl</td>
</tr>
<tr>
<td>2 sg</td>
<td>տէնաղանջկայերթըdda</td>
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<table>
<thead>
<tr>
<th>Past Negative</th>
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<tbody>
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<td>2 sg</td>
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<td>3 sg</td>
<td>նէնաղանջինկերթըdda</td>
<td>3 pl</td>
</tr>
</tbody>
</table>

*Unacceptable three member cluster *ոն* is reduced to *ո* by deleting the second segment.
VI. Principal Parts of քանանա "I will pull it"

VR = քառ "pull"

### Future

<table>
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<td>Քանանա</td>
<td>Տանանան</td>
<td>Ճանանան</td>
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### Perfect

<table>
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<tbody>
<tr>
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### Imperfect

None attested.

### Past Negative

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</table>

*This form arises from Քաղա + քառ which becomes Քաղանդուր ՔԲ-6 Քաղանդուր ՔԲ-10
## VIII. Future Paradigm of "strike"

<table>
<thead>
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<th>Verb Root</th>
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<td>nu</td>
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<td>ẓad</td>
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<td>nu</td>
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</table>
VIII. Perfect Paradigm of "strike"

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Note: ka in the Aux Base is optionally deleted when there is an overt direct object following it.
VIII. Imperfect Paradigm of "strike"

<table>
<thead>
<tr>
<th></th>
<th>Aux Base</th>
<th>Verb Root</th>
<th>Tense Marker</th>
<th>NI</th>
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Note: Each form suffixes the appropriate form of SIT eg.
1 pc exc MASC gunitukdanemepailey

Imperfect forms with verb root baŋ do not occur,
suppletive forms in tuk are used.
### VIII. Past Negative Paradigm of "strike"

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Future Paradigm of "hammer, hit often"

VR = ḍeje "hit often"

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</table>

Note: Each form has a Sıt suffix.
IX. Perfect Paradigm of "hammer, hit often"

1 sg  bağăngeđeđenem*
2 sg  bağăngeđetYim
3 sg  bağăngeđejim

1 du inc (SIB)  tubahăngeđetYim
1 du exc MASC  bağæn(n)indægeđenem
1 du exc FEM  bağænindægeđenem
1 du exc SIB  nubahængkæđeđenægæjimka
2 du MASC  dææn(n)indægeđetYim
2 du FEM  dæænindægeđetYim
2 du SIB  nubahængkæđeđenægæjimka
3 du MASC  bagæn(n)indægeđejim
3 du FEM  bagænindægeđejim
3 du SIB  pubahasængkæđeđekejimka

1 pc inc MASC  tubahængægeđenemætYim
1 pc inc FEM  tubahængægeđejimatYim
1 pc SIB  nubahængægeđajim
1 pc exc MASC  nubahængkæđeđenæmægæjimka
1 pc exc FEM  nubahængkæđeđenægæjimka
2 pc MASC  nubahængkæđeđenænymæjimka
2 pc FEM  nubahængkæđeđenænymæjimka
2 pc SIB  nubahængænejim
3 pc MASC  pubahasængkæđeđenæmæpæjimka
3 pc FEM  pubahasængkæđeđenæmæpæjimka
3 pc SIB  pubahasængæpæjim

1 pl  nubahængænejajim
2 pl  nubahængænejajim
3 pl  pubahasængæpæjim

*Presumably arises from *bağan + đêđe by MP-9, However the 1 du exc SIB form suggests there is an underlying /m/ which is assimilated to /n/ by a following apical ie. MP-6 would have to be altered to allow m + n / __ + đ under certain conditions. The adoption of such a rule awaits further evidence.
IX. Imperfect Paradigm of "hammer, hit often"

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Past Negative is the same.

* These forms also appear with the SIT suffix.
X. Principal parts of пањкађunu "I will see"
   VR = пањ "see"

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Past Negative = Imperfect

*Illicit three member cluster *aŋk is reduced to mk.

Note that initial p of future and perfect 1 sg is voiced when it takes on the plural prefixes.
XI. Principal Parts of "place upright"

VR = pak "place upright (as, stand a box on its end)"

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<td>pubanpak</td>
</tr>
</tbody>
</table>

Imperfect - not attested.

<table>
<thead>
<tr>
<th>Past Negative</th>
<th>1 sg</th>
<th>buyipakda</th>
<th>1 pl</th>
<th>nubuyipakda</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 sg</td>
<td>duyipakda</td>
<td>2 pl</td>
<td>nubuyipakda</td>
</tr>
<tr>
<td></td>
<td>3 sg</td>
<td>buyipakda</td>
<td>3 pl</td>
<td>pubuyipakda</td>
</tr>
</tbody>
</table>
XII. Principal Parts of "break with one's hands"

VR = paŋ "break"

<table>
<thead>
<tr>
<th></th>
<th>1sg</th>
<th>1pl</th>
<th>2sg</th>
<th>2pl</th>
<th>3sg</th>
<th>3pl</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Futura</strong></td>
<td>mupaŋnu</td>
<td>ṇumupaŋnu</td>
<td>nupaŋnu</td>
<td>numupaŋnu</td>
<td>mupaŋnu</td>
<td>pumupaŋnu</td>
</tr>
<tr>
<td><strong>Perfect</strong></td>
<td>munaŋampa</td>
<td>1pl</td>
<td>1pl</td>
<td>ṇumunaŋampa</td>
<td>2pl</td>
<td>2pl</td>
</tr>
<tr>
<td><strong>Imperfect</strong></td>
<td>not attested.</td>
<td>Past Negative</td>
<td>1sg</td>
<td>1pl</td>
<td>2sg</td>
<td>2pl</td>
</tr>
<tr>
<td></td>
<td>muyipaja</td>
<td>nymuyipaja</td>
<td>muyipaja</td>
<td>numuyipaja</td>
<td>muyipaja</td>
<td>pumuyipaja</td>
</tr>
<tr>
<td><strong>Imperfect</strong></td>
<td>not attested.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
XIII. Principal Parts of "wash"

VR = pu₃ "wash"

<table>
<thead>
<tr>
<th></th>
<th>1sg</th>
<th>2sg</th>
<th>3sg</th>
<th>1pl</th>
<th>2pl</th>
<th>3pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future</td>
<td>mapu₃nu</td>
<td>napu₃nu</td>
<td>apu₃nu</td>
<td>numapu₃nu</td>
<td>numberu₃nu</td>
<td>pumapu₃nu</td>
</tr>
<tr>
<td>Perfect</td>
<td>mapu₃</td>
<td>napu₃</td>
<td>apu₃</td>
<td>numapu₃</td>
<td>numberu₃</td>
<td>pumapu₃</td>
</tr>
<tr>
<td>Imperfect</td>
<td>mapu₃da</td>
<td>napu₃da</td>
<td>apu₃da</td>
<td>numapu₃da</td>
<td>numberu₃da</td>
<td>pumapu₃da</td>
</tr>
</tbody>
</table>

Past Negative = Imperfect.
APPENDIX 3

Reflexive and Reciprocal Paradigms for "Transitive-type"
Auxiliaries.
Reflexive Paradigms for conjugation I

Principal Parts of գերինել "I will lie on my side"

VR = ունենել

Future

1 sg գերինել 1 pl գերինել
2 sg թեքարեն 2 pl երեքարեն
3 sg պետինել 3 pl երեքերեն

Perfect

1 sg գերելինել 1 pl գերելիճակ
2 sg թեքադերեն 2 pl երեքաճճակ
3 sg պետելինել 3 pl երեքերեն

Imperfect

1 sg գերենավենել 1 pl գերենավեներեմ
2 sg թեքավենել 2 pl երեքավեներեմ
3 sg պետենավենել 3 pl երեքերեն

Past Negative = Imperfect

Reciprocals are the same except that an element նո appears immediately before the verb root:

պետամեսական "We two inclusive will mutually give [presents]."

VR = մեսական "exchange [presents]"
II Reflexive and Reciprocal

Principal Parts of qijanumabay’dnuqî "I shall look at my own hand"

VR = bay’d "look" plus incorporated body part,
ma, "hand" and SIT suffix.

Future

1 sg  qijanumabay’dnuqî   1 pl  qijanumabay’dnuquyu
2 sg  tviqjanumabay’dnuqî    2 pl  qijanumabay’dnuquyu
3 sg  piqjanumabay’dnuqî    3 pl  piqjanumabay’dnuquyu

Perfect

1 sg  qijimnumabay’dnuqem    1 pl  qimnumabay’dnuqem
2 sg  tviqimnumabay’dnuqim    2 pl  qimnumabay’dnuqim
3 sg  diqimnumabay’dnuqim    3 pl  qimnumabay’dnuqim

Imperfect

1 sg  qijinumabay’dqaqini    1 pl  qinumabay’dqaqini
2 sg  tviqinumabay’dqatqini    2 pl  qinumabay’dqatqini
3 sg  diqinumabay’dqatqini    3 pl  qinumabay’dqatqini

Past Negative same as Imperfect but without the SIT suffix.
III Reflexive and Reciprocal

Principal Parts of ḡillinumatumu "I will dry my own hands"

VR = tum "dry" cf ḡilatumnu "I will dry it"

Here the incorporated body part, ma, "hand" appears with the verb root.

Future

1 sg ḡillinumatumu 1 pl ḡillinumatumu
2 sg ṯyillinumatumu 2 pl nilinumatumu
3 sg pilinumatumu 3 pl pilinumatumu

Perfect*

1 sg ḡillinumat 1 pl ḡillinumat
2 sg ṯyillinumat 2 pl nilinumat
3 sg dilinumat 3 pl pilinumat

Imperfect (with STAND suffix)

1 sg ḡillinumatudangi 1 pl ḡillinumatudangi
2 sg ṯyillinumatudangi 2 pl nilinumatudangi
3 sg dilinumatudangi 3 pl pilinumatudangi

Past Negative same as the Imperfect without the STAND suffix.

*The only example in the corpus of perfect forms without m/n.

The expected m has not been elided because of ma cf. ḡillinutarmutu "I will dry my own lower leg"
IV Reflexive and Reciprocal.

The only difference occurs in the Future forms where the final u of the Aux base becomes i in the Reflexive and reciprocal forms. nu does not appear.

An example of a reflexive form is:

ŋuŋɡəkəbínụ "I will awaken"

VR = ɡkəbí which very likely can diachronically be analysed as ɡka "eye, face" plus bil "? open". Synchronically the form is frozen but behaves like a reflexive.

An example of the reciprocal form is

ŋuŋlịye̱ŋkụtụnụ "We two inclusive will teach each other"
Reflexive and Reciprocal

Principal Parts of ンにぬれだ "I will punish myself"

VR = れだ "punish"*

Future

<table>
<thead>
<tr>
<th>SG</th>
<th>1 SG</th>
<th>2 SG</th>
<th>3 SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SG</td>
<td>ンにぬれだ</td>
<td>よ</td>
<td>よ</td>
</tr>
<tr>
<td>2 SG</td>
<td>よにぬれだ</td>
<td>よ</td>
<td>よ</td>
</tr>
</tbody>
</table>

Perfect

<table>
<thead>
<tr>
<th>SG</th>
<th>1 SG</th>
<th>2 SG</th>
<th>3 SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SG</td>
<td>よにぬれだ</td>
<td>よ</td>
<td>よ</td>
</tr>
<tr>
<td>2 SG</td>
<td>よにぬれだ</td>
<td>よ</td>
<td>よ</td>
</tr>
<tr>
<td>3 SG</td>
<td>よにぬれだ (I)</td>
<td>よ</td>
<td></td>
</tr>
</tbody>
</table>

Imperfect (plus SIT suffix)

<table>
<thead>
<tr>
<th>SG</th>
<th>1 SG</th>
<th>2 SG</th>
<th>3 SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SG</td>
<td>よにぬれだだ</td>
<td>よ</td>
<td>よ</td>
</tr>
<tr>
<td>2 SG</td>
<td>よにぬれだだ</td>
<td>よ</td>
<td>よ</td>
</tr>
<tr>
<td>3 SG</td>
<td>よにぬれだだ</td>
<td>よ</td>
<td></td>
</tr>
</tbody>
</table>

Past Negative

<table>
<thead>
<tr>
<th>SG</th>
<th>1 SG</th>
<th>2 SG</th>
<th>3 SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SG</td>
<td>よにぬれだ</td>
<td>よ</td>
<td>よ</td>
</tr>
<tr>
<td>2 SG</td>
<td>よにぬれだ</td>
<td>よ</td>
<td>よ</td>
</tr>
<tr>
<td>3 SG</td>
<td>よにぬれだ (I)</td>
<td>よ</td>
<td></td>
</tr>
</tbody>
</table>

(needs checking)

* An instance of the suppletion which is common in reflexive and reciprocals: ろかやや "punish" cannot be used reflexively or reciprocally while れだ "punish" can only be used reflexively or reciprocally.
VI Reflexive and Reciprocal

Exactly the same as the non-reflexive paradigms but with nu immediately following the Aux base eg:

ŋuyiŋeŋuŋamu  "I will pull my own ear"

VII Not yet elicited

VIII Reflexive

Principal Parts of ŋuyiwhelunu "I will hit my own head often"

VR = weler "hit head often, repeatedly" (we is a frozen incorporated body part "head"). Native speakers found ŋuyiβadnu "I will hit myself" marginal so a different verb root is used here to illustrate the forms:

Future (plus SIT suffix)

1 sg  ŋuyiwhelernuŋi  1 pl  ŋuyiwhelernuŋuyu
2 sg  tuyiwhelernuyi  2 pl  tuyiwhelernuyu
3 sg  puuyiwhelernupi  3 pl  puuyiwhelernupuyu

Perfect (plus SIT suffix)

1 sg  ġampeleŋem  1 pl  ġuyiyempelernatim
2 sg  tempelertviŋi  2 pl  tuyiyempelernatim
3 sg  pampelordim  3 pl  puuyiyempelernpirim

Imperfect (plus SIT suffix)

1 sg  ґanawelerdaŋini  1 pl  ґuyiyenawelerdaŋini
2 sg  tanawelerdaŋini  2 pl  tuyiyenawelerdaŋini
3 sg  paanawelerdaŋini  3 pl  puuyiyenawelerdaŋini

Past Negative same as Imperfect but without SIT suffix.

Reciprocal. The same as the reflexive except that yi does not appear in the Aux base in the future forms and nu is optionally inserted immediately after the Aux base eg. pu(nu)whelernupi

"We two inclusive will hit each other's heads often"
IX  Reflexive and Reciprocal

Principal Parts of bewelernuŋan! "I will hit my own head often"

VR = weler (note that this verb root also selects VIII)

Future, Perfect and Imperfect appear with HAB or STAND suffix

(HAB is given in the examples); there is a split opinion

on whether any auxiliary suffix is acceptable on the Past Negative.

Future

1 sg  pewelernuŋani  1 pl  $q$ubewelernuŋani
2 sg  t$y$e$w$e$l$e$r$n$u$ŋ$a$ni  2 pl  nubewelernuŋani
3 sg  pewelernuŋani  3 pl  pubewelernuŋani

Perfect

1 sg  bempelernuŋanam  1 pl  qubempelernuŋanam
2 sg  dempelertanam  2 pl  nubempelernanam
3 sg  bempelernkanam  3 pl  pubempelernpanam

Imperfect

1 sg  benawelerdǝŋa$ŋ$i  1 pl  qubenawelerdǝŋa$ŋ$i
2 sg  danawelerde$ta$ŋ$i  2 pl  nubenawelerdǝŋa$ŋ$i
3 sg  benawelerdǝ$ŋ$a$ŋ$i  3 pl  pubenawelerdǝŋa$ŋ$i

Past Negative

1 sg  benawelerde($na$ŋ$i)  1 pl  qubenawelerde($na$ŋ$i)
2 sg  danawelerde($ta$ŋ$i)  2 pl  nubenawelerde($na$ŋ$i)
3 sg  benawelerde($ka$ŋ$i)  3 pl  pubenawelerde($pa$ŋ$i)

nu is optionally inserted, immediately after the Aux base:

bemnuwelernuŋanam "I hit my (own) head often"
Reflexive and Reciprocal

Principal Parts of benumankaqunu "I will look at my own hand; I will look at it in my own hand"

VR = ǝqåçu "look at, see" with incorporated body part, ma "hand". Note that nu is obligatory after the Aux base for this conjugation.

Future

1 sg penumankaqunu 1 pl ɳubenumankaqunu
2 sg ɳenumankaqunu 2 pl nubenumankaqunu
3 sg penumankaqunu 3 pl pubenumankaqunu

Perfect

1 sg penumünankaçu 1 pl ɳubenumünankaçu
2 sg dənumünankaçu 2 pl nubenumünankaçu
3 sg penumünankaçu 3 pl pubenumünankaçu

Imperfect (with SIT suffix)

1 sg benumankaqudanajini 1 pl ɳubenumankaqudanjini
2 sg denumankaqudatjini 2 pl nubenumankaqudanjini
3 sg benumankaqudaqini 3 pl pubenumankaqudapljini

Past Negative = Imperfect without SIT suffix.

Note that there could be any other body part incorporated:

ɬubenumuɾmankaqudanajini "We all looked at our own lower legs;
we all looked at each other's lower legs".
XI and XII have not been able to be elicited as yet.

XIII Reflexive and Reciprocal.

Principal Parts of mepuŋnu "I will wash myself"

VR = puŋ "wash"

<table>
<thead>
<tr>
<th>Future</th>
<th>Perfect</th>
<th>Imperfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 sg mepuŋnu</td>
<td>1 pl ŋumepuŋnu</td>
<td>1 pl ŋumenapuŋda</td>
</tr>
<tr>
<td>2 sg nepuŋnu</td>
<td>2 pl numepuŋnu</td>
<td>2 pl numenapuŋda</td>
</tr>
<tr>
<td>3 sg mempuŋnu</td>
<td>3 pl pumepuŋnu</td>
<td>3 pl pumenapuŋda</td>
</tr>
</tbody>
</table>
Appendix 4. Texts

1. *Nugawarn* told by Harry Kulambujut (palada)
2. *Nuwit* told by Irene Kulambujut (nadpuh)
3. *Tyandu* told by Harry Kulambujut (palada)

Each Mujinympa sentence is numbered with an interlinear morphemic gloss and a free English translation. Where appropriate background, and linguistic explanation are provided.
1. Nugeman\textsuperscript{y}.

This story deals with an exploit of the mythological entity, 
Nugeman\textsuperscript{y}, the Man in the Moon.

1 \textit{mutiny kan\textsuperscript{y} nu-\textit{git}-nu-ka}
story this 1sg VIII-narrate-FUT-TOPIC
I'm going to tell this story now.

2 \textit{mutiny Mundak ca neta}
story old place this
[It's] an old story of this place.

3 \textit{mutiny mutiny ka\textsuperscript{u} mamayyi punu-
story story NC:person child  [a slip of the tongue]
mutiny ka\textsuperscript{u} mamayyi mam-wunku-ka\textit{gap}-\textit{ginde}
Nugeman\textsuperscript{y} NC:person child 3sg XIII PERF-3 du-deprive of-du FEM
[It's] a story of how Nugeman\textsuperscript{y} stole a child from its parents.

This sentence is more literally translated as:
[It's] a story of (about) a child and Nugeman\textsuperscript{y}, a child
[whom] he (Nugeman\textsuperscript{y}) stole from his parents.

ie. there is a matrix sentence \textit{mutiny ka\textsuperscript{u} mamayyi nugeman\textsuperscript{y}}
to which is adjoined a relative clause with mamayyi as
antecedent. Repetition is common in Mu\textit{jinypata} narrative.
4  kanya
     yin-
     qa
     mara
     take
     moon
     there
     He (Nugeman\textsuperscript{v}) took him up to the moon.

5  qara
     ti
     yta
     y
     n
     sugarbag
     (generic)
     sit
     seek
     sugarbag
     imperf
     HAB
     He was looking for sugarbag.

We would expect qinima
     qan
     y
     ndaka
     ti
     yta
     y
     n. This is an
     elliptical version of qinima
     qan
     y
     ndaka
     qa
     n
     da
     ti
     yta
     y. He was looking for sugarbag at a sugarbag place.

6  yilamina
     kuleke
     pumba
     k
     gur
     qime
     father
     mother
     move
     perf
     go
to
hunt
pc
fem
The father and mother and child went along.

6 is an elliptical version of yilamina\(y\) kuleke\(y\)
mamayi
pumba
qurqime. If the father and mother went
along had been meant the dual feminine subject would have
been cross-referenced into the auxiliary as wungan
jinda.
The verb root gur indicates go with a specific purpose
in mind in this case, looking for food.

7  pumba
     kura
     qime
     They went (for food).

Repeats 6.
They were heading for sugarbag [place].

The imperfect aspect marker, da, has been deleted.

Repetition of the verb of 8.

This interjection [3.5] frequently appears in narrative and is rather difficult to gloss. It may be used to mark a shift in the narrative: for example, the introduction of a new character but frequently just indicates a pause in the discourse. It will be glossed 'finished', following the native speaker practice.

[Now] his father saw sugarbag as he went along.
13 *punaŋime
They were going along.

14 ba
excuse me!

The narrator apologises for not continuing on telling what the father was doing. This is revealed in the next sentence.

15 pamŋkaŋkaŋ waça ku yuwu
3 sg I PERF-chop (down) now NC:meat indeed
Now he started chopping [a tree for] sugarbag.

Note the inceptive use of waça [4.3.10]. The dative inflection -nu on ku has been deleted because the context is clear.

16 paŋkaŋkaŋ pam-bat tayl yuwu
3 sg XI PERF-fall tree indeed
He chopped [it] down [and] the tree fell.

We would expect *paŋkaŋkaŋ to result from the reduction of the illicit three-member cluster *mŋk (cf. *paŋkaŋaŋu He saw it becomes paŋkaŋaŋu). Note that *pambat becomes pambat [2.1.10.17].

17 beje
finished

18 pan-yejar
3 sg VIII PERF-chop up
He chopped it up.
The narrator gave this form as pan'yejar invoking MP-2
[2.1.10.17] but then intended to repeat the form according
to typical Muñinypata narrative style but gave:

19 * pan'yejar

ie. invoking MP-4 but immediately corrected himself:

20 wuda

no!

It seems the morphophonemics are tricky even for native speakers!

21 pan'yejar

He chopped it up

22 bawe

[finished]

23 pumbanka-pak-ŋime

3 pc VIII PERF-pick up-pc FEM

They (the father, the mother and the child) picked it up.

24 pumbankapakŋime 

ŋase we

3 pc VIII PERF-pick up-pc FEM LOC paperbark

They picked it up in [some] paperbark.

25 pilimka-mut-ŋime

3 pc STAND-eat-pc fem

They ate [it] while standing.
The expected form is, of course, pilimakamutjime but the narrator said he used this form as well although the other was 'more correct'.

26 beje
   finished

27 yilamina kale kale
   father mother
wuja-ninda-dur   waqa
   3 du invisible to speaker move perf-du fem-go to hunt now
ku
   NC: meat

The father and mother started to go (for sugarbag).

The dative inflection on ku has been omitted.

28 dija-ninda-winayt  qiyqla
   3 du II-du fem-look for again
They were looking for [it viz. sugarbag] again.

The imperfect aspect marker, da, has been deleted. On the tape dija- is rather indistinct.

29 wujini
   They were going.

30 wujini
   They were going.
and are elliptical forms for wujininda.

They (two) looked up.

This is completely mystifying. Native speakers have provided the gloss given but no amount of questioning has yet shown the morphological composition of this form (see also 36).

ma

oh

nukunu-ke memayy\`
3 sg MASC-TO\-
child

\ng\`
\ndu
\nt\`
\ngini-da

that (near) place behind 3 sg SIT-IMPERF

Ah, this child was sitting "behind" that place.

The child is sitting near by but out of the sight and hearing of his parents.

gini-gap\`
\ndu-ka\`
3 sg SIT-seek sugarbag-IMPERF-3 sg HAB

He was looking for sugarbag.

keleka yileyile bemanata wujini\-
mother father still 3 du MOVE-du FEM

[His] mother and father were still going along.

wujini\-
ke\`

They were still going along, looking up.
37 wakel-ka ngānga da wągu qinimaqaqnaŋyuŋtakaŋi
child-TOPIC that (near) place (away) from
The child was looking for sugarbag away from that place
(where his parents were).

38 nỳini-ka nugemanŋ wąga kagū wudam-
this (near)-TOPIC Nugemanŋ now NC:person 3 sg IV PERF-
na-ðuŋ na marq da katu
3 sg MASC BEN-come down LOC moon place towards
Now this man, Nugemanŋ, came down from the moon for him.

39 wuŋampaŋat ngānga da
He came down to that place for him (the child).

In full this sentence would be: nugemanŋ wuŋampaŋat
kagū mamayyınu na ra ngānga da

40 nukunu-ka mamayyi nỳini-ka kaggal
3 sg MASC-TOPIC child this (near)-TOPIC above
mam-ka
3 sg SAY/DO PERF-TOPIC
This child [looked up and] said.

This was said by native speakers to be short for:
mamayyi nỳinika nampaŋuwaŋ kaggal(yi) mam
This child looked up (as he went) and said.

41 kaggal mamka
He [looked up and] said.
mamka
He said:

kaçu batju kayyu kayyu numi kaçu
NC:person different/foreign this this one NC:person
nugeman-Y-wa kan-Y1 ywu
Nugeman-Y-EMPH this (hear) indeed
"This strange man, this one, this is indeed Nugeman-Y."

A non-verbal sentence with three NPs in opposition.

bejemata
completely finished

ma-ŋan-ŋ-ŋ-met nyni ġe mante
3 sg XIII- ʔ-PERF-3 sg-take this place for good
nugeman-Y-je
Nugeman-Y-ERG
Nugeman-Y took him [from] this place for good

kanYdvin-ŋ-madjawity wağa
3 sg HAVE PERF-3 sg-take up now
He (Nugeman-Y) began to take him up.

kanYdvinmaďawity
He took him up.

kanYdvinmaďawity mεrk
he took him up moon
waga wamu a: nara ka'gu kunugunu ɗa
now away ah! LOC NC:person old woman place
He took him away up to the moon now, ah, to the old woman's place.

This sentence in non-elliptical form would be: nugemanyte memayyi
kanyimnmaewity nara merk katu waaga wamu a nara ɗa ka'gu
kunugunu katu.

Note especially the deletion of the directional particle, katu
and the reversed ordering in the possessive phrase.

49 ka'gu mutyinga dini-da-ya nyini ɗa
NC:person old woman 3 sg SIT-IMPERF-DUB this(remote) place
The old woman was sitting in this place.

The strangeness of the situation in the story is emphasized by
the dubitative suffix, -ya and the remote demonstrative.

50 siga-ma-mud
3 sg SIT PERF-3 sg FEM BEN-give
He gave him to her.

A good example of a sentence in which all the NPs have been deleted.
In full, 50 would be ka'gu nugemanyte ka'gu memayyi sigamud ka'gu
mutyinganu.

51 ba
excuse me
52. nujin\n\ngam-yekum-ka
word/story 1 sg I PERF-forget-TOPIC
Sorry, I forget a word/the story.

The storyteller apologises for what he says is a break in the narrative.

53. kaju nugeman\n\nkale mom-ne-ya
NC:person Nugeman\n\nmother 3 sg SAY/DO PERF-3 sg FEM BEN-DUB
Nugeman\n\nspoke to his mother.

54. nyini da dim-ne-mud kale
this (remote) place 3 sg SIT PERF-3 sg FEM BEN-give mother
He gave him (the child) to [his] mother [in] this place.

55. ne-qa-pet-nu-t\n\nwa\n\n2 sg XIII-1 sg BEN-look after-FUT-2 sg SIT child 1 sg now
"Look after my child for me now."

56. na\n\npetinu\n\n"Look after him for me"

57. mem
He said

58. beje
finished

59. da kaju da
\n\nyini da
place 3 sg HAB-IMPERF NC:person child this (remote) place
n\n\n
The child was staying at this place in the moon.
gaŋata kale kale yi'ley-ke gaŋata
all the time mother father-TOPIC all the time
diŋa-ŋinda-wiŋa-f-de-kağ! 3 du II-du FEM-look for-IMPERF-3 du HAB
All the time [his] mother and father kept on looking for [him].

61 gaŋata diŋa-ŋinda-wiŋa-f-de-piçi
all the time 3 du II-du FEM-look for-IMPERF-3 du STAND
All the time they were looking for [him].

62 gaŋata diŋa-ŋinda-wiŋa-t-de-kağ!
All the time they kept on looking for [him].

63 nuku-nu-ka kaği nugeman-ka ku
3 sg MASC-TOPIC NC:person Nugeman-TOPIC NC:meat
tyiyyi-nu na-ğur sugarbag (generic)-DAT 3 sg USING FOOT-go to hunt
He, Nugeman, was going after sugarbag.

64 ku-nu nug-ɬi'nî
NC:meat-DAT 3 sg ? MOVE-3 sg SIT
He was going for sugarbag.

nuja(da) appears to be interchangeable with nada 3 sg USING FOOT
IMPERF. This is the only instance of it in the writer's corpus.
kađu mut'inga n'ini-ka qini-de
NC:person old woman this-TOPIC 3 sg SIT-IMPERF
wağa qim-qindo-nađam na kađu
now 3 du SIT-du FEM-worry isn't that so? NC:person
qang'a nimin
that (near) two
This old woman was sitting [thinking] now [that] those two
people must be worried.

Note the special form for two rather than the usual pekengo.
The old woman sits thinking and addresses a polar interrogative
to herself: "Those two people are worried now, aren't they?"

kađi-qindo-ili-da pepe
3 du HAB-du FEM-walk-IMPERF below
They kept on walking around below/down there.

kađi-qindo-iliida
They kept on walking around

bejo
finished

man
3 sg SAY/DO PERF
She said.

man
3 sg SAY/DO PERF
She said.
71 nYnI-ke
   this-TOPI
"This is it."

72 nu-g-dutut-nu    wa∫a
   1 sg VII-3 sg-send down-FUT  now
"I'm going to send him down now."

73 pi    nanYvl   pi   me-Ylyl-nu   yl
   rope/string  NC:thing  rope  1 sg XIII-make rope-FUT  and
   nYdututnu
   1 sg VII-3 sg-send down-FUT
"I'll make a rope and send him down!"

The narrator always described pi as "string" although "rope" is probably a more apt English translation here.

74 pu-dutut-nu
   3 sg VII-go down-FUT
"He will go down"

75 beJe-na
   finished-EMPH
   It's finished.

The VR dutut "send down" from 72 and ditut "go down" are very likely related but this is an isolated phenomenon. There is no productive causative element du in Mijinypa.
old woman this 3 sg ? VIII-make now NC:thing-EMPH
mam-yl pi ywu
3 sg SAY/DO PERF-and rope indeed
This old woman began making the rope, fashioning it with
her hands.

The y of yi and is assimilated to the preceding nasal to give
mamyl (MP-4).

all the time 3 sg XIII-make-rope-IMPERF-3 sg SIT-DUB
She kept on making rope all the time.

3 sg MASC back towards 3 sg IV PERF-cover up-TOPIC
yi qara putek be-bir nanyl pi
and LOC ground 3 sg IX-cover NC:thing rope
When he came back, she covered it up, putting the rope
in the ground.

The imperfective aspect marker da has been deleted from be bir.
* wuđam-dawul-ka has the surface form wuđanawulka. The verb, wuan
"he went" is understood in the first clause.

3 sg MASC NEG 3 sg X-see NugemanY indeed
NugemanY didn't see a thing.
They two (the old woman and the child) were sitting down.

They few were sitting down.

The old woman and child were sitting down when NugemanY came back; NugemanY sat down and then there were three of them sitting down!

and NugemanY-TOPIC 3 sg USING FOOT-go to hunt NC:meat-DAT
and [then] NugemanY was going after sugarbag.

[Then] she was making the rope.

She was making rope again.

She would see him [coming] back as she was sitting.

Whenever he would come back she would bury the rope in a hole.
Note use of past subjunctive.

86 ğağa  nugeman' mağa be-ňağu
all the time Nugeman' NEG 3 sg X-see
Each time Nugeman' didn't see it.

87 ğaﮔa  me-ğıni-ya
all the time 3 sg XII-3 sg SIT-DUB
All the time she kept on sitting and making [the rope].

88  beje
finished

meginiya is a puzzling form on the surface. It appears to be an elliptical form of meylyidağiniya.

89  wuđam-tap  waça nanvýi pi
3 sg IV PERF-try now NC:thing rope
She began to try out the rope.

90  wuđam-guňt
3 sg IV PERF-send down
She sent it down.

91  kağanu piyet
half it stopped
It stopped half way.
92 wuda  
no  
"No!"

93 mam  
3 sg SAY/DO PERF  
She said

94 kuguk ḍeŋa  
wait all the time  
"Wait a while yet"

95 yì mam-yì  
diyi  
and 3 sg SAY/DO PERF-and again  
And she worked at it again.

96 mamanYì diyi  
She worked at it again.

97 nukunu paganduwi yì baŋam-bir  
3 sg MASC 3 sg arrive PERF and 3 sg IX PERF-cover  
He arrived [back] and she covered [it].

98 nà  
99 n'ínì yuwu  
Isn't that so  
This indeed  
That's the way it was, wasn't it?
mam-γi  dίyγa  wugam-tap
3 sg SAY/DO PERF-and again 3 sg IV PERF-try
She made it and tried again.

manda  waγa  pljį-da
close-up  INCHOATIVE 3 sg STAND-IMPERF
It was getting closer [now].

beje
finished

tiduk nγi-ka  mam-γi  nγi
then this-TOPIC 3 sg SAY/DO PERF-and this
yugam-tawliur-ka
3 sg VI PERF-extend-TOPIC
Then she worked at it and made it longer.

The verbal element, tawliur "extend" is perhaps analysable as
a verb root jur "pull" (see Appendix 2) and the incorporated body
part form: tawi "lip" i.e. pull lip = extend.

beje
finished

wudam-jinumii  waγa  katu  putek
3 sg IV PERF-take bow towards ground
She completed it now right to the ground.
kan'yi pam-bat waqa nan'yyl pl n'ini yuwi
this (near) 3 sg X PERF-fall now NC:thing rope this indeed
This rope fell to the ground here.

beje
finished
"It's finished!"

mam
She said.

nukunu mana nusa-juur-ka
3 sg MASC back 3 sg (USING FOOT)-go to hunt-TOPIC
He went away to hunt.

beje
finished

nukunu-ka ngunu-ka mam-na
3 sg MASC-TOPIC 3 sg FEM-TOPIC 3 sg SAY/DO PERF-3 sg MASC BEN
ka'yu mamayyi n'ini yuwi
NC:person child this indeed
She said to this child.

tanl-ja-nu pl kan'yl
2 sg HAB-climb-FUT rope this
"Climb [down] this rope!"
tu-ültut-nu  nara kale  nyin1i yile  nyin1i
2 sg VIII-go down-FUT LOC mother 2 sg  father 2 sg
"Go down to your mother and father!"

beje
finished

nukunu  ka đu  mamayyi  nyin1i-ka  kani-ja  nyin1i
3 sg MASC NC:person child this-TOPIC 3 sg HAB-climb this
The child was climbing [down] this [rope].

The form which occurs outside narrative for kani-ja is ka dü[lada

nara pi  nyin1i wudam-p-tuk
LOC  rope  this  3 sg IV PERF-3 sg-send down now
wudam-tut
3 sg IV PERF-come down
She sent him down this rope and he began to come down.

me-na-yit-da-qini
3 sg XIII-3 sg MASC BEN-hold-IMPERF-3 sg SIT and
wusan-tut
damanana
3 sg INVISIBLE TO SPEAKER MOVE PERF-come down all the way
pepe  ka đu  mana
below here back
She was holding [the rope] for him and he came down all the way down back to this place.

nara putek  wudawul
LOC ground  3 sg jumped off
He jumped off onto the ground.

beje
finished
pl n’Ini-ka ḡim-ku wada nigunu ywuu

rope this-TOPIC 3 sg SIT PERF-chuck away now 3 sg FEM indeed

Then she chucked this rope away.

121 nugeman’ maɗa be-ɗ-ŋkaɗu nukunu
Nugeman’ NEG 3 sg X-3 sg-see 3 sg MASC
Nugeman’ couldn’t see him.

122 beɗe
finished

123 nukunu-ka nugeman’ wuran
3 sg MASC-TOPIC Nugeman’ 3 sg INVISIBLE TO SPEAKER MOVE PERF
He, Nugeman’, came [back].

124 kale mam-ŋe ŋara kaɗu ywuu
Mother! 3 sg SAY/DO PERF-3 sg FEM BEN where NC:person INTERROG
"Mother" he said to her "where’s he gone?"

125 ŋara kama maɗa tye me-bayt’
where perhaps NEG ear 3 sg XIII-take
"I don’t know where."

The idiomatic expression for "know" is literally "take ear" cf.
English "lend an ear (to what is being said)".
mam nigunu kaḍu muty nga nyi ni yuwu
3 sg SAY/DO PERF 3 sg FEM NC:person old woman this indeed
This old lady said.

peniginda na-ginda giyiga katu giini
3 du FEM 3 du USING FOOT-du FEM again towards 3 du SIT
They two (the parents) kept on going again (looking for their son).

kaḍu kaleka kale yllele-ka wakal nyini-ka
NC:person mother father-TOPIC child this-TOPIC
bajam-p-ginda-dut waga
3 du IX PERF-3 ag-du FEM-find now
Then the mother and father found this child.

a kem
Ah! 3 sg SIT PERF
"Ah! There he sits!"

kem
3 sg SIT PERF
"There he sits!"

mam-ginda
3 du SAY/DO PERF-du FEM
They said.

beqe
finished

wuđem-nye-wul
3 sg IV PERF-1 du inc BEN-come back
"He has come back to us (two inclusive)!"
manan-ŋinda-bet
3 du ?-3 sg-du FEM-take
They took him [back home].

This form is puzzling: the preferred (and expected) forms
manqinda-bet or mametqinda were accepted and said by native
speakers to be the same cf. 136

nukunu-ka mam
3 sg MASC-TOPIC 3 sg SAX/DO PERF
He (the child) said:

nugaman'-mam-ŋi-bet nema merk katu
Nugaman'- 3 sg XIII PERF-1 sg-take LOC moon towards
"Nugaman' took me to the moon."

ŋaqi-da a dje berrata waqey
1 sg HAB-IMPERF ah finished completely finished
"I was staying [there] Ah! that's completely over and done with."

danata wudam-ŋinda-jinum waŋa
all the way 3 du IV PERF-3 sg-du FEM-take now
Then they took him back for good.

man'yani pi nini-ka mujin'-ka liŋiti-wa
NC:thing rope this-TOPIC word/name-TOPIC Liŋiti-EMPH
This rope, it's name is Liŋiti!
At this point the narrator broke into English:

that's his name, that's... that pi that string pi his name, ah, what you call it, we call it liŋiti pi liŋiti... pi... ah, I got him beŋun (that's right) that's...

141 pi liŋiti pi-ka mujinŋ-ka liŋiti-wa pi nyin rope rope Lŋiti rope-TOPI word-TOPI Lŋiti-EMPH rope this
The rope is Lŋiti; the name of this rope is Lŋiti!

142 kaŋu mamayyi wugam-tut ça nara NC:person child 3 sg IV PERF-come down place LOC
merk takatu moon from
The child came down from the moon.

143 kaŋu puk- mutyonga wudam-s-tut yuu NC:person (mistake) old woman 3 sg IV PERF- 3 sg-send down indeed
The old woman sent him down.

144 mujinŋ mundak kanŋi-wa mujinŋ yuu story old this-EMPH story indeed
This [has been] an old story.

145 mujinŋ gaŋandar tanjunukatu mujinŋ mundak story old man from-before story old
... a story of the old men from times gone by, an old story.
2. *Nuwi* (water-snake)

1 *muji* kanji ŋu-ŋit-nu-ka  mujiŋa ɗa mundaŋ
story this 1 sg VIII-narrate-FUT-TOPIC story time old
I'm going to tell a story [now], a story of olden times.

2 ɗa
magna ŋayi ŋaŋ-ŋinda-lili-da
father's mother 1 sg 1 du exc HAB-du FEM-walk-IMPERF place
ŋaye ŋayi ya
LOC 1 sg DUB
My grandmother and I were walking around my country.

The hesitancy expressed by ya arises from the fact that ɗadpuk
who is Maringarr is not sure what this country of hers (outside
Mujiŋypa territory) is called in Mujiŋypa.

3 ŋujiŋi-ŋinda waṭa ku ɗinu-nu-wa
1 du exc MOVE-du FEM now NC:meat fresh water turtle-DAT-EMPH
ɗinu-wa-nu
fresh water turtle-EMPH-DAT
We were going after fresh water turtle.

Note the unusual ordering in ɗinuwaŋu.

4 ku ŋaŋ-ŋinda-ŋini yuŋu
NC:meat 1 du exc USING FOOT- du FEM-1 du exc SIT indeed
We kept on going after meat.
nuqam-qinda-tut
1 du exc IV PERF-du FEM-go down
We went down.

nuqan-qinda manda
1 du exc MOVE PERF-du FEM close
We went up close.

ŋayi-ka ŋuJNI-da waŋa
1 sg-TOPIc 1 sg MOVE-IMPERF now
Now I went along.

bagam-dut-ŋuJan ku nuwiŋ wəŋa
1 sg IX PERF-find-1 sg MOVE PERF NC:meat water snake now
Then I chanced on a water snake as I went along.

da-nayeตะ-ŋini ŋara kuŋa
3 sg I-emerge from (water)-IMPERF-3 sg SIT LOC water
It was coming out of the water.

beŋe.
finished

manga ŋeŋim-ŋeŋeŋ-ŋa
f.m. 1 sg STAND PERF-3 sg FEM BEN-call
I called out to my grandmother.
ku kanv1 kem
NC:meat this 3 sg SIT PERF
"There's an animal (water snake) here!"

piSa
leave it alone
"Leave it alone!"

maSa na-be-t nukun
NEG 2 sg XIII-arm-grab IRREALIS
"Don't grab it!"

Literally, "don't grab it's arm" i.e. the body of the snake.

maSa nukun na-t
NEG IRREALIS 2 sg XIII-grab
"Don't grab it".

mam-na
3 sg SAY/DO PERF-1 sg BEN
She said to me

pe-nV1-ele-nukun
1 sg X-2 sg-bite-IRREALIS
"It might bite you."

dSa tiduk nVini yuww
time late this indeed
It was too late.
maŋan-tamaŋ waŋa
1 sg (XIII) PERF-neck-grab now
I had already grabbed [it by] the neck.

ku nuwitv nyini-ka ?maŋantamaŋ waŋa?
NC:meat water snake this-TOPIc unclear on tape
I'd already grabbed this snake.

manga ku-ka kanyi
grandmother NC:meat-TOPIc this
"Grandmother, there's a snake here!"

mame
I said to her.

watkaru
come quickly
"Come quickly."

nuŋam-winat manga qayi manga qayi
3 sg USING FOOT PERF-run grandmother 1 sg grandmother 1 sg
yuwu manda
indeed close up
My grandmother ran up close.

yl beje
and finished
ku wağa pan-ŋinda-baŋ
NC:meat now 1 du exc VIII PERF-du FEM-strike
We killed it then.

ŋaŋyín-ŋinda dafa nara tungu wağa
1 du exc HAVE PERF-du FEM back LOC fire now
Then we took it back to the fire.

ŋina-ŋinda-ŋyí-da-ŋaŋ!
1 du exc V-du FEM-cook-IMPERF-1 du exc HAB
We were cooking it.

beje
finished

3. Ty'andu.
This story concerns the narrator as a small boy being frightened
by a boat which his (paternal) grandfather tells him has teeth
and might bite him. His father disabuses him of this notion.

1 muñínŋ kǝnvi ŋu-ŋit-nu-ka muñínŋ gayl
story this 1 sg VIII-narrate-FUT-TOPIC story 1 sg
I'm going to tell this story, my story.

This introductory narrative formula has appeared in nearly every
text collected.
father's father 1sg 3sg SAY/DO PERF-1sg BEN story-TOPIC
kanyi-wa ŋayi kaŋu mamayyi-te نسبی dıŋi
this-EMPH 1sg NC:person child-TEMP NC:thing dinghy
yın’yın wungu 3beja
engine inside finished
My grandfather told me this story when I was a child about
a boat [with] an engine in [it].

The expected form for the temporal inflection on mamayyi is ḗe

ŋayi-ka ŋułana-tut-da dıŋi
1sg-TOPIC 1sg (IV)-go down-IMPERF dinghy
muŋ-da katu qiını 5beja
3sg (USING FOOT)-IMPERF towards 3sg SIT finished
I was going down [and] the dinghy kept coming towards
[the shore].

The verb forms which appear in elicitation sessions are ChangedEventArgs
and nada. Native speakers claimed they were just different ways of
saying the same thing.

ŋayi-ka ḗem-winduʃ
1sg-TOPIC 1sg SIT PERF-get up
I got up.

ŋuni-winat-da-mans-wa ŋuwa dıŋi wungu
1sg MOVE-run-IMPERF-back-EMPH LOC dinghy away
I should have run back down to the dinghy.
Note subjunctive form of verb.

9   ma
    oh

9   ƙungul  ƙayl-ka  ƙim-ŋa-ƙay
    father's father 1 sg-TOPIC  3 sg SIT PERF-1 sg BEN-shout
    maŋan-ŋi-ta
    3 sg (XIII) PERF-1 sg-pursue
    My grandfather shouted to me and ran after me.

10   tuɗi-wul  katu
     2 sg IV-come back towards
     "Come back!"

11   mambọ
     He said to me

12   tuɗiwul katu
     "Come back!"

13   ƙayl-ka  ƙanam
     1 sg-TOPIC  1 sg SAY/DO PERF
     I said.

14   ma taŋku-da ƙungul
     oh why  grandfather
     "Oh, why, grand-dad?"
15
awu
no
"No!"

16
nanvdyi pane-ka dinvtYepup
NC:thing that (near)-TOPIC 2 sg hear
kuwan-geen
3 sg VISIBLE TO SPEAKER MOVE PERF- make characteristic noise
yuuw dimu wungu
indeed teeth inside
"That thing makes a noise as it goes along - don't you hear
it? - and [it's got] teeth inside!"

dinvtYepup is puzzling: we would expect t'vism-yepup

2 sg SIT PERF-hear

which has the surface form t'vinnvtYepup. If the explanation
lies in dissimilation, why should it not be *tinnvtYepup?
Furthermore, forms such as n'vinyi 2sg. and 'nuqan'vetyetyty
"I taught him" are not affected by dissimilation.
t'vinnvtYepup does also occur.

16
pa-nyi-lele nukan gil-pa-nyi-lele nukun
3 sg X-2 sg-bite IRREALIS 3 sg X-2 sg-bite IRREALIS
"It might bite you; it might bite you!"

Probably the narrator was going to say dimu "teeth" but he was cut
short by laughter in the background.
tan√kuda na
why is that right
"Is that why?"

ŋamam
1 sg SAY/DO PERF
I said.

na
is that right
"Is that so?"

ŋamam
I said.

yuwu
yes!
"Yes, it might bite you!"

pan[ylelenukun
3 sg X-2 sg-bite IRREALIS
[my grandfather said]

ŋeyi-ka muʃiŋ yan√yin-na
1 sg-TOΠIC story 1 sg HAVE PERF-3 sg MASC BEN
I believed his story (lit. I had/took the story for him).
24  qamam  
I said

25  mujin' mujin' taypir-ka kan'yi yuwu  
story story true-TOPIC this indeed
mam-ga-kem  
3 sg SAY/DO PERF-1 sg BEN-3 sg SIT PERF
"This story he's been telling me is true!"

This sentence arises from mujin' kan'yi taypirka yuwu
"This story is true" and kangul mujin' mamgakem gayinu
"My grandfather told the story to me." The latter sentence
becomes a relative clause with mujin' as its antecedent in
the (former) matrix sentence.

26  pa-nil-ele nukun dingi qang'a yuwu nan'nya  
3 sg X-1 sg-bite IRREALIS dinghy this indeed NC:thing
yin'nya wungu  
engine inside
"That boat with the engine in it might bite me."

27  qarae qimu yuwu kangul  
what about teeth indeed father's father
"What about [the] teeth, grand-dad?"

28  mam-na  
1 sg SAY/DO PERF-3 sg MASC BEN
I said to him.
29 pana ḍamata kumbaja pana yuwa ḍimu yuwa
there all the time first there indeed teeth indeed
"The teeth are always there right up front!"

30 pan'ilelenunuk yi ka-n'yi-winat nukun
3 sg X-2 sg-bite-IRREALIS and 3 sg IX-2 sg-take away IRREALIS
"It might bite you and take you away."

31 a beje
ah finished

32 nayi-ka beje mata muji'n
1 sg-TOPIC all finished story
I said: "[That's] the whole story [then]."

32 is a remarkably elliptical statement: the verb form ḍamam
"I said" has been deleted; the direct speech is actually "it's
all finished for me as far as the story goes."

33 nayi'yi-n'a
1 sg HAVE PERF-3 sg MASC BEN
I believed him.

34 nana-wup naŋi-da
1 sg I-sit 1 sg HAB-IMPERF
I was sitting [there], staying [there].
yile ŋayi ŋam-ŋ-tarpu  yile ŋayi-ka
father 1 sg 1 sg I PERF-3 sg-ask father 1 sg-TOPIC
kaŋu wurk me-da-wu,niŋi ŋaŋa tyandu waŋa
NC:person work 3 sg XII-IMPERF-3 sg MOVE LOC boat 'now'
I asked my father, my father being a man who was working
on boats then.

There is a special form for yile ŋayi viz. yelŋayi which occurs
in rapid speech. The next sentence shows forms after phonological
adjustments.

yelŋayi qentarpu
I asked my father.

yile mam-na
father 1 sg SAY/DO PERF-3 sg MASC BEN
"Father!" I said to him:

nanŋYuŋi dingŋi paŋu-ka ŋimu wungu
NC:thing dinghy that-TOPIC teeth inside
kanŋYuŋ-μuŋan
3 sg HAVE PERF-3 sg INVISIBLE TO SPEAKER MOVE PERF
pa-ŋi-lele nukun
3 sg X-1 sg-bite IRREALIS
"That dinghy has teeth and might bite me!"

yelŋayika ŋim-ŋa-kampe
3 sg SIT PERF-1 sg BEN-laugh
My father laughed at me.
40 nanjka mam-mba
who 3 sg SAY/DO PERF-2 sg BEN
"Who told you?"

41 mam-ŋa
3 sg SAY/DO PERF-1 sg BEN
"He told me."

42 kaŋgu ŋayi mamga
father's father 1 sg 3 sg SAY/DO PERF-1 sg BEN
'My grandfather told me:

43 pa-ŋy1-lele nukun
3 sg X-2 sg-bite IRREALIS
"It might bite you"'

The narrator reports what his grandfather said.

44 awu
No
"No!

45 namy1 lumbu nimin katu ku-ng1-tal
NC:thing buttocks back towards 3 sg VIII (SUBJ)-2 sg-cut
nukun
IRREALIS
The back [of the boat] might cut you."

The father is referring to the propeller when he says that the buttocks (back part) of the boat towards the back might cut you.
46 mam
   3 sg SAY/DO PERF
   He said.

47 mananga dimu paju yuwu
   NEG teeth there indeed
   "There are no teeth there; it hasn't got any teeth"

48 yuwu 49 yuwu 50 ma
   yes  yes  I said
   "Ah, yes, yes!"  I said.

When the tape was played back to the narrator he said ma was a mistake and should be replaced by qamm.

51 mulinq gayl-ka
   story 1 sg-TOPIC
   This is my story.

52 kongul gayl-ka qanavin-na-wa
   father's father 1 sg-TOPIC 1 sg HAVE PERF-3 sg NASC BEN-EMPH
   I believed my grandfather.

53 beje 54 mulinq mulinq mundak yuwu
   finished  story story old indeed
   [This is] an old story.
My grandfather told me the story about the dinghy; it was at the time when I was growing up.

This is an unusual use of the dative case inflection: "about; concerning." The sentence in full would have two quite distinct NPs with dative case marking:

My grandfather told me the story about the dinghy; it was at the time when I was growing up.

This is an unusual use of the dative case inflection: "about; concerning." The sentence in full would have two quite distinct NPs with dative case marking:
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