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AN INTRA-SENTENCE GRAMMAR OF UNGARINJIN
NORTH-WESTERN AUSTRALIA

by

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INTRODUCTION

Object of the Investigation

The object of the present account is a group of Australian Aboriginal dialects broadly classified by those who speak them as Ngarinjin ([ŋaŋɪŋjɪn]), or Uŋarɪnjin ([w]uŋaŋɪŋjɪn).¹ Figure 1 gives a rough idea of the location and extent of the territory with which Uŋarɪnjin is traditionally associated. The inset shows where this area is within Australia.

All of the fieldwork on which this study is based was done at Mowanjum Community, where by far the largest concentration of Uŋarɪnjin speakers is currently to be found. As can be seen from Figure 1, Mowanjum lies some distance away from the traditional Uŋarɪnjin-speaking area. Partly because it lies closer to the southern and western portions of that region, and partly for other historic reasons (discussed in McKenzie 1969), Mowanjum numbers, among its Ngarɪnjin residents, far more people traditionally associated with those portions of the Ngarɪnjin region than with the eastern.

For the same reasons, the form of spoken Uŋarɪnjin which predominates at Mowanjum is most nearly that of the southern and eastern regions. I say 'most nearly' because it is probably not identical to any pre-contact form of the language, but represents a new pan-dialectal norm which has arisen in recent times within a particular set of historic circumstances (ibid.).

¹There has been some confusion about these terms in the literature, both linguistic and anthropological. There is no difference whatever between the groups of dialects, or people, included by the two terms. Rather, /ŋarɪnjin/ is a bare root form of the appellation, while /uŋarɪnjin/ includes a gender prefix (w)u- (see pp. 53-55), which specifies 'w-class neuter', the gender of the word for *language* (wuɻan).

The unprefix form is used indifferently to mean either 'the Ngarɪnjin language' or 'Ngarɪnjin people' (not all of whom speak the language any more).

The prefixed form means *only* 'the Ngarɪnjin language'.

In this work, I refer to the language uniformly as Uŋarɪnjin, saving the potentially ambiguous Ngarɪnjin to refer unambiguously to 'the Ngarɪnjin people'.

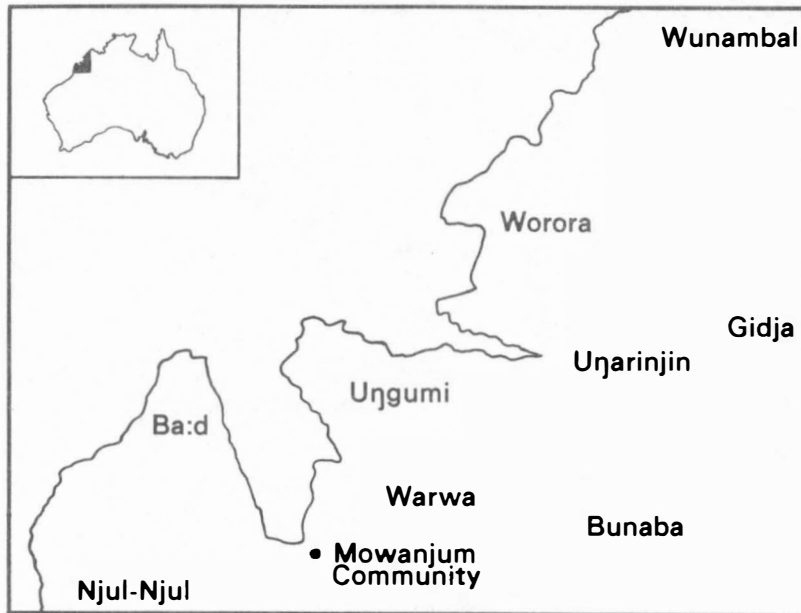


Figure 1
Uṅarɪnɪn Territory

That such a norm exists is indicated by the fact that the speakers of the easterly 'Guwidj' or 'Oḷa' dialect of Uṅarɪnɪn who reside at Mowanjum regularly substitute southern/western lexical items and verb morphology for 'equivalent' eastern forms when in the presence of southern and western Ngarɪnɪn people, but not vice versa.

Having said this much, I can specify the object of this account with somewhat more precision. Although I have collected considerable data on the maximally divergent Guwidj dialect, and rather less on the north-eastern Waladja dialect, I shall not attempt to cover these forms of Uṅarɪnɪn here, but shall confine myself to the southern/western form which predominates at Mowanjum.

The present account deals with phonetics, phonology, morphology, syntax, and with their functions at and below the level of the single sentence. It is a revised version of the first three chapters of my (1978) University of Chicago Ph.D. Dissertation. The organisation of

Uḡarınjin discourse, and the relationship between Uḡarınjin texts and their cultural contexts, will be treated in a future study. For a sizable Uḡarınjin text in an orthography similar to the one used here, see H.H.J. Coate: 'The Rai and the Third Eye', *Oceania* 37:93-123. The speaker is David Mowaldjiyali, one of my main informants for the present study. For a Uḡarınjin-English dictionary, on which Mowaldjiyali also worked extensively, see Coate and Elkin 1974. This is the largest Australian language dictionary yet published.

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I wish also to thank my teachers at the University of Chicago, especially Michael Silverstein, Paul Friedrich, Eric Hamp, and Marshall Sahlins. Thanks also to Howard Coate, who has generously shared with me the knowledge of Uḡarĩnjin which he has gained over a period of forty-five years as a medical missionary and devoted amateur linguist.

Finally, I wish to thank my teachers and hosts at the Mowanjum Community. Their generosity, patience, and perseverance with me are the bedrock on which this edifice is built.

LIST OF ABBREVIATIONS AND SYMBOLS

all.	allative	masc.	masculine
com.	comitative	N	noun
cont.	continuative	NP	noun phrase
d.b.	dative/benefactive	ob.	object
dat.	dative	opt.	optative
dis.	distad	pauc.	paucal
du.	dual	pl.	plural
ex.	exclusive	poss.	possessive
fem.	feminine	pres.	present
fut.	future	prox.	proximal
gen.	genitive	punc.	punctual
imp.	imperative	ref.	reflexive/reciprocal
inc.	inclusive	rel.	relative clause
inst.	instrumental	S	sentence
int.	interrogative	sg.	singular
irr.	irrealis	sub.	subject
iter.	iterative	trans.	translative
lat.	lative	voc.	vocative
loc.	locative		

/ / underlying phonological form

[] phonetic form

→ becomes

/___ in the environment

*w₂ a /w₂/ which undergoes second degree strengthening
(as per section 1.2.2.2)

√ verb root

word boundary

LIST OF ILLUSTRATIONS

1. Uḡarɨnjin Territory
2. Order Classes of the Uḡarɨnjin Verb

CHAPTER ONE

PHONETICS AND PHONOLOGY

1.1. Phonetics and Low-Level Segmental Phonology

1.1.1. Phonemic Inventory

The phonemic inventory of Uḡarɪnjin is shown in Table 1.

Table 1
Uḡarɪnjin Phonemes

Consonants and Semi-Vowels					
	Bi-labial	Lamino- pre-palatal	Apico- alveolar	Apico- pre-palatal	Dorso- velar
Stop	b	dʒ	d	ɟ	g
Nasal	m	nʒ	n	ɳ	ŋ
Lateral		lʒ	l	ɭ	
Rhotic			r	ɾ	
Glide	w	y			

Vowels			
	Front	Central	Back
High	i		u
Mid	e		o
Low		a (a:)	

This phonemic level representation is useful primarily as a practical orthography. My orthography differs from that of Coate and Oates in that I write the lamino-pre-palatal glide as *y* rather than *j*. This minor change in the system has been made in response to a consensus among those Uḡarɨnjɨn speakers who are literate in their own language, all of whom are also literate in English and most of whom therefore find *y* less confusing as a representation of this sound than *j*, which stands for a different sound in English. (For the question of /a:/, see section 1.1.2.3.3.)

1.1.2. Phonetic Realisation

1.1.2.1. Phonation Types

There exists a style of Uḡarɨnjɨn speech in which laryngealisation ('creaky voice') and ingressive whisper are often employed. This style seems to belong almost exclusively to adult women, and was traditionally prescribed for use by widows.

Except within that special, stylistically marked form of the language, all Uḡarɨnjɨn nasals, laterals, glides, vowels, and the rhotic continuant /r/ are always fully voiced, with (pulmonic) egressive airstream. The apico-alveolar trill/flap/r/ is sometimes partially or fully devoiced (for which, see p. 5).

Note that the phonemic inventory includes only one stop series, as is true of many Australian Aboriginal languages. Along with Coate, I follow the general Australian convention of writing these as 'voiced' stops, but this is a somewhat misleading convention, being grounded more in English-based sound perception than in universal phonetics. That is, what English speakers are responding to when they hear these as 'voiced' stops is not 'voicing' so much as the lack of aspiration. In the production of true voiced stops, there is, by definition, some vocal-cord vibration during the interval of oral occlusion. This is consistently true of these Uḡarɨnjɨn stops only when they follow nasals within word-internal consonant clusters.¹ In all other positions, these segments are often realised as true voiceless stops of the French variety, where voice onset and offset are simultaneous with oral release and closure respectively. Indeed,

¹This is true of stops in many languages, both Australian and non-Australian. For another Australian example, see Hercus (1969, p. 16ff). Non-Australian examples include Modern Greek and several other languages of Southeastern Europe (Hamp, personal communication).

in the case of word-final stops, voice offset often comes *before* oral closure, causing what sounds like an elision of the final stop, or its replacement by a glottal stop. For instance /adag bo/, *sit down!* can be realised as [ada b^W] or [ada? b^W] as well as [adag b^W].

There seems to be no thoroughly systematic allophony with regard to these voicing characteristics, but there is a general tendency for the true voiceless variants to occur especially frequently in careful speech.

In all speech, the lamino-palatal segment /dj/ is realised as voiceless more often than are the other stops.

1.1.2.2. Articulation

1.1.2.2.1. Stops and Nasals

Note that for each stop, there is a corresponding nasal. This 'correspondence' is not merely an abstract phonemic one. The respective places of articulation of all of the pairs of allophones are identical. Therefore a single description of each of those places will suffice for stop and nasal.

1.1.2.2.1.1. Bi-labials

All allophones of these two phonemes involve true bilabial occlusion. Before the back rounded vowel /u/, this occlusion is accompanied by noticeable rounding. In other environments, the closed lips show a neutral¹ degree of lateral spread.

1.1.2.2.1.2. The Lamino-pre-palatals

For anyone familiar with the sounds of Australian languages, 'lamino-pre-palatal' will serve as an appropriate 'imitation label'² for this pair of sounds. For anyone who lacks such familiarity, no such brief formula can adequately describe their articulation.

The tongue is laterally quite widely spread, with the tip touching the back of the lower teeth. The blade contacts the alveolar ridge and a relatively small portion of the adjacent palatal region. Sometimes the blade also contacts the back of the upper teeth.

¹As per figure b, Jones 1966:17.

²Pike 1943:16ff.

While the oral articulation for /nj/ and /dj/ is identical, one aspect of the latter calls for special comment. Immediately following the release of /dj/, there is a brief interval of audible turbulence. In other words, the stop is a slightly affricated one. For the corresponding nasal there is, of course, no appreciable build-up of air pressure during oral occlusion, and hence no audible turbulence upon oral release.

1.1.2.2.1.3. The Apico-alveolars

The active articulator for these consonants is just the *tip* of the tongue, which contacts the alveolar ridge in a position which is practically identical to that which is specified by Daniel Jones for 'cardinal alveolar t' (Jones 1969:46).

1.1.2.2.1.4. The Apico-pre-palatals

Ladefoged has observed that 'in some South Asian languages the retroflex consonants involve only the tip of the tongue and the back of the alveolar ridge, whereas in others there is contact between a large part of the underside of the tongue tip and much of the forward part of the hard palate' (Ladefoged 1971:39-40). There is a similar range of variation among the many Australian languages having 'retroflex' consonants.. Sometimes the underside of the tongue is actively involved. This is true, for instance, of Wemba Wemba (Hercus 1969:18), and Pitjantjatjara (Douglas 1964:15). In Uḡarĩnjin, on the other hand, it is just the apex which makes contact. The point of contact is in the pre-palatal region, such that the apex is pointing 'straight up' rather than 'bent back'.¹

1.1.2.2.1.5. The Dorso-velars

All allophones of these consonants are within the velar or uvular range. Before the front vowels /i/ and /e/, contact is relatively far forward: almost, but not quite, in the palatal region. In the environment of stressed /a/, contact is post-velar or uvular. Elsewhere it is velar.

¹These are precisely the terms in which the articulation of these consonants has been described by Uḡarĩnjin speakers, several of whom show a remarkably high degree of articulatory phonetic awareness.

1.1.2.2.2. Laterals

All lateral segments in Uḡar̄injin are voiced bilateral approximants without audible friction.

For the two apical laterals, ɭ and ɭ, the tip of the tongue is in the same position as for the corresponding apical stops and nasals (see above, pp. 3-4). The positioning of the rest of the tongue for these segments (and hence their relative 'clearness' vs. 'darkness') depends mainly on the quality of the preceding and/or following vowel. Both are relatively 'clear' in the environment of front vowels, and relatively 'dark' (though never as dark as the Russian ɭ, or the Scotch English one) in the environment of back vowels.

For the 'lamino-pre-palatal' segment /ɭj/, the tip and blade of the tongue are in the same position as for the corresponding stop and nasal (see above, p. 3). Unlike the apical laterals, this segment does not vary greatly in resonance under the influence of adjacent vowels. Rather, the middle part of the tongue is always held close to the palate, so as to give this segment its own characteristic 'clear' resonance.

1.1.2.2.3. Rhotics

'Apico-alveolar' /r/ has several allophones, all of which involve contact between the tip of the tongue and the alveolar ridge, or a position further back in the 'post alveolar' region. Word-medially, it is always a fully voiced trill [r] or flap [ɾ]. Word-finally, it is a voiced flap or a partially-to-fully devoiced trill. Usually, voicing extends through at least the first tap of the trill, then trails off. Sometimes, during the devoiced portions of these word-final trills, there is a weakening of articulation such that the tongue fails to make contact and the trill dissolves into a fricative [ɹ]. Thus, the word /ḡur/, *to hit*, may be pronounced in any of the following ways: [ḡUr], [ḡUr], [ḡUrr], [ḡUɾr], [ḡUɾɹ], [ḡUrɹ], [ḡUrrɹ], [ḡUrrɹ].

'Apico-pre-palatal' /ɾ/ though placed with ɖ, ŋ, and ɭ (and with r) on grounds of pattern congruity, differs from all of them in an essential way. It is produced without any contact between the tongue and the roof of the mouth. Rather, the apex is pointed straight up in the direction of the pre-palatal area, as if its target were the same as that of the other apico-pre-palatals, but is never brought close enough even to cause audible friction. The sound is phonetically a vocoid: [ə̞]. Just as with ɭ and ɭ, the position of the mid and back

part of the tongue for /r/ depends on the adjacent vowels, so that its allophones include 'r-coloured' versions of all the vowels discussed below.

1.1.2.2.4. Glides

/w/ is always a voiced bi-labial frictionless continuant. Before /o/ and /u/, its articulation includes noticeable lip-rounding. Before other vowels, the lips are normally not visibly rounded. But under heavy emphasis, /w/ in all environments may be articulated with obvious lip rounding and protrusion. Under all conditions, there is often a noticeable degree of velarisation.

Phonetically, the 'lamino-pre-palatal' glide /y/ bears the same relation to dj, nj, and lj as r bears to ɖ, ŋ, and ʎ. That is, it is a voiced vocoid whose articulatory target is the same as that of dj, nj, and lj. The tongue is laterally quite widely spread, with the tip pointing toward (or even contacting) the lower teeth. For the articulation of y, the blade and mid-tongue are brought quite close to the palate: closer than for canonical Uḡarɨnɨin /i/ (which is [I]), but not close enough to cause any audible friction. The nature of the movement to and from this position depends on which sounds come before and after it.

1.1.2.3. The Vowels

1.1.2.3.1. The High Vowels

The 'unmarked' or 'elsewhere' realisation of the high vowels /i/ and /u/ is [I] and [U] respectively. That is, they are not the maximally high, tense, front vowels of French 'pipe' and 'poudre', but somewhat lower, laxer, and centered, approximately as in English 'pip' and 'book'.

1.1.2.3.1.1. /i/

/i/ is realised as [i] in three environments:

- 1) when followed by /y/, e.g.,

/biya/ *ought* → [biyʌ]

/budniyaḡari/ *beautiful people* → [bUdnɨyʌḡʌri]

- 2) when followed by /dj/ or /nj/ in doubly closed syllables (those of shape C₁VC₂), except when C₁ is /b/ or /w/, in which case /i/ retains the [I] pronunciation, e.g.,

/rɪdj/ *to pull* → [rɪdj]
 /gidja/ *the Gidja tribe* → [gɪdjʌ]
 /linj/ *to look* → [linj]
 /mindinja/ *over there* → [mɪndɪnjʌ]

but:
 /widjin/ *open sore* → [wɪdjɪn]
 /bidjin/ *to connect* → [bɪdjɪn]
 /winjaɖun/ *the Synott Range* → [wɪnjʌɖun]

3) when occurring word-finally or before a 'loose juncture' (see below, 2.1.5.4.1), e.g.,

[djiri] *him* → [djɪri]
 [gandɪ] *uncle* (MB, et al.) → [gʌŋɖɪ]
 [di-gu] *for that, therefore* → [dɪgʊ]

Since [i] does not contrast with [iy] in word-final position, one could account for conditioning of type 3 above by positing underlying /..iy#/ for all instances of final /i/. The maximally high quality of these vowels would then be taken care of by the type 1 rule. I have no arguments against such a proposal, but since I prefer to make the phonology no more abstract than necessary, I shall continue to represent final [i] as /...i/ and retain the type 3 explanation given above.

There are, however, some instances of i, which I will account for by positing underlying /iy/. These occur in environments where, according to the rules given above, one would expect [I]. There is, for instance, a suffix meaning 'in the direction of' which is pronounced [-binj]. Rather than positing a separate /i/ phoneme (distinct from /I/) just to account for the relatively few exceptions of this kind, I will represent these instances of [i] as /iy/. This suffix, then, will be spelled -biynj.

A phonological solution of this kind also seems to be the best way of accounting for the limited instances of phonetic long vowels in Uŋaɾɪnjin. Note that my phonemic inventory for the language did not include vowel length as distinctive, except, possibly for /a/. Uŋaɾɪnjin differs strongly in this respect from Worora, a fairly closely related language, most of whose speakers also speak Uŋaɾɪnjin (often with 'foreign sounding' long vowels in words having long-vowel Worora cognates!). In Worora, long vowels occur with approximately the same frequency as short ones and must be regarded as distinct phonemic units. In Uŋaɾɪnjin, on the other hand, phonetic long vowels are very infrequent. This alone makes it unlikely that they are single phonemes.

But there is more solid evidence which points to the same conclusion. For every Uḡarɨnjɨn word showing a phonetic [i:], when the word is pronounced slowly and carefully by native speakers, the [i:] has a 'circumflex' pitch contour. That is, over the duration of the vowel, there is a slight rise in pitch, followed by a slight fall. Furthermore, where this long i is not followed by /y/, /dj/, or /nj/, there is, for many speakers, a change in vowel quality such that what one hears is a diphthong /iɨ/. Therefore, even at the phonetic level, there are good reasons to regard these long segments as /iyi/. This accounts for the maximally high quality of the first part of this segment (type 1 conditioning) and for its phonetic length.

Phonologically, this solution accounts both for the relative infrequency of [i:], and for the fact that it never contrasts with /iyi/. The latter, that is, is a sequence which does not otherwise occur.

1.1.2.3.1.2. /u/

As noted above, the usual realisation of this vowel is [U]. It is realised as [u] in two environments:

- 1) when followed by /b/ or /m/, e.g.,
dubula red + [dúbUɨɨ] *gumuḡ-gumuḡ quiet* + [gum^Uḡ gum^Uḡ]
- 2) when occurring word-finally or before a loose juncture, e.g.,
bu to blow + [bu]
bubu + ḡari cigarette + [búbuḡɨri]
 (see section 2.6.4.8)

It will be noted that these two rules may readily be combined with the first two rules for /i/ given on pp. 6-7. The more general form of rule 1) says that a high vowel, when followed by a 'corresponding' stop or nasal, is maximally high, maximally peripheral, and maximally tense. In order to capture the 'correspondence' which is involved here, one must assign some common feature specification to 1) labials and /u/, and 2) palatals and /i/ (cf. sec. 1.2.4.1 below).

When /u/ is followed by /w/, its phonetic realisation depends on which vowel follows the /w/.

When /u/ occurs before /wa/, it is lowered, by varying degrees. In careful 'elicitation speech', it is still identifiable as /u/, but in normal conversational style, it is lowered to [ɔ], where it is

phonetically indistinguishable from one of the allophones of /o/ (which causes no confusion because /o/ in this environment is realised as [o], for which, see section 1.1.2.3.5).

For example:

/duwa/ *ankle* → [dɔwΛ]
 /-!uwa/ *to fear* → -[!ɔwΛ]-

When /u/ occurs before /wu/, the phonetic realisation of this /uwu/ sequence is analogous to that of /iyi/, discussed above (p. 8). That is, it emerges as a long vowel [u:], or mild diphthong [u̠]. Solid evidence for the 'psychological reality' of /uwu/ as the underlying representation for [u:] in Uḡarɪnjin was provided by one of my informants, David Mowa!djiyali, who, before I suspected that there were no underlying long vowels in Uḡarɪnjin, presented me with a manuscript in which he had written the word [bú:ru], *north* as buwuru. Other examples are:

/duwu/ *to float* → [du:]
 /djuwunbi/ *fibula* → /djú:nbi/

1.1.2.3.2. /a/

The /a/ phoneme is by far the most frequently occurring vowel in the language and shows a wider range of allophonic variation than any other vowel.

It is maximally open when it occurs in monosyllabic words, and is somewhat longer in duration in this environment than elsewhere, e.g.,

/a/ *he goes* → [a·]
 /ba/ *to arrive* → [ba·]
 /wa/ *not* → [wa·]
 /ɖar/ *to stand* → [ɖa·r]
 /gaŋ/ *to sing* → [ga·ŋ]
 /mag/ *message stick* → [ma·g]

When carrying primary stress¹ in polysyllabic words, /a/ is higher and shorter than the above [a·], by a degree which depends on which consonant follows it.

The most centered allophone, [Λ], occurs before r (but see section 1.1.2.3.3 below).

¹For an account of Uḡarɪnjin stress, see Coate and Oates 1970:7-8.

For example:

/bara bara/ *story* → [bÁrəbÀrə]
 /yaridj/ *to go down* → [yÁridj]
 /mariŋi/ *my (potential) wife* → [mÁrIŋi]

Before w, /a/ is realised as a low, somewhat fronted vowel, about halfway between [a] and [æ] in quality, which I transcribe as [a̟].

For example:

/mawŋgi/ *cold season* → [má̟wŋgi]
 /gawad/ *childishness* → [ka̟wÁd]
 /awa/ *open* → /á̟wÁ/

The 'elsewhere' realisation of /a/ under primary stress is as a low vowel somewhere between [a] and [ʌ]. Under secondary stress in all environments, /a/ is regularly realised as [ʌ]. Tertiary-stressed (i.e., unstressed) /a/ is reduced to [ə].

1.1.2.3.3. Long /a/

Comparative evidence from Worora suggests that the proto-language from which Uŋarŋinjin is descended showed phonemic distinctions between long and short a, i, and u. Compare, for example, the Worora and Uŋarŋinjin forms in Table 2.

Table 2
 Long and Short Vowels in Worora and Uŋarŋinjin

Worora	Uŋarŋinjin
a:wa <i>opened up</i> awa <i>he</i>	awa <i>open</i>
i:dja <i>man</i>	idja <i>my father</i> , FB, FFBS, FFFBSS, et al.
ŋuru: <i>turn around</i>	ŋuru <i>turn one's back</i>
ŋuru <i>right here</i>	

As I have discussed, Uŋarŋinjin does exhibit a few instances of phonetic [i:] and [u:], which can be explained as arising from /iyi/ and /uwu/ respectively. As Table 2 illustrates, one does *not* find [i:] and [u:] as reflexes of Proto-Kimberley */i:/ and */u:/, but rather their 'short' counterparts, for which length is not distinctive. Likewise, there are a few instances of phonetic [a:] in Uŋarŋinjin all

of which probably arise from sources other than underlying (or historic) /a:/.

Of these, the easiest to account for are those which come from a+a in external sandhi.

For example:

/bá	á	ngal	/	→	[bá:ngAlu]
<i>arrive</i>	<i>he came</i>				<i>he came</i>
	<i>he arrived</i>				
njá	á	wan		→	[njá:wAn]
<i>born</i>	<i>he falls</i>				<i>he is born</i>

This contraction of a+a to a: takes place mainly in the specific morphological environment exemplified above, that is, at the juncture between verbal particle and conjugated auxiliary (see section 2.2). But this morphological specificity may be an accidental result of the fact that a: arises in external sandhi only from two *stressed* vowels, a requirement which is seldom met elsewhere. In any case, the rule is an optional one, and seldom applies in the most careful speech.

There is another position *within* the conjugated auxiliary verb where [a:] occurs (albeit sporadically) in the speech of most Uṅarɪnjin speakers. I shall argue below (section 2.2.4) that this [a:] arises from a+w₂a₂, where w₂ is a morphophoneme which is distinct from w₁ in that it alternates with /g/ rather than /b/.

Then there is a tiny but troublesome residue of unanalysable monomorphemic words which show internal [a:] vowels, e.g.,

[yá:rA]	<i>(male) hill kangaroo</i>
[má:ngArA]	<i>clan territory of mother's brother</i>

In order to account for such forms, it may be necessary to posit a separate /a:/ phoneme for Uṅarɪnjin. This phoneme, if it exists, may be a recent importation due to lexical borrowing, or, on the other hand, may be the last vestige of an earlier system in which vowel length was distinctive for /i/, /u/, and /a/. Either way, the presence of this distinction just for /a/ in present-day Uṅarɪnjin would accord with general principles of markedness, /a/ being the least marked member of the vowel system, and, hence, most likely to be uniquely sub-differentiated along another dimension such as length.

Another, more elegant explanation is indicated by the verb-internal morphophonemic facts cited above. That is, one could posit underlying /aw₂a/ for all instances of otherwise unexplained [a:]. As we have seen (section 1.1.2.3.1), [i:] and [u:] arise from iy_i and uw_u

(morphophonemic uw_1u) respectively. In the operation of this, and other (see section 1.1.2.3.1.2) phonological rules, i and y (plus also dj and nj) form a 'natural class' as do u and w_1 (along with b and m). In the operation of the word-internal $/a+w_2a/ \rightarrow [a:]$ rule, w_2 and a form another natural class (which also includes g and η). It is thus possible to account for all distinctive word-internal Uḡarınjin 'long vowels' by a single phonological rule which operates

on the sequence $\left\{ \begin{matrix} i \\ u \\ a \end{matrix} \right\} +$ corresponding glide $+ \left\{ \begin{matrix} i \\ u \\ a \end{matrix} \right\}$. This solution

both simplifies the environment of this rule and regularises the Uḡarınjin vocalic inventory by obviating the need for a length opposition at just one position. But despite its elegance, I am somewhat suspicious of this solution because there is no morphological evidence for positing underlying $/aw_2a/$ outside the realm of verbal morphology, a realm in which there exist several phonological sequence restrictions which do not apply elsewhere. In any case, w_2 (unlike y) is strictly an abstract morphophonemic unit, which never surfaces as phonetically distinct from w_1 , so in my phonemic orthography, I will follow Coate and Elkin by writing $[a:]$ as $a:$ in those rare instances where it occurs, noting the morphophonemic principles where applicable in verbs.

1.1.2.3.4. /e/

The 'elsewhere' realisation of /e/ is as a short front vowel which approximates the [ɛ] of English 'set'.

When followed by y , dj , or nj /e/ is realised as a somewhat higher vowel, almost, but not quite, as high as the mid front cardinal vowel [e], e.g.,

/nedj/ urinate \rightarrow [ŋe^vdj]

/menja/ should not \rightarrow [mɛ^vnjΛ]

/yeyad/ lungs, breath \rightarrow [yɛ^vyΛd]

/e/ has this same nearly-cardinal [e] quality when it occurs as the final segment in a monosyllabic word, but is somewhat longer in duration in this environment than elsewhere, e.g.,

/ŋe/ I am \rightarrow [ŋe^v·]

/me/ vegetable food \rightarrow [me^v·]

1.1.2.3.5. /o/

In nearly all environments, /o/ is realised as a mid-to-low back rounded vowel somewhere between cardinal [o] and [ɔ]. It is raised and rounded to a position closely approximating (but not quite as high as) [o] when followed by w, e.g.,

djowad to jump → [djɔ̞^vwʌd]

rowanari white → [rɔ̞^vwʌŋʌri]

1.1.2.4. Some Additional Phonetic Diphthongs

As seen above, the sequence V + glide + V is often realised as a phonetic long vowel or diphthong. Now that I have described all five underlying vowels, there are some further diphthongs which can be accounted for in this way.

First, there is a falling front diphthong $i \text{ } \bar{\text{æ}}$ which sounds like the 'a' of 'man' in Chicago English. It occurs, for instance, in the word 'shame' which is pronounced [dʒi[̄]æ̞n]. In their *Ngarinjin-English Dictionary*, Coate and Elkin spell this word djijan (read djiyan). But there are many Uḡarınjin words containing the sequence iya in which this sequence is not realised as a diphthong, but as bisyllabic [..iyʌ..] (for examples see p. 6), and no words showing an $i \text{ } \bar{\text{æ}}$ sound for which we have independent evidence for underlying /iya/. Rather, both the phonetic and the distributional evidence point to underlying /iye/. Phonetically, the initial and terminal loci of this diphthong are within the range of /i/ and /e/ respectively (the initially maximally high quality being conditioned by the presence of following /y/, as per p. 6), while the terminal locus is not within the range of the underlying /a/ assumed by Coate and Elkin. Distributionally, one may note that, while there are plenty of occurrences of bisyllabic [..iyʌ...], there are no examples of non-diphthongised [..iyɛ...]. Therefore, we may safely assume a low-level phonological rule /iye/ → [i[̄]æ̞].

There is another phonetic diphthong which is pronounced [ɛ̄Ū] or [ɛ̄ū], depending on what follows. Since its initial and terminal loci are within the range of /e/ and /u/ respectively, and since there are, as far as I know, no independent instances of bisyllabic -ewu-, I will assume underlying /ewu/ for these diphthongs.

Examples are:

dewu

→ [d^heu]

(onomatopoeic word representing
the sound made by the umbrella
lizard, *Chlamydosaurus kingii*)

newu newun *masked owl*

→ [n^heu^heu^hn]

1.1.3. Phonemic Distributional Restrictions

Any of the five vowels may occur word-initially, medially, or finally. In initial position, i- and u- merge phonologically with yi- and wu- respectively. Sometimes the initial glides are phonetically present; sometimes not. The difference is never distinctive.

All of the consonants may occur word-initially except r and lj.

Any consonant may occur word-finally except lj, b, m, or r̥. When occurring finally, dj and g tend to be elided.

Initial consonant clusters are textually rather infrequent, and are limited to the following:

b̥r̥, d̥r̥, m̥r̥, g̥r̥, br̥, br̥r̥

Word medial, intervocalic clusters of two consonants are quite common. Table 3 shows which combinations occur. Some combinations which do not occur within the word as such are found where a consonant-initial suffix or postposition follows a consonant-final stem. These are instances of what I have called 'loose juncture' (see section 2.1.5.4.1). Where some particular sequence occurs *only* at a loose juncture, this fact is indicated by an L in the cell for that combination on the chart. Combinations which occur within the word as such are indicated by an X.

It is possible that there exist some Uṅarṅinjin words showing internal clusters not noted on Table 3. But the number of such cases must be small, for this tabulation is based on a thorough search through my entire corpus of some 1,000 pages, and a critical review of the Coate and Elkin *Ngarinjin-English Dictionary*, which contains about 7,500 words. Most of the clusters noted on the chart are attested by over twenty examples in these combined texts.

Looking at the chart, one can draw several generalisations which shed light on the operation of certain morphophonemic rules to be discussed below (section 1.2).

First, note that where a nasal consonant occurs as the first member of one of these clusters, the second member can only be a nasal or a stop.

A second important generalisation involves just the lamino-pre-palatals *dj*, *nj*, *lj*, *ɣ*, the apico-alveolars *d*, *n*, *l*, *r*, and the apico-pre-palatals *ɖ*, *ɳ*, *ʎ*, *ʀ*. Because of the way they fit into the five-place articulatory scale of Uḡarɨnjin consonants, let us label these lamino-pre-palatal, apico-alveolar, and apico-pre-palatal positions 2, 3, and 4 respectively. The generalisation we can make is that when both consonants of a word-internal cluster are drawn from the set {2, 3, 4}, the members of the pair may not differ by one. There are, for instance, 4-2 pairs such as *ɖdj* and *ʎdj*, and 4-4 pairs such as *ɳd* and *ɳr*, but no 4-3 pairs or 3-2 pairs. Of course, not all combinations which do not violate this constraint do in fact occur. The point is rather that there occur none which do violate it.

Note finally that *ɖ* does not occur as the second member of any cluster in which the first member is not also an apico-pre-palatal.

Word-internal tri-consonant sequences are limited to the following:

<i>lŋg</i>	<i>lɳb</i>	<i>lŋg</i>	<i>lɳb</i>
<i>ʎŋg</i>	<i>ʎɳb</i>	<i>ʎŋg</i>	<i>ʎɳb</i>

Note that these sequences, which fit into a pleasingly regular pattern, follow the same {2, 3, 4} constraint which was found to hold among the two-consonant clusters discussed above.

1.2. Morphophonemics

Morphophonemics assumes a morphology, but the morphology cannot be represented without morphophonemes. Thus, there is no entirely satisfactory way of ordering one of these two grammatical domains with respect to the other in a presentation such as this. Here I shall follow the traditional but arbitrary practice of presenting the morphophonemics first, then the morphology, but will try to minimise the problem of mutual implication through the use of extensive cross-referencing between the two sections.

1.2.1. Morphophonemic Inventory

The units which enter into morphophonemic alternations in Uḡarɨnjin are shown in Table 4.¹

¹For reasons which will become clear in sections 1.2.2.1 and 1.2.4, Hamp (personal communication) has suggested that the two units listed on table 4 as *w*₂ and *a*₂ be identified as /ɣ/ and /ʎ/ respectively. Although I find this suggestion in some ways an attractive one, I have resisted adopting it here, mainly out of a constitutional dislike on my part of investing morphophonemes with phonetic values which do not directly correspond to any of their surface manifestations. I prefer to keep them patently abstract by using numerical subscripts.

Table 4
Uḡarĩnjin Morphophonemes

mb				ŋg
b	dj	d	ɖ	g
w ₁	y ₁	y ₂	r	w ₂
u	i			a ₁
		o	e	
		a ₂		

1.2.2. The Sonorance Hierarchy

The first three rows of table 4 form what may be called a 'sonorance hierarchy'. By a process which I will call 'consonant strengthening', each of the continuants in row 3 is, in certain environments, replaced by the corresponding stop given above it in row 2 ('first degree strengthening') or by the nasal + homorganic stop combination given above it in row 1 ('second degree strengthening').

1.2.2.1. First Degree Strengthening

Among the environments which condition these strengthenings, by far the easier ones to specify are those which give rise to strengthening of the first degree. In general, these environments are predictable from the consonant cluster restrictions given above (section 1.1.3). One of the generalisations reached there was that where a nasal is the first member of a cluster, the second member can only be a nasal or a stop. Accordingly, whenever one of the morphophonemic continuants in row three occurs after a nasal, it is replaced by its corresponding stop. Because no Uḡarĩnjin words or morphemes end in *m*, and none except a few 'verbal particles' (section 2.2) ends in *ŋ*, this process is attested mainly for *nj-*, and *n-*, and *ŋ-* among the nasals.

The following forms exemplify this process for each of the continuants in row 3:

<i>njin</i>	$-\sqrt{w_1}a - n$	\rightarrow	$[njɪnb\Lambda n]$
2sg.	<i>-fall-pres.</i>		<i>you fall</i>
	(for \sqrt{wa} . see section 2.2.1)		

- garen - w_1 alu → [gárenbʌlu]
 (place called) Garen - *from* *from Garen*
 (for $-w_1$ alu, see section 2.6.4.6)
- linj - wa → [lɪmbʌ]
 to look at-iter. *to peer at*
 (for -wa see section 2.2.14) (for nj+m, see section 1.2.3.2)
- gaŋ - wa → [gáŋba]
 to sing-iter. *to sing*
 (see section 2.2.14)
- y_2
 njin - $\sqrt{y_2}i$ → [njɪ́ndi]
 2 sg. *be* *you are*
 (for $\sqrt{y_2}i$ see section 2.2.1)
- wuʌn - y_2 ali → [wúʌndʌli]
 word *indeed* *word indeed*
 (for y_2 ali, see section 2.6.4.1)
- warmaʌa - biynj - y_2 ali → [wármʌʌbiyndàli]
 desert all. *indeed* *desert-wards indeed*
 (for biynj, see section 2.1.5.4.3.3) (for nj+n, see section 1.2.3.2)
- y_1
 ŋan - ∅ - $\sqrt{y_1}i\lambda$ - n → [ŋʌnjɔdʒɪlʌn]
 1 sg. 3sg. pres. *he holds me*
 (for $\sqrt{y_1}i\lambda$, see section 2.2.1) (for n+nj, see section 1.2.3.2)
- yudug njin - $\sqrt{y_1}inde$ - n → [njɪ́njɔdʒɪndɛn]
 bow down 2sg. *fall* pres. *you bow down*
 (for $\sqrt{y_1}inde$ see section 2.2.1)
- ganda - biynj - y_1 u → [gʌndábiynjdʒù]
 there all. lat. *over to there*
 (for $-y_1$ u see section 2.1.5.4.3.4)
- umbuŋ - y_1 u → [úmbUŋdʒù]
 what-cha-ma-call-it lat. *to what-cha-ma-call-it*
 (for umbuŋ, see section 2.1.4)

η an	-	\emptyset	-	$\sqrt{\text{ra}}$	-	η	\rightarrow	[$\eta\acute{\Lambda}$ nda η]
1sg.		3sg.		come		pres.		he comes to me
(for $\sqrt{\text{ra}}$, see section 2.2.1)								(for $\text{d}\rightarrow\text{d}$, see section 1.2.3.3)
Wyndham ¹	-			ra			\rightarrow	[wíndəmd $\acute{\Lambda}$]
Wyndham		loc.		(see section 2.1.5.4.3.1)				at Wyndham
"billabong" ²	-			ra			\rightarrow	[bíləbɔŋd $\acute{\Lambda}$]
		loc.						
umbun	-			ra			\rightarrow	[ʊmbUŋd $\acute{\Lambda}$]
what-cha-ma-call-it		loc.						

η an	-	\emptyset	-	w_2a_2	-	$\sqrt{w_1u}$	\rightarrow	[$\eta\acute{\Lambda}$ ngɔ]
1sg.		3sg.		irr.		(see section 2.2.4)		hit

w_2 angun some time

first-syllable-reduplicated form:

w η -w $_2$ a η -gun \rightarrow [w η gáŋgUn]

any time

Although first-degree strengthening is not attested for every continuant after every nasal, every morphophonemic continuant (i.e., each of the units in row three of the chart) which does occur after a nasal is strengthened. The fact that examples do not exist for every possible combination is, I submit, an accident of the morphology rather than a fact about the morphophonemics.

Outside of the 'post-nasal' position, the environments for first-degree strengthening are somewhat less regular, and differ depending on which continuant is at issue. The general tendency is for all continuants to strengthen following any consonant (including, of course, the nasals, after which strengthening applies without exception).

¹m does not occur as the final segment of any native Uŋarinyin words. This word, which is the name of a town in the eastern Kimberley is a 'foreign' English word. But consonant-strengthening applies as expected even following m, as in this rare example.

²This noun, which has an 'impermissible' final - η , is a borrowing by way of English. Here again, strengthening operates in the expected manner.

This follows a general proscription against sequences of consonant-continuant, which is evident from an inspection of table 3 (p. 15).

But where the first consonant of the pair is not a nasal, this proscription does not apply 'across-the-board'.

First, note that *w* may occur after *l*, *ʃ*, or *r*. Accordingly, morphophonemic w_1 does not undergo strengthening in these positions, e.g.,

/madjal - w_1 alu/	→	[má ^ˆ dja ^ˆ lw ^ˆ ʌlu]
<i>grass from</i>		<i>from the grass</i>
(see section 2.6.4.6)		
/ɖol - w_1 a/	→	[dɔ ^ˆ ʃw ^ˆ ʌ]
<i>burst iter.</i>		
(see section 2.2.14)		
/ŋuʃar - w_1 alu/	→	[ŋúʃlɾw ^ˆ ʌlu]
<i>north from</i>		<i>from the north</i>
/ŋar - $\sqrt{w_1}a$ - n/	→	[ŋárwʌn]
<i>we(incl.) fall pres. we fall</i>		
(for $\sqrt{w_1}a$, see section 2.2.1)		

After all other consonants, w_1 is strengthened to *b*. Note that *djb* and *gb* are forbidden clusters. When these sequences are present underlyingly, they are realised as *yb* and *b* respectively. The phonological rule which effects the latter, i.e., $g \rightarrow \emptyset / _b$ (or perhaps $g \rightarrow w / _b$, as per section 1.2.3.1) must be ordered after first degree strengthening to account for the fact that morphophonemic . . .VG- w_1 v . . . is realised as *VbV*.

The following forms exemplify first degree strengthening of w_1 in environments other than *l-*, *ʃ-*, and *r-*, and the rules $g \rightarrow \emptyset / _b$ and $dj \rightarrow y / _b$:

did - w_1 a	→	[dɪ ^ˆ ɖbʌ]
<i>to cut iter.</i>		(see section 2.2.14)
ɾulug - w_1 a	→	[ɾúʃw ^ˆ ʌ]
<i>to shift iter.</i>		
burgaydj - w_1 a	→	[búrgʌybʌ]
<i>to question iter.</i>		
wowalad - w_1 a	→	[wówəʃlɾdbʌ]
<i>to clear a piece of land iter.</i>		

All of the other morphophonemic continuants undergo first degree strengthening following any consonant. This generalisation is not supported by examples for every possible consonant-continuant pair, again, I submit, because of accidents of morphology. It must be borne in mind that the number of morphemes involved is quite limited. Furthermore, for several strengthening combinations, the only available examples are found at the juncture between word and post-position. Since Uḡarɨnjin words may not end in r, lj, b, or m, (see section 1.1.3) strengthening for most continuants is not attested following these consonants. (But see the m- example on p. 19). But since there is no counter-evidence, there is no harm in stating the rule as generally as possible, viz.: all morphophonemic continuants (i.e., the units in row three of table 4 on p. 17) except w_1 strengthen following any consonant.

For y_1 , y_2 , and w_2 (as for w_1 above), these strengthenings follow consonant cluster restrictions which are evident from table 4. Curiously, this is not true of ṛ. Alternating morphophonemic ṛ occurs on only two morphemes. One of them is one of two allomorphs of the transitive verb root $\sqrt{a} \sim \sqrt{ra}$, *go to, come to*. The only consonant it ever follows is n, in which case it strengthens to ɖ (+d), as illustrated by the example on page 19 above. The only other morpheme showing alternating ṛ is the locative postposition -ra. Note that within the word, ṛ is permitted in several post-consonantal positions, including r-, ɖ- and g-. Nonetheless, the ṛ of this locative post-position strengthens following *any* consonant, including these three. Strengthening of this ṛ after nasals has already been illustrated on page 19. Strengthening after other consonants is illustrated by the following examples:

ma·g <i>message stick</i>	-	ṛa	→	[má·gḍΛ̣] <i>on the message stick</i>
wandiwuɖ <i>kangaroo</i>	-	ṛa	→	[wá^ndIwUɖḍΛ̣]
bagid <i>pocket</i> (borrowing from English)	-	ṛa	→	[bá^gIdḍΛ̣]
ɲurul <i>tree</i>	-	ṛa	→	[ɲŪrUIḍΛ̣]
bundu <i>the bush</i>	-	ṛa	→	[bŪndU ḍΛ̣]

oŋar - ra → [ʒŋʌrdʌ]
his bone

The cluster restrictions governing the behaviour of /w₂/ (that is, the w which alternates with g rather than b) are hard to specify in detail because, outside of a few reduplicating forms such as "wəŋgun" (see example on p. 19) w₂ occurs in only two places. One of them is on the 'irrealis' morpheme /-w₂a₂/ (for which see section 2.2.4). Its behaviour there is not predictable from the cluster restrictions of section 1.1.3. As noted above (p. 20), /w₁/ may occur following any of several non-nasal consonants, including r, as indicated for w on table 3. /w₂/ on the other hand, may not occur as w after r, but is strengthened to g in this position, e.g.,

/b - ar - w₂a₂ - √w₁u/ → [bʌrgo]
 3pl. -1 pl. incl. - irrealis - *hit* *we might act upon them*

This r__ position (for further examples of which, see pp. 94, 102) is the only post-non-nasal-consonantal position in which w₂ is attested.

The other position in which w₂ can be said to occur is word-initially, on the w₂ class demonstratives *ganda*, *guno*, *gandinja* (see table 7, p. 33), where it is strengthened to g. This particular strengthening seems impossible to specify in phonological terms, since w₂ also occurs in unstrengthened form in the same phonological environment. (Compare, for example, the w₂-class-prefixed verb form *wəŋga it went*.) Rather, this strengthening should be seen as a morphologically specific one, like the second-degree strengthenings discussed below (section 1.2.2.2).

An examination of table 3 reveals that the phoneme y may not occur following any consonant. Accordingly both of the morphophonemes /y₁/ and /y₂/ undergo first-degree strengthening when following all consonants after which they are attested. This has already been illustrated for the post-nasal positions. The following forms show strengthening after other consonants:

		/y ₂ /	
/yanar	- y ₂ ali/	→	[yá^nʌrdʌli]
<i>little twigs</i>	<i>indeed</i>		
/miyul	- y ₂ ali/	→	[mfiyUldʌli]
<i>mule</i>	<i>indeed</i>		

		$/y_1/$	
$/gula/$	-	$y_1u/$	→
<i>bamboo</i>		lat.	
			[gúɫɫɫdjù]
$/oŋma/$	-	$y_1u/$	→
<i>white ochre</i>			
			[óŋmɫɫdjù]
$/daydj$	-	$y_1u/$	→
<i>dust</i> (English borrowings)			
			[dáydjɫjù]

1.2.2.2. Second Degree Strengthening

The environments for second-degree strengthening, unlike the above, are probably impossible to specify in strictly phonological terms. Rather, second-degree strengthening takes place only in certain *morphologically* specific environments. It is unambiguously attested only for $/w_1/$, $/b/$, and $/w_2/$.

For example:

		$/w_1/$	
$/wu$	-	$\sqrt{w_1a}$ - n/	→
w-class sub.		<i>fall</i> pres.	
			[(w)úmbɫn]
			<i>it falls</i>
$/ma_2$	-	$\sqrt{w_1awa}$	→
m-class - 3sg. sub. - ob.		<i>be ignorant of</i>	
			n/ → [mumbá'wɫn]
			pres. <i>he is ignorant of it</i> (m-class)
(for $a_2 \rightarrow u$, see section 1.2.4.1)			

		$/b/$	
$/ba_2$	-	$\sqrt{y_1ibu}$ /	→
imp. - masc. ob.		<i>throw</i>	
			[bémbu]
			<i>throw it</i>
(for ba_2^- , see section 2.2.6.1)			

		$/w_2/$	
$/ma_2$	-	$w_2a_2 - \sqrt{y_1i}$ /	→
m-class sub.		irr. <i>be</i>	
			[mŪŋge]
			<i>it might be</i>
(for $a_2 + y_1i \rightarrow e$, see section 1.2.4.2)			
a_1	-	\emptyset - $w_2a_2 - \sqrt{w_1u}$	→
sg. masc. ob.		3sg. irr. <i>hit</i>	
			[á^ŋgɔ]
			<i>he might act upon him</i>

There is a general tendency for second-degree strengthening to occur in positions where it serves to break up sequences of V + glide + V + glide + V which would otherwise coalesce into a single, morpho-phonemically ambiguous vowel. This is true, for instance, of the two examples given under 'w₂' above. But second-degree strengthening is by no means automatic in such environments, nor does it always serve this function when it does occur, as illustrated by the other examples above.

1.2.3. Some Additional (Morpho) Phonological Rules Affecting Consonants

Several other phonological processes besides consonant strengthening have been silently introduced into the above discussion of that phenomenon.

1.2.3.1. Elision

On page 20, I introduced two elision rules $g \rightarrow \emptyset / _b$ and $dj \rightarrow y / _b$, which were adequately described and exemplified there. Both rules could be subsumed under a more general rule by which dj and g are weakened to corresponding continuants before b. That is,

$$\left\{ \begin{array}{l} dj \rightarrow y \\ g \rightarrow w_2 \end{array} \right\} / _b.$$

1.2.3.2. Nasal Assimilation

In the examples of section 1.2.2.1, I brought in the following nasal-stop assimilations:

$$\begin{array}{l} nj \rightarrow m / _b \\ nj \rightarrow n / _d \\ n \rightarrow nj / _dj \end{array}$$

These rules answer to cluster restrictions noted above (section 1.1.3). Obviously these processes are amenable to a more general formulation, which could be done with alpha rules operating on whatever features are used to specify the relevant places of articulation. Here I will only make two general observations about these assimilations.

First note that the assimilations are all retrogressive: sounds assimilate to those which *follow* them. This is a general principle of Uḡarĩnjin phonology, which holds for all assimilations I have found in the language (see pp. 25-29).

The second point I wish to make about these assimilations has to do with their relationship to one of the phonetic interpretation rules discussed earlier (section 1.1.2.3.1.1). The rule I refer to is the one which says that /i/ before /nj/ is realised as [i] (rather than [I], which is its 'elsewhere' value). It is apparent that this rule will interact with the nasal assimilations discussed above, because all those assimilations either create or remove an instance of nj. Consider the output of derivations where both rules apply:

/linj	-	$w_1 a$		→	[límɸ]
<i>watch</i>		<i>iter.</i>			
/njɪn	-	∅	-	$\sqrt{y_1 i} a - n$	→ [njɪnjɪɪɪn]
2 sg.		3 sg.		<i>hold</i> pres.	<i>he holds you</i>

From such examples we can conclude that the vowel assimilation rule which determines the phonetic realisation of /i/ must *precede* the nasal assimilation rules discussed above. If the order were reversed, the above forms would be realised as [límɸ] and [njɪnjɪɪɪn]. The fact that the rules are ordered in this way will have important consequences for the morphological description below (see p. 86).

1.2.3.3. De-retroflexion

Note from the examples of section 1.2.2.1 that ɾ after first degree strengthening almost always ends up as d rather than ɖ. It is realised as ɖ only when following another one of the apico-pre-palatals ɖ, ɳ, or ʃ. This agrees with the restriction, discussed above (section 1.1.3) whereby ɖ does not occur following any consonant except another apico-pre-palatal. Precisely how the indicated 'de-retroflexing' rule is to be written will depend on the feature system by which the phonology is analysed. Using for now the ad-hoc feature 'RETRO.', we can write the rule as follows:

$$\mathfrak{d} \rightarrow d / \left[\begin{array}{l} +\text{CONS} \\ -\text{RETRO} \end{array} \right]$$

1.2.4. Vowel Alternations

1.2.4.1. /a₂/ Assimilation

Note that the morphophonemic inventory given above in table 4 includes two distinct /a/'s which I label /a₁/ and /a₂/.

$/a_2/$ is a strictly abstract unit which, unlike $/a/$, never emerges as surface $[a]$. When followed by a consonant (except in one of the forbidden sequences $/a_2 + yi/$, $/a_2 + w_1u/$, or $/a_2 + w_2a_{(2)}/$, $/a_2/$ becomes a high vowel; i or u depending on which consonant follows.

In order to describe these (V)(c) assimilations in a systematic and economical way, we need a cross-cutting classification which groups certain consonants with certain vowels. The distinctive feature which allows us to do this in the most natural way is one which was part of the original Jakobsonian System (Jakobson, Fant, and Halle 1952:29-30), but was later rejected by Chomsky and Halle (1968:303ff.); that is the feature grave/acute, or +/- grave.

With respect to this feature, the units which take part in this assimilation may be grouped as in Table 5.

Table 5
Gravity Specifications of Some Uḡarĩnjin Segments

	+ Grave	- Grave
Vowels	u	i
Consonants	m, ŋ, w ₁ , w ₂	ɣ ₁

Given this classification, we may describe a_2 assimilation as follows:

$$/a_2/ \rightarrow \left[\begin{array}{c} + \text{ high} \\ \alpha \text{ grave} \end{array} \right] / \text{ ______ } + \left[\begin{array}{c} + \text{ cons.} \\ \alpha \text{ grave} \end{array} \right]$$

That is, $/a_2/$, when followed by a morpheme boundary which is followed by a consonant, becomes a high vowel which agrees with that consonant in gravity. (Actually, one could just as well leave the morpheme boundary specification out of this rule, because $/a_2/$ occurs only morpheme-finally, or, more precisely, is distinguishable from $/a_1/$ only by its behaviour at morpheme boundaries. I have included a morpheme boundary specification, +, in the rule just so that one does not lose sight of that fact.)

The following are some examples of this process. All of them are taken from Uḡarĩnjin verbal morphology, because it is the only domain in which $/a_2/$ is distinguishable from $/a_1/$. When citing 'compound verb' forms (see section 2.2.13), I have omitted the phonetic form of the verbal particle, since it is not relevant in any of the examples.

For an account of the morphemes involved, see section 2.2.

			$a_2 \rightarrow u/ _ m$	
/ada	$ba_2 + \sqrt{ma}/$		\rightarrow	[búmΛ]
<i>sit</i>	imp.	<i>do</i>		<i>sit!</i>
/a ₁	$- \eta a_2 - \sqrt{malima} - \underline{ra}/$		\rightarrow	[a^ηumáImΛrə]
3 sg.	1 sg.	<i>spear</i>	past	<i>I speared him</i>
masc.	sub			
ob.				
			$a_2 \rightarrow u/ _ n$	
andu	$/gunda_2 - \emptyset - \sqrt{\eta u _ u} - n/$		\rightarrow	[gÚndUηÛ!Un]
<i>he</i>	2 pl. ob.	<i>give</i>	pres.	
	<i>he gives to you</i>			
wa	$/ban - \emptyset - w_2 a_2 - \sqrt{\eta u _ u}/$		\rightarrow	[bángUηÛ!u]
<i>not</i>	3 pl. ob.	1 sg. sub.	irr.	<i>give</i>
	<i>I don't give to them</i>			
			$a_2 \rightarrow u/ _ w_1$	
ηarwa	$/nja_2 - \sqrt{w_1 a - n _ i}/$			[njùwáni]
<i>fall</i>	3 sg. fem.	<i>fall</i>	past	
		<i>she fell</i>		
wedj	$/ba_2 - w_1 a _ 1/$		\rightarrow	[bówΛ]
<i>sleep</i>	imp.	<i>fall</i>	(for \circ conditioning	
		<i>go to sleep</i>		see p. 13)
			$a_2 \rightarrow u/ _ *w_2$	
/wu	$- na_2 - w_2 a_2 - \sqrt{w_1 u} /$		\rightarrow	[wúnungɔ]
w-class ob.	2 pl. sub.	irr.		<i>act on</i>
			$a_2 \rightarrow i/ _ y$	
/a	$- \eta a_2 - \sqrt{y _ 1 a} - ni/$		\rightarrow	[áñiyΛni]
3 sg. masc.	1 sg.	<i>argue with</i>	past	
		<i>I argue with him</i>		
andu	$/\eta ara_2 - \emptyset - \sqrt{y _ 1 o} - n/$		\rightarrow	[ηáriyɔn]
<i>he</i>	1 pl. inc.	<i>follow</i>	pres.	
	<i>he follows us</i>			

$/a_1/$ differs from $/a_2/$ only in that it does not undergo this 'gravity assimilation' when followed by a consonant, but remains as a.

For example:

$/a_1$ - $\sqrt{ma}/$ + $[\acute{a}m\Lambda]$

3 sg. masc. do

$/a$ - \emptyset - $\sqrt{\eta u \uparrow u}$ - $n/$ + $[\acute{a}\eta U \uparrow U n]$

3 sg. masc. 3 sg. give pres.
he gives to him

$\eta arwa$ $/\eta a_1$ - $\sqrt{w_1 a}$ - $n/$ + $[\eta \acute{a}^> w \Lambda^> n]$

fall 1 sg. fall pres.

1.2.4.2. Vowel Coalescence

We have seen above (section 1.1.3) that there are some consonant sequences which are allowed at the juncture between word and post-position, but not within the word. Conversely, there are some sequences which are *disallowed* just at certain kinds of morpheme boundaries within the word, but are permitted elsewhere.

The morpheme boundary at which special restrictions apply is the boundary between pronominal prefix or prefix combination (see section 2.2.2) and whatever follows. As I have discussed above in connection with phonetic long vowels (pp. 11-12), there is a prohibition on the sequence (v_1) -(corresponding glide)- (v_1) , i.e., iyi , uw_1u , aw_2a . At the juncture between prefix and following element, there is a further restriction against a + (glide) (homorganic vowel). That is, $/yi/$, $/w_1u/$, or $/w_2a_2/$ may not be realised as yi , wu , or wa respectively when following a .¹

When the sequence a + (glide) (homorganic vowel) is present underlyingly, the three segments coalesce to form a single surface vowel, as follows:

$/a + yi/ \rightarrow e$

For example,

$/a_1$ - $\sqrt{\gamma_2 \bar{1}}/$ + $[\epsilon \cdot]$

3 sg. masc. be he is

¹Where I have omitted the subscripts on a and y , this means that $/a_1/$ and $/a_2/$ behave identically; likewise, $/y_1/$ and $/y_2/$. a and y then are 'phonemic level' cover terms for these respective pairs of morphophonemic units.

$/a_1$ - ηa_2 - $\sqrt{y_1 i l a}$ - n/ \rightarrow [$\Lambda \eta \xi l \Lambda n$]
 3 sg. masc. 1 sg. sub. *hold* pres. *I hold him*
 ob.

$/wa_2$ - $\sqrt{y_2 i}$ / \rightarrow [$w \epsilon \cdot$]
 w-class *be* *it is*
 sub.

$/a$ - \emptyset $\sqrt{y_1 i b u}$ - n/ \rightarrow [$\xi b U n$]
 3 sg. masc. 3 sg. *throw* pres. *he (or she) throws*
 ob. sub. *him*

$/a - w_1 u/ \rightarrow o$ (There are no examples of $a + w_2 u$)

For example,

$/a_1$ - \emptyset - $\sqrt{w_1 u}$ - n/ \rightarrow [ωn]
 3 sg. masc. 3 sg. *hit* pres. *he hits him*
 ob. sub.

$/a_1$ - ηa_2 - $\sqrt{w_1 u}$ - n/ \rightarrow [$\Lambda \eta \omega n$]
 3 sg. masc. 1 sg. *hit* pres. *I hit him*
 ob. sub.

$/a + w_2 a/ \rightarrow a:$

For example,

$/\eta a d a_2$ - \emptyset - $w_2 a_2$ - $\sqrt{\eta u \dot{u} u}$ / \rightarrow [$\eta \Lambda d a : \eta u \dot{u} u$]
 1 pl. inc. 3 sg. *irr. give to* *he might give*
 ob. sub. *to us*

$/g u n d a_2$ - \emptyset - $w_2 a_2$ - $\sqrt{w_1 u}$ / \rightarrow [$g u n d a \cdot u$]
 2 pl. 3 sg. *irr. hit* *he might hit you*
 ob. sub.

1.2.4.3. Vowel Syncope

a_2 , when followed by another vowel, is dropped, leaving the other vowel unaffected.

For example,

$/a_1$ - ηa_2 - $\sqrt{i n i \eta a}$ - n/ \rightarrow [$a^* \eta i n i \eta \Lambda n$]
 3 sg. 1 sg. *put* pres.
 masc.

$/ba_2 - a_1nja_2 - \sqrt{ma\dot{r}a}/ \rightarrow [b\Lambda nj\acute{u}m\acute{e}\dot{r}\acute{e}]$
 imp. fem. ob. *take*

This completes the discussion of general morphophonemic processes in Uḡarīnjin. More specific processes - those characterising the behaviour of single morphemes - will be incorporated into the 'Morphology' section below.

CHAPTER TWO

MORPHOLOGY

2.1. Nominal Morphology

2.1.1. Free-standing Personal Pronouns

The free-standing personal pronouns of Uḡarɨnjɨn are shown in Table 6.

Table 6
Personal Pronouns

	Singular	Non-singular
1st person	ŋɨn	Inclusive: ŋarun Exclusive: njarun
2nd person	njaŋan	nurun

The non-singular pronouns may be suffixed for more precise number specification with dual suffix *-njiri* or paucal suffix *-njina*.

Any of these pronouns may take any of the nominal suffixes and/or postpositions described below (section 2.1.5.4). Where an optional number suffix is present on one of the non-singular forms, the number suffix precedes all others.

nurun - njiri - gu - ŋa + [nÚrUnjÎrigùŋÀ]

2nd per. - dual - dative - *only* *only for you two*
non-sg.

2.1.2. Gender-bearing Pronouns

'Gender' in Uḡarɨnjɨn, as in most languages which have it, is confined to 'non-participant' (traditionally called 'third person') nouns. In Uḡarɨnjɨn, gender is not indicated on lexical nouns (as it

is in the related language, Worora). It is, however, indicated on third person pronouns.

2.1.2.1. Anaphors

The anaphoric pronouns are as follows:

djiri	-	masculine
njindi	-	feminine
mindī	-	m-class neuter
di	-	w ₂ -class neuter
biri	-	neuter collective and human plural

The semantics of this classification will be discussed below (section 2.1.5.1).

Morphologically, these gender-bearing anaphoric forms may be analysed as consisting of an anaphoric base *-ri* (cf. the 'definite subject' verb prefix *-iri-*, section 2.2.8), with gender prefix *dji-*, *njin-*, *min-*, \emptyset , or *bi-*. The *-r* of this base *-ri* becomes *-d* by first degree strengthening (see section 1.2.2.1). For $\# \emptyset + ri \rightarrow di$, we can posit a rule $\#r \rightarrow d$, a rule which is supported by the fact that *r* does not occur word initially, while *d* does.

2.1.2.2. Demonstratives

The anaphoric forms discussed above are used primarily for pointing back to something which has been present in the flow of speech in which they occur. There is another set of gender-bearing pronouns which are used primarily for pointing to something which is present in the situational context of the utterance. These *demonstrative* pronouns, which inflect for distance along a 'proximity to speaker' axis as well as for gender, are shown in Table 7.

These forms may be analysed as demonstrative base + positional suffix. The demonstrative bases, which vary for gender, are *djin-*, *njin-*, *min-* ~ *mun-*, *gan-* ~ *gun-* (i.e., *w₂an-* ~ *w₂un-*, with word-initial consonant strengthening), and *bun-*. Note that two of these (*njin-* and *min-*) are formally identical to their counterparts in the anaphoric series discussed in section 2.1.2.1, and the rest are quite similar.

Table 7
Demonstrative Pronouns

	<i>here</i>	<i>over there</i>	<i>way over there</i> (usually out of sight)
masculine	djinda	djino	djindinja
feminine	njinda	njino	njindinja
m-class neuter	munda	muno	mindinja
w ₂ -class neuter	ganda	guno	gandinja
neuter collective and human plural	bunda	buno	bundinja

The positional suffixes are:

proximal:	-da (or ra?)
distal:	-o
hyperdistal:	-dinja (or ri-nja?)

2.1.2.3. 'Ambiphoric' Pronouns

There is a third series of gender-bearing pronouns which are inherently neither anaphoric nor demonstrative. Nonetheless they are functionally more closely related to the anaphoric set than to the demonstrative because their use is conditioned by factors in the linguistic context rather than in the context of situation. Specifically, these pronouns are used to introduce a new topic.

These ambiphoric, topic introducing pronouns are as follows:

andu	-	masculine
njandu	-	feminine
mandu	-	m-class neuter
wandu	-	w ₂ -class neuter
bandu	-	neuter collective and human plural

Formally, these pronouns seem to be built on an 'ambiphoric' base -andu, with gender prefixes Ø-, nj-, m-, w-, and b-. (Or perhaps a-, nja₂-, ma₂-, wu-, ba₂- with elided vowels as per section 1.2.3.1).

Although these pronouns are functionally ambiphoric, they usually combine phrasally with a corresponding demonstrative when used to refer to something present in the context of situation, i.e.,

andu djinda, *this one (man) here*, bandu buno, *those people over there*.

2.1.3. Interrogative Pronouns

The most commonly-occurring interrogative pronouns are *njanggi* and *anjdja*, which translate fairly precisely as *who* and *what*. These pronouns do not decline for gender, nor does the *anjdja-njanggi* distinction bear any systematic relation to the gender system. The word *njanggi*, for instance, is used only for humans, words for which are generally of the masculine or feminine gender. But, as we shall see (section 2.1.5.1), many non-human and even inanimate things are represented by words of these same genders. These words take *anjdja* rather than *njanggi*. Similarly, nouns of the b-class take *njanggi* when human (plural) and *anjdja* when not.

It would be mistaken to regard *anjdja* as *only* the non-human equivalent of *njanggi*. Its syntactic distribution is also somewhat different. Both *njanggi* and *anjdja* may function as head nouns, e.g.,

njanggi biri
who they
Who are they?

anjdja di
what it
What is it?

njanggi dar amara
who stand he did
Who stood up?

anjdja mara woni
what see it he did
What did he see?

But only *anjdja* may function attributively, and it is used this way with both human and non-human head nouns, e.g.,

anjdja nala njindi?
what meat it
What meat is that?

anjdja wonay mara njinjdjoni
what woman see her you did
What woman did you see?

In this respect, the distribution of *anjdja* relative to that of *njanggi* parallels that of English 'what'/'which' in relation to 'who'. In both languages, the opposition human/non-human is neutralised among interrogative pronouns when they are attributive, and in both languages non-human emerges as the unmarked term.

There is another set of interrogative pronouns which does decline for gender. They are built on a base *-iriya*, with gender prefixes \emptyset , *nj*, *m*, *w₂*, *b*, i.e.,

<i>iriya</i>	-	masculine
<i>njiriya</i>	-	feminine
<i>miriya</i>	-	m-class neuter
<i>wiriya</i>	-	w-class neuter
<i>biriya</i>	-	neuter collective and human plural

Coate and Oates (1970:32) call these 'locative interrogatives'. Usually they can be translated as *where*, e.g., *njiriya*, *where is she?*, *miriya where is that thing of the m-class?*. But there is at least one, perhaps idiomatic, use in which this is not true: *wiriya* is the interrogative form for asking the name of something, e.g.,

alɲun wiriya
his name
What is his name?

As these examples suggest, the *-iriya* interrogatives are used only in copulative constructions, i.e., those which translate into English as *where is?*. There is another locative interrogative, *gunjal*, which is used adverbially. It does not decline for gender.

For example,

gunjal njinayiri - *Where are you going?*
you are going

gunjal ada amaɾa - *Where did he sit down?*
he sat down

There is an apparently related word *gunja*, *what*, which functions more like German 'was' than English 'what' insofar as it is never used attributively. (Cf. *anjɔɔa*, p. 34). Although textually quite frequent, *gunja* is severely limited in distribution. It seems to occur only with the verb $\sqrt{\text{ma}}$, *do*, *say* (which is one of the most frequently occurring verbs in the language).

For example,

gunja budmeri
they are saying/doing
What are they saying/doing?

[*gunja* [[η ima] *njinmeri*]]
I will do you are doing
What do you want to do?

(see section 3.3.1.3
for this syntactic
construction type)

2.1.4. What-cha-ma-call-it?

There is a set of gender-bearing interrogative pronouns which are used only as 'hesitation' forms, like English 'what-cha-ma-call-it' or 'what's his/her name'. These are formed on a base *-andimi*, which is prefixed for gender:

<i>andimi</i>	-	masculine
<i>njandimi</i>	-	feminine
<i>wandimi</i>	-	w-class neuter
<i>mandimi</i>	-	m-class neuter
<i>bandimi</i>	-	neuter collective and human plural

It is interesting that even these hesitation forms should decline for gender. Uḡarınjin speakers apparently can often recall the gender of a word even when the word itself escapes them. But this may not always be the case. For often the word *wandimi* is used regardless of the gender of the word the speaker is trying to recall. This is probably because words for *word*, *name*, etc. are of the w-class neuter gender (see section 2.1.5.1). So *wandimi* can mean *What's the word?*.

This hypothesis is borne out by the fact that there are at least three other hesitation pronouns which seldom or never decline for gender, all of which seem to be 'frozen' w-class forms. They are:

umbuḡ
umbaru
uḡunjdja

My texts include examples of gender inflection only for the first two of these three, and there is only one example in each case. These are the m-class form *mumbuḡ* and the masculine form *ambaru*. Elsewhere these words always appear in the w-class forms given above, regardless of the gender of the antecedent.

Often, however, the gender is made explicit by the pairing of one of these hesitation forms with a gender-bearing anaphoric or demonstrative pronoun, e.g.,

<i>umbuḡ</i>	<i>djiri</i>
	masc. anaphor
<i>what's-his-name</i>	
<i>uḡunjdja</i>	<i>muna</i>
	m-class demonstrative
<i>what's-its</i>	(m-class)-name

Thus, although the w-class forms are often used to evade the issue of gender, one cannot conclude that they are *always* used for that reason.

2.1.5. Lexical Nouns

As indicated above, lexical nouns are of five classes or 'genders', which are overtly signalled by agreement with the various pronominal elements which stand for them. The form of the nouns themselves seldom provides any clue of their gender. One exception, noted by Capell and Elkin (1937:229) is that a high proportion of the nouns which end in *-n* are of the w_2 class; about 90 percent of them, I would guess. Of nouns ending in *-an*, an even higher percentage are of this class. But there are exceptions in both cases, most of which are motivated by overriding semantic considerations. Words for 'places' for instance are likely to be considered 'm-class' even if they end in *-n*. A very frequently occurring example is the word *dambun camp, clan territory*, which is m-class (for other such examples see p. 39). Other words sometimes fluctuate in gender depending on such considerations. There are, for instance, many kinds of birds which have (species) names ending in *-n*, which are usually treated as w-class; e.g., *djuwiban greater bower bird, djiringun owl-nightjar*. But when these birds become 'personalised' as characters in myths, they tend to be treated as grammatically masculine or feminine.

Another generalisation put forth by Capell is that 'Uḡarɪnjin nouns in *-r* are Class IV (m-class)' (ibid.). But this rule has so many exceptions that I find it untenable even as a 'percent rule'.

2.1.5.1. The Semantics of Gender

In general, gender in Uḡarɪnjin has less to do with semantics than with discourse reference maintenance, which is its primary function (cf. Heath 1975). There are, however, some general correlations which *tend* to hold between grammatical gender and various semantic features.

2.1.5.1.1. Masculine, Feminine, and b-class

Virtually all nouns referring to humans are masculine, feminine, or b-class (plural). Males are masculine. Females are feminine. Indeed, one of the semantic functions which the gender system sometimes serves is to allow for the derivation of human nouns from non-human (usually non-animate) ones.

There is a word *wulun*, for instance, whose primary meaning is *paperbark tree or basket made from its bark*. When used in this sense, this word is of the $-w_2$ class, e.g., *wulun di*. But sometimes *wulun* is treated as a feminine class word, e.g., *wulun njindi*. In these cases, it always means, not *bark basket*, but *woman*. The semantic relation

underlying this derivation is a metonymic one, bark baskets having traditionally been women's gear par excellence.

For some other similarly distinguished animate/inanimate pairs it is difficult to assign derivational priority to either member of the pair.

For example,

baṅman	di ↔ baṅman	djiri
<i>magic</i>	w ₂ class neuter	<i>magician</i> masculine
ṛambad	di ↔ ṛambad	njindi
<i>barrier,</i> <i>screen</i>	w ₂ -class neuter	(<i>potential</i>) <i>mother-in-law</i> feminine

If pressed to assign derivational priority in such cases, I would treat the human nouns as 'bahuvrihi-' like zero derivatives on the inanimate ones, as in the wulun example above.

Although all nouns referring to humans are of the masculine or feminine gender, not all nouns of these genders refer to humans.

For example:

ṇara	njindi
<i>honey found in trees</i>	feminine
maṛaṇi	njindi
<i>sun</i>	feminine
gaṅgi	djiri
<i>moon</i>	masculine
aṅḍari	djiri
<i>opossum</i>	masculine

Some nouns referring to humans are not inherently masculine or feminine, but alternate between the two depending on the sex of the person referred to.

For example:

yila	djiri	yila	njindi
<i>child</i>	masculine	<i>child</i>	feminine
<i>little boy</i>		<i>little girl</i>	
marul	djiri	marul	njindi
<i>grey haired</i>	masculine	<i>grey haired</i>	feminine
<i>grey haired old man</i>		<i>grey haired old woman</i>	

Among nouns referring to humans, none is inherently of b-class. Rather, human nouns are pluralised by being transferred to this class.

For example:

woṅay	njindi	woṅay	biri
woman	feminine	women	
wiyila	djiri	wiyila	biri
young man	masculine	young men	

Thus, among the human nouns, the b-class functions as a number category rather than as a gender.

This is almost, but not quite true of its use among non-human nouns as well. There it is used not as a pluraliser, but as a kind of 'collectiviser', giving a sense something like 'a mass of'.

For example:

ḡala	njindi	ḡala	biri
meat	feminine	some meat,	a mass of meat
me	mindī	me	biri
vegetable food		mass of vegetable food	

These non-human 'collectives' are syntactically distinguishable from human 'plurals' in that the latter can control dual and paucal number agreement on the verb (see section 2.2.9) while the latter cannot.

2.1.5.1.2. m-class Neuter

The only generalisation I can make about m-class nouns which is, as far as I know, exceptionless, is that they never refer to human beings. There are, on the other hand, several semantic domains with which this class is characteristically associated.

One of these domains is that of 'place'. As one of my informants put it, 'That "mindī", that's a little bit on the "place" side'. Almost all proper toponyms are of the m-class, e.g.,

gaṅberar	mindī
a place near Grace's Knob,	on Mt. House Station
gaṅdan	mindī
Womera	Creek
maṅungu	mindī
range of hills around,	and including, Mt. Barnett
baṅgaramban	mindī
a certain crossing on the	Charnley River

Not only proper toponyms, but also most nouns for *kinds* of places are of the m-class, e.g.,

wawi <i>plain</i>	mindī
dambun <i>camp</i>	mindī
baṛudu <i>war-ground</i>	mindī
mayāṛa <i>house</i>	mindī

Another semantic domain associated with the m-class is plants, especially edible ones, e.g.,

gaṇmangu <i>yam</i>	mindī
uṅgaḷu <i>a wild beet-like tuber</i>	mindī
wanjɔja <i>a certain yam-like tuber with lettuce-like leaves, grows in open places</i>	mindī
madjal <i>grass</i>	mindī

Nouns for quite a few body parts are of this class, though perhaps equally many are of the w_2 class.

2.1.5.1.3. w_2 -class Neuter

As in the case of m-class, the only exceptionless generalisation about the w_2 class is that no nouns of this class refer to human beings. Again, though, the class has characteristic associations.

If -m- is the gender of 'place', w_2 is the gender of time.

For example:

wanaran	di
<i>late afternoon</i>	
lewaran	di
<i>mid-day</i>	
uguli	di
<i>morning, tomorrow</i>	
ḷalan di, murumay di, wundir di	
<i>all words for dreamtime</i>	

Another characteristic association of the w_2 class is with rocks and minerals, e.g.,

rargi	di	} All generic terms for <i>stone</i> now also used to mean <i>money</i>
gayungun	di	
manjdjan	di	
baḡarun	di	<i>sandstone</i>
garamban	di	<i>clay</i>

Although most plants are m-class, trees, wood, and objects made from it are predominantly of the w_2 class, e.g.,

ḡurul	di	<i>tree</i>
djuḡulan	di	<i>boab tree</i>
wuḡan	di	<i>wood</i>
winjdjaḡun	di	<i>firewood</i>
wulun	di	<i>paper-bark tree or basket made therefrom</i>
wulumundu	di	<i>digging stick</i>

One fact about the w_2 class which is of great importance for the study of Uḡarḡinjin syntax and discourse structure (cf. pp. 150-151) is that it contains words referring to language itself.

For example,

wuḡan	di	<i>language, word, or a stretch of speech of any size</i>
bara bara	di	<i>a talk</i>
wuḡun	di	<i>its name</i> (see section 2.1.5.2.1 for gender inflection)

2.1.5.2. Possessive Inflection

Uḡarḡinjin morphology includes four distinct means of indicating possession, the choice among which is conditioned partly by the nature of the thing possessed and partly by phonotactic considerations. (See p. 69 for the fourth morphological means of indicating possession, and pp. 139-140 for a fifth, syntactic means.)

2.1.5.2.1. Prefixation

There is one kind of possessive inflection, viz.: prefixation, which, among possessed nouns, is used only for body parts. (But see section 2.1.5.2.4 below for another, syntactically distinct function served by the same morphology.)

Curiously, not *all* words for body parts take these possessive prefixes. For some body parts, possession is shown by the same method described below (section 2.1.5.2.3) for 'alieniably possessed' items.

One is tempted to look for some semantic differentia as a controlling factor here. It would be pleasing to discover an implicit bifurcation of the anatomic field into one set of parts which were 'highly inalienable', e.g., bones, mouth, back, etc., and one set which were rather more alienable, e.g., hair, foreskin, teeth, etc. But, as can be seen from the examples below, no such factor is at work.

The sole differentia is instead a phonological one, for the discovery of which we are indebted to A. Capell (1972). The principle he adduces to explain these data is 'no prefixation without initial vowel', the (non-semantic) spirit of which is certainly correct, and the letter of which is more or less correct depending on how one decides to segment the prefixed body-part words.

Since I am not sure of 'God's truth' in this matter, I think it best that I present enough data to allow the reader to be able to choose for himself from among competing varieties of 'hocus-pocus'.

More indisputably true than Capell's principle is its converse: 'no initial vowel without prefixation'. In other words, there are no body-part words with initial vowel which indicate possession by any means except prefixation. I know of only one possible exception: *ilmbi*, *sternum* a vowel-initial word which does not take prefixes. But, as explained above (p. 14), there is no distinction between word-initial #i- and #yi, so one can just as well rescue our principle from exceptions by spelling this word *yilmbi*.

The problem with Capell's statement as it stands is that there may be some prefixable body-part stems which do not begin with vowels.

Consider the paradigms listed in Table 8. Whether or not one is to regard all these body-part stems as vowel-initial will depend on where one makes the cut between prefix and stem. Capell's choice, which is also followed by Coate and Oates, is to regard all the prefixes except 1. sg. as consonant-final, i.e., *ŋi-* *njun-*, *∅-*, *nj-*, *m-*, *w-*, *ŋar-*, *njar-*, *gur-*, and *bur-*, and to assign any following vowel to the stem.

The main problem with this solution is the one presented by forms like 1. *f* and 3. *f-j* below. The stems here would have to be *-uŋar* *-muɭar*, whereas elsewhere they would be *-oŋar* and *-amuɭar*. Neither Capell nor Coate-Oates deals with this problem. I can see two ways in which they might handle it. First, they could simply set up suppletive stems for these and the many other body-part words which behave like them. This would add to the complexity of the lexicon, especially since the suppletive pattern differs for different stems,

Table 8
Body-Part Prefixation

Paradigm 1			
1. a.	ɲiyon̄ar	- <i>my</i>	<i>bone(s)</i>
1. b.	njuɲon̄ar	- <i>your (sg.)</i>	"
1. c.	on̄ar	- <i>his</i>	"
1. d.	njon̄ar	- <i>her</i>	"
1. e.	mon̄ar	- <i>its (m class)</i>	"
1. f.	wun̄ar	- <i>its (w class)</i>	"
1. g.	ɲaron̄ar	- <i>our (inc.)</i>	"
1. h.	njaron̄ar	- <i>our (excl.)</i>	"
1. i.	guron̄ar	- <i>your (pl.)</i>	"
1. j.	buron̄ar	- <i>their (pl.)</i>	"
Paradigm 2			
2. a.	ɲiyembularu	- <i>my</i>	<i>foot (feet)</i>
2. b.	njuɲembularu	- <i>your (sg.)</i>	"
2. c.	embularu	- <i>his</i>	"
2. d.	njembularu	- <i>her</i>	"
2. e.	membularu	- <i>its (m class)</i>	"
2. f.	wembularu	- <i>its (w class)</i>	"
2. g.	ɲarembularu	- <i>our (incl.)</i>	"
2. h.	njarembularu	- <i>our (excl.)</i>	"
2. i.	gurembularu	- <i>your (pl.)</i>	"
2. j.	burembularu	- <i>their</i>	"
Paradigm 3			
3. a.	ɲiyamuɭar	- <i>my</i>	<i>forehead</i>
3. b.	njuɲamuɭar	- <i>your (sg.)</i>	"
3. c.	amuɭar	- <i>his</i>	"
3. d.	njamuɭar	- <i>her</i>	"
3. e.	mamuɭar	- <i>its (m class)</i>	"
3. f.	wumuɭar	- <i>its (w class)</i>	"
3. g.	ɲarumuɭar	- <i>our (incl.)</i>	"
3. h.	njarumuɭar	- <i>our (excl.)</i>	"
3. i.	gurumuɭar	- <i>your (pl.)</i>	"
3. j.	burumuɭar ~ buramuɭar	- <i>their</i>	"

as is illustrated by the fact that none of the three paradigms below agrees with any other in this regard.

A second possible solution under the 'consonant-final prefix' hypothesis would be to set up a single basic form for each body-part stem and to account for alternating initial vowels by means of morphophonological assimilation rules. This would be easy enough for cases such as 1.f. and 3. f., $V \rightarrow u/w$ being a fairly 'natural' sort of rule. On the other hand, the rule required for cases such as 3. g.-j., one which converts a (but no other vowel) to u after r, seems quite bizarre. Both of these rules would have to be morphologically specified as applying only to prefixed possessive forms, as they are not only unnecessary, but frequently violated elsewhere. Thus, this solution is suspect on grounds of ad-hocness as well as bizarreness. Another very serious problem with it is that it posits *progressive* assimilation, whereas all other assimilations in Uḡarĩnjin are retrogressive (see p. 24).

What I think is a more acceptable solution starts with the positing of an underlying set of pronominal prefixes which all include final vowels, as in Table 9.

Table 9
Body-Part Prefixes

1. sg.	niya ₁ -	1 pl. incl.	ḡara ₂ -
2. sg.	njuḡa ₁ -	1 pl. excl.	njara ₂ -
3. sg. masc.	a ₂ -	2 pl.	gura ₂ -
3. sg. fem.	nja ₁	3 pl.	bura ₂ - bura ₁ -
m class	ma ₁ -		
w class	wu-		

Now let us assume that each of the three paradigms of Table 8 (p. 43) is built on a single stem, and that the stems are -wuḡar, -yimbularu, and -muḡar respectively.

All but one of the forms in the representative paradigms above can then be accounted for by rules already developed in the phonology above (section 1.2.4), all of which are independently motivated within the realm of verbal morphology (see section 2.2 below).

Consider paradigm 1. Form 1. f., wuṅar, arises from underlying wu + wuṅar. All the other forms show an o vowel which arises from a₁ + wu or a₂ + wu, as per page 29.

Consider paradigm 2. The -e- in every form except 2. f. arises from a₁ + yi or a₂ + yi. For 2. f. we can posit a rule which is a more general version of a + yi → e, namely V + yi → e. Or one could dispense with the rule and simply mark this and related forms as exceptions due to analogic levelling.

Paradigm 3 is where the distinction between a₁ and a₂ does its work. Recall that a₂ differs from a₁ only in that it assimilates to a following consonant, whereas a₁ does not (section 1.2.4.1). This accounts for the prefix-final -u- vowels in forms 3. g.-3. j. The prefix final -u- of 3. f. is, by this solution, present underlyingly, and so need not be explained by any phonological rule.

While I propose this solution as a less defective one than the other solution outlined above, it too is not without its defects. First, note that, in order to allow for forms such as 2. f., we had either to add a somewhat ad-hoc rule to the phonology or mark them as exceptions. Second, although this solution accounts for the u vocalism of forms such as 1. f., it leads us to expect a phonetic [u:] (as per section 1.1.2.3.1.2). What occurs instead is [u].

The third problem with this solution is one which brings us back to the question which led to this discussion of segmentation in the first place, viz.: What are the criteria for distinguishing between stems which take possessive prefixes and those which do not? Capell's segmentation, whatever its problems, has the merit of providing a clear and simple answer to this question, to wit: 'No prefixation without initial vowel'. If one segments the prefixed forms in the way I have proposed above, this principle will not stand, for it assumes consonant-final prefixes. Where Capell, based on this assumption, would isolate stems -oṅar, -embularu, -amuḷar, I would posit underlying -wuṅar, -yimbularu, -muḷar. Stems beginning with glide + homorganic vowel, such as -wuṅar and -yimbularu are, under my segmentation, still distinguishable as 'prefix-taking' according to purely phonological criteria. For no non-prefixing stem begins with glide + homorganic vowel, even though there are many which begin with glides. Stems beginning with r or any stop consonant are likewise distinguishable as non-prefixing under this segmentation. The problem comes when we consider stems which begin with ʃ, ʎ, or any nasal consonant. Some of them take prefixes and some do not. Examples are given in Table 10.

Table 10
Some Prefixing and Non-Prefixing Body-Part Stems

Prefixing		Non-Prefixing	
-langa	<i>tail</i>	larad	<i>sole</i>
-lanḡun	<i>head</i>	lanḡan	<i>trachea</i>
-maḡul	<i>cheek</i>	maḡambar	<i>armpit</i>
-ḡamala	<i>hand</i>	nunḡu	<i>upper arm</i>
-naḡal	<i>wrist</i>	njumbaḡbaḡ	<i>bridge at nose</i>
-ḡuḡu	<i>penis</i>	ḡunḡdjuḡunḡdju	<i>whiskers</i>

There is no apparent semantic criterion for this formal differentiation: it would be surprising if there were since it is clear that only phonotactic considerations are relevant in the case of vowel-initial and stop-initial stems. One is forced, then, to mark each stem beginning with l, ḡ, or a nasal as a 'prefixing' or a 'non-prefixing' stem under the segmentation proposed here. The necessity for this lexical marking of some stems is clearly a major drawback to this proposed segmentation. (But cf. section 2.1.5.2.2 below, where lexical marking is clearly required elsewhere in the possessive morphology.)

But, given the drawbacks of the Capell-Coate-Oates solution pointed out above, I consider this one, on balance, to be less defective than that.

2.1.5.2.2. Suffixation

There is a specific means of indicating possession just for cases where the thing 'possessed' is a person who stands in a certain specified relationship to the 'possessor'. This quasi-possessive relationship is indicated by pronominal *suffixes* which attach to stems specifying which relationship is at stake. Giving English glosses for these relationship terms is extremely difficult, and involves us in some hotly contested questions in anthropological theory which are beyond the scope of the present investigation (but see Rumsey 1981). Here I will sidestep the question by giving as glosses English words with which the Ngarinjin themselves translate these relationship terms when speaking English.

Some examples of suffixed stems of this type are:

gayi - ŋi	<i>my granny (granny belonga me)</i>
ira - ni	<i>your (sg.) father, your son</i>
ŋara - naŋga	<i>his mother (mother belonga im)</i>
mara - njurumbu	<i>our (excl.) wives (big mob wayb belonga me bela)</i>
margorumbu	<i>their brothers, their cousin brothers (big mob brother belonga that mob)</i>
guŋḍi - ŋiri	<i>my husbands (big mob husband belonga me)</i>
wa(ya) - nudna	<i>your (pl.) boss (i.e., marriage authority, that is, potential wife's brother or father) (boss belonga you mob)</i>

As can be seen from these examples, the 'possessive' suffixes for human relationship stems are complex, specifying the person and number of the 'possessor' (i.e., person or people standing in the given relationship) and the number of the 'possessed' (i.e., person or people to whom one stands in the given relationship). The number system here is a relatively collapsed one, comprising only two categories: singular and non-singular.

The complete inventory of complex suffixes is given in Table 11.

Table 11
Human Relationship Suffixes

Possessor	Possessed	
	Singular	Non-Singular
1 sg.	-ŋi	-ŋiri
2 sg.	-ni	-niri
3 sg.	-naŋga	-naŋgari
1 pl. inc.	-ŋaruna	-ŋarumbu
1 pl. ex.	-njaruna	-njarumbu
2 pl.	-nudna	-nurumbu
3 pl.	-yiduga	-(wur)umbu

It is evident that some or all of these semantically complex suffixes are also morphologically complex and can be reduced to component morphemes which vary independently for: 1) number of possessed; 2) person of possessor; and 3) number of possessor.

Consider first the suffix sequences which incorporate marking for singular possessor. Here the segmentation is especially clear. There are first, second, and third person singular possessor morphemes -ŋi-, -ni-, and -nanga- respectively, followed by possessed number morphemes -∅ or -ri for singular vs. non-singular respectively.

The segmentation of suffix sequences including non-singular possessor marking is somewhat less clear-cut. For the singular possessed forms, one has the choice of regarding the na ~ ga ending as either a non-zero singular possessed marker, or as a part of the possessor morpheme. I prefer the latter, because -na occurs elsewhere (see section 2.1.5.4.2 and section 2.2.9) as a non-singular marker. We may therefore regard it as an additional, redundant marker of non-singularity of possessor, and assume a zero marker for singular possessed. The -ga allophone cannot be related to anything else in Uḡarĩnjin morphology, as far as I know. For non-singular possessed, we can segment a non-singular morpheme mbu, which may be regarded as a second-degree strengthened form (see section 1.2.2.2) of the non-singular morpheme which occurs elsewhere (see section 2.1.2) as bu ~ bi. In the 3 pl. + non-singular suffix -(wur)umburu, this -mbu- element is augmented by another, redundant non-singular marker -ru (cf. -ri above, and section 2.2.9. and section 2.1.5.4.2).

I have noted in the previous paragraph that, with the exception of -ga, all of the non-singular morphemes used in these compound suffixes, viz.: -ri, -ru, -na, and mbu, can be related to non-singular markers occurring elsewhere in Uḡarĩnjin morphology. But my use of the term 'non-singular' conceals certain dissimilarities. For -ri and -na are used elsewhere for dual and paucal numbers respectively. The number system in which they participate here is, as I have noted, a semantically 'collapsed' one, comprising only two categories rather than four. It is interesting to note that, under these conditions, they lose their semantic distinctiveness and fall together with -mbu as mere allomorphs implementing a generalised 'non-singular' category.

All of the 'person' (or person-number) markers for possessor also have clear affiliations elsewhere in the morphology. As elsewhere (cf. section 2.2.2) 3rd person, or 'non-participant' is marked by a zero desinence. The 3 sg. form -nanga is actually ∅ + nanga where -nanga is a general 'possessive' marker (cf. section 2.1.5.4.3.6). -ŋV-, as elsewhere (cf. section 2.2.2) marks 'first person', or [+ ego] -nV-, as elsewhere (cf. section 2.2.12) marks second person, or [+ tu]. -nja-, as elsewhere (cf. section 2.2.2) is a special 'exclusive' first person marker, specifying [+ ego], [-tu].

'Plurality' or 'non-singular' is marked by *r ʌ d* added to the person markers.

Of the suffix sequences given above in Table 11 (page 47), all of the consonant-initial ones except *-ni* combine with the human relationship stems in a phonologically straightforward manner. No sandhi rules apply (except on the stem *mara-*, for which see p. 50).

The same is true of *-ni* except when it is suffixed to a stem ending in *-a*; in which case the *-a* sometimes changes to *-i* by what may be a kind of lexically conditioned vowel harmony. Precisely *which* stems undergo this change and which do not appears impossible to specify by phonological, semantic, or any other sort of general criteria, and so must be entered in the lexicon as in Table 12.

Table 12
Assimilating vs. Non-assimilating *-A* Stems

Assimilating	Non-assimilating
<i>gaya</i> - <i>granny</i>	<i>mariya</i> - (no English gloss in common use)
<i>mara</i> - <i>wife</i>	<i>ma a</i> - <i>daughter (women speaking)</i>
<i>waya</i> - <i>boss</i>	
<i>marga</i> - <i>brother, cousin- brother</i>	
<i>mama</i> - <i>uncle</i>	
<i>ŋola</i> - <i>brother, cousin- brother</i>	
<i>lala</i> - <i>sister</i>	

Two other *-a* stems, *ira-*, *father, son* and *ŋara-*, *mother* have been omitted from Table 12 because they are neither assimilating nor non-assimilating with respect to the *-ni* suffix. Rather, they show special suppletive stem forms just for first person (singular or non-singular) possessor, and show a zero desinence in place of the expected *-ni* for the first person singular possessor + singular possessed. The forms based on these special first person suppletive stem forms are shown in Table 13.

Table 13
Suppletive Stem Forms for *Mother* and *Father*

Possessor	Possessed	
	Singular	Non-singular
1 sg.	idja ɲadji	idjari ɲadjiri
1 pl. inc.	idjaɲaruna ɲadjiɲaruna	idjaɲarumbu ɲadjiɲarumbu
1 pl. ex.	idjanjaruna ɲadjinjaruna	idjanjarumbu ɲadjinjarumbu

The stem *mara-* (*potential*) *wife* shows an irregularity which can be explained by a phonological rule which is lexically conditioned in that it does not apply to other human relationship stems of similar phonological shape. Before any compound suffix beginning with *n*, the final *a* of *mara* is dropped and the *r* is strengthened to *d*.

For example:

/mara - ni/	→	madni
wife your one		your (sg.) wife
/mara - nanga/	→	madnanga
wife his		his wife

but:

/maɭa - ni/	→	maɭani
daughter (woman ego) your		your daughter
/ɲola - nanga/	→	ɲolananga
older brother, his cousin brother		his older (cousin)-brother
/ɲara - nurumbu/	→	ɲaranurumbu
mother your (pl.) several		your (pl.) mothers
/ira - niri/	→	Iraniri
father your (sg.) several		your (sg.) fathers

When the suffixes *-yiduga* and *-wurumbu* combine with stems ending in *a*, the *a* coalesces with the following *-i* or *-u* to yield *e* or *o* respectively, as per section 1.2.4.2.

For example:

/ira	-	yiduga/	→	ireduga
<i>father, son</i>		<i>our one</i>		<i>our father, son</i>
/ɲara	-	wurumburu/	→	ɲarorumburu
<i>mother</i>		<i>their several</i>		<i>their mothers</i>

2.1.5.2.3. Independent Possessive Pronouns

For body-part words which are ineligible for prefixation under the criteria developed above (section 2.1.5.2.1) and words for all other possessed things except human relatives (for which see section 2.1.5.2.2 above), possession is indicated by a genitive postposition on the possessor NP (for which see section 2.1.5.4.3.6) and/or by complex free-form possessive pronouns which decline for the person, number, and gender of the possessor, and the number of the thing possessed.

Some examples of the latter are:

ɾangu		ɲinanga
<i>heart</i>		<i>my sg.</i>
	<i>my heart</i>	
dambun		budaga
<i>country</i>		<i>their sg.</i>
	<i>their country</i>	
wɔɲay		njadadagari
<i>women</i>		<i>our (du. ex.) pl.</i>
	<i>the several wives belonging to us two</i>	
yinda		anananga
<i>spear(s)</i>		<i>his pl.</i>
	<i>his spears</i>	
ɲamun		njanangari
<i>breast</i>		<i>her two</i>
	<i>her two breasts</i>	

These complex pronominal forms are based on initial person-number elements which are similar or identical to those used for prefixed possessives (see section 2.1.5.2.1) and intransitive verbs (see section 2.2.2.1). These initial elements are given in Table 14.

Table 14
Initial Elements of Independent Possessive Pronouns

1. sg.	ŋi-	1. pl. inc.	ŋad-
2. sg.	njuŋa-	1. pl. exc.	njad-
3. sg.	a-	2. pl.	nud-
	nja-	3. pl.	bud-
	wa-		
	ma-		

These elements specify the person, number (singular vs. non-singular) and gender of the possessor. They are suffixed with elements which carry further information about the number of the possessor, and also specify the number of the possessed. These suffixes are given in Table 15.

Like the human-relationship suffixes analysed above (section 2.1.5.2.2), these suffixes are morphologically complex, but here the number-marking works differently. The full set of four number categories is maintained for possessor throughout and for possessed just in case the possessor is singular. Where the possessor is non-singular, the number system for possessed collapses in a most unexpected way. The four-term system becomes a two-term one, but instead of the syncretism among the non-singular terms which we find elsewhere, here there is a syncretism among the non-*plural* terms, so that singular, dual, and paucal comprise a common category which is opposed to plural.

Table 15
Compound Suffixes of Independent Possessive Pronouns

Number of Possessor	Number of Possessed			
	Singular	Dual	Paucal	Plural
sg.	-nanga	-nangari	-nangana	-nananga
du.	-agari	-agari	-agari	-adagari
pauc.	-agana	-agana	-agana	-adagana
pl.	-aga	-aga	-aga	-adaga

Note that here, unlike among the human-relationship suffixes, *-na* and *-ri* retain their usual meanings: paucal and dual respectively. But the final position in which they occur on these suffixes is associated with two different functions, between which it alternates according to whether the possessor is singular or non-singular. When the possessor is singular, the *-ri* and *-na* signal dual or paucal possessed. What this alternation does is to take advantage of certain redundancies in the system which allow a single order-class to serve two different functions. Where the first element of the suffix is *-nanga-*, the possessor can only be singular (already a redundant mark, since 'singular possessor' is inherent in the initial element to which *-nanga-* is suffixed). The final position is then free to serve another function: number marking for 'possessed'. But where the first element of the suffix is *-aga*, only 'non-singularity' of possessor is signalled, in which case further marking is required if the distinction between plural, paucal, and dual possessor is to be signalled overtly. In this case the four-way distinction among number of possessed is dispensed with and the final position is instead used for this further specification of number of possessor, by means of the same morphemes *-ri* and *-na*.

Plurality of possessed is indicated by *-na-* before the *-nanga* when possessor is singular and by *-ad-* before the *-aga-* when possessor is non-singular. The *-na* which occurs before *-nanga* may be the same 'non-singular' *-na* morpheme which occurs elsewhere in this paradigm with its more highly specified meaning 'paucal'. Alternatively, *-nananga* may be a reduplicated form of *-nanga*, reduplication being a regular means of signalling plurality in the language (cf. section 2.1.5.4.2.). Likewise, *-ad-* may be related to the plural morpheme *-r- ~ -rV-*, or, on the other hand, may be the result of reduplications of the form: *ɲadaga* → *ɲadadaga*, *budaga* → *budadaga*, etc.

2.1.5.2.4. Adjectives

Morphologically, adjectives resemble body-part words (see section 2.1.5.2.1). Some of them take pronominal prefixes and some do not. The adjectives which do take prefixes agree in person, number and gender with the noun which they modify, as exemplified in Table 16.

Table 16
Adjective Prefixation

ɲiyaɲer	<i>great</i>	1 sg.
njuɲaɲer		2 sg.
aɲer		3 sg. masc.
njaɲer		3 sg. fem.
maɲer		m class
wuɲer		w class
ɲaraɲer		1 pl. incl.
njaraɲer		1 pl. excl.
guraɲer		2 pl.
buraɲer (often in reduplicated form: buraɲeɲer)		3 pl. and b class
ɲiyongara	<i>first-born, elder</i>	1 sg.
njuɲongara		2 sg.
ongara		3 sg. masc.
njongara		3 sg. fem.
mongara		m class
wungara		w class
ɲarongara		1 pl. incl.
njarongara		1 pl. excl.
gurongara		2 pl.
burongara (often in reduplicated form: burongongara)		3 pl. and b class
ɲiyeri	<i>one</i>	1 sg.
njuɲeri		2 sg.
eri		3 sg. masc.
njeri		3 sg. fem.
meri		m class
weri		w class
ɲareri	(i.e., <i>we are one people</i>)	1 pl. inc.
njareri		1 pl. excl.
gureri		2 pl.
bureri		3 pl.

Examples of non-prefixing adjectives are:

buḍu	<i>small</i>
dubala	<i>red, yellow</i>
djeḍan	<i>straight</i>
ga i - ga idj	<i>crooked</i>
medjeri	<i>two</i>
nima	<i>heavy</i>
njilnjil	<i>solid</i>
widje	<i>different</i>
yo u u	<i>cool</i>
ṛowa	<i>white</i>

As is evident from the paradigms of Table 16 and the non-prefixing examples above, both the principle which distinguishes prefixing adjectives from the non-prefixing ones and the forms of the prefixes themselves are identical to those set out above (section 2.1.5.2.1) for body-part words (these paradigms, for example, being derivable from those same prefixes plus roots aṇer, w₁ungara, and y₁iri respectively). The entire morphology is identical, so the analysis need not be repeated here.

The formal difference which does allow us to distinguish body-part words from adjectives is not morphological, but syntactic: the former control gender agreement, while the latter do not. Each body-part word, whether or not it carries a prefix cross-referencing the possessor, bears its own gender, independent of that of the possessor, which is reflected by gender agreement on the pronominal elements with which the body-part word enters into appositional relations. The adjective on the other hand does not bear gender inherently, but only secondarily, by agreement with the (often only implicit) noun which it modifies. Compare, for example, the two sets of noun phrases given in Table 17.

Being of the w-class, the word for *eye* takes the w-class pronoun di, regardless of the gender of the possessor noun. The word for *great*, on the other hand, does not bear gender; the pronoun instead shows the gender of the head noun, as does the adjective. (For more on the syntax involved here, see section 3.1.2.)

2.1.5.3. Personal Names

Of the many alternate means of 'naming' among the Ngarinjin, two, namely metronymy and patronymy require some discussion here because they make use of morphology which has no other function in the language.

TABLE 17
The Syntax of Body-Part Words vs. Adjectives

Body-part	aꞑi <i>man</i>	djinda <i>that masc.</i> <i>that man's eye</i>	ambul <i>his eye</i>	di <i>it (w-class)</i>
	wonay <i>woman</i>	njinda <i>that fem.</i> <i>that woman's eye</i>	njambul <i>her eye</i>	di <i>it (w-class)</i>
	gulurogan <i>peaceful</i> <i>dove</i>	ganda <i>that w-class</i> <i>that peaceful dove's eye</i>	wumbul <i>its eye</i>	di <i>it (w-class)</i>
	duramaꞑa <i>black cockatoo</i>	munda <i>that w-class</i> <i>that black cockatoo's eye</i>	mambul <i>its eye</i>	di <i>it (w-class)</i>
Adjective	aꞑi <i>man</i>	djinda <i>that masc.</i> <i>that great man</i>	aꞑer <i>great (masc.)</i>	djiri <i>he (masc.)</i>
	wonay <i>woman</i>	njinda <i>that fem.</i> <i>that great woman</i>	njaꞑer <i>great (fem.)</i>	njindi <i>she</i>
	gulurogan <i>peaceful</i> <i>dove</i>	ganda <i>that w-class</i> <i>that great peaceful dove</i>	wuꞑer <i>great (w-class)</i>	di <i>it (w-class)</i>
	duramaꞑa <i>black cockatoo</i>	munda <i>that m-class</i> <i>that great black cockatoo</i>	maꞑer <i>great (m-class)</i>	mind <i>it (m-class)</i>

A metronym may be formed from any lexical noun or adjective (with implicit head noun), as long as that noun is understood to be capable of definite reference to a unique female individual, by the addition of the suffix *-yali* ~ *-ali*. The *-yali* allomorph occurs after words ending in vowels; *-ali* occurs elsewhere.

For example:

- Mowanbarayali - *the son or daughter of Mowanbara*
- Membinali - *the son or daughter of Membin*
- Aniwerali - *the son or daughter of Aniwer*

Patronyms are likewise formed by the addition of *-walo*. I am reluctant to call this element a suffix, for two reasons. First, the *-w* does not undergo the expected strengthening after consonants (see section 1.2.2.1). The second reason, which is probably related to the first, is that *walo* also occurs as an independent word, meaning *offspring*. One should, therefore, perhaps think of *-walo* patronyms as compounds. Examples are:

- Wadjawalo - *son or daughter of Wadja*
 Djuṅulanwalo - *son or daughter of Djuṅulan*
 Njambarwalo - *son or daughter of Njambar*

Double (e.g., patronymic + metronymic), and perhaps multiple derivations are possible, e.g.,

- Nurguwaloyali - *the offspring of Nurgu's daughter*
 Danbiwaloyali - *the offspring of Danbi's daughter*

2.1.5.4. Post-nominal Elements

In addition to the suffixes which occur only on demonstrative and/or anaphoric pronouns (see section 2.1.2), and those which are used only to form personal names, there are a number of suffixes and postpositions with more general inflectional and derivational functions, which may be used on any of the above-discussed classes of nominal words, viz.: pronouns, lexical nouns, and adjectives. Many of these suffixes and postpositions are not strictly post-nominal elements, but also occur on finite verbs and/or verbal particles. There are yet other suffixes which are used to derive nouns from verbs. In general, I will postpone the discussion of these latter two (i.e., nominal-verbal, and deverbal-nominal) types of suffix/postposition until after I have laid out the morphology of the Uṅarṅinjin verb. But I will depart from this policy insofar as it is convenient to give special treatment here to elements which, though they occur on both nouns and verbs, function somewhat differently on each.

2.1.5.4.1. On the Terms 'Suffix' and 'Postposition'

Some preliminary remarks are in order on the distinction between suffixes and postpositions. Both suffixes and postpositions are equally 'bound' forms, but they differ in that while the former are word-bound, the latter are phrase- or clause-bound. Accordingly, while a suffix always occurs on the word with which it is in syntactic

constituency, regardless of the position of that word with the phrase or clause, a phrase-bound postposition characteristically occurs on the last word of the *phrase* in which it is in constituency. Compare, for example, the behaviour of the two post-nominal elements shown in Table 18.

Table 18
Postposition vs. Suffix

dambun <i>camp</i>		budaga ¹ <i>their</i> <i>at their camp</i>	-	ra locative postposition
budaga <i>their</i>		dambun <i>camp</i> <i>at their camp</i>	-	da locative postposition
yila <i>child</i>	-	ri dual suffix <i>their two children</i>		budaga <i>their</i>
budaga <i>their</i> <i>their two children</i>		yila <i>child</i> <i>their two children</i>	-ri	

¹This word order, i.e., possessed-possessive pronoun, is the preferred one, but the reverse order, as in the next example, also occurs occasionally (cf. section 3.1.2).

Clause-bound postpositions occur either: after the first word of the clause (e.g., -ga, section 2.6.4.3), or in some other syntactically specifiable position (e.g., -ɲari, section 3.3.1.1).

There is another formal manifestation of the split between suffixes and postpositions which, though induced by differences in their syntactic scope, is detectable at the word level. This is that, when both suffixes and postpositions are present in a given word, the suffixes usually precede the postpositions.

For example:

Maɲulan	-	Maɲulaniriyu	-	ali	-	ri	-	yu
				metronymic suffix		dual suffix		lative postposition
				<i>to the two offspring of Maɲulan</i>				
dambun <i>camp</i>	-	da	-	ga				
		locative postposition		interrogative suffix				
		<i>in the camp?</i>						

Corresponding more or less closely to this distributionally-based distinction between suffixes and postpositions is a phonologically-based distinction between what we can call 'tightly joined' and 'loosely joined' word elements. Between a loosely joined element and whatever precedes it there exists what I have called a 'loose juncture'. One of the criteria for distinguishing the loose juncture is that some consonant clusters occur there which are not permitted within a single morpheme (see section 1.1.3). Another is that the vowels /i/ and /u/ show allophones before a loose juncture which are otherwise reserved for word-final position (section 1.1.2.3.1). A third criterion is that loosely joined elements are stressed independently of the elements to which they are attached, one of the syllables of the postposition always bearing second degree stress (cf. Coate and Oates 1970:78), while tightly joined elements are stressed as part of the word in which they occur, hence often receiving only tertiary stress.

I have said that the distinction between tightly joined and loosely joined word elements corresponds 'more or less closely' to that between suffixes and postpositions. More precisely, all tightly joined elements are suffixes, but not all suffixes are tightly joined; some suffixes, and all postpositions, are loosely joined. In other words, a cross-cutting classification by distributional and phonological criteria yields only three of four possible types: loosely-joined suffixes, tightly-joined suffixes, and loosely-joined postpositions. Tightly-joined postpositions do not occur.

2.1.5.4.2. Number Suffixation

A word of any of the nominal classes discussed above may be suffixed for dual or paucal number. For pronouns which have distinct stems for singular vs. non-singular, the dual and paucal suffixes are attached to the non-singular stems.

The suffixes are shown in Table 19.

Table 19
Dual and Paucal Nominal Number Suffixes

	Dual	Paucal
After vowels and glides	- yiri ~ - ri	- yina ~ - na
Elsewhere	- njiri	- njina

I am unable to give a systematic explanation for the $yi \sim \emptyset$ variation in the post-vocalic allomorphs. There is some tendency for speakers traditionally associated with the southwestern part of Uḡarınjin territory to favour the -yiri, -yina variants, while more easterly speakers tend to favour -ri, -na. But I have even heard variations within the speech of a single speaker. This variation may be characterised as competition between weakly-joined and tightly-joined variants of the post-vocalic allomorph: while -ri and -na are tightly-joined, -yiri and -yina are loosely joined, as are 'elsewhere' allomorphs, -njiri and -njina.

It will be observed that there is no overt 'plural' suffix. For pronouns, 'plural' is signalled by a zero suffix on the non-singular stem form. Correspondingly, 'plural' is functionally the least marked of the non-singular number categories: plural forms are *sometimes* used even when the referent is semantically dual or paucal, but dual or paucal forms are never used when the referent is multitudinous.

On lexical nouns, which have no separate non-singular stem forms, 'plural' is signalled, if at all, by reduplication. Interestingly, reduplicated lexical nouns are used with semantically dual or paucal referents far less frequently than are plural-form pronouns. Unlike the zero suffix on non-singular pronouns, nominal reduplication seems to convey a definite meaning of multiplicity.

It bears remarking here that, although these number suffixes *may* be used on any of the nominal types discussed above, dual suffixes actually occur very infrequently, and paucal even less frequently, on any nominals except personal pronouns. The signalling of plurality by reduplication is also quite infrequent, though perhaps less so than nominal number suffixation. The unreduplicated, unsuffixed form of a lexical noun or non-prefixing adjective, which is by far the most common form, carries no information at all about number. Such forms may refer to one, two, three, or any number of things. Within the Uḡarınjin number system, they can only be characterised as non-singular. For such forms, number is signalled only by concord with various pronominal elements external to the noun or adjective itself. Among prefixing adjectives, a certain amount of number information (singular vs. non-singular) is carried by the prefix (see section 2.1.5.2.4).

2.1.5.4.3. Case Postpositions

The distinction between grammatical and non-grammatical cases (for which see Rumsey 1980:1-5) in Uḡarınjin is reflected directly at

the morphological level: grammatical case relations are signalled only by cross-reference on the verb (with one possible exception, for which see 2.1.5.4.3.4), and non-grammatical cases are signalled mainly by the nominal postpositions treated immediately below.

The names I have given to these non-grammatical cases should be taken with a grain of salt. The range of functions carried out by some particular, formally distinct case in any language depends on its relations of paradigmatic opposition to other cases in that language, so there is never a precise cross-linguistic equivalence between two cases from different languages. The Uṇṇinjin 'instrumental' case, for instance, is different from the Sanskrit instrumental case partly because Uṇṇinjin has a separate 'comitative' case, while Sanskrit does not. The Sanskrit instrumental covers many of the functions of the Uṇṇinjin comitative in addition to those of the Uṇṇinjin instrumental.

But if one considers not just the structure of functional differences among formally distinct cases, but also the structure of differences among functions served by the same case, a certain cross-linguistic comparability emerges. For among the functions served by a given case, some are more central or 'basic' than others, and these are similar from language to language, even if the respective ranges of peripheral or 'derived' functions are not.

Many languages, for instance, have a basically adnominalising case which, minimally, can be used to indicate some kinds of 'possession'. Any such case in any language (or, where several occur, the least specialised one) may justifiably be called a 'genitive', regardless of what other idiosyncratic functions it may serve in some language. Thus I have no qualms about calling the Uṇṇinjin postposition *-nanga* a 'genitive' case marker even though it also occasionally serves other, adverbial functions (see section 2.1.5.4.3.6) which do not figure in the cross-linguistic definition of the 'genitive'.

Some of the traditional case designations may even be more appropriate for Uṇṇinjin cases than for some cases which go by those same names in some more well-known languages. The Uṇṇinjin 'instrumental', for instance, can be seen from the discussion above (and below, section 2.1.5.4.3.7) to be, at heart, a more purely 'instrumental' case than is its Sanskrit counterpart (which latter, I submit, could more appropriately be called a 'comitative' case, that being its more basic function, from which the textually frequent 'instrumental' one is secondarily derived).

2.1.5.4.3.1. Locative

The locative postposition is /-*ra*/, which strengthens regularly to -*da* (+ *da*) as per section 1.2.2.1.

Its range of meaning covers most of the senses of English 'at', 'on', 'in', French 'chez' and German 'bei'.

For example:

bililu	muna	wondu- <i>ra</i>	gariwa	ɲariwayiri
raft	that (those)	saltwater-loc.	paddle	we are going
			<i>We are paddling those rafts in the saltwater</i>	
wuɭan	wuniyaɲari	wulun- <i>da</i>	winiɲa	!
words	beautiful	paper-loc.	put (imp.)	
			<i>Put beautiful words down on paper!</i>	
ada	budmaɾa	dambun	ɲininga- <i>ra</i>	
sit	they did	camp	my loc.	
			<i>They sat down at my camp</i>	
mindjal	ɲarinji	Mowaɭdjiyali	- <i>ra</i>	
eat	we were		loc.	
			<i>We ate chez Mowaɭdjiyali</i>	

The locative postposition can also be used to mean *in the time of*, e.g.,

maɭmaɭ- <i>da</i>	di	gunja	-	ɲa
white loc.		then	what	only
			<i>What (happens) in the era of the whiteman?</i>	
aman	inji	alwaɲari	gaɲangan- <i>da</i>	
die	he has	old man	now	loc.
			<i>Now the old man has died</i>	

The -*ra* postposition is *not* used with an 'instrumental' or 'agentive' meaning. I point this out because Coate and Oates, at the time when they wrote their *Grammar of Ngarinjin* were under the impression that there were two distinct cases marked by *ra*, a locative and an instrumental agentive, the latter occurring only on pronouns and proper nouns (Coate and Oates:25-27). But much checking with informants has convinced me that instrumental-agentives in -*ra* do not exist. Mr Coate himself, I believe, now agrees with me on this point (personal communication). Most likely, this mirage arose out of attempts to translate English passive sentences which included expression of the agent. Uɲarɪnjin, in common with many other languages of the world, simply has no regular grammatical means for doing so.

2.1.5.4.3.2. Adessive

There is a very infrequently used case signalled by the postposition *-ḡunda* which means *in the vicinity of*, which, following Hjelmslev's terminology (Hjelmslev 1935:151), I call 'adessive'.

For example:

gaḡmanja -ḡunda

around Kunmunja (mission)

diḡgal ḡar ama-ḡari mindi, buralan - ḡunda

Kangaroo's leg bone stand it does - where the (place) Buralan-
adessive

*where the kangaroo's leg bone stands up, in the vicinity
of Buralan (junction of Plain Creek and Isdell River)*

Perhaps the reason this case is so seldom used is that it is really a specialised form of the locative case. The locative can be used to mean *in the vicinity of* (see the fourth *ḡa* example above), but usually means *at*. *-ḡunda* is called into use when the speaker wishes clearly to specify that something is *not at, but in the vicinity of*.

Given this close semantic relationship between locative and adessive, it is tempting also to see a formal connection between *-ḡa* and *-ḡunda*, the latter being the expected result (see section 1.2.2.1) of the combination: */-ḡun + ḡa/*. This temptation is strengthened by the fact that sequences of more than one postposition do occur (see p. 69). But such an argument would have to be based on comparative-historical evidence: *-ḡun* does not occur as a postposition in present-day Uḡaḡinjin.

2.1.5.4.3.3. Allative

There is a postposition *-biḡnj* which translates very nicely into English as *-ward (-wards), toward, towards*. Like its English counterparts, it usually signals *motion* in some particular direction, but sometimes not. Sometimes there is only the more general sense of 'orientation' in a particular direction.

For example:

balala umbani wuḡan di uḡaḡinjin, gandinjabyinj, gandabiḡnj

spread out it fell language it Uḡaḡinjin w-class hyp.-all.
w-class prox.-
all.

*The Uḡaḡinjin language spread out, way over that way, and
in this direction.*

balja amaṛa , waṛiṇari - biynj
flee he did eastern region - all.
He fled eastward.

2.1.5.4.3.4. Lative-Translative

There is a postposition /-y₁u/, realised as -yu or -dju as per section 1.2.2.1, whose range of uses is one of the most interesting features of Uṇaṛinjin grammar. This range breaks cleanly into two distinct kinds of functions, which may appear so different as to raise doubts about whether this postposition really does stand for a single, semantically unified case.

First, there are the 'concrete' functions: those having to do with spatial relations. As a local case, -y₁u signals *motion up to, or as far as*.

For example:

ba alu yuwenoljennari -yu
come he does to here lat.
He comes up here to Yuwenoljennari.

dinda yaridj muwan monduma-yu Maṛada mindi
right there go down it falls saltwater-lat. Isdell it
Right there the Isdell River goes down to the saltwater
(ocean).

di Wiyidṇu andumaṇ Weṛa-yu
then (man's name) he takes them (man's name) lat.
Then Wiyidṇu takes them to Weṛa.

As discussed in Rumsey 1980:11ff., nominal postpositions in Uṇaṛinjin do not normally indicate grammatical case relations. Conversely, noun phrases which are cross-referenced on the verb do not ordinarily bear case postpositions. This is true in all of the -y₁u examples above, and of all of the other postpositions discussed in this section. But there are other, non-lative uses of -y₁u which flagrantly violate this principle.

For example:

ṇabun - dju ḍo! wanga
water burst forth it went
The water burst forth.

abun - dju du!wur aṅga
harpoon break it went
The harpoon broke.

ɲiyamad - dju baɾidj wi
my kidney rise it is
 (Idiom for *I'm happy*)

ɲala - yu djuwara birinji
animals popped out they did
The animals popped out (of the stomach of a white egret
who had eaten too many, causing him to burst).

winjɟaɲun - dju guɲinba wadininjanja
firewood cover let's do to it
Let's cover the firewood.

In all these instances where one of the noun phrases cross-referenced on the verb takes a -y₁u postposition, the meaning conveyed by -y₁u seems to be quite different from the concrete 'lative' sense discussed above. How are such examples to be interpreted?

The first thing to note is that -y₁u adjuncts are not just randomly paired with all manner of Uɲaɾinjin verbs, but tend to occur with verbs with particular semantic properties, to which verbs they bear certain specific adjunct relations. Typically they are, as in the first four examples above, intransitive verbs which predicate (of their -dju- suffixed subjects) the undergoing of some 'emergence' or other (often violent) action over which the subject usually has no control. Much less often a -y₁u adjunct, as in the last example above, occurs with a transitive verb, in which case the -y₁u adjunct is usually the *object* NP, or semantic 'patient', not the transitive 'subject' or 'agent' NP. This agrees with the fact that -y₁u adjuncts, when serving as intransitive subjects, usually refer to entities which undergo some action which is beyond their control. For the 'agent' in a transitive construction is usually in control of the action, while the patient is not (cf. Dixon 1979).

But none of these generalisations is exceptionless. The verb in the fifth example above, for instance, is not a verb of 'emergence' or 'violent action'. Nor does this use of -y₁u *always* signal a lack of 'control' on the part of the referent of the NP thus marked (see the second example on p. 66).

The only exceptionless generalisation I can make about these -y₁u adjuncts and the verbs with which they are paired is that the action of the verb is one which involves a 'change of state' in the entity referred to by the -y₁u adjunct. This characterisation is probably far *too* general. There are probably other much more specific criteria which govern such pairings. But until I am able to describe them more precisely than I have above, I will treat the 'change of state'

criterion as basic, and hence label this particular use of $-y_{1u}$ its 'translative' function, as opposed to the concrete 'lative' function discussed earlier. Although $-y_{1u}$ has this translative meaning whenever it occurs on a cross-referenced adjunct NP, not every translative $-y_{1u}$ occurs on a cross-referenced adjunct.

One type of non-cross-referenced NP which regularly takes translative $-y_{1u}$ is the class of factive complements, e.g.,

njindi amaɭar guɭin ama-ŋari njoŋar-dju waŋdidj njurwan
she birth he does-rel. trans. make her they do
She to whom a man of the amaɭar moiety gives birth, they
make into a woman of the oŋar moiety (i.e., the rule of
moiety exogamy is not respected any more: such a woman
actually belongs to the amaɭar moiety).

ŋala - y_{1u} waŋdidj iriwiŋga
bird trans. make he did to himself
He made himself into a bird.

Likewise, in intransitive clauses of 'becoming', with verb $\sqrt{y_2i}$, the NP referring to that which the subject has become takes $-y_{1u}$, e.g.,

yilan - dju gara ŋinji
child trans. suppose I was
Suppose I had become a child.

buradi malwa - yu minji
their livers bad trans. m-class-be-past
Their livers became upset.

In addition to its functions in factive and 'becoming' clauses, translative $-y_u$ is used on some other non-cross-referenced NPs whose relationship to the verb is looser and more difficult to specify. Often, such translative NPs seem to do the work of an independent clause, though lacking a verb, e.g.,

amulu - yu guɾa aŋga
well walkabout he went
Having gotten well, he went on walkabout.

yedj - dju debar aŋga
laugh trans. die he went
He died laughing.

maŋdu bedja djoŋari - yu ŋala guɬe buɾi amaɾa
stomach already big - trans. meat-com. stupor he did
His stomach having become huge with meat, he fell into a stupor.

Such uses of the translative case I will call 'translative absolute' constructions. It may be, though, that these absolute

constructions occur not only with $-y_1u$ in its translative sense, but with the more concrete lative meaning as well. This depends on how one chooses to interpret such rare examples as:

brum - dju ada η ama η a
 (town called) Broome sit I did
 Having reached Broome, I sat down (stopped)?

In the discussion so far I have treated lative $-y_1u$ and translative $-y_1u$ almost as if they were two totally distinct cases; as if their morphological identity were mere accident. Such a treatment appears justifiable not only on semantic grounds, but on syntactic ones as well: lative y_1u is confined to non-cross-referenced (i.e., non-subject/object) NPs, while translative $-y_1u$ occurs regularly on cross-referenced NPs, and on complements in factive and 'becoming' clauses, i.e., in construction with the verb $\sqrt{y_2i}$ (see section 2.2). The 'absolute' construction, unlike these others, is difficult to define in purely syntactic terms, and the boundaries around it are somewhat vague, but if it exists, it may provide evidence *against* a strict separation of lative and translative $-y_1u$.

Nonetheless, in order to make my interlinear translations easier to understand, I will label each instance of $-y_1u$ as either 'lative' (lat.) or 'translative' (trans.), rather than using the more cumbersome 'lative-translative'. This should *not* be taken to imply that the morphological identity between the two is purely accidental. On the contrary, it reflects a close semantic relationship which is especially clear in the case of factive and 'becoming' complements. The process of 'becoming' something different from what was is easily thought of as a 'movement' to that new state, and thus the concrete, lative meaning of $-y_1u$ may readily serve as a metaphor for the more abstract translative meaning. Alternatively, since all movement involves a change of state, the lative meaning may be thought of as merely a special case of the more general translative meaning. Thus, the glosses lat. and trans. should be taken as labels for two distinct but related case *functions* rather than as labels for different cases.

2.1.5.4.3.5. Dative

There is a postposition $-gu$ which serves *some* of the functions associated with the dative case in some Indo-European languages. (Most of them are served by dative-benefactive suffixes on the verb, for which see section 2.2.12.) Usually $-gu$ can be translated by English 'for', e.g.,

wanaliri djod - ba njarinji Wadi - gu
dance we did (man's name) dat.
We danced the Wanaliri corroboree for Wati.

djoli njarinji warg - gu
return we did work dat.
We returned for work.

Secondarily, and far less frequently, -gu serves a purely 'local' function, marking an NP which is the 'goal' of a transitive or intransitive verb, e.g.,

bura djoli nay mawanjdjama - gu
should return I go Mowanjum dat.
I'd better return to Mowanjam.

maḡari muḡumaga baḡdidjan - gu
food I took it Pantijan dat.
I took food to Pantijan.

In some instances -gu is ambiguous between this local function and the other, purposive-benefactive sense. This is true in the latter example immediately above, where baḡdidjan-gu can also mean *for (the people at) Pantijan*, and in the following example, which I have discussed with informants regarding just this point:

di Wiyidḡu andumaḡ Weḡa - gu
then (man's name) he takes them (man's name) dat.
Then Wiyidḡu takes them to/for Weḡa.

Informants agreed that both the *to* and the *for* translations of this sentence were possible, but rule out the possibility that Wiyidḡu could be taking the things to someone besides Weḡa, for Weḡa's sake. (Such a meaning would be conveyed instead by using a benefactive suffix on the verb, for which, see section 2.2.12.) Thus the local meaning must remain, but a benefactive sense is added to it as well.

It will be noted that the local meaning of -gu is very similar to that of lative -y₁u discussed above (section 2.1.5.4.3.4). Previous works on Uḡarḡinjin (Coate and Oates 1970:26, Coate and Elkin 1974:195, 246, 302) have distinguished the two by saying that -gu means *to*, and -y₁u (their ju ~ dju) means *as far as*. While I will not deny this claim, I was unable to elicit any such difference from informants, or to discover any minimal pairs which would suggest any difference in local meaning between the two. Rather, the difference which seems most salient to informants is the one which results from the admixture of non-local meaning, discussed above. For instance, when asked to comment on any possible difference between the fourth example sentence

in the middle of page 64 and the last example sentence given on page 68, which differ only by the presence of -y₁u vs. -gu, informants agreed that the former, with Weṛa-yu could mean that Weṛa was given the objects with the intention that he in turn should pass them on to someone else, while the latter, with Weṛa-gu, could only mean that the objects were given to Weṛa for him to keep.

That -y₁u and -gu are very similar if not identical in their local meanings is indicated by the fact that one is often added to the other, always in the order -gu-yu, with no apparent change in meaning from that conveyed by either of them alone, e.g.,

amini djoli birinjeri, dambu - gu - yu, dambu - gu
altogether return the two did camp dat. all. camp dat.

bedja ṅayari

now we two go

Those two went all the way back to the camp, (so) now we two go back to the camp.

2.1.5.4.3.6. Genitive

Possession is indicated mainly by means of the free-standing possessive pronouns discussed above (section 2.1.5.2.3). One of the morphemes which enters into that system of complex pronouns is -nanga, which combines with person-number prefixes as a general singular possessive morpheme.

But -nanga also occurs as a postposition on lexical noun phrases, in which position it may be loosely described as a genitive case marker.

This 'genitive' postposition fills a wide range of functions, one of them being the indication of possession. In this role it might seem to be in competition with the possessive pronouns, but actually this is not the case.

Instead there are hierarchically conditioned alignments between one or the other means of indicating possession and certain ranges of NP types, corresponding to differences in the naturalness (markedness) of various NP types for serving as possessor. This possessor hierarchy is identical to Silverstein's (1976:122) 'agent hierarchy', which is not surprising, considering the universally close connection between transitivity and possession (see, e.g., Allen 1964, and Watkins 1967).

NPs at the top of the hierarchy, the most natural possessors, show possession by means of possessive pronouns; NPs at the bottom by means

of the genitive postposition. The closer the NP is to the top or the bottom of the hierarchy, the more thoroughly is this alignment maintained.

Thus, among the personal pronouns, which are the topmost NPs on the hierarchy, the genitive postposition does not occur at all. Possession is indicated only by the possessive pronouns (most of which are *not* formally identical to free standing pronoun + genitive postposition) and the other functions of the genitive are filled out in other ways.

Personal names, which occupy an intermediate position on the hierarchy - below the personal pronouns, but above all other lexical nouns - are 'intermediate' in their genitive-possessive case-marking as well. The genitive postposition does occur on them occasionally, but when it does, it seems never to serve a 'possessive' function. (See p. 72 below for some functions it does serve on proper names.) That function is instead carried out by the possessive pronouns, which, however, often behave more like postpositions than free pronouns in such instances. That is, they occur after a full (possessor) noun phrase, together with the last (grammatical) word of which, they form a single phonological word. (For grammatical vs. phonological word, see Dixon 1977:88-98.) The most heavily stressed syllable of the possessive pronoun receives secondary stress in relation to the primary stress of the preceding grammatical word, e.g.,

Dáŋal anàŋga
 his sg.
Daŋal's (wife)

Gádbuŋu anàŋga dámbun
 his sg. country
Gadbuŋu's country

émi anàŋga Déd Bérel anàŋga
what's it? his sg. Ted Ferrel his sg.
whose (cattle station)? Ted Ferrel's

It is possible that this particular possessive pronoun, anàŋga, *his sg. obj.*, which is the least marked of the set, is in the process of being reinterpreted by Uŋaŋjin speakers as a simple possessive postposition, devoid of all number and gender specification. That this is so is suggested by examples such as the following:

njándu njáwan anàŋga bálja njumálu
she Njawan subsection flee she comes to here
She who belongs to Njawan subsection flees to here.

The word njawan is of the feminine gender, so the following form would be njananga 'fem. sg. possessor-sg. possessed' if it were functioning as a free-standing possessive pronoun. That it is ananga suggests that the only information it is intended to convey here is the category 'possessive'.

To return now to the hierarchical split in ways of indicating possession, it is interesting to note that some NPs which might seem hardly to be personal names nonetheless behave like them in 'death taboo' situations.

For example:

ded boy ananga mayara
dead man his sg. house
The dead man's house.

The man referred to here was a deceased non-Aboriginal (which is perhaps the reason for the English expression 'dead boy') whose identity was clear from the linguistic context, but whose name the speaker was avoiding in keeping with the 'death taboo' (see section 4.4). Nonetheless, the seemingly vague expression 'dead boy', its unique reference being clear, is treated as a 'personal name' insofar as it takes *ananga* instead of *-nanga*.

Below personal names on the hierarchy, all NP types show possession by means of the genitive postposition.

This is true even of words for human beings when their reference is not definite, e.g.,

brɔu - nanga djuwunba
Aboriginals gen. corroboree depicting a traditional story
The Aboriginals' Djunba corroboree.

modaga bolidjman - nanga
motor car policeman gen.
A policeman's motorcar.

The same is true of non-human animals:

geren dila - nanga
pillow dog gen.
A dog's pillow.

yali - nanga dinggal
kangaroo gen. radius (bone)
A kangaroo's radius.

It is also true of inanimate NP's insofar as they ever function as 'possessor':

baŋaŋan - nanga modaga
 (name of a leprosarium) gen. motor car
Baŋaŋan's motorcar.

billabon nanga amalguni
 billabong gen. louse
The louse from the billabong.

Note that this split among possessor NPs has nothing to do with the grammatical category of gender. Nouns of any gender or number can show possession in either of these two ways, depending on other factors. Nor is even a strictly 'semantic' classification adequate. Rather the split is conditioned directly by cultural rules governing the referential function of language.

The indication of possession is, as I have already remarked, not the only use of the genitive postposition.

Sometimes it serves a local function, in which case it is the ablative-relative counterpart to lative -y₁u. That is, it means something like: 'motion away from, or originating at', e.g.,

durgunduma - nanga baŋi ŋadi njunguludma - y₁u
 (place name) gen. go up we do (place name) lat.
We go up from Durgunduma to Njunguludma.

gagŋid - nanga waraydj ŋundumaŋalu
 Damon Station gen. bring back they brought me
They brought me back from Damon Station.

Although -nanga never occurs as a possessive marker on personal names, it does occur on them with this local meaning, e.g.,

Djabman - nanga mađu ma - ŋari malŋana mindi
 Chapman gen. go it goes rel. creek it
The creek that goes from Chapman's place.

Then there are uses of -nanga which could be described as 'partitive', e.g.,

bleng - nanga aŋuŋuŋuninja
 flank steak gen. I gave to him
I gave him some of the flank steak.

-nanga is regularly used with time expressions to mean *belonging to or associated with (that time)*, e.g.,

duŋ birumaŋa wundir - nanga biri
 stomp they did olden days they
Those of olden days used to stomp.

ɲala djiri gaɭumun - naŋga
animal he long ago gen.
A beast of long ago.

Genitive -naŋga deviates from its usual temporal sense when it occurs on the word *di*, *that*, *then*. The suffixed form *di-naŋga* often pronounced [dɪnɛŋgɛ]), means, not *associated with that* but *after that*, a meaning which is closer to the relative-ablative use of -naŋga than the possessive use which is the basis for its usual temporal meaning.

Finally, there are quasi-derivational uses of -naŋga, where it means something like *concerned with*, often subject to various idiomatic specialisations in sense (as in the second example below).

For example:

baɾudu - naŋga
bush war gen.
one concerned with, or a veteran of, the bush wars

ɲabun - naŋga djiri
(alcoholic) gen. he
possessed by alcohol, i.e., a drunkard

2.1.5.4.3.7. Instrumental

The instrumental postposition is -*njine* ~ *njinenga*. I have been unable to discover any dialectal, phonological, or semantic basis for the alternation between these two allomorphs, and so must tentatively regard it as a matter of free variation.

The postposition occurs only on 'inanimate' NPs and always means *by means of*.

For example:

yinda - njine wundidj ɲandilaniri
spear inst. assault the two did to me
Those two assaulted me with spears.

dinda bumaɾa oŋmal - njinenga
paint do to me pipe clay inst.
Paint me with pipe clay.

2.1.5.4.3.8. Comitative

The comitative postposition is -*guɖe*. It appears on all types of NPs, including personal pronouns, and means *including, accompanied by* or *having* (n.b.: Uɲaɾɪnjin has no verb *have*).

For example:

yowaḍa djilimindi - guḍe maṛa oni
horse horse shoe com. see he did
He saw a horse with horseshoes on.

wana biyalu me - guḍe
when they come here vegetable food com.
When they come here with vegetable food.

bedja njangalu wadi - guḍe
then we came (man's name) com.
Then we came with Wati.

ada ḡima njaṇan - guḍe
sit I will do 2 sg. com.
I'll sit down with you.

2.1.5.4.3.9. Vocative

The 'vocative' postposition is -ay, which carries a heavier stress than the word it occurs on. It is usually used on human relationship terms and personal names.

For example:

gúṇḍi - áy
husband voc.
Hey husband!

Mówaḷdjiyali - áy
(man's name) voc.
Hey Mowaḷdjiyali!

But it can also be used on other kinds of NPs as a way of making a strong request. For instance, while sitting with some Ngarinjin men around an earth oven from which a freshly cooked kangaroo had just been lifted, I heard one man yell: 'ṛàngu - áy!', 'I've got dibs on the heart!'.
 This 'vocative' postposition is also frequently used in utterances which are shouted over long distances, in which cases it often seems not to be in constituency with a single phrase or even a single clause or sentence, but rather with the whole utterance, carrying the sense 'Listen to this!'.

2.2. The Verb

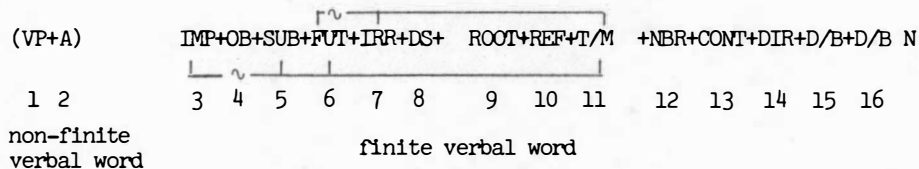
Uṇarınjin verbs are of two kinds: simple and compound. A simple verb consists of a single finite-verbal word (for examples see section 2.2.13). A compound verb consists of one such finite verbal

word, preceded by another, non-finite verbal word (which I call the 'verbal particle'). Examples occur in most of the Uḡar̄injin sentences which have so far been presented.

The morphology of the finite verbal word is the same whether it stands by itself as a simple verb or goes together with a verbal particle to comprise a compound verb (in which case we will refer to the finite verbal word as the 'auxiliary' verb).

Thus it is possible to give a single schematic representation which will provide an overview of the structure of order-classes for both the simple and compound verb. This is given in Figure 2.

Figure 2: Order Classes of the Uḡar̄injin Verb



The abbreviations are to be read as follows:

VP	verbal particle		
A	particle aspect suffix	REF	reflexive/reciprocal suffix
IMP	imperative prefix	TM	tense/mode suffix
OB	object pronominal prefix	NBR	dual/paucal number suffix
SUB	subject pronominal prefix	CONT	continuative aspect suffix
FUT	future prefix	DIR	directional suffix
IRR	irrealis prefix	D/B	dative-benefactive suffix
DS	definite subject prefix	D/B N	dative benefactive number suffix

The connecting lines and complementary distribution signs above and below the abbreviations are meant to indicate that when position 3 is occupied by a non-zero element, no non-zero element can occur at position 5, 6, or 11, and that the same is true of position 6 with respect to 7 and 11.

Table 20 shows the grammatical categories which are expressed in the verb, and matches them to the order classes in which they are expressed. The numbers in the 'order class' column correspond to those given in Figure 2. In the third column are numbers of the sections in which one may find a discussion of the form classes associated with each of these grammatical category/order-class combinations. The reason the form classes are indexed by category/class combination rather than just by category or by class is that

Table 20
Grammatical Categories Implemented in the Ugarinjin Verb

Grammatical Category	Order Class	Section(s)
Tense		
Present (in indicative mode only)	11	2.2.1.
Future (in indicative mode only)	[6] } [11] }	2.2.3.
	[7] } [11] }	2.2.3.
Past (in indicative and irrealis modes)	11	2.2.1., 2.2.4.1, 2.2.4.2.
Non Past (in irrealis mode only)	11 } (7) }	2.2.4.1.
Aspect		
Continuative	13	2.2.10.
Punctual	2	2.2.14.
Iterative	2	2.2.14.
Iterative Continuative	[2] } [13] }	2.2.14.
Unmarked	[2] } [13] }	2.2.14.
Mode		
Indicative	[7] } [11] }	2.2.1.
	(4)	2.2.2.2.
	(5)	2.2.2.
Optative	[7] } [11] }	2.2.5., 2.2.6.
	(4)	
	(5)	

Table 20 - Continued

Grammatical Category	Order Class	Section(s)
Irrealis	7	2.2.4.
	(4)	
	(5)	
Imperative	(11)	2.2.1., 2.2.4.1., 2.2.4.2.
	3	2.2.6.
	(4)	2.2.6.1.
	(11)	2.2.6.1.
Person		
Of subject	5	2.2.2., 2.2.4.
Of object	4	
Of dative-benefactive constituent	15	2.2.12.
Number		
Singular vs. Non-singular		
Of subject	5	2.2.2., 2.2.4.
Of object	4	
Of dative-benefactive constituent	15	2.2.12.
Dual vs. Paucal (within non-singular)		
Of subject or object (see for conditioning)	12	2.2.9.
Of dative-benefactive constituent	16	2.2.12.
Gender		
Of subject (of intransitive verb only)	5	2.2.2.1., 2.2.4.1.
Of object	4	2.2.2.2., 2.2.4.2.

Table 20 - Continued

Grammatical Category	Order Class	Section(s)
Voice		
Transitive vs. Intransitive	[9] } [11] }	2.2.1.
	(4) } (5) }	2.2.2., 2.2.4.
Active vs. Reflexive/Reciprocal	10 (11)	2.2.7. 2.2.1.
Direction of Motion Relative to Speaker		
Proximad vs. Distad vs. Unspecified	14	2.2.11.
Coreference Status of Subject		
Definite vs. Unspecified	8	2.2.8.

multiple form- and order-classes sometimes express the same category (e.g., irrealis mode) and, on the other hand, two alternating categories are sometimes expressed within a single form class (e.g., at position #11).

Some of the categories are expressed only by the simultaneous presence of certain formal features within more than one order class. The optative mode, for instance, is signalled by a zero in position 7 combined with the presence of an otherwise irrealis past morpheme in position 11. Neither of these features by itself signals optative mode; indeed each of them by itself is usually associated with a non-optative mode. But the combination of the two at once does uniquely signal 'optative'. Combinatory relationships of this kind are indicated on the table by rectangular brackets around the form classes in column 2 which go together in this way to mark the corresponding category indicated in column 1.

In other cases, some category which is uniquely signalled within one form class, or combination of form classes (as above) is sometimes also redundantly marked within other form classes as well. Irrealis mode, for instance, is always signalled by the presence of an irrealis morpheme in position 7. Depending on tense and person/number, certain features associated with position 11, and 4 and 5 respectively may, redundantly, signal irrealis mode as well. Position 7 in this case is clearly the *primary* locus of irrealis marking, and positions 4, 5, and 11 the secondary loci for the signalling of this category. 'Secondary' associations of this kind are indicated on the table by parentheses around the form classes in column 2 which bear this kind of relationship to the categories with which they are matched in column 1.

In the following section I deal sequentially with the form classes associated with each of the order class positions in figure 2 (p. 75), and to some extent, with their grammatical functions. (More on these may be found in chapter 3 below.)

2.2.1. Order Classes 9 and 11: Roots and Their Conjugation Classes

The phonological shape of the verb root is governed by the same restrictions which apply to the word (pp. 14-16), plus one more restriction: no verb root begins in a stop consonant.

The number of distinct roots in the lexicon of Uḡarĩnjin is fairly large (over 1,000 I would guess) but most of them are textually very infrequent. By far the majority of Uḡarĩnjin verbs both by text count

and by dictionary count, are of the 'compound' type, consisting of non-finite verbal word + finite 'auxiliary' verb as in the full form represented by Figure 2. The set of roots on which all compound verbs are based (i.e., those whose inflected forms can serve as auxiliary verbs), is closed and quite small, numbering fourteen. Of these fourteen, all but two, $\sqrt{w_1u}$ and $\sqrt{y_1inde_1}$ (see table 21, p. 81) sometimes also occur in isolation as 'simple verbs'.

Thus the entire set of roots may be broken down as follows:

Used exclusively in compound verbs: 2

Used both as simple verbs and in compounds: 12

Used exclusively as simple verbs: over a thousand

Each of these roots occurs only with certain allomorphs of each of the three tense-mode morphemes associated with position 11, i.e., those which mark:

1. present indicative
2. past indicative
3. past irrealis ~ optative (as per sec. 2.2.5)

Depending on which allomorphs they occur with, the roots may be seen as belonging to seven different 'conjugation' classes, as laid out below in Table 21. The roots given on this table are those which belong to the first two of the three categories mentioned above, i.e., those whose conjugated forms can or must serve as auxiliary verbs. This is sufficient to characterise the occurring allomorphy among all roots, including the many which do not function as auxiliaries, because each of them seems to belong to one of the same classes which are found among the auxiliary roots.

2.2.2. Order Classes 4 and 5: Pronominal Prefixes

Every Uqarɨnjin verb is rigidly specified as either transitive or intransitive. Intransitive roots take one pronominal prefix which cross-references a subject noun phrase; transitive roots take two, the first of which cross-references an object (patient) NP and the second of which cross-references a subject (agent) NP. The transitive object and subject prefixes are of class 4 and 5 respectively. Since only one of these two positions is ever filled when the root is intransitive, the order class for intransitive subject pronominal prefixes might conceivably be labelled class 4, were it not for the fact that the transitive 'agent' adjunct is the one which is identified with intransitive 'subject' for purposes of 'definite subject' marking, as

Table 21
Root Conjugation Classes

Class			Present Indicative Suffix	Past Indicative Suffix	Optative Past Irrealis Suffix
1	$\sqrt{w_1u}$	<i>act on</i>	-n	-ni	-yi
	$\sqrt{y_1ibu}$	<i>throw</i>	"	"	"
	$\sqrt{y_1ila}$	<i>hold</i>	"	"	"
	\sqrt{minda} (depending on directional suffix)	<i>take or bring</i>	"	"	"
	$\sqrt{mindjala}^1$	<i>wait for</i>	"	"	"
	$\sqrt{\eta u\bar{u}}^2$	<i>give to</i>	"	"	"
	$\sqrt{ini\eta a}^3$	<i>put</i>	"	"	"
	$\sqrt{w_1a}$	<i>fall</i>	"	"	"
2	\sqrt{ma} (intransitive)	<i>do</i>	-Ø	-ra	-y ₁ i
3	\sqrt{a} (intransitive)	<i>come or go</i> (depending on directional suffix)	-Ø	-nga	-ni
4	$\sqrt{y_2i}$	<i>be</i>	-Ø	-nji	-ni
5	$\sqrt{ma(ra)}^4$ (transitive)	<i>take or bring</i> (depending on directional suffix)	-n	-na	-y ₁ i
6	$\sqrt{(r)a}$ (transitive)	<i>go to or come to</i>	-n	-ni	-y ₁ i
7	$\sqrt{y_1inde}^5$ and all reflexive-reciprocal verbs	<i>fall</i>	-n	-nga	-ni

¹This verb occurs in isolation as a simple verb far more often than as an auxiliary verb. In the latter capacity it occurs, as far as I know, with only one verbal particle, *ada*, to *sit*, the compound verb phrase meaning *to sit waiting for*.

²This verb is usually conjugated as a class 1 verb, but one occasionally hears an alternate past indicative form: *-nu\eta\eta a*, the tense suffix of which seems to be a compounding of the class 5 and class 2 past indicative allomorphs. Given what we know about the way analogy usually works (Kurylowicz 1966:158ff.), it is likely that this verb previously belonged to one of those classes (or perhaps another, now-extinct class) and has only recently been transferred to class 1.

³This verb has probably only recently been transferred to class 1. Occasionally the past indicative form *-ini\eta a* is heard, suggesting a class 2 origin. It may even be that the *-na-* of this root is by origin a class 5 tense marker which has been reinterpreted as part of the root, or that there was another *-na* class, to which $\sqrt{-\eta u\bar{u}}$ may also have belonged.

⁴This root appears as \sqrt{ma} in the indicative mode and as $\sqrt{ma(ra)}$ in all the other modes. In morphophonemic transcription, I always write it as $\sqrt{ma(ra)}$ so as to insure that it will not be confused with the root \sqrt{ma} , which is rather remote from this root in meaning, syntax (being intransitive as opposed to transitive $\sqrt{ma(ra)}$), and morphology (belonging to, or rather comprising, a different conjugation class).

⁵This root never occurs as a simple verb, so it is difficult to isolate its meaning. For those verbal particles which may occur either with this auxiliary or with $\sqrt{w_1a}$, the $\sqrt{y_1inde}$ phrase carries a sense of the 'falling' action being clumsier and/or less controlled. Where the subject of the $\sqrt{y_1inde}$ phrase is non-singular (as it usually is) there is a reflexive-reciprocal sense of 'falling together'. Indeed, this root may be characterised formally as inherently reflexive-reciprocal, its morphology being identical to that which would result from the reflexivisation of a root $\sqrt{y_1inda}$. But no such root exists in present-day Ugarjin.

per section 2.2.8 But that evidence justifies calling it class 5 (cf. Rumsey 1980:17-18).

The transitive-intransitive split is partly consistent with the system of conjugation classes (see section 2.2.1), and partly inconsistent with it. Among the auxiliary roots on Table 21, for instance, all class 1 roots except $\sqrt{w_1a}$ and all roots of classes 2, 3, 4 and 7 are intransitive, and all roots of other classes, along with $\sqrt{w_1a}$ from class 1 are transitive.

Among both the transitive and the intransitive subject prefixes, the forms of some of the pronominal prefixes are somewhat different for indicative vs. irrealis mode.

2.2.2.1. Indicative Intransitive

The indicative intransitive subject prefixes, which closely resemble some which we have already seen (section 2.1.5.2.1), are shown in Table 22.

Table 22
Intransitive Indicative Verb Prefixes

1. sg.	ηa_1-	1 pl. incl.	$\eta ar-$
2. sg.	$njin-$	1 pl. excl.	$njar-$
3. sg. masc.	a_1-	2 pl.	$gur-$
sg. fem.	nja_2-	3 pl.	$bur-$
w-class	w_1u-		
m-class	ma_2-		

As per section 1.2.4.2, both $-a_1$ and $-a_2$ merge with a following $-yi$ to give e , e.g.

$/\eta a_1 + \sqrt{y_2i} / \rightarrow \eta e$,
1 sg. *be* *I am*

$/\eta arwa a_1 + \sqrt{y_1inde} + n / \rightarrow \eta arwa enden$
fall 3 sg. masc. *fall* pres. *he falls*

$/djoy ma + \sqrt{y_2i} / \rightarrow djoy me$
great m-class *is great*

$/mindjal nja_2 + \sqrt{y_2i} / \rightarrow mindjal nje$
eat fem. *she eats*

The final -r of all the non-singular prefixes strengthens to d before the m of \sqrt{ma} , e.g.

/ η ar + \sqrt{ma} /	→	η adma
1 pl. incl. do		we do
/bur + \sqrt{ma} /	→	budma
3 pl. do		they do

Before the root \sqrt{a} , the final r of all the non-singular prefixes changes to y, e.g.

/njar + \sqrt{a} /	→	njaya
1 pl. ex. go		we go
/bur + \sqrt{a} /	→	buya
3 pl. go		they go

I have no regular phonological explanation for this change, and so must regard the -y prefixes as root-specific allomorphs.

2.2.2.2. Indicative Transitive

Transitive verbs take a subject pronominal prefix in position 5 and an object pronominal prefix in position 4. For some of the resulting object-prefix-subject prefix sequences, it is not obvious where to make the 'cut' between the two elements. Since my segmentation is not the only conceivable one, I shall present an unanalysed set of object element + subject element pairs first, when introducing both the indicative and the irrealis prefixes.

The set of indicative pairs is given in Table 23. Almost all of these compound prefixes are clearly segmentable into sequences of discrete object + subject elements. (The only ones for which this may be doubted are the 1 sg. obj.-2 sg. sub. compound djan-, and the 3 pl. obj.-3 sg. sub. compound anda₂-, but comparison with elements elsewhere in the morphology¹ suggests that these compounds have zero-form object and subject markers respectively.) But such a segmentation requires one to set up, for certain person/number categories, allomorphs, the choice among which depends on what other elements they are paired with. In other words the system is a partly 'global' one, of the kind discussed in Silverstein 1976:134ff.).

¹For djan-, cf. the 2 sg. sub. allomorph dja₂ given in Table 24. For anda₂-, cf. the plural imperative object marker -anda₂- (section 2.2.6.1).

Table 23

Transitive Indicative Verb Prefixes

Subject	Object									
	1 sg.	2 sg.	Masc.	Fem.	w-class	m-class	1 Pl. Inc.	1 Pl. Ex.	2 Pl.	3 Pl.
1 sg.		njun-	aŋa ₂ -	njuŋa ₂ -	wuŋa ₂ -	muŋa ₂ -			gunda ₂ -	buna ₂ -
2 sg.	djan-		anjɔɔja ₂	njinɔɔja ₂ -	winɔɔja ₂ -	minɔɔja ₂ -		nɔɔja ₂ -		binɔɔja ₂ -
3 sg.	ŋan-	njun-	a ₁ -	nja ₂	a ₂ -	ma ₂ -	ŋada ₂ -	nɔɔja ₂ -	gunda ₂ -	anda ₂ -
1 Pl. Inc.			ar-	njar-	war-	mar-				bar-
1 Pl. Ex.		nɔɔinda ₂ -	anjir-	njanjir-	wanjir-	manjir-			gunda ₂ -	banjir-
2 Pl.	ŋanda ₂ -		ina ₂ -	njuŋa ₂ -	wuŋa ₂ -	muŋa ₂ -		nɔɔja ₂ -		buna ₂ -
3 Pl.	ŋanda ₂ -	nɔɔinda ₂ -	ir-	njir-	wur-	mur-	ŋada ₂ -	nɔɔja ₂ -	gunda ₂ -	bunda ₂ -

These subject and object elements are given in Table 24. The *r* of plural subject allomorph /*ra*₂/ always emerges phonetically as *d*, and so could be written as underlying /*d*/, but I prefer to write it as /*r*/ (→ *d* / *n*₋) so that it may be identified with the non-singular marker *r* which occurs elsewhere in the morphology (cf. section 2.1.5.2.2).

Table 24
Transitive Indicative Subject and Object Pronominal Prefixes

	Object	Subject
1 sg.	<i>nan</i> ~ ∅	<i>na</i> ₂ ~ ∅
2 sg.	<i>njin</i> ~ <i>njun</i>	<i>djan</i> ~ <i>dja</i> ₂ ~ ∅
3 sg. masc.	<i>a</i> ₁ ~ <i>i</i> ~ <i>an</i>	∅
3 sg. fem.	<i>nja</i> ₂ ~ <i>nju</i> ~ <i>nji</i> ~ <i>njin</i>	∅
3 w-class	<i>wa</i> ₂ ~ <i>wu</i> ~ <i>wi</i> ~ <i>win</i>	∅
3 m-class	<i>ma</i> ₂ ~ <i>wu</i> ~ <i>wi</i> ~ <i>min</i>	∅
1 pl. inc.	<i>nada</i> ₂	<i>ar</i>
1 pl. ex.	<i>njada</i> ₂	∅ ~ <i>anjir</i> ~ <i>ra</i> ₂
2 pl.	<i>gunda</i> ₂	∅ ~ <i>na</i> ₂ ~ <i>ra</i> ₂
3 pl.	<i>bu</i> ~ <i>bi</i> ~ <i>bin</i> ~ <i>anda</i>	∅ ~ <i>r</i> ~ <i>ra</i> ₂

The *n* of the third person object allomorphs *an*, *njin*, *win*, *min* and *bin*, which is always followed by the -*dj* of 2 sg. subject marker -*dja*₂, assimilates to *nj*, as per section 1.2.3.2. Contra Heath 1976: 182, it is identifiable as underlying /*n*/ by the quality of the preceding /*i*/ in the 3 sg. object elements, which is pronounced [I] (as per section 1.1.2.3.1.2 above).

*a*₂ (but not *a*₁) regularly assimilates in gravity to the first consonant of a following root, as exemplified in section 1.2.4.1. Both *a*₁ and *a*₂ coalesce with following -*y*₁*i* or -*w*₁*u* to yield mid-vowels, as exemplified in section 1.2.4.2. Prefix-final vowels are dropped when a following root begins in a vowel, as seen in section 1.2.4.3.

2.2.3. Order Classes 6 and 11: Future Tense

Uṅarinyin has a grammatical category which has been referred to in the literature (Coate and Oates 1970:47) as the 'future tense'. As in many languages, this 'future' is not a tense category pure and simple. Rather, as we shall see below (section 3.3.1.3), it combines 'tense', to a certain extent, with intentional modality, the signaling of which may even be its primary function.

This 'future' category is marked, for roots of all conjugation classes, by a zero element in position 11, combined with the presence of a 'future' morpheme in position 6.

The future morpheme has three allomorphs: *iy*, *iya₂*, and *a₂*.

The *iy* allomorph occurs before the root \sqrt{a} , and before all other intransitive roots just in case their pronominal prefix ends in a vowel. Just as prefix-final vowels are dropped when the following root begins a vowel, so they are dropped when *-iy* intervenes between prefix and root. Examples of future verb forms with the *-iy* allomorph are:

$/\eta a_1 - iy - \sqrt{a} / \rightarrow \eta iya$
 1 sg. fut. go *I will go or I want to go*

ada $/\eta ja_2 - iy - \sqrt{ma} / \rightarrow ada \eta iyma$
sit fem. fut. *do she will sit*

$/\eta arwa ma_2 - iy - \sqrt{wa} / \rightarrow \eta arwa miywa$
fall m-class fut. *go it will fall*

$/\eta ar - iy - \sqrt{a} / \rightarrow \eta ariya$
 1 pl. inc. fut. *go Let's go!*

Before a transitive root beginning with glide + homorganic vowel, (i.e. $\sqrt{w_1u}$ $\sqrt{y_1i\bar{a}}$, etc.) paired with any vowel-final prefix combination except one ending in the 1st sg. or 2nd sg. subject allomorph *-ṅa₂-*, *dja₂-* respectively, the future allomorph is *-iya₂-*. As before *-iy-*, prefix final vowels are dropped before *-iya₂-*. The *a₂* of *-iya₂-* coalesces with following *-y₁i-* or *w₁u-* as per section 1.2.4.3. Examples of future verb forms with the *-iya₂-* allomorph are:

$/ma\eta a gunda - iya - \sqrt{w_1u} / \rightarrow ma\eta a gundiyo$
see pl. ob. fut. *act on They will see you*

/wu|a a₁ - iya₂ $\sqrt{w_1u}$ / → wu|a iyo
 talk masc. ob. 3 sg. sub. fut. act on He will speak to him

/li nanda₂ - iya₂ - $\sqrt{y_1ila}$ / → li nandiyela
 watch 1 sg. ob. pl. sub. fut. hold They will watch me

/buna₂ - iya₂ - $\sqrt{y_1ila}$ / → buniyela
 3 pl. ob. 2 pl. sub. fut. hold You (pl.) will hold them

/anda₂ - iya₂ - $\sqrt{y_1ibu}$ / → andiyebu
 3 pl. ob. 3 sg. sub. fut. throw He will throw them

The 'elsewhere' allomorph of the future morpheme, the one found in all environments not included above, is -a₂-. As expected, any prefix-final vowel is dropped before this a₂ (which almost never has any phonetic consequences, since the prefix-final vowel for every prefix combination except masc. -3 sg. is a₂, which merely gets replaced by this other a₂). This a₂ is dropped before root-initial vowels, and undergoes 'a₂ assimilation' (section 1.2.4.1) before root-initial consonants. Examples of future verb forms showing the -a₂- allomorph are:

/nar - a₂ - \sqrt{ma} / → naruma
 1 pl. inc. fut. do We will do or Let's do

/njn - a₂ - $\sqrt{w_1a}$ / → njnuwa
 2 sg. fut. fall You will fall

/maṛa aṇa₂ - a₂ - $\sqrt{w_1u}$ / → maṛa aṇo
 see masc. ob. 1 sg. sub. fut. act on I will see him

/djan - a₂ - $\sqrt{nu|u}$ / → djanuṇu|u
 1 sg. ob. 2 sg. sub. fut. give to You will give to me

/li ṇan - a₂ - $\sqrt{y_1ila}$ / → li ṇanela
 watch 1 sg. ob. 3 sg. sub. fut. hold He will watch me

/njun - a₂ - $\sqrt{ma(ṛa)}$ / → njnuma
 2 sg. ob. 3 or 1 sg. sub. + fut. take He (or I) will take you

/guḡin - binjdja - a₂ - √iniḡa/ → guḡin binjdiḡa
cover 3 pl. ob. 2 sg. sub. fut. *put* *You will cover it*

Note that, for transitive verb roots beginning in consonants (except w₁u- and y₁i- roots), such as √ḡuḡu and √ma(ḡa) above, prefixes + future allomorph + root is formally indistinguishable from prefixes + root when the prefix combination ends in a₂, since this a₂ is just 'replaced' by the future allomorph. When the prefix combination ends in a consonant, 'future' forms are distinguished by the presence of a following assimilating vowel, as in the examples above. When the root begins in a vowel, however, prefixes + future a₂ + root is never formally distinguishable from prefixes + root, because the future -a₂- allomorph is always replaced by the root-initial vowel. Nonetheless, for all these kinds of transitive roots, when one considers the conjugated verb form as a whole, 'future' is always formally distinct, whether or not it is unambiguously marked in position 6. This is true because for all transitive verbs (and transitive forms are the only ones on which the future allomorph is sometimes phonetically unrealised), 'present indicative' is always marked by a non-zero post-root element n ~ ḡ. 'Future', then, is always identifiable by the absence of any positive marking in position 11, combined with the absence of irrealis marking in position 7.

2.2.4. Order Classes 5 and 7: Irrealis Mode

One of the non-indicative verb modes in Uḡarḡinḡin is one which, in the literature on the Kimberley languages, has been called 'irrealis', a name which I shall retain here, less for its accuracy than in the interest of terminological standardisation.

The basic meaning of this mode, which is subject to further specification by the various mode particles (section 3.3.1.4) is that the proposition of which the irrealis verb expresses the predicate is one which, in the speaker's estimation, may not be true.

As we shall see below (section 3.3.1.4) each 'mode particle' occurs only with verbs of some specified mode(s). One such mode particle is wa, *not*, which, as one should expect from the previous paragraph, occurs only with verbs in the irrealis mode. I mention it here both because it will be relevant in the analysis of the irrealis morphology below, and because I shall use it in all the following examples of irrealis verb forms (it being very difficult to gloss any

non-contextualised 'irrealis' verb form not accompanied by some mode particle).

2.2.4.1. Irrealis Intransitive

The prefixal elements for intransitive irrealis verbs are listed in Table 25.

Table 25
Intransitive Irrealis Verb Prefixes

1 sg.	η anga ₂ -	1 pl. inc.	η arga ₂ -
2 sg.	njinga ₂ -	1 pl. ex.	njarga ₂ -
3 sg. masc.	aŋga ₂ -	2 pl.	gurga ₂ -
3 sg. fem.	njanğa ₂ -	3 pl.	burga ₂ -
3	w-class	wanğa ₂ -	
3	m-class	mangğa ₂ -	

As usual, the a₂ which occurs on all these prefixes assimilates to following consonants, coalesces with following glide + homorganic vowel, and is lost before a following vowel. These processes need not be exemplified again here.

There are no separate 'future' forms which take these irrealis prefixes. The future forms which occur with otherwise 'indicative' prefixes are, it might be argued, semantically closer to this irrealis mode than to the indicative mode, since the 'future' is, *ipso facto*, unrealised.

There is, on the other hand, a separate past tense in the irrealis mode, which is marked by y₁i or ŋi depending on conjugation class as indicated in Table 21 (p. 81). When the -y₁i allomorph follows a root ending in a, the sequence yields e as usual, e.g.

wa wu a	/ η anga ₂	-	\sqrt{ma}	-	y ₁ i /	→	η angume
not talk	1 sg. irr.		do		irr. past		
<i>I don't talk.</i>							
wa η arwa	/anğa ₂	-	$\sqrt{w_1a}$	-	y ₁ i /	→	anguwe
not fall	masc. irr.		fall		irr. past		
<i>He doesn't fall.</i>							

Thus far I have been treating these irrealis verb prefixes as if they were unitary 'portmanteau morphemes', each signalling the grammatical category 'irrealis' plus person and number information in a single, unanalysable bundle. Especially for the intransitive series introduced above, it is quite evident that this is not the case. All of them end in $-ga_2-$, and for all except 3 sg., the phonological substance that precedes this $-ga_2$ is identical to the corresponding indicative intransitive verb prefix (see section 2.2.2.1). This element $-ga_2-$, then, could be isolated as the irrealis marker. Then one need not posit any distinct irrealis intransitive pronominal prefixes except for 3 sg., which could either be $a\eta-$, $nja\eta-$, $wa\eta-$, and $ma\eta-$; or alternatively a_1- (same as indicative), nja_1- , wa_1- , ma_1- , with special 3 sg. irrealis allomorph (or 2nd degree strengthened form) $-nga_2$.

But note that the form of the irrealis marker could just as well be $-w_2a_2-$, since, among intransitive verbs, it always follows a nasal or $-r-$, in which positions w_2 is strengthened to g (section 1.2.2.1).

That $-w_2a_2-$, not $-ga_2$, is the correct underlying form of the irrealis marker is, indeed, the position I will adopt here. The best evidence for doing so comes from the form of the transitive irrealis prefixes, and so must wait until they are introduced below, but there is another argument which can be given here.

The $-w_2a_2-$ morpheme is by origin, I submit, identical to the negative mode particle wa , and dates from a time when the pronominal elements preceding the verb root were less closely bound to it than they are now. Just as mode particles in present-day Uḡarɪnjin come just before the inflected verb, or non-finite verbal particle (if there is one), they could earlier have come just before a verb form which was inflected only for tense, as yet showing no person/number agreement by fused pronominal elements. The particle wa , then as now, meant *not*, so that the present irrealis verb developed from an originally negative verb phrase. Even now, irrealis forms without any accompanying mode particle are occasionally used with a purely negative meaning, but usually this sense requires a 'reinforcing' free-form negative particle wa .

If $-w_2a_2-$ comes from # wa #, then the $w-$ of the latter must be w_2 , not w_1 (i.e. must alternate with g , not b).

That this is indeed the case is suggested by two kinds of independent evidence.

First, there is another, negative/interrogative element *-ga*, (treated below, section 2.6.4.3) which, one strongly suspects, is nothing but a postpositional variant of # *wa* #.

Second, there is evidence that the *w* of # *wa* # is actually the *w* of *w*-class pronominal prefix *wu-*, which alternates with *g* rather than *b* (cf. for example, the *w*-class demonstrative *ganda*, etc. of section 2.1.2.2). This identification is suggested by the fact that, for many speakers, the negative mode particle (or at least an alternate, functionally identical form of it) is not *wa*, but *way*, which is the *w*-class-prefixed form of an adjective root \sqrt{ay} , which means *no(ne)*. The *w*-class form, then, means *none of that thing of the w-class*. The *w*-class 'thing' intended when *way* is used in this way is, as any Uḡarɪnɟin speaker will tell you, that *wu|an*, a *w*-class word meaning *speech, word, words, or language* (see section 3.3.1.1.1 below).

But this second piece of evidence is somewhat equivocal. It may well be that the mode particle *wa* and the prefixed form *way* were originally quite distinct, but that their close similarity in form and meaning has led to their being identified in the minds of Uḡarɪnɟin speakers to the extent that the latter has become substitutable for the former (but not vice versa, since *way* is still a part of a 'live' paradigm of \sqrt{ay} forms).

In support of my assertion that *-w₂a₂-*, not *-ga₂-* is the correct underlying form of the irrealis marker, I have claimed that that marker is by origin identical to the negative mode-particle # *wa* #. In support of that claim, I presented two arguments that the *w* of # *wa* # is *w₂*, not *w₁*. But even if it were positively established that # *wa* # is *by origin* identical to the irrealis marker, this would not by itself prove that the underlying form of the latter in a synchronic account must be *-w₂a₂-* rather than *-ga₂-*: morphophonemics does not, in principle, recapitulate diachrony, even if it does usually turn out that way in practice. Rather, I see this historical argument as providing ancillary support for the synchronic one presented in the next section.

2.2.4.2. Irrealis Transitive

I need not burden the reader with another full chart of transitive verb prefixes for the irrealis mode, for, with but few exceptions, they may be derived from the corresponding indicative prefixes (see Table 23, p. 85) by the application of two simple morphological rules.

First, the exceptions. When the object is third person and the subject is 1 sg., 3 sg. (except with 3 pl. object), or 2 pl., the (unexpected) irrealis prefix combinations are as shown in Table 26.

Table 26
'Irregular' Irrealis Prefix Combinations

Object	Subject		
	1 sg.	3 sg.	2 pl.
3 sg. masc.	anga ₂ -	anga ₂ -	inunga ₂ -
3 sg. fem.	njanga ₂ -	njanga ₂ -	njununga ₂ -
3 w-class	wanga ₂ -	wanga ₂ -	wununga ₂ -
3 m-class	manga ₂ -	manga ₂ -	mumunga ₂ -
3 pl. (b-class)	banga ₂ -	(regular, i.e. anda ₂ -)	bununga ₂ -

Obviously these prefix combinations by themselves fit into a perfectly regular agglutinative paradigm. But some of its features, though regular, differ from those of the corresponding indicative forms. In particular, the 1 sg. indicative subject allomorph $-na_2$ is replaced here by $-a_0-$, and the 3 sg. subject allomorph \emptyset is replaced by $-an-$ (or, if one prefers, $-a-$ with 2nd degree strengthened irrealis allomorph $-nga_2-$). The 2 pl. subject allomorph $-na_2-$ is either replaced by $-nu_0-$ (or $-na_2_0-$) or remains $-na_2-$, with the irrealis allomorph strengthened to $-nga_2-$.

Now the rules.

For all the person-number combinations not included in the chart of exceptions above, the irrealis prefix combination may be derived from the corresponding indicative one (for which, see section 2.2.2.2) as follows:

- 1) If the indicative prefix combination ends in a consonant (the occurring ones being n and r), add $-ga_2-$
- 2) If the indicative prefix combination ends in a_2 , replace the a_2 by a non-assimilating [a·].

Some examples of resulting irrealis forms with various roots (see p. 83) are:

/njun	- ga ₂	- $\sqrt{\eta u!u}$ /	→	njunguηu!u
2 sg. ob.	- {	1 sg. sub.		
	- {	3 sg. sub.		
/djan	- ga ₂	- $\sqrt{i\eta i\eta a}$ /	→	djanginiηa
1 sg. ob.	-	2 sg. sub.		
/ηada ₂	- a·	- $\sqrt{y_1 i\eta a}$ /	→	ηadelan
1 pl. inc. ob.				
/anda ₂	- a·	- $\sqrt{ma(\eta a)}$ /	→	anda·maηa
3 pl. ob.	-	3 sg. sub.		
/gunda ₂	- a·	- $\sqrt{(\eta) a}$ /		gunda·ηa
2 pl. ob.				
/mar	- ga ₂	- $\sqrt{m\eta nda}$ /	→	marguminda
m-class ob.	-	1 pl. inc. sub.		

In my formulation of the second morphological rule above, and in the above examples, I have 'mixed' descriptive levels: a₂ is a strictly morphophonemic unit, [a·] a more or less phonetic one, and the rest of the orthography in the examples is phonemic. What one needs in order to straighten out this confusion is the phonological apparatus developed in section 1.1.2.3. Recall that the conclusion reached there was that there were no instances of underlying long i or u (nor e nor o for that matter), but that all instances of phonetic [i·] and [u·] arise from underlying iyī and uwu respectively. Mostly on grounds of pattern congruity, it was then argued that all instances of phonetic [a·] might be derived from underlying /aw₂a/. To that argument from pattern congruity we may now add one based on morphological simplicity. That is, deriving [a·] from /aw₂a/ would allow us to replace the two morphological rules for irrealis marking given above with a single rule. Moreover, that one morphological rule is simpler than either of the two it replaces because it need not specify any environments conditioning the alternation of allomorphs. That is taken care of by the morphophonemic rules of consonant strengthening (section 1.2.2) which are needed elsewhere in the morphology anyway. The rule is:

To the indicative prefix combination, add /w₂a₂/.

As with all the intransitive irrealis prefixes, the w_2 of $-w_2a_2-$ strengthens to g when following a consonant (see the first, second, and sixth example above). When $-w_2a_2-$ follows a_2 , which is the only vowel it ever follows, this $a_2w_2a_2$ sequence results in phonetic [a·] (for which, see the remaining examples above). Often in non-careful speech this [a·] is shortened to the length of a normal, stressed /a/.

All transitive roots, except when reflexivised, mark irrealis past tense with $-yi$, which also occurs with some intransitive roots (see section 2.2.4.1). The phonetic manifestation of this $-yi$ after root-final $-a$ has already been discussed (p. 90). When this $-yi$ follows a root ending in $-u$, the /uyi/ sequence emerges as i , e.g.

wa maḡa /ḡan - w_2a_2- $\sqrt{w_1u}$ - yi/ → ḡanguwi
 not see 1 sg. 3 sg. -irr. - act on irr. past
He didn't see me

wa waydj /binjdja₂ - w_2a_2- \sqrt{yibu} - yi/ → binjdja·yibi
 not send 3 pl. 2 sg. - irr. throw irr. past
You didn't send them

2.2.5. Order Classes 7 and 11: Optative Mode

There is a distinct 'optative' form of the verb among both transitives and intransitives in all persons and numbers (and transitive pairs of them). Its morphology is very easy to describe, for it is nothing but a recombination of formatives used elsewhere.

Optative forms take 'indicative' pronominal prefixes (see section 2.2.2), and the same suffix used to mark past tense on irrealis verbs (i.e. yi or ηi depending on the conjugation class). The morphophonemics of root + yi are, of course, the same as I have described for $-yi$ when used as an irrealis past tense marker (pp. 90, 95 above). Examples of optative verbs are:

linj /bar - $\sqrt{w_1u}$ - yi/ → barwi
 watch 3 pl. 1 pl. inc. - act on irr. past
Let's watch them

balja /ir - $\sqrt{(\bar{r})a}$ yi/ → ide
 go to masc. 3 pl. - go go - opt./irr. past
Let them go to him

billy can /wu - \sqrt{a} (intr.) - ηi - lu / → wa η ilu
 w-class come opt./irr. past - prox.

Let the billy can come here (a polite way of saying, *Pass me the billy can*)

minjdjal /a₁ - $\sqrt{y_2 i}$ - ηi / → e η i
 eat masc. be opt./irr. past

Let him eat

In their treatment of U η a η injin morphology, Coate and Oates have conflated the paradigm of this optative mode with that of the imperative mode (treated below, section 2.2.6), listing imperative forms just where the subject is 2 sg. and optative forms for all other persons and numbers. This was an easy mistake to make, because the meanings of the two modes are quite similar (though their formal realisation is not). Furthermore, there are no imperative forms with anything but (implicit) second person subjects (and, among transitives, third-person objects), so it is tempting to 'fill out' their paradigm with optatives for non-2 sg. subjects. What prevents us from doing so is the fact that optatives too occur with 2 sg. subjects, e.g.

a η a η ari yali bada/anjdja₂- $\sqrt{w_1 u}$ - yi / → anjdjuwi
 many kangaroo kill masc. 2 sg. act on opt./irr. past
May you kill many kangaroo

η arwa /njin - $\sqrt{w_1 a}$ - yi / → njinbi
 2 sg. - fall opt./irr. past
May you fall

2.2.6. Order Class 3: Imperative Mode

Intransitive imperative verbs for which the implicit subject (i.e. the addressee who is being 'ordered') is singular take an imperative marker ba₂- in position 3. Because of the way ba₂- is used on transitive imperatives (see below, section 2.2.6.1), it cannot be regarded as a special imperative form of the 2 sg. subject morpheme, but must instead be thought of as one of the allomorphs of an imperative mood morpheme, ba₂ ~ \emptyset , which in this case is followed by a zero subject marker for 2 sg.

Examples of intransitive 2 sg. imperatives are:

ada /ba₂ - $\sqrt{w_1a}$ / → buwa

sit imp. fall
sit down!

awa /ba - \sqrt{yi} / → be

open imp. be
Be open (i.e. open up and talk)

wu!a /ba₂ - \sqrt{ma} / → buma

talk imp. do
Speak!

/ba₂ - \sqrt{a} - lu / → balu

imp. go prox.
Come here!

yudug /ba₂ - \sqrt{yinde} / → bende

bow down imp. fall
Bow down!

Intransitive imperative verbs for which the implicit semantic 'subject' is plural are identical to the corresponding present indicative forms except that they do not bear a tense suffix. Since present indicative takes a zero suffix within conjugation classes 2, 3, and 4, 2 pl. imperatives of these classes are not formally distinguished in any way from the corresponding indicatives.

Examples of 2 pl. imperatives are:

wedj /gur - $\sqrt{w_1a}$ / → gurwa

lie down 2 pl. fall
You people lie down!

bara bara /gur - \sqrt{ma} - ŋɖu / → gudmaŋɖu

story 2 pl. do 3 pl. dat.
You people tell them a story!

madu /gur - \sqrt{a} - ri - nja / → guyarinja

walk 2 pl. go du. dis.
You two go away! (for r → y, see p. 85)

gaṇba /gur - $\sqrt{y_2}i$ - na / → gudina
sing 2 pl. *be* pauc.
You handful of people sing!

bunbulwa /gur - $\sqrt{y_1}inde$ / → gudjinde
persist 2 pl. *fall*
You people keep it up!

2.2.6.1. Transitive Verbs

Distinct imperative forms of the transitive verb exist only for combinations of second person (singular or plural) 'subject' and third person (singular or plural) object.

When the (second person) imperative 'subject' is singular, and the (third person) object is masculine, feminine, or b-class (plural), the verb takes the same initial imperative marker ba_2 - which occurs with intransitive 2 sg. imperatives (section 2.2.6 above). This imperative morpheme is followed by an object marker as follows:

masculine: - \emptyset -
 feminine: - a_1nja_2 -
 b-class: - $anda_2$

Note that this b-class object marker is identical to the b-class object allomorph which occurs in the indicative mode just when the subject is 3 sg. (p. 96). The feminine object marker is also identical except for the initial a_1 .

Examples of transitive imperative verb forms prefixed with ba_2 - are:

yinda waṇḍidj / ba_2 - \emptyset - $\sqrt{w_1}u$ / → bo
spear make imp. masc. ob. act on
Make a spear!

li / ba_2 - a_1nja_2 - $\sqrt{y_1}i$ / → banjela
watch imp. fem. ob. hold
Watch her!

ṇala / ba_2 - $anda_2$ - $\sqrt{ma}(\ddot{r}a)$ / → bandumaṛa
meat imp. b-class ob. bring
Bring the meat!

Where the implicit 'subject' is 2 sg. and the object is w-class or m-class, there is no overt imperative marker. Imperative forms consist of an object marker, ma_2 - or wa_2 - (identical to the indicative ones given in Table 18), followed by the verb root.

For example,

guṇin / wa_2 - $\sqrt{iniṇa}$ / → winiṇa
 cover w-class ob. put
Cover it (w-class)

waḷay / ma_2 - \sqrt{yibu} / → mebu
 turn m-class ob. throw
Turn it (m-class)

These singular 'subject' imperatives with w-class and m-class objects, which have the simplest morphology of any verb forms in the language, closely resemble present indicative forms with 3 sg. subjects. But they are always distinguishable from them by the fact that, like all imperative verbs, they lack a tense marker after the root.

Plural 'subject' transitive imperative verbs, like their intransitive counterparts (section 2.2.6) lack an overt imperative marker. They are identical to the corresponding present indicative forms minus the tense marker after the root. That is, they consist of a (third person) object marker i-, nju-, wu-, mu-, or bu-, followed by the 2 pl. subject marker na_2 , followed by the root, e.g.

li /i - na_2 - $\sqrt{w_1u}$ / → ino
 look at masc. ob. 2 pl. sub. act on
You people look at him!

/nju - na_2 - $\sqrt{ṇuḷu}$ / → njunuṇuḷu
 fem. ob. 2 pl. sub. give to
You people give to her!

/wu - na_2 - \sqrt{minda} / → wunuminda
 w-class ob. 2 pl. sub. bring
You people bring it (w-class)!

/ṛidj / $mu-na_2$ - $\sqrt{ma(ṛa)}$ / → munumaṛa
 pull m-class ob. 2 pl. sub. take
You people pull it (m-class)!

/bu - na₂ - √(r)a / → bunuṛa
 3 pl. ob. 2 pl. sub. go to
You people go to them!

Note that all of these transitive imperative forms, whether the implicit 'subject' be singular or plural, occur with third person objects only. When the object is second person, the imperative is reflexive (section 2.2.7) and therefore intransitive. When the object is first person, the strongest available 'command' form of the verb is the optative form discussed above, e.g.

ṅabun /djan - √ṅu|u - y₁i / → djannu|i
 1 sg. ob. 2 sg. sub. give to opt./irr. past
Give me water!

/njada₂ - √mindjala - y₁i / → njadumindjale
 1 pl. ex. wait for opt./irr. past
Wait for us!

As a look at Table 23 will reveal, when the first person object is plural, as in the latter example above, the subject is not specified on the verb form at all: it could be 2 sg., 2 pl., 3 sg., or 3 pl. Such formal ambiguity can always be resolved by the use of a free-standing personal pronoun (p. 31) for the second person subject, or an anaphor, demonstrative, or lexical noun-phrase for the third person subject.

2.2.6.2. Negative Imperative

Coate and Oates (1970:51,52,98,99) notwithstanding, there exists no separate 'imperative irrealis' form of the Uṅarṅinjin verb. 'Imperative' and 'irrealis' are distinct, mutually exclusive modes. Recall, however, that one of the uses of the latter (usually with a specialised mode particle) is negation: it is impossible to negate an Uṅarṅinjin verb without putting it into the irrealis mode. How, then, does one order someone *not* to do something in this language? Instead of using an imperative form to do so, one uses a non-past irrealis form (2.2.4) with a second person subject. Interestingly, when irrealis forms are used in this way (to issue negative commands), they are not accompanied by a negative (or any other) mode particle. I have tried to check this point with Uṅarṅinjin speakers by making up negative commands (using irrealis forms) which included a negative mode particle (wa, way, or buray), sometimes asking them whether I was talking good Uṅarṅinjin in

doing so, but I have so far been unable to get people to correct me or to tell me that I positively could not say it that way (as they *have* done on many other points of grammar and pronunciation). On the other hand, I have never heard a native speaker issuing a negative command using a mode particle, nor do my texts include any instances of such a construction.

The area of 'negative imperatives' is one in which there is a curious interaction between mode, tense and aspect: even if the state or action being enjoined against with the irrealis verb is one which is not yet under way at the time of utterance, the verb is regularly marked for continuative aspect¹ (see section 2.2.10). Coate and Oates (1970:51) gloss this as *don't continue to*, which seems inadequate insofar as the action may not have even started. Perhaps in such cases the sense is rather *continue not to*, with a 'lowering' of continuative aspect marking (and perhaps imperative marking) onto the verb from an implicit higher negative mode predicate (cf. section 3.3.1.4).

Examples of second person irrealis forms used as negative commands are:

baɖa /anjdja₂ - w₂a₂ $\sqrt{w_1}u$ - yiri / → anjdja·wiri
 kill masc. 2 sg. irr. act on cont.
Don't you (sg.) kill him!

/njuna₂ - w₂*a₂ - $\sqrt{nu}u$ - yiri / → njunungunuɾeri
 fem. 2 pl. irr. give to cont.
Don't you (pl.) give to her!

djiyan /winjdja₂ - w₂a₂ - $\sqrt{ma(ɾa)}$ - yiri / → winj djamaɾeri
 shame w-class 2 sg. irr. take cont.
Don't you (sg.) take shame (be ashamed)!

ɲarwa /njin - w₂a₂ - $\sqrt{w_1}a$ / → njinguwa
 2 sg. irr. fall
Don't you (sg.) fall!

¹Interestingly, this pattern seems to influence some varieties of pidgin English spoken in the area. Continuative aspect is realised by -ing forms of the verb, with zero copula, e.g. *dubela ambaging djelb, two people are humbugging (i.e. taunting, making fun of, joking, deceiving, 'putting on') each other*. Negative imperatives are marked with *don*, which is Standard English 'don't'. A commonly-heard form of negative imperative in the pidgin, just as in Uqarjinjin is the continuative form: *don ambagin, don't keep humbugging!*

wu|a / gur - w₂a₂ - √ma - yiri / → gurgumeri
 talk 2 pl. irr. do cont.
 Don't you (pl.) talk!

2.2.7. Order Class 10: Reflexive-Reciprocal Voice

Within the Uṅarɪnjin verbal system, there is a reflexive-reciprocal category which is opposed to the normal, active voice of the verb exemplified in all the discussion above.

The reflexive-reciprocal (or, more simply, 'reflexive') form of the verb signals that the action described by that verb (whether it be transitive or intransitive when not reflexivised) is one which involves a semantic 'patient' and that patient, who may or may not also be an 'agent', is the same as the referent of the subject NP. Where the subject is grammatically plural, the reflexive form asserts only that all agents and patients are referred to by the same nominal form, without any claim being made about the distinct agent *vs.* patient status of any of them. From a formal point of view, this is to say that Uṅarɪnjin, in common with many languages, knows no grammatical distinction between reflexive and reciprocal.¹ Compare, for instance, the two possible translations for each of the plural examples below.

The reflexive marker for verbs of all classes is /y₁i/, which occurs in order class 10. Its morphophonemics need not be discussed here, for they are entirely regular, and, furthermore, identical to what I have already described for the homophonous irrealis past/optative allomorph y₁i (section 2.2.4).

¹The non-distinctness of reciprocal and reflexive is another feature of Uṅarɪnjin grammar (and that of other Aboriginal languages spoken in the area) which has its analogue in the local pidgin English. The reflexive-reciprocal pronoun, which does not vary for person, number, or gender, is djelb (<English 'self'). Where the subject/object is non-singular, djelb can be reciprocal or reflexive in meaning, e.g.

Big mob olguman ben waydjam djelb
 plural women past wash ref.

The women washed each other or The women washed themselves

There is a reduplicated form of this pronoun, djelb-djelb, which seems to be exclusively reciprocal in meaning. But its use (in place of the reduplicated form) is not obligatory when the sense is reciprocal. Djelb thus realises a relatively unmarked reflexive-reciprocal category, to which the exclusively reciprocal djelb-djelb category stands in a relation of privative opposition.

When a root is 'reflexivised' by the addition of $-y_1i-$, it becomes morphologically (as well as syntactico-semantically) intransitive, taking the appropriate intransitive pronominal prefix (Tables 22 and 25) for the grammatical class of its subject/object. Regardless of what conjugation class the active root belongs to, when reflexivised it goes into (i.e. assumes the tense inflection of) class 7. A reflexive verb can be of any mode, i.e. indicative, irrealis, optative or imperative.

Examples of reflexive-reciprocal forms are:

ma \dot{r} a /bur - $\sqrt{w_1u}$ - y_1i - n / \rightarrow burwin
 see 3 pl. act on ref. pres.

They see each other or They see themselves (as in a mirror or a pool)

djilibur /a - $\sqrt{ma(\dot{r}a)}$ - y_1i - ηga / \rightarrow ama η enga
 close up 3 sg. takes ref. past
He closed himself up

baydj / ma $_2$ - $\sqrt{y_2i}$ - y_1i - n / \rightarrow men
 raise m-class be ref. pres.
It raises itself

dambun mindi wa djunbaydj / ma $_2$ - w* $_2a_2$ - $\sqrt{w_1a}$ - y_1i /
 country those not join up m-class irr. fall ref.
 \rightarrow munguwe
Those clan countries do not adjoin each other

me /bur - $\sqrt{\eta u \dot{u}}$ - y_1i - ηi / \rightarrow bur $\eta u \dot{u} \eta i$
 food 3 pl. give to ref. opt./irr. past
Let them give food to each other/themselves or Let them be given food

waladj /ba $_2$ - \sqrt{yibu} - y_1i / \rightarrow bebi
 turn imp. throw ref.
Turn yourself around!

There are a few verbs which behave somewhat idiosyncratically with regard to reflexivisation, calling for some comment.

The root \sqrt{ma} when serving as an auxiliary for verbs of saying, or as a framing verb for reported speech (see section 3.3.1.3), does not occur in reflexive form. The reflexive verb which replaces it in both of these functions is formed from the root $\sqrt{i\dot{n}i\eta a}$, which, as a

simple active verb means *to put* (and is never used in the active voice in either of these two functions).

For example:

bara-bara /bur- \sqrt{ma} - ra / budma $\check{r}a$
talk-talk 3 pl. do past
They chatted

but

bara-bara /bur- $\sqrt{ini\eta a}$ - y₁i - ηga / → burini η ayingga
 3 pl. put ref. past
They chatted (to) each other

yaw / ηar - \sqrt{ma} / → $\eta adma$
yes 1 pl. inc. do
We say 'yes'

but

yaw / ηar - $\sqrt{ini\eta a}$ - y₁i - n / → $\eta arini\eta$ ayin
 1 pl. inc. put ref. pres.
We say 'yes' to each other

Note that $-\sqrt{ini\eta a} + y_1i-$ in these examples does not yield $-ini\eta e-$ as it would if the $a + yi \rightarrow e$ rule (section 1.2.4.2) were operating normally. As can be seen in several of the examples above, that rule does operate as expected when other roots with final *a* are followed by the reflexive marker. Of all the *a*-final roots which can serve as auxiliaries (Table 20), and all the non-auxiliary ones I have checked out as well, $\sqrt{ini\eta a}$ alone (in all its reflexive uses, not merely the 'verb of saying' ones) is exceptional in this regard, and it is apparently to be considered lexically as such. (See section 2.2.10 for a parallel case involving a different *a*-root and $-yi$ suffix.)

Another irregularity in reflexive morphology involves the \sqrt{ma} root. As I have noted above, this root does not occur in reflexive form in its otherwise frequent role as a verb of saying (or as an auxiliary in a compound one). But it (or a root resembling it) can occur in reflexive form when paired with any of the other, non-'saying' verbal particles to which it serves as an auxiliary in the active voice.

But the form of the root for purposes of reflexivisation in all compound verbs in which it appears (not just in *verba dicendi*) is $\sqrt{\text{ma}\dot{\text{r}}\text{a}}$ rather than $\sqrt{\text{ma}}$, e.g.

bu / a - $\sqrt{\text{ma}}$ - \emptyset / → ama

blow masc. do pres.

He blows

but

bu / a - $\sqrt{\text{ma}\dot{\text{r}}\text{a}}$ - γ_1 i - n / → amaṛen

masc. do ref. pres.

He blows (on) himself

Note that the form taken by the $\sqrt{\text{ma}}$ intransitive root here is identical to that taken by transitive $\sqrt{\text{ma}(\dot{\text{r}}\text{a})}$ in the reflexive voice, as in the example on p. 103, and in the active voice in all the non-indicative modes (see p. 81, note 4). It is therefore possible to regard this as another case of suppletion, whereby non-*verbum dicendi* $\sqrt{\text{ma}}$ is replaced by the transitive root $\sqrt{\text{ma}(\dot{\text{r}}\text{a})}$ in the reflexive voice, just as *verbum dicendi* $\sqrt{\text{ma}}$ is replaced by the transitive root $\sqrt{\text{ma}(\dot{\text{r}}\text{a})}$. Alternatively, this $\sqrt{\text{ma}\dot{\text{r}}\text{a}}$ can be thought of as merely a voice-specific allomorph of an intransitive root $\sqrt{\text{ma}(\dot{\text{r}}\text{a})}$, which shows the same two allomorphs as the transitive root $\sqrt{\text{ma}(\dot{\text{r}}\text{a})}$, but under different grammatical conditions. I see no compelling reason for favouring either of these two solutions over the other, but will adopt the latter out of a constitutional preference for allomorphy over lexical suppletion.

2.2.8. Order Class 8: Coreference Status

For every verb in every (combination of) person, number, and gender, and in every mood, tense, and voice, there exists, alongside the 'normal' form treated thus far, an alternate form which Coate and Oates, following Capell, call the 'long form'.

The function of the 'long form' in Uṇṇarjīn discourse will be treated at some length in a future monograph. Suffice it to say here that the presence of a 'long form' signals that the subject of the verb so marked is an NP which is coreferential to one which has occurred in previous discourse (usually in the immediately preceding clause or sentence) and whose reference has been definitely established. Hence I will hereafter call it the d.s. or 'definite subject' form.¹

¹The use of the term 'definite' here should not be taken to imply that this category functions exactly like that of 'definiteness' in English. There are important differences, as we shall see.

The d.s. form is distinguished by the presence of a d.s. morpheme, $-iwa_2\sim ira_2-$, in position 8.

The latter allomorph, $-ira_2-$ is the unrestricted one. It appears in all d.s. verbs except those with an r in the syllable immediately preceding the prefix, in which case the d.s. prefix appears as $-iwa_2-$. This can be explained as a dissimilation, serving to prevent the occurrence of an r in two successive syllables. The $-a_2-$ of both these allomorphs undergoes the usual processes of assimilation, coalescence, or syncope depending on what follows (as per section 1.2.4). The $-i-$ of the $-ira_2-$ allomorph (but not the $-i-$ of $-iwa-$), becomes u when there is a back vowel in the following syllable, regardless of whether that back vowel is underlying or derived (from $-a_2 + w_2u$). Thus this rule of vowel harmony must follow the vowel coalescence rule.

Examples of d.s. verb forms and their corresponding unmarked forms are given on the following page.

2.2.9. Order Class 12: Dual/Paucal Number

Any verb form which includes at least one pronominal prefix cross-referencing an agent or patient which is not explicitly singular in number (i.e., not 1 sg. or 2 sg.) may take, in position 12, one number suffix specifying 'dual' or 'paucal' of one prefixally cross-referenced NP. But which one? With verbs which take only one pronominal prefix (including reflexivised transitives) the answer to this question is obvious, since there is only one cross-referenced NP. With those which take two pronominal prefixes, the answer is equally obvious when only one of the two cross-references an NP which is not explicitly singular. But what if there are two prefixally cross-referenced NPs, neither of which is explicitly singular? An answer to that question is, I suspect, not always possible even to native speakers except by recourse to certain discourse-contextual ones. I have not been able to investigate this matter very thoroughly because my texts contain almost no examples of this kind of combination, and naturally-occurring, contextualised examples are far more valuable and reliable than artificially-elicited ones for a question of this kind. The data I did elicit on the question, however, do suggest certain regularities, which are not without interest for a theory of universal grammar. The general tendency is for the number-suffixed NP to be the one which is higher on a 2-1-3 'person hierarchy'. That is, a first person (non-singular) adjunct is more likely to be the one specified by a number suffix than is a third person one, and a second person one is more likely to

Normal Form		Long Form	
$/a_1$	- \sqrt{ma} - ηa / \rightarrow ama ηa	$/a_1$	- ira $_2$ - \sqrt{ma} - ηa / \rightarrow uruma ηa
masc.	do past		d.s.
$/ma_2$	- $\sqrt{ma(\eta a)}$ - ηa / \rightarrow muma ηa	$/ma_2$	- ira $_2$ - $\sqrt{ma(\eta a)}$ - ηa / \rightarrow muruma ηa
m-class	3 sg. take past		d.s.
$/bur$	- $w_2 a_2$ - \sqrt{ma} / \rightarrow burguma	$/bur-w_2 a_2$	- ira $_2$ - \sqrt{ma} / \rightarrow burguruma
3 pl.	irr. do		d.s.
$/mar$	- $w_2 a_2$ - \sqrt{wu} / \rightarrow margo	$/mar-w_2 a_2$	- ira $_2$ - \sqrt{wu} / \rightarrow marguro
m-class	1 pl. inc. irr. act on		d.s.
$/\eta a_1$	- $\sqrt{y_2 i}$ / \rightarrow ηe	$/\eta a_1$	- ira $_2$ - $\sqrt{y_2 i}$ / \rightarrow ηire
1 sg.	be		d.s.
$/\eta ar$	- $\sqrt{y_2 i}$ - y_i / \rightarrow ηadi	$/\eta ar$	- iwa $_2$ - $\sqrt{y_2 i}$ / \rightarrow $\eta ariwe$
1 pl. inc.	be opt./irr. past		d.s.
$/ba_2$	- \sqrt{a} - lu / \rightarrow balu	$/ba_2$	- ira $_2$ - \sqrt{a} - lu / \rightarrow biralu
imp.	come prox.		d.s.
$/gur$	- $\sqrt{y_1 i la}$ - $y_1 i$ - ηga / \rightarrow gudjilenga	$/gur$	- iwa $_2$ - $\sqrt{y_1 i la}$ - $y_1 i$ - ηga / \rightarrow guriwelenga
2 pl.	hold ref. past		d.s.
$/\eta a_1$	- iy - \sqrt{ma} / \rightarrow $\eta iyma$	$/\eta a_2$	- iy - ira $_2$ - \sqrt{ma} / \rightarrow $\eta iruma$
1 sg.	fut. do		d.s.

be it than either a first or a third person one (cf. the data on possessive morphology, section 2.1.5.4.3.6).

Formally, these verbal number suffixes are very similar to the corresponding nominal ones given in Table 19, but somewhat simpler in allomorphy. The verbal suffixes are given in Table 27 below.

Table 27
Dual and Paucal Verbal Number Suffixes

	Dual	Paucal
After Vowels	-ri-	-na-
Elsewhere	-njiri-	-njina-

Some examples of number-suffixed verb forms are:

/njar - \sqrt{a} - ri / → njayari

1 pl. ex. go du.

We two go (for r → y, see section 2.2.2.1)

wundidj / η anda₂ - $\sqrt{y_1}$ ila - ni - ri/ → η andelaniri

spear 1 sg. pl. hold past du.

The two speared me

ba η idj /bur - $\sqrt{(\eta)}$ a - yi - n - njiri/ → budayinjiri

rise up 3 pl. ref. pres. du.

The two rise up against one another

andu /gunda₂ - ira₂ - \sqrt{ma} (η a) - η - njiri/ → gunduruma η njiri

he 2 pl. obj. d.s. pres. du.

He takes you two

ga η ba /gur - $\sqrt{y_2}$ i - na / → gudina

sing 2 pl. be pauc.

You handful of people sing

wa ma η a / ban - w₂a₂ - $\sqrt{w_1}$ u - y₁i - na/ → banguwina

not see 3 pl. 1 sg. (irr.) irr. act on past

I didn't see that handful of people

djiyan - ga / wuna₂ - $\sqrt{ma(\bar{r}a)}$ - ŋ - njina / → wunumaŋnjina
 shame int. w-class 2 pl. take pres. pauc.
Are you handful of people ashamed?

ada / ŋar - $\sqrt{w_1a}$ - n - njina / → ŋarwanjina
 sit 1 pl. inc. fall pres. pauc.
We handful of people sit down

2.2.10. Order Class 13: Continuative Aspect

Continuative (as opposed to unmarked) aspect, is marked by a suffix *yiri* ~ *njiri* in position 13. The *yiri* allomorph occurs after vowels, *-njiri-* after *n* or *ŋ* (which are the only consonants which this morpheme ever follows). The combination of *-n + nj-* here, as above, yields *-nj-*. When the *-yiri* allomorph follows *-u*, the result is *-iri-*. When it follows *-i-*, the resulting *i-yi* sequence does not yield the expected [i·] (section 1.1.2.3.1.1), but is instead pronounced [iyI]. One way to account for this would be to claim that the *y* of *-yiri-* is the morphophoneme /y₂/ and that the *iyi* → [i·] rule only applies to the sequence /iy₁i/. On the other hand this irregularity might just as well be considered a peculiarity of this particular suffix, since its behaviour is irregular in another, similar way. That is that the *-yi-* of *-yiri-*, when it follows the root \sqrt{a} or $\sqrt{(\bar{r})a}$, does not coalesce with it to give *-e-* as expected, but instead gives *-ayi-*. This irregularity clearly can not be accounted for by drawing on the distinction between /y₁/ and /y₂/, because both of these morphophonemes participate in *ayi* → *e* mergers elsewhere in the morphology (cf., e.g. pp. 83, 90). Furthermore, as can be seen in the examples below, *-yiri* itself participates in such a merger whenever it follows any *-a-* except that of those two particular roots, whose formal identity, because they consist only of *a* and *i*, is uniquely threatened by such a merger.

Another peculiarity of *-yiri-* is that when it follows one of the past indicative allomorphs *-ni-* or *-nji-*, the result is *-neri/-njeri* instead of the expected *-niyiri/-njiylri*. This assimilates the indicative past continuative forms of classes 1, 4, and 6 to those of all the other classes, all of which include *-eri*, arising from *-a + yiri*.

For some examples of non-past irrealis continuative forms (used as 'negative imperatives'), see p. 101. Some additional examples in other tense-mood combinations are:

ni /a₂ - $\sqrt{\text{minda}}$ - ni - yiri/ + anjuminaneri

think masc. 1 sg. *take* past cont.

I was thinking about him

madu /a₁ - $\sqrt{\text{a}}$ - yiri/ + ayiri

walk masc. *go* cont.

He is walking

wu $\dot{\text{a}}$ / η a₂ - iy - $\sqrt{\text{ma}}$ - yiri / + η imeri

talk 1 sg. fut. *do* cont.

I will be talking

wa abu $\dot{\text{a}}$ an djaridj /a₁ - w₂*a₂ - $\sqrt{\text{a}}$ - η i- yiri/ + angan $\dot{\text{a}}$ yiri

not quietly run masc. irr. *go* past cont.

He was not running quietly

gan $\dot{\text{a}}$ -ba /nja - $\sqrt{\text{y}_2\text{i}}$ - yiri / + njeyiri

sing fem. *be* cont.

She is singing

η arwa /ma₂ - $\sqrt{\text{w}_1\text{a}}$ - n - njiri / + muwan $\dot{\text{a}}$ jiri

fall m-class *fall* pres. cont.

It is falling

djarug /wu - $\sqrt{\text{ma}(\text{ra})}$ - η - njiri/ + wuma $\dot{\text{a}}$ n $\dot{\text{a}}$ jiri

gather together w-class 3 sg. *take* pres. cont.

He is gathering it together

2.2.11. Order Class 14: Proximad vs. Distad

In order class 14, the verb may include one of two 'directional' suffixes specifying that the action described involves movement toward or away from the speaker (but see section 3.3.1.3 for some complications regarding the notion 'speaker').

The distad (movement away from speaker) suffix is -nja (cf. the hyperdistal demonstrative suffix, Table 7).

For example:

/ba₂ - $\sqrt{\text{a}}$ - nja / + banja

imp. *go* dis.

Go away!

balja /nja - \sqrt{ma} - ra - yiri - nja / → njumaḡerinja
flee fem. do past cont. dis.
She was fleeing from here

winjdjaḡun /wura₂ - $\sqrt{ma(ra)}$ - ḡ - nja / → wurumannja
firewood w-class 3 sg. take pres. dis.
They take firewood away from here

The proximad (movement toward speaker) suffix appears in three allomorphs: /-w₁alu/, -alu, and -lu.

The first of these, /-w₁alu/, occurs after n and ḡ (which are the only consonants this or any other verbal suffix ever follows) in the expected strengthened form -balu.

For example:

baḡidj / bunda₂ - $\sqrt{(r)a}$ - ḡ - w₁alu / → bunḡaḡdbalu
rise up (against) 3 pl ob 3 pl sub *go to* pres. prox.
They rise up against these people here

baḡi /a₁ - \sqrt{wa} - n - w₁alu / → awanbalu
arrive masc. *fall* pres.
He arrives here

The /-w₁alu/ allomorph appears (as -walu) when this suffix follows the syllable -ri-.

For example:

gadjinga /gur - wa₂ - \sqrt{a} - ri - walu / → gurgariwalu
can't 2 pl. irr. *come/go* du. prox.
You two can't come

gudu /anda₂ - $\sqrt{w_1u}$ - n - njina - yiri - walu /
chase 3 pl. ob. 3 sg. *act on* pres. pauc. cont. prox.
 → andonjineriwalu
He's chasing a handful of them in this direction

As these two examples illustrate, the -ri environment must be phonologically, rather than morphologically, specified, because the effect (i.e. the selection of the -w₁alu allomorph) is the same regardless of which morpheme the -ri- belongs to.

The -alu allomorph occurs after -ni or -nji, where its a replaces the i vowel as expected (section 1.2.4.3).

For example:

narwa /ma₂ - \sqrt{wa} - ni - alu/ → muwanalu
fall m-class *fall* past prox.
It fell this way

ḡabun bawad-ba / wa₂ - $\sqrt{y_2i}$ - nji - alu/ → wenjalu
water come out w-class *be* past
The water came out this way

In this case it is hard to tell whether the allomorphy is phonologically or morphologically conditioned. For the only instance of -ni and -nji which this suffix ever follows are in the two indicative past tense allomorphs exemplified above. (Compare the similar, clearly morphologically-based irregularity discussed on p. 109, involving these same two past tense allomorphs.)

The 'elsewhere' allomorph, which occurs after i in syllables other than the ones specified above, and after all other vowels, is -lu.

For example:

/ba₂ - \sqrt{a} - lu - / → balu
imp. come/go prox.
Come here!

djaṛug /anda₂ - $\sqrt{ma(ṛa)}$ - ḡa - lu / → andumaḡalu
push back 3 pl ob 1 sg sub *take* past prox.
He pushed them back this way

ṛulug /ma₂ - \sqrt{a} - ḡi - lu / → maḡilu
shift m-class *come/go* opt./irr. past prox.
Let it be shifted in this direction

waraydj /ba₂ - ura₂ - $\sqrt{w_1u}$ - lu → burolu
scoop masc. imp. d.s. *act on* prox.
Scoop him (a kangaroo carcass) over this way

waydj /ba₂ - anda₂ - \sqrt{yibu} - lu / → bandebulu
send imp. 3 pl. ob. *throw* prox.
Send them this way

2.2.12. Order Classes 15 and 16: Dative-Benefactive Cross Reference

In a slot following the one for the directional suffix, any verb may take on a pronominal suffix cross-referencing another NP besides the one or two which are cross-referenced by pronominal prefixes (as per section 2.2.2). While a certain pattern or pronominal prefixation (either 'transitive' or 'intransitive') is rigidly prescribed for every verb root, there are, on the other hand, no roots which *require* a pronominal suffix. That alone is the most important functional difference between these two kinds of pronominal elements. By contrast, the *semantic* difference between the adjunct types cross-referenced in these two different ways is sometimes small or non-existent.

There are, for instance, many 'intransitive' (i.e. single-prefixing) auxiliary verbs which participate in compound verb phrases taking an adjunct which seems semantically to be just as much a 'patient' as are the 'objects' of some transitive verbs (see section 3.2).

The NP which is cross-referenced by the pronominal suffix on a transitive verb usually stands in a 'benefactive' relationship to the action described by it. I use the term with some discomfort, because the action is not always 'for the good of', but can be merely 'for the sake of'. Indeed it is sometimes 'to the chagrin of'. The only invariant meaning, then, is probably 'having an effect on'.

These pronominal suffixes, which vary for person and number, are given in Table 28.

Table 28

Dative/Benefactive Suffixes

1 sg.	-ra ~ gaṛa	1 pl. inc.	-ṇarugu-
2 sg.	-nu	1 pl. ex.	-njarugu-
3 sg.	-nanga	2 pl.	-nurugu-
		3 pl.	-ṇḍu-

Any of the non-singular suffixes may itself be suffixed in position 16, for more precise (dual or paucal) number specification. The dual specifier is *-diri* after the suffixes ending in *-gu-* and *-iri* after *-ṇḍu-*, yielding *-ṇḍiri-* (as per section 1.2.4.3). The paucal specifier

is -ana after the suffixes ending in gu-, yielding -gana (see section 1.2.4.3) and -na after -ṅḍu-. When the -gu suffixes are suffixed with paucal na-, the /u/'s of the preceding elements, i.e. naru-, njaru-, and nuru, are, for reasons totally obscure to me, pronounced [I] in all but the most careful speech.

The 1 sg. allomorph -gara appears after consonants (n and ṅ); ra elsewhere.

Except for the 1 sg. and 3 pl. morphemes, all of these pronominal suffixes (or, in some cases, the elements of which they are composed) are recognisably similar or identical to elements occurring elsewhere in the morphology with similar functions. In particular, they are quite similar to the possessive suffixes described in section 2.1.5.2.2. (In light of which, see p. 48 for some comments on the morphological composition and affiliations of those suffixes.)

Some examples of verb forms including pronominal suffixes are:

andu ṅur /ṅa₂ - iy - √ma - naṅga / → ṅiymaṅga
he strike 1 sg. fut. *do* 3 sg. d.b.
I will strike him

muṅbun / wa₂ - iy - √yi - ra / → wiyiṅa
trouble w-class fut. *be* 1 sg. d.b.
Trouble will be to me (i.e. I'll get into trouble)

di bada /nja₂ - √w₁u - n - gara / → njongaṅa
then kill fem ob 3 sg sub *act on* pres. 1 sg. d.b.
So then he kills her on me

wonay gara / bur - w₂a₂ - √ma - nu / → burgumanu
woman might be 3 pl. irr. *do* 2 sg. d.b.
They might call you a woman

/ba - √minda - lu - ṅarugudiri / → bumindaṅarugudiri
masc. imp. take/bring prox. 1 du. inc. d.b.
Bring him to us two

largari djilibur /a₁ - √ma(ṅa) - yi - ṅga - ṅḍuna /
boab tree close up masc. *take* ref. past 3 pauc. d.b.
 → amaṅṅaṅḍuna
The boab tree closed himself up around that handful of people

gaŋba /njar - $\sqrt{y_2}$ - nji - ri - nurugu/ → njarinjirinurugu
sing 1 pl. ex. *be* past du. 2 pl. d.b.
We two sang for you people

2.2.13. Order Classes 1 and 9: Simple vs. Compound Verbs

All of the verb roots treated above (section 2.2.1) and exemplified thus far are ones which, in inflected form can serve as auxiliaries in compound verbs (see p. 74 ff.). Although the majority of Uŋarɨnjin verbs (by both dictionary count and text count) are of this 'compound' variety, there are, as mentioned on p. 80, many roots which never serve as auxiliaries, but instead form only 'simple verbs'. Each of these exclusively 'simple verb' roots belongs to one of the conjugation classes into which the auxiliary roots are divided up in Table 21. But not all of those classes, it seems, include any non-auxiliary roots. The vast majority of them belong to class 1. A few belong to class 2, and -ra-, the class 2 past indicative allomorph, occasionally substitutes for -ni on some class 1 non-auxiliary roots (cf. note 2, p. 81). As far as I have been able to discover, none of these exclusively independent roots belongs to class 3, 4, 5, or 6.¹ Furthermore, almost all of them are transitive. Of the few which are not, all the ones I know of² belong to class 7 and are probably reflexive forms by origin (cf. note 5, p. 81) although they lack active counterparts in present-day Uŋarɨnjin. (Any non-class 7 active independent verb, of course, can be reflexivised and hence transposed to class 7, just as auxiliary verbs can be [section 2.2.7].) All of the inflectional affixes which do not vary by conjugation class are, of course, common to all independent verbs (not just auxiliaries).

¹Coate and Elkin (1974:462) list at least one root (-umilja) which they cite as taking the past indicative allomorph -ŋa, which would place it in my class 5. On the other hand, they cite some present indicative forms, supposedly built on the same root, which end in -umiljaŋan. This suggests to me that their putative past indicative forms in -umilja-ŋa are actually *future* (hence suffixless) forms on a root \sqrt{milja} , which takes the present indicative allomorph -n, and so is probably of class 1. Unfortunately, I did not notice this listing until after I left the field, and this root does not occur in any of my texts, so positive clarification of the matter will have to await further fieldwork.

²There are a few forms listed in Coate and Elkin 1974, which would appear to be exceptions, but all of them are strange to me, and will have to be checked out in the field.

A few sentences including some of the more common exclusively independent verbs are:

Class 2 bagi / aḡa₂ - a₂ - √wilja / → aḡuwilja

or
Class 1 rock wallaby masc. ob. 1 sg. sub. fut. spear
I will (want to) spear a rock wallaby

Class 7 banjdja muna-ṛa / a₁ - √w₁ude - ḡga / → odenga

cave this loc. masc. become a painting past
In this cave he (a wandjuḡa) became a painting

Class 1 /anda₂ - √w₁udidjila - ni / → andodidjilani

3 pl. ob. 3 sg. sub. wait for past
He waited for them

Class 1 /ban - w₂a₂ - √ya(ṛa) / → bangiyaṛa

2 pl. ob. 1 sg. sub. irr. row with
I might have a row with them

Class 1 anjdja - gu / djan - √w₁awa - n / → djanbawan

why 1 sg. ob. 2 sg. sub. not recognise pres.
Why don't you recognise me?

Class 1 /wur- - a₂ - √miyanga / → wurumiyanga

w-class ob. 3 pl. sub. fut. understand
They will understand it

Class 1 ḡadjinarumbu /ḡada₂ - √mimbu - ni / → ḡadumimbini

our mothers 1 pl. inc. ob. show past
Our mothers showed (it to) us

Class 2 ya·ra /a₁ - √malima - ṛa / → amalimaṛa

hill kangaroo masc. ob. 3 sg. sub. spear past
He speared a hill kangaroo

Class 1 ḡin /ḡjin - √argu - ni - yiri / → ḡjinarguneri

I 2 sg. ob. 1 sg. sub. test past
I was testing you

Class 1 andu /gunda₂ - √ḡiljawa - n / → gunduḡiljawan

he 2 pl. ob. 3 sg. sub. know pres.
He knows you people

The majority of Uḡar̄injin verbs, as noted above, are of the compound type, which is abundantly represented among the examples given so far in this chapter.

Each compound verb, as shown in Figure 2 (p. 75), consists of two words: a non-finite verbal particle followed by one of the fourteen auxiliary verbs, which is always inflected for person, number, gender, tense, mode, and voice, and may also be inflected for any or all of the following: coreference status of one adjunct, direction of motion with respect to speaker, continuative aspect, and person-number of 'benefactive' NP. The auxiliary, it is clear, carries most of the grammatical weight of the compound verb. Its contribution to the specific lexicalised meaning that emerges in glosses is, by contrast, quite small. Although my interlinear translations of sentences with compound verbs include a gloss for each auxiliary root, based on the meaning which that root bears when occurring as a simple verb, it is obvious from most of my free translations that that isolated meaning is of little relevance for the meaning of the bipartite compound.¹ Do the auxiliary roots, one wonders, make any contribution to meaning at all when occurring in such compounds?

I submit that they do, but that their meanings are almost entirely 'selectional'.

What the auxiliaries do is to *classify* the verbal particles with which they occur, much as Uḡar̄injin lexical nouns are classified by the various gender-bearing pronominal elements with which they enter into appositional relations (cf. Dixon 1972). Recall that each noun takes pronominals of a particular gender, the resulting classification being partly arbitrary and partly semantically motivated, by such features as +/- male, +/- arboreal, +/- liquid, etc. Similarly, verbal particles characteristically occur with certain auxiliary verbs, the resulting classification being partly arbitrary, and partly systematic, depending on certain basic semantic features of the particles. Insofar as the classification is semantically consistent, the classes are roughly as shown in Table 29.

¹This is perhaps not true only in the case of the class 1 transitive root $\sqrt{w_1u}$ which I gloss as *act on*. But the exception proves the rule: $\sqrt{w_1u}$ alone among the transitive auxiliaries never occurs in isolation as a simple verb, so I can afford to give it a gloss which is so general that it hardly *could* be incompatible with the meaning of any particular transitive compound verb. On the other hand, $\sqrt{w_1u}$ *need* not be present at all to carry this meaning, since all transitive verbs are 'active', and the compound is specified as transitive by the presence of transitive-series pronominal prefixes.

Table 29
Semantics of Auxiliary Root Classes

	Root	Semantic Characterisation of Particle
Intransitive	\sqrt{ma}	involves action as opposed to state
	$\sqrt{y_2 i}$	involves state or upward motion
	\sqrt{a}	involves motion within a horizontal plane
	$\sqrt{w_1 a}$	involves downward motion
	$\sqrt{y_1 inde}$	involves clumsy or uncontrolled downward motion
Transitive	$\sqrt{w_1 u}$	involves action by A^1 on P^2
	$\sqrt{ma(r)a}$	involves action by A causing motion in P
	\sqrt{minda}	involves action by A causing motion in P
	$\sqrt{ini\eta a}$	involves action by A causing change of location or state in P
	$\sqrt{y_1 ibu}$	involves action by A causing P to move within the horizontal
	$\sqrt{\eta u u}$	involves action by A causing X^3 to move to P
	$\sqrt{y_1 ila}$	involves action by A on P which does not cause movement on P
	$\sqrt{(r)a}$	involves movement of A to P
	$\sqrt{mindjala}$	involves action by A in the presence of P

1A = agent

2P = patient

3X = nonagent-or-patient

It will be noted that not all these characterisations are mutually exclusive. In that respect this system differs from the gender system. While all the terms of that system stand to each other in relations of multilateral equipollent opposition, many of the relations within this system are privative oppositions. Some of the auxiliary classes, it follows, are more basic than others. Among the intransitive classes

one can see that the \sqrt{ma} class is specified so as to include all the others, except for the stative subset of the $\sqrt{y_2i}$ class. At the opposite end of the inclusion hierarchy for intransitives, the $\sqrt{y_1inde}$ class includes nothing but a subset of the $\sqrt{w_1a}$ class. Among the transitive classes, the $\sqrt{w_1u}$ class is the basic one, including all the others (with the possible exceptions of $\sqrt{(r)a}$ and $\sqrt{mindjala}$). These relations of markedness in the underlying ideal semantic system are supported by the surface distributional evidence: \sqrt{ma} and $\sqrt{w_1u}$ are by far the most commonly occurring and unpredictably paired intransitive and transitive roots respectively. By contrast \sqrt{yinde} is very infrequent and occurs with only a small set of particles.

If the auxiliary system differs from the gender system in the nature of its oppositions, it is similar in the degree to which it lacks semantic consistency. Just as gender classification is only partly semantically motivated, so the tentative scheme I have given above for the semantics of auxiliary classification is only indirectly reflected by the actual assignment of auxiliaries to the total set of verbal particles in the lexicon. While a look at some of the pairings shown in numerous examples throughout this work will, I hope, reveal enough consistency to support a scheme something like the one given here, it will also reveal a residue of exceptions of the kind which always characterises the relationship between overt segmentable forms and underlying semantic categorisations (cf. Whorf 1956:80ff.).

As with gender classification, the semantic principles underlying the classification of verbal particles by auxiliary co-occurrence are especially clear in cases where one lexical item (or, if you will, multiple, homophonous lexical items with related meanings) occurs in more than one class. Among verbal particles, unlike among lexical nouns, multiple class membership is the rule rather than the exception. Many particles occur, in related meanings, with one transitive and one intransitive auxiliary. Almost as often there are alternate possibilities among the transitive and/or intransitive auxiliaries the particle can take. In all these cases, the auxiliary serves to subcategorise the meaning of the particle, much as some lexical nouns are subcategorised by alternating gender-concord morphemes (see section 2.1.5.1). Just as semantic features such as + male, + female, and - human come to the fore where there is gender subcategorisation, so the semantic differentiae among auxiliary classes given above figure especially strongly in the subcategorisation of verbal particles. Examples of the latter are given in Table 30.

Table 30
Examples of Subcategorisation by Auxiliary Class

ada sit	{	$+ \sqrt{y_2 i}$	(state) = be sitting
		$+ \sqrt{w_1 a}$	(downward motion) = sit down
		$+ \sqrt{m a}$	(action) = take a sitting position
		$+ \sqrt{w_1 u}$	(action by A on P) ¹ = sit on
		$+ \sqrt{y_1 i l a}$	(action by A not causing motion in P) = sit with
linj look	{	$+ \sqrt{y_2 i}$	(state) = look
		$+ \sqrt{y_1 i l a}$	(action by A not causing motion in P) = look at
baridj rise, raise	{	$+ \sqrt{y_2 i}$	(upward motion) = rise
		$+ \sqrt{m i n d a}$	(action by A causing motion in P) = raise
balja flee	{	$+ \sqrt{m a}$	(action) = flee
		$+ \sqrt{\{r\} a}$	(movement of A to P) = flee to
		$+ \sqrt{m i n d a}$	(action by A causing motion in P) = flee with
waydj throw	{	$+ \sqrt{w_1 a}$	(downward motion) = plop oneself down
		$+ \sqrt{y_1 i b u}$	(action by A causing motion in P) = throw
debar die	{	$+ \sqrt{a}$	(horizontal motion) = die
		$+ \sqrt{y_2 l}$	(state) = be dead
		$+ \sqrt{w_1 u}$	(action by A on P) = extinguish
dar stand	{	$+ \sqrt{m a}$	(action) = take a standing position
		$+ \sqrt{i n i n \eta a}$	(action by A causing change of location or state in P) = cause to stand
dja _r i leave	{	$+ \sqrt{a}$	(horizontal motion) = go away
		$+ \sqrt{w_1 u}$	(action by A on P) = abandon

¹A = agent; P = patient

2.2.14. Order Class 2: Aspect of Compound Verbs

As discussed above (section 2.2.10), any finite verbal word may take, in position 13, a suffix indicating continuative aspect. In compound verbs, the verbal particle (order class 1) may also be suffixed for aspect, taking one of two alternate aspect markers which occur in position 2.

By far the most commonly occurring of these is an *iterative marker* $-w_1a$, which strengthens in the expected environments (see section 1.2.2) to $-ba$. The presence of this suffix indicates that the action being described is one which takes place as a series of discrete, repeated sub-actions.

For example:

gandjal /ingar - w_1a / → ingarba /njada₂ - $\sqrt{ma(\bar{r}a)}$ - ηa / → njaduma ηa
airplane *pick up* iter. 1 pl. ex. ob. *take* past
 (lit. eagle hawk)
The airplane picked us up one by one

wa / $\eta oydj$ - w_1a / → $\eta oyba$ /njar - w_2a_2 - $\sqrt{y_2i}$ - ηi / → njargini
not breathe iter. 1 pl. ex. irr. *be* past
We could not breathe (where breathing is pictured as the actual repetitive movements of the chest)

There are some particles which occur with the $-w_1a$ suffix more often than not, presumably because activities they describe are inherently iterative. The word $\eta oydj$ *to breathe* in the second example above, is one such. Another is $ga\eta$ *to sing*, $U\eta a\eta injin$ songs consisting of short stropes which are always run through more than one repetition at a singing.

Particles marked for iterativity, it is worth noting, may enter into compounds with auxiliaries which are marked for continuative aspect, permitting a kind of 'compound aspect', the iterative-continuative, which means something like 'to do iteratively at length', e.g.

/burgaydj - w_1a ηa_1 - $\sqrt{w_1a}$ - ni - $yiri$ / → burgaywa $\eta awaneri$
ask iter. 1 sg. *fall* past cont.
I kept asking around (i.e. asking different people)

Alternatively, the verbal particle may be marked for 'punctual' aspect with the suffix $-w_1ini$ (ν -bini). The presence of this suffix specifies that the action described is a single, discrete, very rapid one, e.g.

ɳala /wuraydj - w₁ini bur - √y₂i - ɳi/ → wuraybini budjɳi
meat dump punc. b-class be opt./irr. past
Let the meat be (quickly) dumped

ɳur - w₁ini /ɳja₂ - √ma - ɾa - ɳaŋga / → ɳjumaɾaŋga
hit punc. fem. do past 3 sg. d.b.
She dealt him a sudden blow

My texts include no examples of particles suffixed for punctuality combined in compounds with auxiliaries marked with the continuative suffix (which is not surprising in view of the apparent incompatibility of these two categories).

2.3. Adverbs

There is little to say here about the class of primary adverbs in Uɳaɾɳinjin, for there is nothing distinctive about their morphology. There is a suffix for deriving adverbs from words of other classes (see section 2.6.3), but *primary* adverbs are not identifiable as such by their morphology.

If there are grounds for isolating such a class, they are negative ones: adverbs are words which do not inflect for person, number, or gender (distinguishing them from verbs, nouns, and adjectives), which do not regularly appear as isolated utterances (distinguishing them from interjections), and which can appear in construction with a verb of any mode (distinguishing them from mode particles). For examples of sentences which include adverbs, see p. 127 and p. 146.

2.4. Mode Particles

The class of 'mode particles' can be defined by a single distributional criterion: a mode particle is a word which always appears in construction with a verb, each particle occurring only with verbs of particular modes. Like adverbs, mode particles show no class-specific morphological characteristics, so there is little to say about them here. The entire set of them is quite small and will be treated under 'sentence grammar' below.

2.5. Interjections

I define 'interjections' as the class of words which regularly appear in isolation as single-word utterances. For a list of them, see Coate and Oates 1970:63, sec. 10.a.4.

2.6. Derivational Suffixes

Having at least mentioned all of the word classes of Uḡarḡinjin, including the various sub-classes of the nominal and verbal systems, I turn now to a consideration of the means by which words of one class are derived from those of another. All such derivations involve the use of suffixes, which are treated below in order of the class of words they form.

2.6.1. Nominal Derivation

2.6.1.1. baḡa

This suffix is used to derive human (or higher animate) nouns of a particular kind from other nouns or from verbal particles. The meaning of -baḡa in such derived forms can be glossed roughly as *one who regularly¹ does, or is concerned with*.

Some examples are:

yedj - baḡa *one who smiles a lot*
to smile

!indidj - baḡa *an accomplished pressure flaker*
to pressure flake

goidj - baḡa *one who drinks too much*
to drink

mili - baḡa *a man who is obsessed with sex*
vagina

ḡa!aynj - baḡa *one who has the power to cast evil spells*
by singing
sing an evil spell

yaw - baḡa *one who insults people a lot*
to insult

2.6.1.2. -maró

This suffix, though apparently somewhat archaic and less productive, is similar in distribution and function to -baḡa, discussed above.

¹Thus, insofar as these forms are 'agentives', they are of the -ter (as opposed to -tor) variety in Benveniste's well-known typology (Benveniste 1948:62).

-maró, that is, occurs on nouns and verbal particles to form a kind of 'agentive' noun. But whereas a noun in -bađa carries the meaning that the 'agent' is one who regularly, habitually, or 'by nature' does or is concerned with the thing indicated, a noun in -maró does not.¹ Most forms in -maró that I have come across refer to Wanjdjuņas (see Capell 1939) or other beings of the mythic past who are described as having done or been concerned with the thing indicated in the -maró form, within the context of a particular story which is told about them. By association the -maró word is then often used also to refer to the place at which the event occurred.²

Examples of -maró forms are:

řalidj - maró *The one who shone*
to shine

yug - maró *The one who vomited*
vomit

2.6.1.3. -moya (~-maya)

This suffix too is used on nouns and verbal particles to derive human or higher animate nouns. I am unable to account for the a/o alternation in this morpheme on either phonological or semantic grounds. Regardless of this alternation, the meaning of the suffix is something like: *one who has been permanently affected (usually adversely) by an incident crucially involving...*

For example:

baņan - moya *a youth who has reached marriageable age*
to reach marriageable age

wilmed - maya *one who sustained injury in an incident*
involving wire
wire

djuņuři - moya *one who sustained injury in an incident*
involving a boob tree
boob

¹These, then, are agentives of Benveniste's (1948:62) -tor type.

²See section 3.3.1.1.1 below for an alternate means of carrying out both of these functions, which has largely replaced the -maró derivation in present-day Uņarınjin.

Unlike *-bađa*, the suffix *-maya* ~ *-moya* is most often used to form personal names. Most *-maya* ~ *-moya* derivatives, that is to say, are understood to have definite reference to unique individuals, rather than being applicable to classes of individuals. This is true, for instance, of the last two of the three examples above (though decidedly untrue of the first one). *Wilmed-maya*, also called *Waya-maya* (i.e. *wire-maya*) is a particular individual at Mowanjum who is known to have suffered an accident in which he got wrapped up in a tangle of barbed wire. *Djuŋuři-moya* is another man from Mowanjum whose unlikely fate it once was to have a boab tree fall over on top of him. Interestingly, just where such incidents are the basis for personal names of this kind, the suffix *-maya* ~ *-moya* is often omitted. The two men just mentioned, for instance, are most commonly called *Wilmed* and *Djuŋuři*.

2.6.1.4. *-mađi*

This suffix is used on nouns and verbal particles to derive nouns for which the suffix can be glossed *place of*. These are usually proper toponyms, which are understood to refer to one particular place meeting that description, e.g.

winjdja - *mađi* *Place where bamboo grows*
bamboo

minjdjal - *mađi* *Eating place*
to eat

ŋaɾud - *mađi* *Wild melon place*
wild melon

wandimi - *mađi* *What-cha-ma call it place*
what-cha-ma call it

2.6.2. Adjectival Derivatives in *-gadjin*

This suffix is used to derive, from nouns, adjectives meaning 'resembling, or similar to' the thing referred to by the noun. These derived adjectives, regardless of their phonological shape, never take pronominal prefixes (cf. section 2.1.5.2.4).

Some examples are:

wonay - *gadjin* *(looks) like a woman (said of a man*
with long hair)
woman

- mayga - gadjin (tastes) like crushed ants (said of
lemon juice)
crushed ants
- djimbila - gadjin (flakes) like insulator glass (said of
a certain red or yellow coloured stone)
insulator glass

2.6.3. Adverbial Derivatives in -w₁a

The suffix w₁a (v ba) appears on adjectives and nouns, turning them into adverbs. Most of the denominal ones are rather difficult to translate into English because we have no regular means of deriving adverbs from nouns (except for that pedant's bane, the -wise derivation, which is, however, more limited than -ba in its applications, even by the most unrestrained users).

Examples of derived adverbs in -w₁a are:

ada umari medjeri - wa

sit the 2 do two

The two (demons-turned-to-stone) sit there, dually

belen - ba maḍu anga

rear walk he went

He went along behind

ganda - ir - wa daḷag winji

this penetrate it (bamboo) did

These-two-places-wise it penetrated (said of a bamboo spear which pierced the flesh in one place, and passed through, and protruded out through another)

nambad budmen walgu - wa guṇḍu - wa

come they do to together each other woman husband

They come together as husband and wife

The form of this adverbialising suffix, it may have been noticed, is identical to that of the iterative suffix which appears on verbal particles. The two -w₁a suffixes have such different functions that their formal identity in present-day Uḡarɿnjin seems purely accidental. What the historic relationship may have been is an interesting question whose investigation awaits firm comparative evidence.

2.6.4. Pan-Class Suffixation

All of the suffixes treated immediately above (sections 2.6.1-2.6.3) are ones which can be suffixed to words of only one, or at most two different classes. The suffixes treated in this section are those which are not so limited in distribution. Most of them, indeed, can occur on a word of any class.

The other thing that sets these suffixes apart from those is that, with the possible exception of the last two, -*ŋa* and -*ŋari*, they are not derivational suffixes. That is, they do not change the grammatical class of the words to which they are suffixed.

2.6.4.1. -*y₂ali*

This suffix, which strengthens to -*dali* in the expected environments (1.2.2.1), can be affixed to a word of any class. Its meaning is emphatic. It says, of the thing referred to by the word to which it is affixed, *this indeed*. For some examples, see p. 18.

2.6.4.2. -*ŋa*

This suffix too can be affixed to a word of any class. It has a function in discourse which is complementary to that of -*y₂ali* (above). It too is emphatic in meaning, but with a somewhat different force: while -*y₂ali* simply affirms, -*ŋa* emphasises by implied comparison. The latter, that is, always carries with it the idea that there are other (at least conceivable) 'things' from among which this one in particular is singled out for emphasis. If -*y₂ali* can be glossed *indeed*, -*ŋa* must be glossed *especially, just, alone or only*.

For example:

abu|an - ŋa ridj warmaŋa
gentle pull we took it
We pulled it especially (very) gently

njaŋan - ŋa ŋa|a njindi
you (sg.) sick you are
You alone are sick

ŋa|a - ŋa njindi
sick you are
You're just (or especially) sick

ni - ɲa mudmindani maɲari mindi
think they took it food that
They only thought about that food

2.6.4.3. -ga

This element appears on words of every class. Its basic function is negation, one which it shares with the negative mode particle wa (section 3.3.1.4.1). But whereas wa negates whole propositions, -ga negates single words or phrases. The negated constituent usually appears in sentence-initial 'focussed' position and the verb is marked for irrealis mode, just as it would be if wa were doing the negating.

For example:

aningen - ga /a₁-*w₂a₂ - √a - ɲi - lu / → anɲaɲi
for himself masc.-irr. come/go past prox.
Not for himself has he come here

djandu - ga /a₁-*w₂a₂ - √y₂i - ɲi / → anɲeɲi
ordinary masc.-irr. be past
He was no ordinary man

djigal - ga /ɲar - *w₂a₂ - √a - yiri / → ɲargayiri
lie 1 pl. ex. irr. come/go cont.
Lying we are not

abu!an-ga djaɲi /wu - *w₂a₂ - √mindā - yi - yiri / → wungumindeyiri
gently move w-class 3 sg. irr. take past cont.
He didn't take it (a boat) in gently

Negative -ga also appears in copulative clauses which have no overt verb, in which case there is, of course, no overt irrealis marking.

For example:

/ma₂ - yiri - ga / → meriga mindi
m-class one m-class: it
It is not unique (i.e. there is more than one)

nunɲu!a - ga - guɖe - ga djina
fatigue com. masc: he
He is tireless

As the latter example illustrates, negative -ga can be used 'distributively'. A 'double negative', that is, is negative rather than positive in meaning.

In addition to (and, as I see it, deriving secondarily from) the negative function just described, the element -ga performs another related, but syntactically distinct function: it serves as an interrogative marker.

Like its negative counterpart, interrogative -ga usually appears enclitic to the first word of the sentence. But interrogative -ga is distinguishable from negative -ga in that, while the latter appears in construction with irrealis verbs, the former appears in construction with indicative ones.

For example:

manjdjan -ga /anda₂ - $\sqrt{\text{ma}(\text{ra})}$ - lu/ → andumaṛalu
money b-class 3 sg. *take/bring* prox.
Is he going to bring money?

bad - ga /bunda₂ - $\sqrt{\text{ma}(\text{ra})}$ - ṅa/ → bundumaṅa
grease b-class 3 pl. *take/bring* past
Did they grease it?

djina - ga waṅdidj /wu₂ - $\sqrt{\text{wu}}$ - ni - ṅari/ → woniṅari
he *make* w-class 3 sg. *act on* past rel.
Is he the one who made it?

ṅin-ga

I

Who, me?

2.6.4.4. -w₁ini (≈ -bini)

This suffix has already been discussed (section 2.2.14) with respect to its occurrence on verbal particles as a punctual aspect marker. It also occurs on words of other classes with a closely related function. This happens so seldom that I cannot yet say with certainty what class restrictions there are (if any) on its occurrence. The meaning of -w₁ini in such cases is hard to gloss uniformly, but there is definitely an invariant element involved, and it is one which these other uses of -w₁ini have in common with its use as an aspect marker.

Consider, for instance, the following case. There is a temporal adverb *gaṅaṅgan*, which is the usual word for *now*. But this word is not one which reckons the present as an infinitesimal point moving along a time line. Rather, if the image of the line is appropriate at all, *gaṅaṅgan* must be thought of as a segment along the line, whose length varies according to contextual factors. It is usually shorter than a day and its end points accordingly are usually somewhere between last night and tonight. (*gaṅaṅgan* is, in fact, the usual word for *today*.) What is of interest here is that, in order to convey the idea of a punctual 'now' - one which does reckon the present as a point - the word *gaṅaṅgan* is suffixed with *-wini*, just as verbal particles are suffixed with *-bini* in order to portray an action as an instantaneous one.

This contrast can be seen in the following stretch of text:

gaṅaṅgan baḍi aṅani...

today come to I have come to him

gaṅaṅgan - bini budju aṅonjiri

now finish I am doing him

I have come to him today (now)...(and) right now I'm finishing up with him

In all of these cases in which *-wini* appears on other words besides verbal particles, there seems to be something of this 'punctual' sense. Where the suffixed word is not a temporal one, the meaning is something like *precisely* or *exactly*.

For example:

anjɔja - wini goidj njindinji

what? drink you were

Exactly what (or how much) did you drink?

ṅiyanamala - wini waḍi minji

my hand (finger) burn it did

*I got burned right on the finger (N.B. There is no separate word for *finger*.)*

2.6.4.5. -dje

This suffix appears on verbal particles, where its meaning can be glossed *again*. It also appears on finite verbs with the same meaning.

For examples:

burɲuɳinga - dje

They gave to each other again (or where given to again)

balu - dje

Come here again

/daɳidj - dje njinjdja -w₂a₂ - √ma(ɾa)/ → daɳidje njinjdja·maɾa

*call the again fem. 2 sg. irr.
name of*

Don't call her name again!

maɳana mindi wud - dje / ɲan -w₂a₂ - √a -yiri-nja/ → ɲangayirinja
creek m-class swim again 1 sg. irr. go cont. dis.

I might be swimming away over that creek again

As these examples suggest, this suffix seems to be allowed to occur on the finite verb just when it is not paired with a verbal particle. Compound verbs, on the other hand, take the suffix on the particle.

But -dje also occurs on words which are outside the verbal system altogether, in which case it functions somewhat differently. The meaning is still *again*, but now the implied repetition is something which is asserted, not about the action described, but rather about the act of describing. If -dje on verbal words means *just as happened before*, its meaning on non-verbal ones (and, sometimes, ambiguously, on verbal ones as well) is: *just as I said before*. This then is the *again* which in English is set off by a special intonation pattern - one which, in written English, is represented by setting the word off by commas, as in the second example below. Examples of -dje on non-verbal words are:

baɳman - dje djiri

magician he

*To speak again of magicians, he is one (or, simply He is
another magician)*

gunja - dje njinmeri

what you are doing

What, again, are you doing?

2.6.4.6. $-w_1\text{alu} / \sim -w\text{ula}$

This suffix appears on nouns, adjectives and pronouns, where it has a function similar to the ablative-relative use of the case postposition $-n\text{anga}$ (p. 72). But $-w_1\text{alu} \sim -w\text{ula}$ cannot be considered a case marker because its meaning is deictic. While ablative-relative $-n\text{anga}$ means *motion away from, or originating at*, $-w_1\text{alu} \sim -w\text{ula}$ means *motion towards speaker, away from, or originating at*. Thus, although case-like in one way, it is in another way closer in function to the proximad verbal suffix (section 2.2.11) with which it has the $-w_1\text{alu}$ (balu) allomorph in common.

I am unable to account completely for the alternation between the $/w_1\text{alu}/$ and $-w\text{ula}$ allomorphs of this suffix. All I can say is that in environments in which w undergoes strengthening (i.e., after stops and nasals), the $-w\text{ula}$ ($\rightarrow \text{bula} \sim -\text{gula}$) allomorph never occurs. That alone is sufficient to guarantee that $-w\text{ula}$ is an allomorph of $/w_1\text{alu}/$, and not some distinct suffix with a slightly different meaning. But in non-strengthening environments there is an alternation between $-w\text{ula}$ and $-\text{walu}$ for which I have been unable to discover any sort of regular conditioning factors.

Some examples of this suffix are:

$\text{muno} \quad - \quad \text{walu} \quad \text{gara} \quad \text{ayiriwalu}$
over there *maybe he is coming*
Maybe he is coming here from over that way

$\text{garen} \quad - \quad \text{balu} \quad \text{mađu} \quad \text{anga}$
Gracie's knob *walk he came*
He walked here from Gracie's knob

$\text{gunjal} \quad - \quad \text{wula} \quad \text{djina}$
where *he*
Where is he (here) from?

$\text{ŋular} \quad - \quad \text{walu} \quad \text{djina}$
northeast *he*
He's (here) from the northeast

2.6.4.7. $-n\text{ala}$

This suffix occurs on nouns, pronouns, adjectives, and interjections. Coate and Oates (1970:35) notwithstanding, it appears not to serve any particular grammatical function, nor does it affect meaning very much.

It is perhaps a weaker version of -*ŋa*, discussed above (section 2.6.4.2.) in that what it seems to do is to add what may be described as a weak 'particularising' force.

For example:

nurun - *ŋala*

you (pl.)

you people

andu bodj - *ŋala*

he boss

He's the boss man

andu wudja - *ŋala*

he different

He's a different one

wali - *ŋala* buray - *ŋala* buray, wali!

wait/still not/no/nothing

Not yet! No! Wait!

It is possible that -*ŋala* should be interpreted as a nominalising suffix. But examples such as the last one above cast some doubt upon this interpretation.

2.6.4.8. -*ŋari*

This suffix appears on nouns, adjectives, adverbs, and finite verbal words. Its function when appearing on verbs is a distinct (and very important) syntactic one, which will be treated at length in the next chapter (section 3.3.1.1). When suffixed to words of other classes, -*ŋari* has a function similar to that of -*ŋala* (both suffixes possibly being at least historically related to the -*ŋa* suffix (section 2.6.4.2). When suffixed to nouns or adjectives, -*ŋari* usually (but not always) seems to have the effect of turning them into nouns meaning *one person/thing characterised by*_____.

Examples of -*ŋari* on non-verbal words are:

buroli - *ŋari*

hair

hairy one (idiom for dog)

balu muṇa-muṇa-ṇari

come quickly

Come quickly

duba!a - ṇari

red/yellow

*red-yellow coloured person (i.e. person of mixed [Aboriginal-
non-Aboriginal] descent, or a red-yellow thing)*

CHAPTER THREE

SENTENCE SYNTAX AND SEMANTICS

3.1. Phrase Types

3.1.1. Verb Phrases?

There is no constituent type in Uḡarınjin which corresponds to the traditional notion 'verb phrase'.

Because the verb itself always incorporates pronominal elements cross-referencing its major grammatical adjuncts, it can more appropriately be thought of as pronominalised 'replica' of the sentence than as a sentence constituent belonging to the same order of structure as does the noun phrase (cf. section 3.2).

3.1.2. The Noun Phrase

An Uḡarınjin noun phrase may be of any of the structural types shown in Table 31.

Type I, in which the NP takes the form of a single lexical noun or personal pronoun, need not concern us here since it does not involve any NP-internal syntax (see, instead, section 2.1).

Type II, since it is a *clausal* NP constituent type, is treated in a later section (3.3.1.1.1).

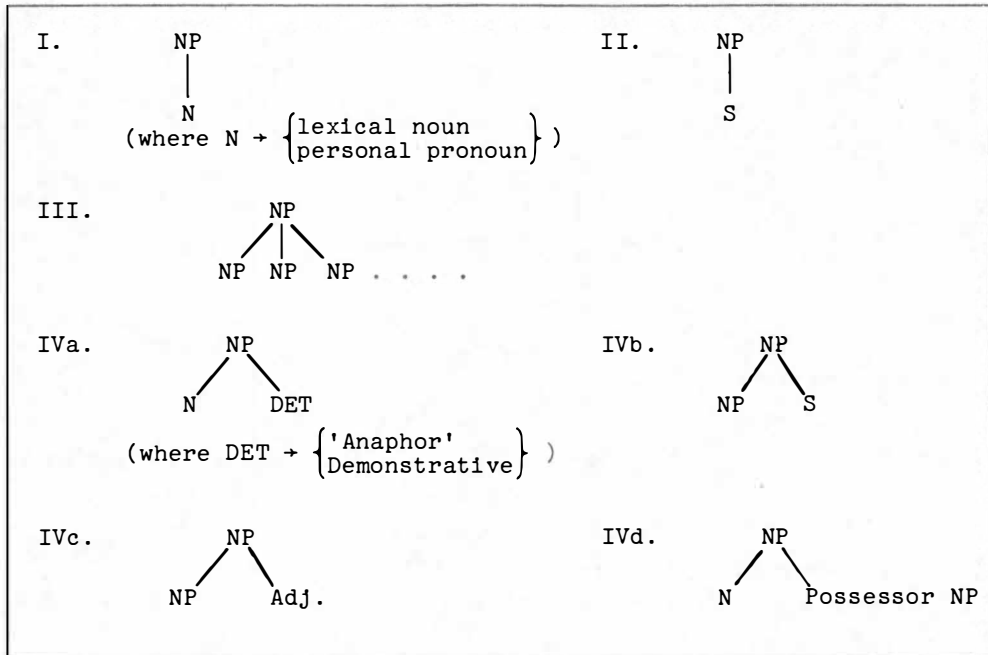
Type III, the coordinate NP, calls for some comment here.

First, note that each of the coordinated constituents is itself an NP and hence may be 'rewritten' in any of the five ways corresponding to each of the other NP types.

Coordination itself is effected in two ways:

1) By simple juxtaposition, combined with the operation of number/gender concord, e.g.

Table 31
NP Structural Types



$\left[\begin{array}{l} \left[\begin{array}{l} \text{gaŋaninjɔja} \\ \text{NP} \end{array} \right] \text{ buna} \\ \text{emu collective-} \\ \text{proximal} \end{array} \right] \quad \left[\begin{array}{l} \text{djebara} \\ \text{NP} \end{array} \right] \text{ buna} \\ \text{turkey bustard} \end{array} \right]$
 Coordinate NP

$\left[\begin{array}{l} \left[\begin{array}{l} \text{wulumaɽa} \\ \text{NP} \end{array} \right] \quad \left[\begin{array}{l} \text{djaya} \\ \text{NP} \end{array} \right] \text{ buna} \\ \text{turtle} \quad \text{fish} \quad \text{coordinate NP} \end{array} \right]$

biri-ŋa wanjdji andoniri

b-class anaphor *collect a lot* b-class-3 sg. - \sqrt{wu}_1 -past-cont.
He had been laying up a supply of emu, turkey, turtle, and fish.

2) By the use of a special 'coordinating' postposition: -yá after vowels, -á after consonants.

Unlike Greek -τε and Sanskrit -ca (of which it is otherwise reminiscent) á ~ yá serves to conjoin the NP on which it occurs to the one which *follows* it (rather than to the one which precedes it, as in the Greek-Sanskrit case).

Noun phrase types IVa, IVb, IVc, and IVd (of Table 31) may all be subsumed under a more abstract type: the head-attribute construction. Here again, the principles of gender-number concord and linear juxtaposition both play a part, but for this construction the *order* in which elements are juxtaposed also becomes a significant factor.

The general principle, which is evident in the designation above, is that the attribute comes immediately *after* the head. The 'modifier', that is, follows the 'modified'.

The degree of regularity with which this order is maintained varies among the different sub-types a-d.

The most rigidly ordered of the head-attribute constructions is type a, which consists of a lexical noun plus one from among the two sets of gender-bearing pronouns given in 2.1.2.1-2. When the pronoun is one of the first of those two sets (the 'anaphoric' series) the order N-Det. is absolutely regular and inviolable. When the pronoun is a demonstrative, that order is very occasionally reversed.

Head attribute construction type IVb, since it involves a clausal constituent, will be discussed in a later section (section 3.3.1.1.1). It may be noted here, however, that the regularity of the ordering head-attribute for this NP type (in which the attribute is a clause) is quite high - second only to that of type IVa.

Phrase type IVc, in which the attribute is an adjective, is rather more flexible in its ordering. Usually the order is noun-adjective, but this is quite often reversed.

Examples of type IVc NPs are:

gaŋmaŋgu djomali

yam big

big yam

ŋabun wuniyaŋari

water w-class + good

good water

buđu yali

small kangaroo

small kangaroo

As seen above (2.1.5.2.4), words for numbers in Uŋaŋinjin belong to the larger class of adjectives. But within that class, they have some special properties. A number greater than one can occur in what looks like a head-attribute construction with a head noun which refers to a

unique individual. When that happens, the meaning is *a group of this number of individuals one of whom is [N]*.

For example:

Djuṅuṛi		medjeri
<i>Boab Tree (man's nickname)</i>	<i>two</i>	
	<i>two people,</i>	<i>one of whom is Djuṅuṛi</i>

What is of interest about this particular construction is that it shows a strengthened ordering restriction. As adjectives, number words are usually permitted optionally to precede their head noun, even though they more often follow it, e.g.

medjeri-yá	medjeri	woṅay
<i>two</i>	<i>and</i>	<i>two woman</i>
	<i>four women</i>	

or: woṅay medjeri-yá medjeri

But when numbers are used in the special somewhat idiomatic way discussed above, this optional permutability disappears: the number word can only follow the noun.

Thus, for instance, medjeri djuṅuṛi (cf. Djuṅuṛi medjeri, above) cannot occur except with the meaning *two boab trees*. To mean *Djuṅuṛi and one other person*, it must be: Djuṅuṛi medjeri.

Noun phrase type IVd, in which the attribute is a 'possessor' noun phrase is the type for which the head-attribute ordering is least strongly specified. The extent to which that order is preferred varies depending on what kind of possessor NP comprises the attribute. (Indeed, for one kind of attribute, the reverse order is the normal one, as we shall see below.)

A possessor noun or noun phrase may indicate possession in any of five different ways, four of which, viz.: prefixation, suffixation, independent possessive pronoun, and genitive postposition, have already been discussed and exemplified above (2.1.5.2, 2.1.5.4.3.6). It will suffice to point out here that, as can be seen in examples given above for each type, the possessor noun or NP more often than not comes immediately *after* the noun for the thing possessed.

The reverse is true of the fifth means of indicating possession. That means is one which was not discussed along with the others in the morphology chapter because it is entirely syntactic, viz.: simple juxtaposition. This construction actually serves as an alternative possessive phrase for one other type of possessive, namely the 'human relationship' kind which is usually signalled by means of suffixation,

as per. section 2.1.5.2. For the set of 'human relationship' terms, it is the otherwise 'vocative' stem form which enters into such possessive juxtaposition. Other, non-suffixing words referring to similar sorts of relationships may also be juxtaposed, as in the last two examples below, giving somewhat broader possibilities for this kind of 'possession' than exist for suffixation.

This juxtapositional possessive construction has invariable order possessor NP - possessed noun, i.e. the reverse of that which prevails for all of the other possessive constructions, and other kinds of head-attribute constructions as well.

For example:

marul djinda rambar
grey-haired one masc. proximal (*classificatory*) *mother-in-law*
This old grey-haired man's mother-in-law

njanan gan̄ɖi
you (sg.) *uncle* (MB, MFF, MBSS, et al.)
your uncle

Membinali gawila
(woman's name) *little one*
Membinali's child

and even:

yali gawila
kangaroo *little one*
the kangaroo's joey

3.1.3. The Syntax of Nominal Postposition

As explained in section 2.1.5.4.1, nominal postpositions are in syntactic constituency with noun *phrases*, occurring on the last word of the phrase which they 'modify'. This is true of all of the NP types discussed above. Examples for each type are:

I. nin - gu
 I dat.
 to/for me

Mawanjdjama - ra
 Mowanjam loc.
 at Mowanjum

- II. $\left[\begin{array}{cc} \left[\begin{array}{c} \text{ma}\check{r}\text{a} \\ \text{S} \end{array} \right] & \left[\begin{array}{c} \text{njon} \\ \text{S} \end{array} \right] \end{array} \right] - \left[\begin{array}{c} \text{\textasciitilde{r}ari} \\ \text{NP} \end{array} \right] - \text{gu} \\ \text{dat.} \\ \text{see he act on her} \\ \text{for the purpose of his seeing her (cf. section 3.3.1.2)}$
- III. $\left[\begin{array}{c} \left[\begin{array}{c} \text{Mowa}\check{d}\text{jiyali} \\ \text{(man's name)} \end{array} \right] \\ \text{NP} \end{array} \right] - \acute{\text{a}} \left[\begin{array}{c} \left[\begin{array}{c} \text{Nje}\check{r}\text{a} \\ \text{S} \end{array} \right] \\ \text{NP} \end{array} \right] - \text{yu} \\ \text{lat.} \\ \text{to Mowa}\check{d}\text{jiyali and Nje}\check{r}\text{a}$
- IVa. $\left[\begin{array}{cc} \left[\begin{array}{c} \text{dambun} \\ \text{N} \\ \text{NP camp} \end{array} \right] & \left[\begin{array}{c} \text{muno} \\ \text{DET} \\ \text{m-class-distal} \end{array} \right] \end{array} \right] - \text{walu} \\ \text{prox.} \\ \text{hither from yon camp}$
- IVb. $\left[\begin{array}{c} \left[\begin{array}{c} \text{a}\check{r}\text{i} \\ \text{N} \\ \text{NP} \end{array} \right] \left[\begin{array}{c} \text{wo}\check{n}\text{ay} \text{ njindi} \text{ njuma}\check{n}\text{a} \\ \text{S} \end{array} \right] \end{array} \right] - \left[\begin{array}{c} \text{\textasciitilde{r}ari} \\ \text{rel.} \\ \text{NP} \end{array} \right] - \text{yu} \\ \text{lat.} \\ \text{man woman fem.-anaphor he took her} \\ \text{to the man who took that woman}$
- IVc. $\left[\begin{array}{cc} \left[\begin{array}{c} \text{mayara} \\ \text{N} \\ \text{house} \end{array} \right] & \left[\begin{array}{c} \text{djomali} \\ \text{ADJ} \\ \text{big} \\ \text{NP} \end{array} \right] \end{array} \right] - \check{r}\text{a} \\ \text{loc.} \\ \text{at the big house}$
- IVd. $\left[\begin{array}{cc} \left[\begin{array}{c} \text{dambun} \\ \text{N} \\ \text{camp} \end{array} \right] & \left[\begin{array}{c} \text{\textasciitilde{n}inanga} \\ \text{1 sg. Possessive} \\ \text{Pronoun} \\ \text{NP} \end{array} \right] \end{array} \right] - \check{r}\text{a} \\ \text{loc.} \\ \text{at my camp}$

3.1.4. Abbreviated Head-Attribute Constructions

One thing which all the type IV or 'head attribute' constructions have in common is that the head noun is sometimes only an 'implicit' one. Thus, under certain conditions each of the last four NPs given immediately above can appear, in exactly the same meaning, with 'deleted' head noun, as follows:

muno - walu
 wo\~n\~ay njindi njuma\~n\~a-\~r\~ari - yu
 djomali - \~r\~a
 \~n\~inanga - \~r\~a

It might be argued that these latter NPs are really of types I and II; that we needn't invoke the idea of 'deletion' or 'ellipsis' or claim that they involve any 'implicit' head nouns, but should instead simply say that they involve constituents which, though not primary nouns, are used as nouns in these particular constructions. The problem with such an approach is that it provides no way of accounting for the fact that every such 'abbreviated' NP is of a certain grammatical gender, which is not always predictable from the overt form or semantic content of what appears overtly as the NP itself. The last three NPs above, for instance (provided their meanings are those of their respective counterparts on pp. 140-141) are of the masculine, m-class, and m-class genders respectively, a fact which would usually be reflected in their clause-level relations of pronominal concord, but which is not predictable except by recourse to the deleted head nouns on p. 141, whose gender they share.

Given this evidence, I will assume that all such NPs arise from the 'deletion' or 'ellipsis' of a head noun, which remains as 'implicit' or, if one prefers: 'present in underlying structure'.

3.2. The Simple Sentence

Having laid out the order-class structure of the Uḡarīnjin verb in the last chapter (section 2.2), I have already laid out a microcosm of the Uḡarīnjin simple sentence. For, as we have seen, the finite verbal word contains pronominal elements which cross-reference all of the major grammatical adjunct NPs which, together with that verb, comprise a simple sentence.

The adjunct types themselves and their characteristic semantic relationships to the verb call for some comment here.

The occurring cross-referenced adjunct configurations may be divided into two types, the selection between them being determined by the choice of verb root.

In the first configuration, which occurs with 'intransitive' roots, there is one obligatory adjunct, the 'subject', which is cross-referenced in order class 5, and another, optional 'oblique' adjunct which is cross-referenced in order classes 15 and 16.

Semantically, the relationships which may hold between the verb and each of these adjuncts may vary considerably. As discussed in 2.2.13, the subject may be stative or active. Within the latter class, the subject may even be a semantic agent, in which case the optional oblique adjunct, if present, is a patient, e.g.

guᅇdi-nanga ᅇur njumaᅇananga woᅇay
husband-3 sg. poss. hit fem. sub. - \sqrt{ma} -past-3 sg. d.b. woman
The woman hit her husband

For intransitive verbs, the subject may even be a semantic patient, e.g.

baᅇid di yora waᅇga
bucket w-class fill w-class sub. - \sqrt{a} - past
That bucket was filled

Although the semantic relationship of adjunct to verb is quite variable, the 'ranking' of one adjunct with respect to the other remains constant. That is, the oblique adjunct is always in a more 'peripheral' relationship to the verb than is the subject. Thus, in the next-to-last example above, the subject is an agent and the oblique adjunct a patient. But in the last example, since the *subject* is a patient, the oblique adjunct, if there were one, could not be a patient (and certainly not an agent), but would instead be a 'benefactive' NP, referring to someone on whose behalf the bucket was filled.

The second of the two cross-referenced adjunct configurations is the one which occurs with 'transitive' roots. In this configuration, there are two obligatory adjuncts: a subject NP which is cross-referenced in order class 5, and an object NP which is cross-referenced in order class 4. In addition, there may be another oblique adjunct, which is cross-referenced in order classes 15 and 16, just as in the intransitive configuration.

Probably just because there are more grammatical adjunct positions available within this transitive configuration, the semantic relations between the verb and each of them are more narrowly circumscribed than was seen to be the case for the 'intransitive' configuration described above.

The subject NP in this configuration is always active (as opposed to stative or patient) and almost always an agent. The only major class of transitive verbs for which the subject is non-agentive consists of the simple transitive verb $\sqrt{(r)a}$ *to go to*, together with most of the compound verbs which take this root as an auxiliary (see example in Table 30).

The obligatory object adjunct in this configuration is usually a semantic patient. The alignment between transitive object and semantic patient is, however, sometimes overridden by another kind of alignment which tends to be maintained in Uᅇaᅇinjin.

The other kind of alignment is one which arises from a general tendency to favour, for verbal cross-reference, NPs which are highly ranked on the hierarchy of NP types which was exemplified above (see section 2.1.5.4.3.6). This is true of all of the adjunct positions of the transitive configuration, including the obligatory object adjunct. What this means is that some verbs which we might expect to be three-place predicates, such as the rough equivalents of English 'give' and 'show', while they do take an agent NP in the subject position, do *not* take a patient NP in the object position, since the patients of such verbs are typically inanimate objects, which come at the bottom of the hierarchy. Such verbs instead take, in the object position, an adjunct NP referring to the entity to whom something is given or shown, which is much more likely to be a hierarchically high-ranking, human noun. The NP referring to the thing given or shown (if one is present), is not cross-referenced, but occupies the 'Oblique II' position (for which, see below, section 3.2.2).

For examples of *give* sentences of this kind (for which the root is $\sqrt{\eta u} \eta u$, which is best glossed as *give to*), see pp. 152, 171.

An example involving the *show* root, $\sqrt{m i y i m b u}$ (which is best glossed *show to*) is:

wonay	njumiyimbunjiri	garagi
woman	fem.-3 sg. - show to - pres. cont.	bark bucket
<i>He is showing the bark bucket to the woman</i>		

The third, optional adjunct in this transitive configuration is cross-referenced with the same form and order classes as used for the second, optional adjunct in the intransitive configuration. But within the transitive configuration, this third, suffixally cross-referenced adjunct is never a patient, but instead is usually a 'benefactive' NP of the kind discussed in section 2.2.12.

3.2.1. Linear Order of Major Sentence Constituents

Grammatical adjunct relations in Uḡarɪnjin are signalled mainly by means of pronominal cross-reference within the system of order classes discussed in the last chapter. But the ordering of the NP constituents themselves does seem to be governed, albeit very loosely, by certain norms having to do with adjunct relations, so that word order has a kind of secondary reinforcing effect on the system of verb-internal order classes.

The reason why word order can only play a secondary part in the signalling of these relations (which is also the reason why it would be difficult to undertake a statistical investigation into the question) is that in the vast majority of naturally occurring Uğarınjin sentences, one or more of the NPs cross-referenced in the verb is not overtly present within that sentence except in the form of its pronominal manifestation within the verb. It is obvious why this should be so in the case of the personal pronominal categories: the verbal 'cross-referencing' elements carry just as much lexical specificity as the corresponding free-standing pronouns (section 2.1.1). For non-participant or 'third person' NPs, the elaborate differentiation of form classes by gender and number greatly facilitates the maintenance of pronominal reference over multi-sentence stretches of discourse, obviating the need for repetition of the NPs themselves (even in 'abbreviated' form) within successive sentences (cf. Heath 1975, and Rumsey, 1980:22-23).

As far as I have been able to determine, the ordering norms, in order of strength are as follows:

- 1) In the transitive configuration, the object NP precedes the verb.
- 2) In the intransitive configuration the subject NP precedes the verb.
- 3) In the transitive configuration, the subject NP follows the verb.

If there is any norm governing the linear placement of the optional dative-benefactive constituent which is cross-referenced by pronominal suffixes, I have not been able to discern it.

3.2.2. The 'Oblique II' Adjunct

In addition to the verbally cross-referenced adjunct types discussed above, there is another, somewhat nebulous type which is formally identifiable mainly on negative grounds: it is an NP which is neither cross-referenced on the verb nor marked by a postposition for any kind of 'adverbial' function. Such NPs are usually of low rank on the nominal hierarchy (pp. 69-73). Semantically, they seem usually to be patients or to bear a kind of quasi-instrumental relationship to the verb.

We have already seen one instance of this type of adjunct, in the 'show' example on p. 144, where the thing shown is an oblique II patient. '*Things given*', which are oblique II adjuncts within the

$\sqrt{\eta u}u$ (*give*) clause, are perhaps semantically intermediate between patients and instruments, $\sqrt{\eta u}u$ being glossable as *to begift by means of*.

For the more common kind of transitive verb which cross-references inanimate NPs in the object position, the oblique II adjunct is usually more straightforwardly 'instrumental'; e.g.

Oblique II	Object
$\overbrace{\text{winjdjaun}}^{\text{fire}}$ wog andon	$\overbrace{\eta\text{ala biri}}^{\text{meat that (b-class)}}$
<i>fire</i> cook collective-3 sg.-pres.	<i>meat that (b-class)</i>
<i>He cooks that meat with a fire</i>	

When the verb is intransitive, the oblique II adjunct is usually a semantic patient, e.g.

me wog ba	gaŋaŋgan
<i>food</i> cook imperative - \sqrt{a}	<i>now</i>
<i>Cook some food now!</i>	
minjdjal budmaŋa	gowana njindi
<i>eat</i> 3 pl. \sqrt{ma} - past	<i>goanna that (fem.)</i>
<i>They ate that goanna</i>	

As mentioned above, there is a tendency to favour for cross-reference, in all order classes, NPs which are relatively highly ranked on the lexical hierarchy. Thus, although the semantic patient of an intransitive verb is usually cross-referenced by a pronominal suffix if the patient is human (as in the example on p. 143), lower-ranking patients are usually non-cross-referenced 'oblique II' adjuncts, as in these last two examples.

3.3. Complex Sentences

3.3.1. Subordinate Clauses

3.3.1.1. The -ŋari Clause

In a position immediately following order class 16, any finite verb except an imperative one may take the suffix -ŋari. An important difference between the way -ŋari is used on finite verbs and the way it is used elsewhere (as per section 2.6.4.8) is that just on finite verbs, the suffix is in constituency not just with the word on which it occurs, but with a larger structural unit of which that word is a part: -ŋari, when suffixed to a finite verb, marks that verb, together with all the words with which it would otherwise comprise a sentence, as a subordinate clause.

The range of functions served by the -*ɲari* clause is (from an Anglo-centric point of view anyway) extremely broad and diverse. Possible syntactic/semantic functions of a subordinate -*ɲari* clause in some matrix sentence (or some part of it) are listed in Table 32.

Although the form of the subordinate clause itself (or, in Chomskian terms, the 'structural change' by which it is derived) is identical for all these functions, its positioning with respect to other elements of the matrix sentence varies in fairly close accord with its syntactic-semantic function. These ordering norms are detailed immediately below Table 32, along with examples of each of the various functions served by the -*ɲari* clause (instances of which are set off in the examples by brackets).

Table 32
-*ɲari* Clause Types

Nominal and Adnominal	Adverbial
1) Relative Clause:	1) locative clause
a. with overt head noun	2) temporal clause
b. without overt head noun	3) causal clause
2) - <i>ɲari</i> clause as sentential adjunct of matrix verb	4) antecedent clause of conditional sentence

3.3.1.1.1. Nominal and Adnominal Uses

I label 'relative' those instances of the -*ɲari* clause in which it functions as an adnominal modifier, forming a type IVb head-attribute NP (p. 136). When it occurs in this function, the -*ɲari* clause usually comes right after the matrix-level nominal constituent which it modifies, e.g.

- 1) *guŋɔŋɔ* *biri* [*njarun linj banjirwuni-ɲari* *wuŋan*]
half way people those we look we acted on them-rel.

bedja *budju* *burinji*
already finished they have been

Those halfway people to whom we looked in the wuŋan (i.e. from whom we regularly received sacred objects) have already become extinct

- 2) *badmiyaŋgara* *buna* [*gi* *bundon-ɲari*]
we recognised these totemise they act on them-rel.
We recognised these (plants, animals, objects, etc.) which they totemise

- 3) aṛi djinda [aṇuṇuḷaṇaṛa -ḡari djuḃago biri]
man that I gave to him-rel. tobacco it
- bedja balja amaṛa
leave he did
That man to whom I gave tobacco has left
- 4) gunja ama malḡari djiri [waṇaḷa aṅga - ḡari]
what he do white man he crazy he went - rel.
- djiri [yilala gad andoni - ḡari]
he children abandon he acted on them - rel.
What is the white man doing who went crazy and abandoned his children?
- 5) djoli eyalu belewalu wundumangu
come back it is-prox. back-prox. (name of hole in creek)
- [djebara njarwiljani - na - ḡari]
emu we speared her pauc. - rel.
It comes back here to Wundumangu, where we speared an emu
- 6) brṛu [wuḷan wudiṇanjiri -ḡari] maṛa gara
(Aboriginal) word they are putting it-rel. find maybe men
- wurgo muḷimuli - ṛa
they might do to it paper - loc.
The (Aboriginal) men are setting down words (on tape) might find them on paper

One thing demonstrated here (in the fourth example) is that more than one -ḡari clause may modify the same noun.

Note also that 'relativisation' by means of -ḡari is not sensitive to the syntactic function of the relativised NP in the matrix sentence, nor to that of its coreferential counterpart in the -ḡari clause, nor to the relationship between the two. In 1) and 3), the noun common to the matrix sentence and the -ḡari clause is one which functions as an intransitive subject in the former and as a transitive object in the latter. In 2), it is a transitive object in both. In 4), it is an intransitive subject in the matrix sentence and in the first -ḡari clause, and transitive subject in the second. In 5), it is an oblique II (non-cross-referenced) object in the matrix and a direct object in the -ḡari clause and in 6), it is a transitive subject in both. I point all of this out because Uḡariṇjin differs sharply in this regard

from other Australian languages, such as Dyirbal (Dixon 1972:99ff.), Yidinj (Dixon 1977:385ff.), and Ngayamil (Schebeck 1976:523ff.), which restrict relativisation to NPs in certain (derived) case functions. (For example, both must be in absolutive case, etc.) Hence, unlike in those languages the pattern of relative clause formation in Uṅarĩnjin does not characterise its syntax as 'ergative' or 'accusative'. (But see Rumsey 1980:17-18 for another kind of argument on this question.)

The one restriction which does apply is that the coreferent NP in the subordinate clause must be one which is cross-referenced on the verb in that clause (though not necessarily on the verb in the higher clause). This fact does not support any claim regarding 'ergativity' or 'accusativity', but it does testify to the syntactic centrality of just those adjunct types which are cross-referenced on the verb (cf. Keenan and Comrie 1977).

Often the -ṅari clause occurs without an accompanying head noun. Most such non-adnominal -ṅari clauses are what I call 'adverbial' clauses (see section 3.3.1.1.2). But some of them instead function as 'abbreviated' noun phrases (cf. pp. 141-142) in the matrix sentence, e.g.

bedja anḡa [aṅulowani - ṅari]
already he went I feared him - rel.
The one whom I feared has already gone

baṛidj njadenga yangu [we - ṅari] - ṛa
rise we did-ref. water-lily it is - rel. - loc.
*We rose up against each other (at the place) where the
 water lilies are*

In the first of these two examples, the -ṅari clause functions as a masculine noun, which, as the subject of the verb, is cross-referenced with a pronominal element showing its gender. One might, then, claim that the -ṅari clause here, if it lacks an overt head noun, does have an overt 'head' in the form of that pronominal element. But the second example shows that it is not always so. There the -ṅari clause functions as a noun which takes the locative postposition -ṛa, specifying the location where the action described by the main verb took place, but without even a pronominal element on the verb to serve as its overt 'head'. Nonetheless, I would insist, for the reasons given in section 3.1.4, that these are still 'relative' clauses, and can most easily be accounted for by assuming an 'implicit' head noun.

But there are other nominal uses of the -*ɲari* clause in which there is no implicit head noun outside of the clause itself. These are instances in which the whole proposition conveyed by the -*ɲari* clause serves as one of the arguments of the matrix-level predicate. In these instances the -*ɲari* clause really does function as a complete nominal constituent of the matrix sentence (in 'deep' as well as 'surface' structure). Evidence for this assertion is provided by the fact that the -*ɲari* clause in this function does not vary in gender to agree with that of some deleted head noun, but instead bears gender inherently: all -*ɲari* clauses of this kind behave as 'things' of the w-class neuter gender.

For example:

wa wu!al wunge [ɲabun goydj ɲaya - ɲari]
not nice (w-class) it isn't alcohol drink we go

For us to drink grog is not nice

or

It's not nice for us to drink grog

widjiga waɖa winjdjonjiri
is it the case? like you acting on it (w-class)

[wana njingebu - ɲari]

if I will send you

Do you like (the idea of) my sending you?

Grammatical orthodoxy would dictate that the w-class pronominal element which appears on these verbs be interpreted as a 'dummy' element, like the English word 'it' in my gloss for the first of these two examples (cf., for instance, Heath 1975:100). But such an interpretation would not be consistent with the Ngarinjin ideology of linguistic (inter) action. For the traditional Ugarinjin speaker, words do not merely represent things, they *are* things. More specifically, they are things of the w-class (cf. p.41). So when one skips to the meta-linguistic level, as one must in order to point to propositions, one enters one of the semantic domains of the w-class. As means of referring to stretches of discourse, the w-class pronominal elements are no emptier semantically than are gender-bearing demonstrative pronouns in their application to the non-linguistic context of the speech act. My suspicion is that Ugarinjin is not really very unusual in this regard. Many of the so-called 'dummy' elements of other languages too will probably begin to speak in interesting and unexpected ways once we develop a theory of language

which allows the grammarian to shift back and forth between language and meta-language as easily as the native speakers do.

3.3.1.1.2. Adverbial Uses

3.3.1.1.2.1. Locative

I am somewhat hesitant about including 'locative' as a distinct adverbial use of the -*ɳari* clause because it may be better to consider all apparent instances of this type as, instead, headless relative clauses which are adnominal to an implicit (deleted) noun or pronoun of place (e.g. *munda*, 2.1.2.2, 2.1.5.1.2). The reason I am not certain of this is that semantically locative -*ɳari* clauses often occur without case postpositions (*ɾa*, *ɣ₁u*, *gu* etc.) in positions where a noun phrase would demand one. This suggests to me that such clauses are interpreted, on the model provided by the uses discussed below, as inherently 'adverbial' and therefore not in need of any adverbial case postposition to mark them as such.

Examples of -*ɳari* clauses used in this way are:

Larry medjeri banjidmindani [djaɳaɳaɳaɳa e-*ɳari*]
two we took them (man's name) he is
We picked up Larry and another man at the place where
Djaɳaɳaɳaɳa died

ada burwani [dowar wanga - *ɳari*]
sit they did break it went
They sat down (at the place) where it (the mail plane)
broke down

A noun phrase occurring in place of either of these -*ɳari* clauses (even a noun phrase of type IVb or its 'abbreviated' counterpart) would require the locative postposition -*ɾa*.

3.3.1.1.2.2. Temporal

Moving now to its more properly adverbial (or perhaps ad-sentential) uses, we may isolate one kind of -*ɳari* clause whose relationship to the matrix sentence is one of temporal specification. As far as I have been able to discover, Hale's generalisation for Australian languages (Hale 1976:79), that this 'temporal interpretation' is possible when the main and subordinate clause 'make identical time reference', holds true for U*ɳaɾinjin*,¹ but only after a certain

¹Hale does not make it clear whether this is an 'if and only if' condition or only an 'if' one. In U*ɳaɾinjin*, it seems to be the former.

adjustment. The phrase 'make identical time reference' must be replaced by: 'contain verbs which are marked for the same tense, with imperative mode to be taken as implying present tense'. This alteration is necessary because temporal -*ɲari* clauses, although they match the main clause in grammatical tense, do not always 'make identical time reference'. There are two ways in which they behave otherwise. The first is one which also seems to be true of the Walbiri data which Hale presents in support of his generalisation (op. cit. p. 79ff.), which means that some refinements are in order even with respect to Walbiri. The problem, it seems, is that adequate account was not taken of the effect of aspect on 'time reference'. In some of Hale's examples, as in my last example below (p. 153), the temporal clause refers to an ongoing action whose duration includes the beginning and endpoint of the action described in the main clause, but extends beyond it in one or both directions. Such pairs of verbs may be of the same tense, but certainly do not make 'identical time reference'.

The second way in which U η ar η injin temporal clauses violate Hale's formulation is that, even where the tense and aspect of the subordinate and main clauses are both identical, the temporal relationship between the two may be one of sequentiality rather than simultaneity. When the -*ɲari* clause carries this particular sense, it is usually accompanied by *di then* or *di-yu after that* occurring as a temporal specifier in the main clause, as in the first three examples below.

Examples of the 'temporal' -*ɲari* clause occur in the following sentences:

[budju ama - ɲari], di - yu balu
finish he does after that come here
Come here when he has finished

[garagi yora wanga-ɲari] di - yu banjir η ulini
bucket fill it went after that we gave to them
When the bucket had been filled, we gave it to them

[yilidj ay e - ɲari] di dja η i a η on
rainy weather none it is then leave I act on him
I'll leave him when the rainy weather has ended

[andu djina η ulan η adma - ɲari] η ulan ama η jele
he that one move we do move he does also
When we move, he moves too

[malga njadmaɾa -ɲari], mindjal birinji
dance we did eat they did
While we danced, they ate

[burwiljengeri - ɲari] dehar anga
they were spearing each other die he went
He died during the course of their throwing spears
at one another

3.3.1.1.2.3. Causal Clause

Sometimes the relationship between the statement made by -ɲari clause and that of its matrix sentence is to be understood as one of cause and effect. 'Causal' -ɲari clauses resemble temporal ones in that they almost always occur before the matrix-level verb, and in that the latter is often accompanied by the word *di*. In instances where the causal clause shares the other characteristic diagnostic of temporal clauses, i.e. that the tense of its verb matches that of the matrix verb, both the temporal and the causal readings are usually possible. Indeed, it may be unrealistic even to distinguish two readings, the principle: 'Post hoc, ergo propter hoc' being fallaciously assumed valid by Uɲaɲinjin speakers as often as it is by the rest of us. Not all causal clauses are ambiguous in this way, because not all of them match their matrix sentences in verb tense.

Examples of sentences including -ɲari clauses which can or must be interpreted as causal are:

[waɖa nɟoni - ɲari], di bedja ɲayanja amaɾa
like he acted on her all right, let's go he said
Because he liked her he agreed to go

[duramaɭa balja aɲalu-ɲari] yaydji awani
black cockatoo come she came to him happy he fell
Because (or when) the black cockatoo came to him, he was happy

[ɲala buna budju
meat that (b-class) finish

andoni - ɲari aninɲen-ɲa] bunda ɲala mindjal madi ɲadi
he acted on it himself only that (b-class) meat eat also we do
Because he finished that meat all by himself, we eat meat too

3.3.1.1.2.4. The -ɲari Clause in Conditional Sentences

The U η ar η injin conditional construction calls for a -ɲari clause as the antecedent, which precedes the main clause, which in this case carries the consequent of the conditional. Often the -ɲari clause when used with this function takes on a clause-initial particle *wana* or *budju*. Between these two particles, I have been able to discover no difference in meaning (which is not to say that there is none). The latter, *budju*, may be historically related to a homophonous verbal particle which means 'finish' (which occurs in the last example above), and/or a borrowing from Pidgin/Creole English *buju* (< 'suppose'), which means 'if'. Counter-factual conditional sentences, as one might expect, have an irrealis verb in the antecedent clause, as in the last example below.

Examples of conditional sentences including -ɲari clauses are:

[*yaw amara- ɲari*] *djaɽi aŋon-dall di*
yes he says to me leave I act on him - indeed then
If he says yes to me, I'll surely leave him

[*budju moduga ɖar uma-ɲari*] *balja ɲima*
if car stand it does go I will do
If the car is ready, I will go

[*budju waɖa wiŋdjon-ɲari*] *mawingl yawun di balu*
if like you act on it cold weather-time then come
Come during the cold season if you like

[*wana gayilan umuɭu wiɽa-ɲari*], *di- yali*
if/when back well it will be to me then indeed

balu ɲumanu
come I say to you
If and when my back gets better, I'll tell you to come

[*wana guraɖ ɲarguwari-ɲari*] *yawuɽe*, *wanjdjuŋa mindi- yali*
if cross we 2 fall Boimie Creek there indeed

djoy e
proper he is

If you and I cross Boimie Creek, there will be a proper Wandjuŋa right there

[galambi mindjal - ɲa ingiŋi - ɲari], aminjdjen
white egret eat only he didn't his anus

awaɾay ingiŋi
one is lacking he would have been

If only the white egret hadn't eaten, he wouldn't have an anus

Sometimes the idea conveyed by *counterfactual* conditional sentences such as the last example above is conveyed without the use of a -ɲari clause, by a simple 'paratactic' sequence of irrealis clauses, antecedent followed by consequent, e.g.

winjɟaŋun ganda ɲabun - da unɟureŋi - yali
fire that water - loc. it had been

buramaɭar bura alji muna burgiŋi - yali
people of amaɭar moiety down there they would have been

If fire had really been under water, people of the amalar moiety would indeed have been down there

3.3.1.2. The -gu Clause

The element -gu is one which occurs as a nominal postposition meaning *to, for, for the purpose of*, as per section 2.1.5.4.3.5. Unlike the other nominal postpositions, -gu (or a homophonous suffix with a very similar meaning) can also occur on verbal particles, forming a relatively impoverished sort of intentional clause.

For example:

ada amaɾa [goidj - gu]
sit he did drink
He sat down to drink

ganda ɾargi wuniya - ɲari di [lindidj-gu]
that rock good one it pressure-flake
That's a good rock for pressure flaking

maŋamaŋaŋari bi:ŋgalu [li - gu]
quickly they came watch
They came quickly in order to watch

These -gu clauses, if they can be called clauses, are 'impoverished' ones insofar as they contain none of the specification of a finite verb, nor any of the other trappings of a full Uɲaɾinjin sentence. The -gu clause contrasts strikingly in this regard with the -ɲari clause (above, section 3.3.1.1), and the $\sqrt{\text{ma}}$ complement clause

(section 3.3.1.3), both of which contain everything a full sentence does. In a transformational account this contrast would probably be regarded as a matter of surface structure, with the -gu clauses being derived, just as the other kinds, from underlying sentences containing a subject, a verb, and sometimes an object. Such a derivation would have to be restricted so as to be possible only when the subject of the matrix clause is coreferential with the subject or object of the sentence underlying the -gu clause. Also required is a restriction to the effect that the sentence underlying the -gu clause must contain a compound verb as opposed to a simple one. The only part of the compound verb which is present in surface structure is, of course, the verbal particle (sometimes suffixed with the iterative aspect marker -w₁a). Since most verbal particles may occur with any of several auxiliaries, the absence of an auxiliary in surface structure decreases specificity with respect not only to subject and object, but also regarding the semantic subcategorisation of the verb itself (as per p. 117 ff.).

Both of these kinds of ambiguity can be circumvented by the use of a somewhat different purposive construction which, as far as I know, is a permissible alternative to the -gu clause in every context in which the latter occurs. This alternative construction also involves the use of the morpheme -gu, but not on the verbal particle. Instead, it is added to a finite verb which has first been suffixed with -ɲari, turning the whole sentence with which it appears into a nominalised clause. This clause with -ɲari -gu] suffixed to its finite verb serves the same adverbial, purposive function as the [verbal particle + gu] clause, but includes all the information of a full sentence.

For example:

bora aŋga [[maɾa njon - ɲari] - gu]
long way he went *see he act on her*
He went a long way in order to see her

djoli enilu [[wuɭa ɲadon - ɲari] - gu]
return let him be *talk he act on us*
Let him come back so he can tell us

ɲuru bi , [[layburu njindi - ɲari] - gu]
listen be (imp.) *know you be*
Listen so that you may know

I put double brackets around these clauses, indicating an embedding of a -ɲari constituent in the -gu constituent, because I regard this

-gu as the nominal postposition -gu (section 2.1.5.4.3.5) These - η ari clauses then, are not in themselves of the adverbial sort, but rather are type II nominal constituents which here are rendered adverbial by the use of an adverbial case postposition. There is nothing very surprising about this, as the - η ari clause often functions exactly like a noun, in which function it may take any of the other nominal case postpositions as well. What *may* at first seem surprising, given the increment in specificity of the - η ari] + gu] clause over the -gu clause is that the former is actually far less commonly used than the latter. But this becomes more understandable when one realises that the -gu clause, although potentially ambiguous regarding subject and object, is, *in vivo*, seldom ambiguous in this regard, partly because of the effect of its associated restrictions on subject-object-coreference (as per p. 156), acting in combination with universal principles of lexical hierarchy.

3.3.1.3. The \sqrt{ma} Complement Clause

The \sqrt{ma} complement clause is a ubiquitous construction type in U η ar η injin - one which, like the - η ari clause, serves a wide range of functions, some, but not all of which, can be distinguished from each other on syntactic grounds.

The distinguishing characteristic which is common to the \sqrt{ma} complement clause in all its functions is that it is 'framed' by the presence, in its matrix sentence, of some form of the verb \sqrt{ma} , which always comes immediately after the clause in question.

The verb \sqrt{ma} , let us recall (Tables 21,29) is a morphologically intransitive one which means something like *do*. In the ideal semantic system which I have claimed lies behind the pairing of auxiliaries with verbal particles, \sqrt{ma} is the least marked of the intransitive auxiliaries, specifying only 'active' as opposed to stative. One of the kinds of verbal particles with which it is characteristically paired is the class of *verba dicendi*. The following particles, for instance, all form compound verbs with \sqrt{ma} as their most common auxiliary: wu!a, *to talk*, bara, *to discourse*, burgaydj, *to question*, nayag, *to request*, yerol, *to yell*. But none of the resulting compound verbs ever serves as a framing verb for a clause representing that which is, was, or will be said. The only verb which ever does so is the verb \sqrt{ma} by itself. But \sqrt{ma} , outside of its use in this construction, never occurs without an accompanying verbal particle. It is therefore tempting to think of the [reported speech + \sqrt{ma} verb] construction as a special kind of compound verb, with \sqrt{ma} functioning

as an auxiliary rather than as a simple verb. The choice of $\sqrt{\text{ma}}$ as the particular auxiliary which is used in these 'compounds' is motivated by its association with verbs of saying. It can be argued in support of this compound verb analogy that the 'reported speech' clause behaves more like a verbal particle than like an adjunct (e.g., object) to the framing verb: unlike some kinds of $\text{-}\eta\text{ari}$ clause (pp. 149-150), the reported speech clause is never cross-referenced.

But this should not be pushed too far. After all, the reported speech clause is a *fortiori*, a clause, however much it may behave like an element of a compound verb.

In order to understand what *kind* of clause it is, one must bear in mind the following fact: there is no formal distinction in $\text{U}\eta\text{ari}\text{nj}\text{in}$ between direct and indirect discourse; between 'oratio recta' and 'oratio obliqua'. (Indeed, the formal means by which both of these functions are [identically] executed are used for other functions as well, but for now I limit the discussion to 'reported speech'.) When speech is reported (or 'reported on'), it is reported directly as *though* it were being quoted. All the indexical categories: person, tense, spatial deixis and so on, are implemented exactly as they were, or would be, within the speech situation of the reported utterance, just as is true of direct discourse in languages which distinguish it from indirect discourse. But it would be a mistake to say that $\text{U}\eta\text{ari}\text{nj}\text{in}$ 'has direct discourse and lacks indirect'. Rather, what it lacks is a distinction between the two. In languages which do make such a distinction, the use of direct discourse entails that the utterance included within the quotation frame corresponds word-for-word with the utterance being reported.¹ But the use of the 'reported speech' $\sqrt{\text{ma}}$ complement clause in $\text{U}\eta\text{ari}\text{nj}\text{in}$ carries no such implication. Therefore it is neither direct nor indirect discourse, but something different from either: different because there is no other term to which it is opposed.

Examples of sentences including 'reported speech' $\sqrt{\text{ma}}$ complement clauses are:

¹See Partee 1974 for some ways in which this fact causes problems for the traditional extensionist, truth-functionally based approach to semantic representation; problems which, as far as I can see, do not arise in dealing with languages, such as $\text{U}\eta\text{ari}\text{nj}\text{in}$, which do not distinguish between direct and indirect discourse.

[badi wiŋi] budma
abandoned w-class- $\sqrt{y_2i}$ - opt. 3 pl. - \sqrt{ma}
'Let it be abandoned', they say or *They decide to abandon it*

[njanan - ŋa balja buma] budmeŋanga
you - only go away imp.- \sqrt{ma} 3 pl.- \sqrt{ma} , -past-3 sg. d.b.
'You go away', they told him or *They told him to go away*

[munda ada ŋameri] amaŋa
here stay 1 sg. - \sqrt{ma} - cont. masc.- \sqrt{ma} - past
He said, 'I'm staying here' or *He said he was staying there*
 (or *here* if the place of the reported speech is the same as
 the place at which it is being reported)

[ŋala waɟa-ga binjdjon] ŋamenanga
meat like-int. b-class-2 sg. - $\sqrt{w_1u}$ - pres. 1 sg.- \sqrt{ma} -past 3 sg. d.b.
'Would you like some meat?', I said to him or *I asked him if*
he would like some meat

[[guyialu] njadmeŋdu] amaŋaŋa
 2 pl. - \sqrt{a} - prox. 3 pl. ex.- \sqrt{ma} - past - 3 pl. d.b. masc.- \sqrt{ma}
 - past 1 sg. d.b.
"Come", we said to them', he said to me or *He told me that*
they told them to come or *He told me that they said*
'come' to them or ...

In my free translations for the examples above, I have glossed \sqrt{ma} as *say* strictly for the sake of us in whose culture there is a strict separation in principle between 'saying' and 'doing'; between 'mere words' and 'action'. But, given the Ngarinjin way of looking at the matter, this gloss is overly explicit. For the Ngarinjin, speech is a form of action, perhaps its most salient form. Accordingly, the verb \sqrt{ma} in all its uses, including the framing of reported speech clauses discussed above, is most appropriately glossed *do*. There is nothing in the matrix sentence of such a clause which indicates overtly that speech is the particular form of action which it predicates. Where the tense-mood of the verb in the clause framed by \sqrt{ma} is anything but future, the mere fact that there is something other than a verbal particle occurring before \sqrt{ma} is enough to make it clear that speech is what is predicated. But when the clause contains a future verb, as discussed below (p. 160ff.), the kind of action at issue may or may not be speech.

One can, however, specify that it *is* speech in such cases, or one can specify what *kind* of speech it is (within the Ngarinjin

classification of speech acts indicated such terms as those on p. 157). To do so, one uses a 'paratactic' construction consisting of two separate sentences, one (usually the first) of which specifies the nature of the speech act and the other of which reports (on) it with \sqrt{ma} as a framing verb.

For example:

burgaydj budmaṛa njanan njangi budmenanga
question 3 pl.- \sqrt{ma} - past you who? 3 pl.- \sqrt{ma} - past - 3 sg. d.b.
 'Who are you?' they asked or They asked him who he was

wuḷa njumeri [djaga! niwa] njumareri
talk fem. - \sqrt{ma} - past-cont. swim 1 sg.-fut.- \sqrt{wa} fem. \sqrt{ma} -past
 -cont.

She was saying that she would go swimming or *She was saying:*
 'I will (want to) go swimming'

Where the verb in the clause framed by \sqrt{ma} is a 'future' one, as in the second sentence of the last example above, that which is reported may be something other than speech, namely: 1) intentionality or 2) causation.¹

In Uṅarṅinjin 1) and 2) are predicated in exactly the same way (both of them resembling a form of reported speech). In order to understand how this is done, and how the construction by which it is done sometimes differs from the reported speech construction, it is necessary to raise some points regarding cross-clause coreference and person agreement.

Recall first that within a reported speech clause, all indexical categories are treated as though the speech situation of the reported utterance were being re-created, just as is true of direct quotation in languages which distinguish it from indirect. For purposes of person marking within that clause, 'ego' is the speaker of that reported speech, regardless of whether or not that same person is the one doing the reporting. Likewise 'tu' or 'addressee' is the addressee within the reported speech event, but not necessarily within the reporting event, and 3rd person or 'non-participant' is only specified as such for the reported speech event, and may in fact be a participant in the reporting event. There is, then, no cross-clause relationship of co-referentiality carried by the mere presence or absence of identical person features in the embedded clause and its matrix sentence.

¹That is, 'X made Y do Z'. This is not to be confused with the causal nexus of the -ṅari clause (section 3.3.1.1.2.3), which instead glosses as 'P because Q'.

But there are regularities of cross-clause coreference for \sqrt{ma} clauses of all kinds. These exist, not with respect to person features alone, but in the interaction of person and adjunct status. The rule for reported speech clauses (cf. Pike and Lowe 1969:87ff.) is that the subject of the framing verb has the same reference as any (+ ego) form(s) occurring in the clause it frames, and its 'object' (i.e. the adjunct cross-referenced by its pronominal suffix, if any occurs) has the same reference as any (+ tu) form(s) occurring in that clause. (Where such personal pronominal forms in the reported speech clause are grammatically non-singular, the reference of the matrix subject and object is 'included' (or 'excluded') according to the features +/- ego and +/- tu respectively). These patterns of coreference follow automatically from the existence of a framing verb of saying which takes the speaker as its subject (or 'agent') and addressee as its object (or 'patient'). To the extent that the existence of such verbs is a linguistic universal, it follows that these patterns are also universal.

The reason I have gone into these facts is that they provide one basis for a formal distinction between the reported speech \sqrt{ma} construction and the causative-intentional one. The rule regarding the subject of \sqrt{ma} is the same for both: among the NPs in the subordinate clause, it can share reference only with those which are specified as (+ ego). But with respect to the object of \sqrt{ma} , there is an important difference between these two constructions: while the feature specification which determines coreference with it in reported speech clauses is (+ tu), in causative-intentional clauses it is (- ego). Thus, while 'third person' or 'non-participant' NPs in reported speech clauses are excluded from coreference with the matrix object, they regularly enter into such a relationship when they occur within causative-intentional clauses. Indeed, 'non-participant' noun phrases are perhaps the *only* kind which ever enter into such a relationship, for there seems to be a prohibition against the occurrence of (+ tu) forms within the \sqrt{ma} -framed subordinate clause of a causative-intentional sentence (which, given the identification of (+ ego) forms with the matrix subject, leaves only the (-ego, -tu) or 'third person' forms as potentially coreferential with its object). These two interrelated characteristics - coreference of matrix object with subordinate (- ego) NPs rather than (+ tu) ones, and the non-occurrence of the latter - allow us, if we take reference as 'given', to distinguish the causative-intentional construction from the reported speech ones if an object is specified for \sqrt{ma} .

I now proceed to an exemplification of the causative-intentional construction with explicit object. Recall that a necessary (though not sufficient) condition for interpreting *any* clause as a causative-intentional complement is that its verb be in the 'future tense'. As a first gloss for each of these examples I give a 'literal' one which, I hope, brings out the underlying sense which allows this construction to serve as both a causative and an intentional one, and also shows its close affiliation with the 'reported speech' clause:

[wu]an wurumiyanga] budmaṛaṇarugu
 word 2-class-3 pl. - fut. - $\sqrt{\text{miyanga}}$ 3 pl. - $\sqrt{\text{ma}}$ -past-1 pl. irr. d.b.
 know

'They_i will know this word', they did with regard to us_i

or

They wanted us to know that word or They made us know that word

[djinda madnanga me njuṇu]u] ḡamerinu
 that one his wife food fem.-3sg.-fut.- $\sqrt{\text{ḡu}}$ 1sg.- $\sqrt{\text{ma}}$ -cont.-
 2sg. d.b.

'He_i will give food to this man's wife', I am doing re you_i

or

I want you to give food to this man's wife or (less plausibly) I am making you give food to this man's wife

[dambun -gu -ga iya] njinmeriṛa
 camp dat. int. masc.-fut.- $\sqrt{\text{a}}$ 2 sg.- $\sqrt{\text{ma}}$ -cont. - 1 sg. d.b.

Are you doing 'He_i will go to the camp' with respect to me_i?

or

Do you want me to go to the camp? or (less plausibly) Are you making me to go the camp?

[yinda waṇḡldj iroṛa] amaṛeṇḡu
 spear make masc.-3 pl.-fut.- $\sqrt{\text{w}_1}$ u - 1 sg. d.b. masc.- $\sqrt{\text{ma}}$ -past
 -3 pl. d.b.

'They_i will make a spear for me', he did with respect to them_i

or

He wanted them to make him a spear or He forced them to make him a spear

Note that even these sentences can only be barred from a 'reported speech' reading if as I have said, we take reference as 'given': each of them is homophonous with a 'reported speech' sentence having different coreference relations. To get the reported speech reading,

all one has to do is to change one of the referential indices in my first gloss to (*j*), indicating that the non-participant NP which is indexed in the subordinate clause is *not* coreferential with the matrix object, i.e. '*They_i will know this word*', *they said to us_j*, etc. Thus the distinction between these two constructions cannot be made on strictly formal grounds, but requires recourse to information about their reference in a given context.

But the grounds for such a distinction are lacking when the $\sqrt{\text{ma}}$ of the matrix sentence lacks an explicit object. The rule for subject coreference is the same for $\sqrt{\text{ma}}$ complement clauses of all kinds: the subject of $\sqrt{\text{ma}}$ is coreferential with, and only with, all first person pronominal elements in the complement clause. Hence there are $\sqrt{\text{ma}}$ complement clauses which are ambiguous among all three readings: reported speech, causative, and intentional, e.g.

[warma]a-yu njuminda] gudmaṛari
desert-lat. fem.-3 sg.-fut.- $\sqrt{\text{minda}}$ 2 pl.- $\sqrt{\text{ma}}$ -past-du.
he will take her

You two said 'He will take her to the desert'

or

You two said that he would take her to the desert

or

You two wanted $\left\{ \begin{array}{l} \text{her} \\ \text{him} \\ \text{me} \end{array} \right\}$ *to take her to the desert*

or

You two made $\left\{ \begin{array}{l} \text{him} \\ \text{me} \\ \text{her} \end{array} \right\}$ *take her to the desert*

Cross-clause coreference relations, then, do not always provide enough evidence for distinguishing between reported speech $\sqrt{\text{ma}}$ complement clauses and causative-intentional ones. But that is not the only kind of evidence which is relevant to the question. Another difference, which, when it appears, does so independently of any particular person-adjunct-coreference configuration, is that causative-intentional clauses, but not reported speech ones, are sometimes 'discontinuous', with part of the $\sqrt{\text{ma}}$ clause occurring *after* the $\sqrt{\text{ma}}$ verb which frames it. That is, in generative-transformational terms, causative-intentional clauses are optionally subject to some kind of movement rule(s) which transport some kinds of $\sqrt{\text{ma}}$ complement constituents out of the clause, so that they end up to the right of the $\sqrt{\text{ma}}$ verb in surface structure. Although my data are incomplete on the question of which elements may be moved in this way, or exactly how

'far to the right' they may be moved, it is clear that one element which cannot be moved is the verb (whether simple or compound), and that the main effect of these movements (their stylistic function, as it were) is to place the verb of the $\sqrt{\text{ma}}$ complement immediately before its framing $\sqrt{\text{ma}}$ verb, with the pair of them occurring as close as possible to the beginning of the whole sentence.

Again, it is only in causative-intentional $\sqrt{\text{ma}}$ clauses, never in 'reported speech' ones, that such movement is allowed. Thus an alternate version of the last example *in this causative-intentional reading only* is:

njuminda gudmaṛari warma!a-yu
 fem.-3 sg.-fut.- $\sqrt{\text{minda}}$ 2 pl.- $\sqrt{\text{ma}}$ -past-du desert-lat.

You two wanted $\left\{ \begin{matrix} \text{him} \\ \text{me} \end{matrix} \right\}$ *to take her to the desert*

or

You two made $\left\{ \begin{matrix} \text{him} \\ \text{me} \end{matrix} \right\}$ *take her to the desert*

where warma!a - yu has been moved out of the $\sqrt{\text{ma}}$ complement, and ends up to the right of the framing verb. Likewise, all of the non-verbal material occurring to the left of the $\sqrt{\text{ma}}$ complement verb in the examples on p. 162 may be moved over to the right of the $\sqrt{\text{ma}}$ verb.

The distinction between reported speech clauses and causative-intentional ones, then, is one which is supported by two quite different sorts of evidence, one involving patterns of cross-clause coreferentiality and the other having to do with the obligatorily continuous vs. optionally discontinuous nature of their (surface) structure.

But there is a third kind of evidence which not only supports that distinction, but also allows for a partial distinction on formal grounds between two kinds of $\sqrt{\text{ma}}$ complement which have hitherto been treated as different only in function, viz.: the causative and the intentional.

I have claimed above that any first person pronominal elements occurring within a $\sqrt{\text{ma}}$ complement clause of *any* type must be coreferential with the subject of $\sqrt{\text{ma}}$. But among the sentences I have given to exemplify the causative-intentional construction, there is none in which a first person pronominal occurs as the subject of the $\sqrt{\text{ma}}$ complement clause itself. To have used one would have confused matters by forcing me prematurely into another line of argument. For when the $\sqrt{\text{ma}}$ complement clause subject is a first

person one, we have a *different kind* of evidence for the reported speech/causative intentional distinction - one which has nothing to do with coreference. It turns out that in such cases, the presence of an object marker on $\sqrt{\text{ma}}$, rather than dictating distinct cross-clause coreference relationships for reported speech vs. causative intentional meanings, rules out the latter altogether. The following sentences, for instance, just because they have first-person subjects in the $\sqrt{\text{ma}}$ complement clause combined with the absence of overt $\sqrt{\text{ma}}$ objects, have only the 'reported speech' readings, as indicated:

[mindi - yali ada ŋiwa] ameṛeṛa

here indeed sit 1 sg.-fut.- $\sqrt{\text{w}_1\text{a}}$ masc.- $\sqrt{\text{ma}}$ -past-1 sg. d.b.

'Here I will sit', he told me or He told me he would
sit there

[njanjiruŋu!u djubago biri] gudmenanga

fem. 1 pl. ex.-fut.- $\sqrt{\text{ŋu!u}}$ tobacco b-class 2 pl.- $\sqrt{\text{ma}}$ -past-3 sg. d.b.

'We will give her tobacco', you people said to him

or

You people told him you would give her tobacco

Here then is a third piece of evidence for the two-way distinction made above. But what happens when first person $\sqrt{\text{ma}}$ complement clause subjects occur in sentences wherein the $\sqrt{\text{ma}}$ verb lacks an overt object? Those sentences are special in another way. Just when they contain an active (i.e. non-reflexive) form of $\sqrt{\text{ma}}$ as the framing verb, the ambiguity between 'reported speech' and other readings reappears. But now (i.e. when the $\sqrt{\text{ma}}$ complement clause subject is a first person one), another ambiguity - one which has hitherto been treated as pervasive - is resolved. No such sentence has both a causative reading and an intentional one. Just when the $\sqrt{\text{ma}}$ complement clause subject is first person, the sentence is disambiguated as between these two readings by the voice of the framing $\sqrt{\text{ma}}$ verb: if it is active, the construction is an intentional (or reported speech) one; if it is reflexive the construction is a causative one (the reported speech reading in this case being ruled out by the reflexive root suppletion discussed on pp. 103-104 above).

For example:

[ada ŋiwa] ama

sit 1 sg.-fut.- $\sqrt{\text{wa}}$ masc.- $\sqrt{\text{ma}}$

He says 'I will sit down' or He says he wants to sit down
or He wants to sit down but not *He makes himself sit down

vs.

[ada ŋiwa] amaren
 masc.-√ma-ref.-pres.

*He makes himself sit down and not *He wants to sit down
 or *any reported speech reading*

As a summary, Table 33 brings together all of the relevant variables by which the three kinds of \sqrt{ma} complement clauses may be distinguished from one another:

Table 33
 Features Distinguishing Types of \sqrt{ma} Complement Clause

Diagnostic Features	Type of \sqrt{ma} Clause		
	Reported Speech	Causative	Intentional
Tense of main verb in \sqrt{ma} clause	Can be of any tense	Future	Future
Coreference restrictions	Subject of framing verb is coreferent to [+ego] forms in \sqrt{ma} complement clause, and object coreferent to [+tu] forms	Subject of framing verb is coreferent to [+ego] forms in \sqrt{ma} complement clause, and object coreferent to [-ego] forms	
Is discontinuous constituency permitted?	no	yes	yes
May the framing verb take an overt object when the \sqrt{ma} clause subject is [+ego]?	yes	no	no
What is the voice of the framing verb when the \sqrt{ma} clause subject is [+ego]?	Active	Reflexive	Active

3.3.1.4. Higher Order Mode Predication

In the last chapter (section 2.4) I mentioned a set of Uŋarɪnjin words which, following Coate and Oates (1970:57) I called the 'mode particles', claiming that they comprised a class which was isolable on syntactic grounds inasmuch as each of them occurs only with verbs of certain of the 'basic' mode categories which are obligatorily indicated on the inflected verb. (For purposes of which definition

'future' must be considered as one mode, and [past and present] indicative as another.) What these particles seem to do semantically is to subcategorise those basic modes, much as the choice of auxiliary subcategorises the verbal particle for action type (as per section 2.2.13).

In order to construe the matter in this way - in order to see these particles as a functionally unified class implementing second-order distinctions of 'mode' - one has to be open to the possibility that 'modal' categories may serve functions which, from an Anglo-centric point of view, one might not expect them to serve (see, section 3.3.1.4.7).

On the other hand it is Uḡarĩnjin rather than English which, if the generative semanticists' conception of modality was on the right track, more closely reflects at the surface the underlying modal structure of natural languages. For insofar as Uḡarĩnjin implements its modal categories by means of the mode particles discussed here, it does so in a manner which, even at the level of surface syntax, looks like a form of higher-order one-place predication, much like the form of underlying structures which have been proposed to account for modality even in a language like English.

Although Uḡarĩnjin has an elaborate system of auxiliary verbs, none of the meanings of any of the roots has anything to do with modality. Nor do any of the inflected independent verbs. Though the language is rich in concord morphology, none of it is drawn upon to create the kind of surface structure (common in many languages) in which modality seems to be predicated of some particular argument of the sentence in which it occurs (as, for instance, in the English sentence: 'Lightning might strike us'). Instead there are these mode particles, which occur in construction with the whole sentence or clause with which they occur.

3.3.1.4.1. wa

The mode particle *wa* is one which was discussed and exemplified quite extensively in the last chapter (section 2.2.4) in connection with the morphology of the irrealis verb. The particle occurs *only* with irrealis verbs and serves to disambiguate them by specifying definite negation as opposed to the merely 'potentially negative' force of the bare irrealis verb.

Its position within the sentence is probably the least variable (least influenced by discourse considerations) of any of the mode particles: it almost always comes just before the verb unless there

is an adverb before the verb, in which case, the adverb usually intervenes between *wa* and the verb.

For examples of sentences including *wa*, see pp. 90, 95.

3.3.1.4.2. *buray*

This word is (etymologically anyway) the plural or 'b-class' form of the adjective *-ay*, which means *none*. The word is also used in isolation to mean *no*. But what is relevant here is a third use in which it functions just like the negative mode particle *wa*.

For example:

<i>buray</i>	<i>dalū</i>		<i>winjdjaw</i>		<i>ḡabun</i>
<i>not</i>	<i>pour out</i>	<i>w-class-2</i>	<i>sg.-irr.</i>	$\sqrt{w_1u}$	<i>water</i>
	<i>Don't pour out the water!</i>				

Although *buray* is used in this function much less frequently than *wa*, it seems to be an acceptable alternate form in every environment where the latter occurs. (The converse of course, is not true, since *buray* has other functions.) Just where it can substitute for *wa*, *buray* may be considered a mode particle.

3.3.1.4.3. *gadjinga*

This particle too occurs only with irrealis verbs, and has a negative force. But it specifies that the action, state, or relation described in the sentence in which it occurs is one which not only did not, does not, or will not happen, but also *could* not happen, one which is not merely *accidentally* non-actualised, but *necessarily* so under the circumstances presupposed by the speaker for the purposes of the utterances. Uḡarḡinjin speakers often gloss this meaning as *can't*, which is about as close an equivalent as one can find in English, but there are some important differences in the range of modalities implemented by Uḡarḡinjin *gadjinga* and standard English 'can't' (or 'cannot'). (Though in the various forms of pidgin English spoken by Ngarḡinjin people, the word can't is used in a way which brings it much closer to *gadjinga* than to the can't of Standard English.)

The difference between the latter two has to do with the relative sizes of the domain ('scope') over which they make their predictions. Standard English 'can' and 'can't' are ambiguous in this regard. In one use, which is perhaps not a 'modal' use at all, they predicate *of the subject NP* the ability or inability to perform the action,

or assume the state, described by the verb to which they serve as an auxiliary, e.g.

Peter can swim.

Sam can't play cribbage.

There is another use of can and cannot in which they conform much more closely to the conception of the underlying structure of modality discussed above (pp. 166-167). In this use they comment, not on the subject's ability, but on the possibility of impossibility of the state of affairs described by the entire clause or sentence in which the word occurs, e.g.

It can get very dry here in the summer.

I'm wondering whether she can be my long
lost mother-in-law.

No, that can't be her because she has a
mole on her nose.

What makes Uḡarɨnjin *gadjinga* different from Standard English 'can' is that it functions only in the latter of these two ways: it never predicates ability or inability of the subject only, but includes the entire clause or sentence within its scope.

For example:

wɔŋay buɖuŋari gadjinga wuɭa njargo
woman little can't talk fem.-1 pl. ex.-irr.- $\sqrt{w_1}u$

It's impossible for us to talk to that young woman

njindi - yali ɾambar-ŋi gadjinga njingini
she indeed mother-in-law-my can't fem.-irr.- $\sqrt{y_2}i$ -past

She can't have been my mother-in-law

3.3.1.4.4. *biyara*

This particle, which occurs only with irrealis verbs, is the 'positive' counterpart of *gadjinga*. If the latter means *cannot*, then *biyara* means *can*. But like *gadjinga*, and all the other mode particles, it occurs only in construction with whole clauses and sentences, which means it cannot be used in the same way as the Standard English 'can' in the first two examples above. This is perhaps the reason why it is usually glossed by native speakers, not as *can*, but as *might be*, English 'might' being an auxiliary which, unlike 'can', does predicate 'possibility' of its entire clause or sentence. (Note that 'can' and 'cannot' in the last three English examples above, but not in the first two, can be replaced by 'might' and 'might not' without much change in meaning, which provides support for my

distinction between two quite different kinds of can and cannot.)

Interestingly, in all varieties of pidgin English spoken by the Ngarinjin, the word *maydbi* (< English 'might be') is closer in its syntactic behaviour to an Ugarinjin verbal particle than to an English auxiliary: it is an uninflected element which, unlike the verbs of the Pidgin, occurs sentence-initially.

For example:

maydbi im ben ludjam dat olguman belona im
can he past loose that old woman poss. he
It is possible that his elderly wife has died

maydbi mindubela djidawm lona dinakem
can I du. ex. sit down loc. dinner camp
It is possible that he and I will stop for dinner

or

Suppose he and I stop for dinner

The use of *biyara* in Ugarinjin exactly parallels that of *maydbi* in Pidgin (with the additional requirement, of course, that the verb be marked for irrealis mode, a category for which the verb does not inflect in Pidgin).

For example:

biyara unguniyanga wulan di
can w-class-3 sg. sub.-irr.-√miyanga word(s) w-class
understand

It is possible that he understands that word

biyara bedja djaṛi njaṅaṅi
can already leave fem.-irr.-√a -past
She may already have left

This particle plays a part in some kinds of counterfactual conditional sentences (cf. pp. 154-155 above).

For example:

[*djalimbaran - guḍe nangiṅi - ṅari*] *biyara bodba*
feathers com. 1 sg.-irr.-√yi - subordinate can fly
clause

ṅaṅaṅi dambun mowaḷawa
1 sg.-irr.-√a - past territory distant

If I had had feathers, it would have been possible for me to have flown away to a distant land

For example:

menja amiŋi djaŋi manjirni
too bad altogether leave m-class 1 pl. ex. sub. - $\sqrt{w_1}u$ - past
 njarala dambun njadaga mindi muŋal bedja njayayiri
our home territory our m-class wrong marriage now 1 pl. ex.
 - \sqrt{a} - cont.

*Too bad we left our home territories altogether: now we are
 marrying in the wrong way*

or

*Because we unfortunately left our home territories, now we
 are marrying in the wrong way*

Interestingly, just where it participates in this kind of paratactic causal construction, menja sometimes seems to lose its 'disapprobative' meaning in favour of a purely causal one, e.g.

menja bađa waŋi minjinanga, gaŋangan
wings burn m-class - $\sqrt{y_2}i$ - past - 3 sg. d.b. *now*
 bađa dubala mure
wings red m-class-d.s. - $\sqrt{y_2}i$
they are

*Because his (i.e., the crimson winged parrot's) wings got
 burnt, those wings are red now*

3.3.1.4.7. yagu

This word is usually glossed by Uŋaŋinjin speakers as *try*, but its syntax is much different, both from that of English 'try' and from that of any kind of Uŋaŋinjin verb. It is not inflected for person, nor does it appear in combination with an auxiliary verb. Rather, it occurs sentence initially in construction with a separate simple or compound verb, which must be of a certain mode: imperative, optative, or future. Thus its surface syntax is that of a mode particle.

But can a word which glosses as *try* really have anything to do with modality? Or is its similarity to the mode particles a surface-structural coincidence? In order to answer that question, it is helpful first to note one important *difference* between *yagu* and the other 'mode particles'. In addition to the expected restriction to co-occurrence with certain grammatical modes, which in this case are imperative, optative, and 'future', there is a further restriction regarding the last mode: future verbs can co-occur with *yagu* only if the subject of the verb is a first person one.

Now consider, as a contrastive case, the semantics of the English word 'try'. Two things which seem to be necessary in order for an action to qualify as a try are:

- a) an intention on the part of the agent that a certain result, namely that described in the complement of the verb try, be effected by means of that action;
- b) uncertainty about whether that result will, in fact, come to pass.¹

Hence the strangeness of the following sentences:

- 1) Nixon didn't intend to cover up his involvement in Watergate, but he tried to do so.
- 2) I was certain that I'd see you at the masked ball and I tried to do so.

With respect to condition b), the question arises: In whose mind must the uncertainty exist - the speaker's or that of the person doing the trying? In my second example above, I have cleverly avoided this question by making them the same person. But where this is not the case (i.e. when the subject of try is something other than first person singular) what usually counts is the attitude of the person performing the action, not that of the speaker. Thus, in the contrast to example 2) above, the following sentence seems less strange:

I was certain that he'd see you at the masked ball
and he tried to do so.

But things come out differently when try appears in the imperative mode rather than the indicative. When that happens, the locus of relevant uncertainty shifts from the performer of the action over to the speaker. Hence the strangeness of the second of the following two examples, as opposed to the relative smoothness of the first:

I'm not certain you'll see him at the masked ball;
try to do so.

I'm certain you'll see him at the masked ball;
try to do so.

¹See Wittgenstein 1963:161, for a somewhat different condition purporting to do the same thing as this one, but couched in terms of 'difficulty' of accomplishment rather than uncertainty about a future state of affairs. While his condition fails to account for several of the examples adduced here, the condition given here accounts for his example more easily than his does. This is so, I think, just *because* my condition implicates more of 'modality' than his does, the meaning of try being more mode-like than may have been suspected, as this confrontation with yagu reveals.

This difference in the locus of uncertainty for imperative try is probably tied up with a more basic difference - in the locus of intentionality. The first of my two conditions on try above placed the intention solely with the agent of the action. But when the mood is imperative, things are actually more complicated than that. It may be that an intention on the part of the agent is still required. Hence the following sentence seems more than a bit strange:

Try to cover up my involvement in Watergate even
if you don't intend to do so.

But over and above (or perhaps behind) any intention which may be required on the agent's part, an intention to bring about the result described in the complement of try is definitely presupposed on the *speaker's* part. Hence the strangeness of:

Try to cover up my involvement in Watergate even
though I intend for there to be no whitewash
at the White House.

After this apparent digression into a rather arcane area of English verbal semantics, we are now in a position to return the question of what a particle which is glossed as *try* could have to do with modality. Both of the conditions on try developed above, the intentionality condition and the uncertainty condition, involve questions of modality, i.e. of the 'speaker's commitment with respect to the factual status of what he is saying' (Lyons 1968:307; cf. also Jakobson 1957) whenever:

- 1) *try* has a first person subject, or
- 2) *try* occurs as an imperative verb.

Only when the subject of indicative try is a non-first-person one does the speaker's attitude toward the proposition carried by its complement become irrelevant. Then and only then does the meaning of try lack a modal component.

Another thing to notice about this English verb is that it says two things (given in the two conditions developed above) which are logically independent of each other and could just as well be expressed separately, the combination of them implementing the same semantic complex as try.

Now suppose there is a language which lacks a verb of trying of the kind discussed here (i.e. one which takes a sentential or infinitive complement or equivalent), but does include among its regular grammatical modes one which means something like: 'I evaluate any yet-unrealised state of affairs which is projected by this

sentence as one which is not certain to come about'. Suppose further - what is less exotic - that the grammar of this language includes (tense)/mode categories which express speaker intentionality. Now, given the analysis of try developed above, it would be possible for speakers of our try-less language to construct the functional equivalent of a try sentence solely by means of the regular modal categories otherwise at her disposal.

Uḡarınjin seems to be just such a language. What English does with a higher verb, Uḡarınjin does by pairing imperative or other intentional forms of the verb with the sentence particle *yagu*, which means just what my account above describes. (Since the *minimal* gloss of this particle, given there, is quite unwieldy in its length, I gloss it simply as *uncertain* in my interlinear translations in the examples below. This should be read as an abbreviated form of that fuller gloss in each case.)

Examples of imperative sentences of this kind are:

yagu	bandumindaḡa		ḡala biri
<i>uncertain</i>	b-class ob.-	$\sqrt{\text{minda-}}$ 1 sg. d.b.	<i>meat</i> b-class
		<i>Bring it to me</i>	

Try to bring me some meat

yagu	bandug	bi
<i>uncertain</i>	<i>settled down</i>	imp. - $\sqrt{y_2}$ i

Try to settle down

Just as with imperative try in English, there is a presumption here on the part of the speaker that the intended result, the bringing of meat, or the settling down, is one which is not certain to come about, either because of the actor's inability to bring it about or because of some other circumstances beyond his control.

The same is true of *yagu* as used with verbs in the optative mode, e.g.

yagu	balja ide		wonay
<i>uncertain</i>	<i>go</i>	masc. ob. - 3 pl. sub. - $\sqrt{(\text{r})a}$	- opt. <i>women</i>
	<i>Let's try</i>	<i>letting women go</i>	<i>to him</i>

But it would be a mistake to consider *yagu* by itself to be the equivalent of try, for it predicates *only* uncertainty, and no element of the intentionality inherent in try, the latter being carried here solely by the verb itself.

That this is true of *yagu* in general is clear from the person restrictions on the other kind of 'intentional' verbs which co-occur with *yagu*, namely the so-called 'future' verbs. As mentioned above

(p. 172), they can enter into such co-occurrence only when the subject of the verb is a first person one. This agrees with the fact that, although future verbs with first or third person subjects may form intentional clauses when framed by a $\sqrt{\text{ma}}$ verb (as per p. 160ff.), only the first person forms have 'intentional' force when not embedded in a $\sqrt{\text{ma}}$ construction. It is because *yagu* by itself does not carry any intentional force that it may form try constructions only with those future forms which do carry such force.

Examples of such sentences are:

yagu *ɲariya* *bigdja - gu*
uncertain 1 pl. inc.-fut.- $\sqrt{\text{a}}$ *movies* *dat.*
We'll try to go to the movies or *Let's try to go to the movies*

yagu *iinj* *njiniyo*
uncertain *look at* 2 sg.-1 sg.-fut. - $\sqrt{\text{w}_1\text{u}}$
I'll try to look at you or *Let me try to look at you*

Note that if *yagu* were not limited to occurring with future verbs only when they have first person subjects as in these examples, it would either:

- 1) not be a purely modal particle, or
- 2) not be forming a try construction.

For if it were forming a try construction, the intentionality which would have to be signalled by the particle would be that of someone other than the speaker, which would remove part or all of its meaning from the sphere of modality (part of it if the 'uncertainty' which the particle would still have to carry were that of the speaker; all of it if it were that of the actor referred to by the subject of the verb).

But since *yagu* does not occur with non-first person future forms, there is no reason for not following the suggestion provided by its syntactic behaviour and declaring it a full-fledged mode particle.

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