Pronominal clitic variation in the Yapa languages
Some Historical Speculations.
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CONTENTS

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1.   Introduction[1]

Simpson & Withgott 1986:164 make one proposal about historical reanalysis in the proto-Warlpiri pronominal clitic template.[2] They argue (1986:156ff) that 'template morphology' is to be distinguished from 'layered morphology' as word-formation processes, and adopt earlier proposals that the Warlpiri pronominal clitics exemplify 'template morphology' (Hale 1973, Laughren 1977, Nash 1986 [1980], Swartz 1982).

In this paper I wish to propose another similar piece of evidence, my starting position for which being that of Hale 1973:339-40:

> … it is instructive to imagine what the historical antecedent of Walbiri agreement might have been like and, if possible, to examine a language which represents synchronically some antecedent stage in the imagined evolution. I think it is reasonable to propose that the source of pronominal clitics in Walbiri is in fact independent pronouns which, at some stage in the prehistory of the language, became unstressed and were attracted into clitic position (that is, second position) …

I concentrate first on a period not quite so far back in Warlpiri, and attempt to show how variation in present-day Warlpiri provides the basis for further deduction about the development of certain properties of the Warlpiri pronominal clitics, in particular the construal of the **-rla** and **-rla-jinta** enclitics with clause arguments in the Dative case.

Prior to the discussion of the Dative enclitics, I attempt a reconstruction of the pronominal enclitics of the smallest subgroup including Warlpiri. The is group was dubbed the Ngarrka (Ngargo) languages in classifications of the 1960s, but I propose substituting the name Yapa languages, following more closely the naming principle for other groups: while **ngarrka** is a term in all the languages of the group meaning '(initiated) man', **yapa** is the word meaning '(Aboriginal) person', the equivalent of names such as Ngumpin, Pama, Mari, Nyunga and so on.

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[1] I have met Harold Coate only once: one afternoon in mid-1988, when he welcomed Jane Simpson and me into his hut south of Derby. His good spirits and enthusiasm was infectious, and his dedication to work with Aboriginal languages very apparent.

This paper is also in memory of the late Paddy Patrick Jangala, who died at his home community of Lajamanu in September 1994. Jangala had a marvellous awareness of his native language, shown mostly through his lexical work in the composition of illustrative sentences.

[2] See also Muysken 1986, and Speas 1990 [in 1989 draft, pp. 253-274, §.3.4.3 The Structure of Warlpiri].

Aly Alyawarre
Anm Anmatyerre
Ar Arrernte
Arb Arabana
Gur Gurindji
Jar Jaru
Kay Kaytetye
Kuk Kukatja (WA)
Mud Mudburra
Nga Ngaanyatjarra
Ngn Ngarinyman
Ngr Ngari / Ngarti
Ny Nyininy
Pin Pintupi
Ptj Pitjantjatjara
Wlp Warlpiri
Wmj Walmatjari
Wpa Warlmanpa
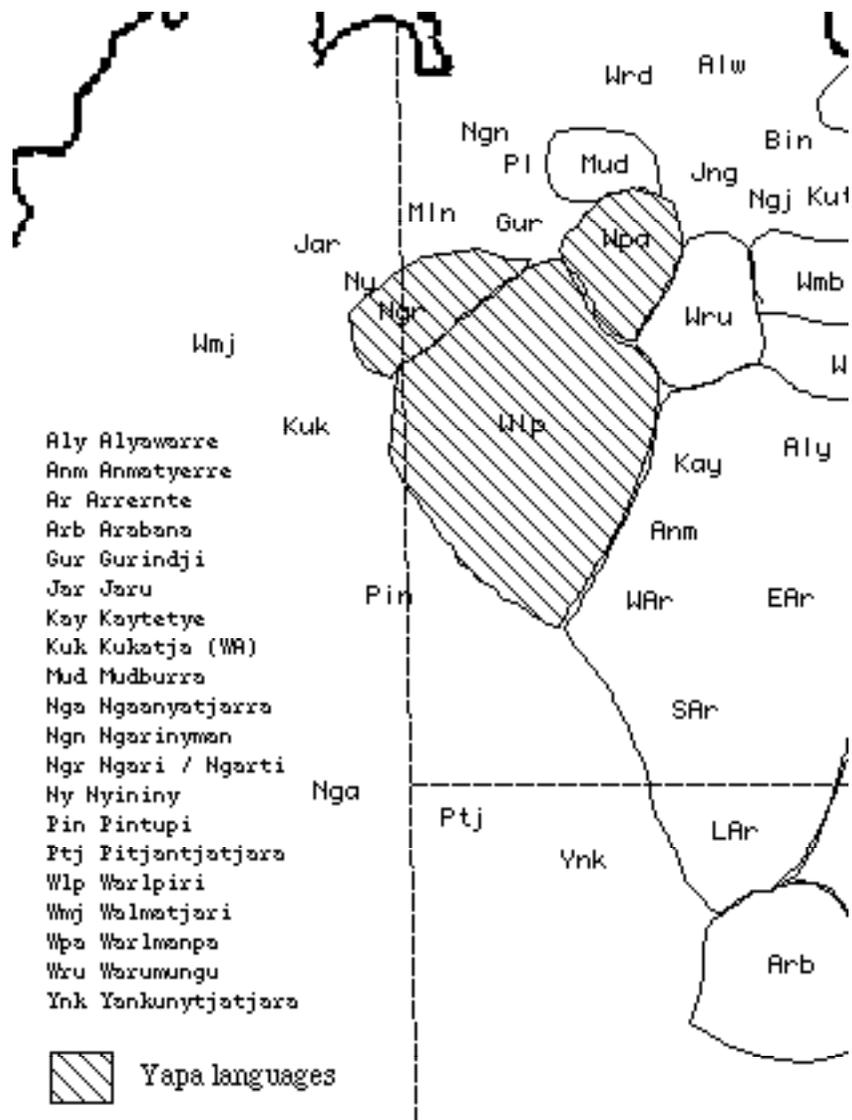Wru Warumungu
Ynk Yankunytjatjara

Yapa languages

Figure: The Yapa languages and their neighbours.

2.   The forms of the free pronouns

Table 0: Free pronouns in the Yapa languages

gloss	Warlmanpa	Warlpiri	Ngartily
1	ngayu	ngaju	
2	nyuntu	nyuntu	
3	(nyani-)	nyanungu	
12		ngali[3]	ngali(-kujarra)
11		ngajarra	
22	nyuntu-jarra	nyumpala	nyunpula
122		ngalipa	
111		nganimpa	
222		nyurrula	nyurrulangampurr

The numerals refer to the pronominal categories of person and number, following Hale, 1973a:315 and 1974:5 -- for instance, '11' means '1st person Exclusive Dual, I and he/she/it'.

It appears that Warlmanpa has undergone the greatest change with respect to free pronouns, it that it has lost the non-singulars (just as has its northern neighbour Mudburra). Warlmanpa **ngayu** 'I' shows lenition from ***ngaju**, attested in a few other roots; **ngayu** is also the Mudburra form.

Warlpiri shows one change: **nyumpala** shows assimilation from ***nyun-pVla** 'you.Dual'.

Ngartily has added **-ngampurr** to the 2nd person plural (cf. Warlpiri **ngampurr.pa** 'desirous'?), and is currently adding WD **kujarra** 'two' to **ngali**.

2.1.   Forms in adjacent languages

Table 3: Pronouns in adjacent Ngumpin languages.

gloss	Mudburra	Gurindji
1	ngayi	ngayu
2	nyuntu	nyuntu
3	nyani	nyantu
12	)	ngali
11	) kujarra 'two'	ngayirra
22	)	nyunpula
33		nyanpula
122	ngayi yukartu	ngaliwula
1222	)	ngaliwa
111	)tartu 'many'	ngantipa
222	)	nyurrulu
333		nyarrulu

Sources: Gurindji from McConvell 1980, Mudburra from McConvell 1980 and Nash 1984.

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[3] The late Paddy Patrick Jangala (p.c., Tennant Creek, 23 October 1986) volunteered the alternate **ngalijarra**, with regular pronoun Possessive form **ngalijarra-nyangu**.

3.   The forms of the pronominal enclitics

The pronominal enclitics have the forms shown in Table 1. The table does not show the complexities of relative ordering of the enclitics, or of the conditioning of their allomorphy. The anomalous position of **rla**, which can only be construed with an argument if it is Dative, is treated in the second part of this paper.

Tables 2 and 3 show pronominal enclitics in languages adjacent to the north-west, and south-west, of the Yapa languages, to show the sources of possible borrowing. For the bound pronouns of Warumungu, see Simpson 1990; the remaining adjacent languages, the Arandic group, lack bound pronouns.[4]

Table 1: Pronominal enclitics in the Yapa languages.

gloss	Warlmanpa		Warlpiri		Ngartily	
	subject	object	subject	object	subject	object
1	rna	ju	rna	ju	rna [~ -nya]	yi [~ -ju]
2	n(ku)[5]	ngu	npa / nku[5]	ngku	n(ku)[5] [-an ~-nta]	ngku
3	ø	ø	ø	ø	ø	ø
3 Dat		rla / jinta		rla / jinta		rla[4] / nyinta
Refl		nyanu		nyanu		nyanu [-nguninwali]
12	li	ngali	rli	ngali(ngki)[6]	(r)li	ngali
11	ja	jangu	rlijarra	jarrangku	(r)lijarra	jarrangku
22	n-pala	ngu-pala	n-pala	ngku-pala	npula	[ngkupula]
33	pala	palangu	pala	palangu	pula	pulany[7]
122	lpa-(lu)	lpangu	rlipa	ngalpa, ngalpangu (E)	rlipa	ngalpa
111	rna-lu	nganpa	rna-lu	nganpa, nganpangu (E)	rna-lu	[nganpa]
222	nku-lu	nyangu	nku-lu, npa-lu[8]	nyarra, nyurra[9]	nta [~ -nkulu ~ -nyanta]	nyurra [~-nyirra]
333	lu	jana	lu	jana	lu ~ li	yanu

The numerals refer to the pronominal categories of person and number, following Hale, 1973a:315 and 1974:5 for instance, '11' means '1st person Exclusive Dual, I and he/she/it'. These may be followed by 's' or 'o' to indicate a subject or non-subject form, respectively. Dialectal alternates

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[4] A partial exception is 1st sg. and 2nd sg. fused pronouns in Kaytetye: **atyene** '1s-2o', **ntethe** '2s-1o' (HJ Koch, p.c., 12/2/91).

[5] The 2nd sg allomorph **nku** occurs when another clitic follows, thus **nku-lu**, **nku-rla**.

[6] The late Paddy Patrick Jangala (p.c., Tennant Creek, 23 October 1986) observed to me that the longer alternate form **ngalingki** was "dying out" and **ngali** is more common.

[7] Note the combination **pulany** + **rla** is realised as **pulanyja**. An alternate form may be **pulan** (Lee Cataldi, pers. comm., March 1991).

[8] **npa-lu** is reported by Mary Laughren (p.c.), and Bavin & Shopen 1987.

[9] **nyurra** is a less common alternate of **-nyarra** (Hale 1973:328), and does not occur in Eastern Warlpiri.

are listed separated by comma (,), E marks Eastern Warlpiri; phonologically-conditioned allomorphs are separated by tilde (~). Parentheses or a slash mark off segments which occur only in a morphologically-conditioned allomorph. A — marks meanings for which the source has no data. Ngartily (Ngardi) forms in square brackets […] are from Lee Cataldi, pers. comm., March 1991.

3.1.   Proposed reconstruction

Table 2: Proposed pronominal enclitics in proto-Yapa.

*	proto-Yapa	
gloss	subject	object
1	rna	ju
2	n-	ngku
3	ø	ø
3 Dat		rla
Refl		nyanu
12	li	ngali
11	li-jarra	jarrangku
22	n-pVla	ngku-pVla
33	pVla	pVla-
122	lipa	ngal-pa
111	rna-lu	ngan-pa
222	nta(-lu)	nyVrra
333	lu	jana

Parentheses enclose segments which occur only in a longer form, possibly morphologically conditioned.

3.2.   Forms in adjacent languages

Table 3: Pronominal enclitics in adjacent Ngumpin languages.

	Jaru		Mudburra	
gloss	subject	object	subject	object
1	rna	yi, nya	rna	yi
2	n(i)	ngku	n(ku)	ngku
3	ø	ø	ø	ø
3 Dat		la		(r)la / jinta
Refl		nyanu, nyunu		pu(r)na, nyanu, nyunu [Gur]
12	li	(ng)aliny	rli, ?rlaangulu	ngali(nyu)
11	lija(rra)	(nga)jarrang(u)	li ~ lya	ngaliya
22	npula	ngkupula, ngkuwula	npula, npa	ngku-wula
33	pula, wula	pulany, wulany, etc	wula	puli ~ wuli
122	lipa, liwa	(ng)ali(m)pa	rla(w)a	ngala(wa)
111	rna-lu	(ng)anampa, etc	lya, (r)nali	nganta, ?ngalinyju
222	nta(lu)	nyurra	nta, n…lu	nyjurra(ngu)
333	lu	(y)anu, janu	lu ~ li	yina(ngu)

	Gurindji	
gloss	subject	object
1	rna	yi
2	n(ku)	ngku
3	ø	ø
3 Dat		rla
Refl		nyunu
12	rli	ngali
11	ja	ngayirra
22	npula	ngku-wula
33	wula	wuliny
122	rla(a)	ngala
111	rnalu	ngantipa
222	nta	nyjurra
333	lu	yina

Major dialectal alternates are listed separated by comma (,); phonologically-conditioned allomorphs are separated by tilde (~). Parentheses or a slash mark off segments which occur only in an allomorph, possibly morphologically conditioned. Jaru data from Tsunoda 1981; Mudburra simplified from McConvell 1980, Nash 1984; Gurindji simplified from McConvell 1980.

3.3.   Developments in each of the Yapa languages
In the following scenario I have tried to avoid postulating borrowing as a source of the modern language forms, unless there is specific contrary evidence, so as to see what phonological changes and paradigm restructurings would thereby be required to be postulated.

1. Lenition ***j > y** intervocalically, in Ngr: **yi** '1o', **yanu** '333o'; note the variation in the
   independent pronoun does not correspond exactly: Wpa **ngayu** '1' but enclitic **ju** '1s'.
2. Homorganic nasal-stop cluster simplification in Wpa: ***ngk > ng ngu** '2o', **jangu** '11o'.
3. rrV deletion intervocalically in Wpa ***lijarra > ja** '11s' and ***jarrangku > jangu** '11o',
   *nyVrra > nya.ngu '222o'.
4. Vowel deletion ***lipa > lpa** in Wpa '122s', possibly also in '11s' ***ljarra > ja** with also
   simplificattion of the ***lj** to **j**.
5. Generalisation of ngu object marking in Wpa **lpa.ngu** '122o', **nya.ngu** '222o', EWlp **ngalpa.ngu**
   '122o', EWlp **nganpa.ngu** '111o', Wpa and Wlp **pala.ngu** '33o'.
   Wlp **ngali.ngki** may be a more recent generalisation, since (i) it is still optional and (ii) the form
   still has the stop **k**; alternatively, it may contain **-ngki** '2o'.
6. Spread of ***lu** '333s' as a plural subject marker on **rna-lu** '111s' (Wpa, Wlp, Ngr) prior to the
   divergence of the Yapa languages, and subsequently optionally in Wpa **lpa(lu)** '122s'.
7. ***pula > pala** in Wpa, Wlp, in '33s', '33o', '22s'
8. **pa-**augmentation on consonant-final words in Wlp ***n > n.pa** '2s'; cf. Ngarla **nyin** 'you (sg.)'.
   Less likely in Wlp and Wpa **nganpa** '111o' and Wlp **ngalpa** '122o', where the **pa** may be older
   (Ngartily data lacking).
9. Only in Wlp, vowel harmony developed, and note also Ngr **lu ~ li** '333s'.

3.4.   Warlpiri dialectal variation

In addition to the dialect variants in some forms as listed in Table 1, there are other developments
peculiar to Warlpiri (or for which the detail of the Warlpiri data goes beyond our knowledge of the
other languages).

Warlpiri vowel assimilation produces two forms of any (subject or object) enclitic with a high
vowel. The high front vowel form (i.e. in /i/) of the enclitics in Table 4 follows a host-final /i/.

Table 4: Eastern Warlpiri pronominal enclitics with a high vowel

gloss	enclitic
12	-rli ~ -rlu
11	-rli-jarra ~ -rlu-jarra
122	-rlipa ~ -rlupa
222	-n-ku-lu ~ -nkili
333	-lu ~ -li
1o	-ju ~ -ji
2o	-ngku ~ -ngki
22o	-ngku-pala ~ -ngki-pala

Source: Simpson et al 1990:x-xi

Reflexive/reciprocal **-nyanu** never occurs with 1 sg. subject, and usually not with the singular
imperative; the singular object enclitic occurs instead.
In addition, the process of Dual Neutralisation applies, to a greater extent in eastern dialects, but
never allowing the subject-object clitic combination of two dual clitics. One or both is expressed
by the plural.

3.4.1.   Eastern Warlpiri

Table 5 shows the forms where Eastern (Wakirti) Warlpiri shows variation from the Yuendumu
Warlpiri pronominals in the table above.

Table 5: Distinctive Eastern Warlpiri pronominal enclitics

	subject	object

'1'		ji
'2'		ngu
'12'	rli	ngali
'11'	rlijarra ~ rljarra	jarrangu
'122'	rlipa ~ lpa	ngalpangu
'111'		nganpa(ku) ~ npangu
'22'		ngu-pala

Source: Simpson et al 1990:x-xi

The variation involves several factors:

1. underlying **ji**, occuring as **ju** after **u**

2. nasal-stop cluster simplification in Yuendumu Warlpiri **ngku** sequence

(i) stop deletion in **jarrangu**, **npangu**, and in **ngu(pala)**

(ii) no nasal in suffix on **nganpa-ku**

3.5.   *-ngku object marker ?

Warlpiri oblique clitics (esp. construed with DAT) have all but lost the nominal Dative **-*ku**, assuming this has descended as **-ng(k)V** (Simpson 1990). Compare Warumungu, where the clitics construed with DAT showed remnants of an addition -***ku** (other than in 1st and 2nd sg.) and **-ngkki** inversion marker (see Simpson & Withgott 1986:161). Relevant forms may be seen in Table 1, including:

3.5.1.   Western Warlpiri

Western Warlpiri has **-ng(k)V** as a separable part of pronominal enclitics with an assignable meaning only in one form:

     pala-ngu   '33o'

It is also the optional extension to one object enclitic:

     -ngali(-ngki)   '12o'

and the final syllable of a few other object enclitics:

     jarrangku   '11o'
     ngku   '2o'

3.5.2.   Eastern Warlpiri

Eastern (Wakirti) Warlpiri has additional object enclitics with -ngu as the final syllable, which furthermore is an addition to the corresponding Western Warlpiri form:

     -nganpangu   '111o'
     ?? -ngalpangu   '122o'

3.5.3.   Warlmanpa.

Of the Yapa languages, it is in Warlmanpa that the **-ngu** has spread the most: It occurs as a simple enclitic to the subject pronominal form in three Warlmanpa object enclitics:

     -pala-ngu   '33o'
     -ja-ngu   '11o'
     -lpa-ngu   '122o'

and is reinforced by ending two other object clitics (though not as a separable morpheme):

     -ngu   '2o'
     -nyangu   '222o'

4.   Warlpiri *-rla* enclitic

The details of the syntax of the **-rla** enclitic in Warlpiri are a subtle part of Warlpiri grammar, and especially given the paucity of native-speaker linguist commentary, it is relevant to survey the kinds of evidence available to us.

4.1.   'Classic' Warlpiri

Warlpiri pronominal clitics are subject to some variation. First, there is variation among the various communities which speak Warlpiri, along with many other properties of the language, which allow us to speak of Warlpiri having geographical dialects. For instance, the Eastern dialect (associated with the Hanson River and its floodout, and spoken at Alekarenge (Ali Curung) and Tennant Creek) is quite distinct from the Warlpiri spoken at Willowra, Lajamanu, or Yuendumu. Second, it appears that the speech differences between younger and older Warlpiri encompass differences in form of the pronominal enclitics.

It is difficult know to what extent the age differences in pronominal clitic use reflect a change in the language over time. The direct evidence for what constituted recent forms of Warlpiri are the contemporary recordings, so I first survey the extent of these. Partly no doubt because of the scarcity of documentation of Warlpiri prior to Hale's work in 1959, one can form a simple picture of the language, at least as spoken in the south-west of Warlpiri country (and now represented primarily by Yuendumu Warlpiri). The early records are consistent with the Warlpiri documented by Hale in 1959-67, which I refer to as 'classic' Warlpiri. 'Classic' Warlpiri is not pristine — it has many assimilated English loans, for instance — but it represents the language of Warlpiri whose English, if it existed, presumably had less interference with their native language than subsequently, and few of whom were literate. This Warlpiri is that of the current old generation, the avowed standard.

The oldest extant record of Warlpiri language is Michael Terry's 1928 list of 24 words (Terry 1930:342 Walmulla). N.B. Tindale, H.K. Fry, O.M. Pink and W.A. Long have left a record of Warlpiri vocabulary from the period 1932-44, while Howard H.J. Coate's 1949 notes are the oldest extant record of grapplings with the complexities of Warlpiri sentence grammar,[10] in particular the pronominal enclitics.

4.1.1.   Coate

Coate's study of Warlpiri occurred during his time at Yuendumu in its earliest years. The Yuendumu Settlement can be said to date from the first church service held there, in February 1947. The settlement was on a government Reserve and technically under the Northern Territory Administration (NTA) who employed Coate as a Patrol Officer at Yuendumu for over a year. He left Yuendumu the day before the Flemings arrived in 1949.[11] The Flemings were long-serving Baptist missionaries, and associates of Mr Laurie Reece, who later published a grammar and dictionary of Warlpiri, and who independently began his study of Warlpiri at Yuendumu about the same time as Mr Coate.

I first heard that Coate had made a study of Warlpiri from Mr & Mrs W.A. Long when I met them in Alice Springs in 1978. Mary Laughren, the Northern Territory Education Department Linguist at Yuendumu School, contacted Coate and he sent her a copy of the notes, which he also deposited at the AIAS Library in April 1979 (Coate 1949). This material is written or typed on foolscap sheets, some with the NTA (Northern Territory Administration) letterhead.

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[10] I have examined Pink's vocabulary file, and it contains a few examples of only one pronominal clitic that she recognised: **-rna** 'I', as in `yan'gooner' karkurrerer!` (sc. **yanku-rna kakarrara**) 'I go east (from here)'. There is also one example of **-lu** 'they': `bug'un'oo'loo` (sc. **paka-rnu-lu**) 'killed'.

I have only seen a small fraction of Miss Pink's extensive notebooks and manuscript material from her time among the Warlpiri, virtually none of which has been published, and it might be that further study of her material will show that she too had already made an analysis of Warlpiri verbal and pronominal morphology. Terry, Tindale, Fry and Long, it seems, recorded none.

[11] p.c., Mrs K. Fleming, Yuendumu, 19 April 1987. See also Long 1992.

Coate's Warlpiri notes show that he received some linguistic advice at the time from the Rev. R.M. Trudinger, who knew Pitjantjatjara. The notes use for Warlpiri an orthography which differs from the Pitjantjara one, however, and which differs from the modern Warlpiri orthography in the following correspondences:

modern Warlpiri orthography	p	t, rt	j	k	rn	ny	ng	rr, r	y
Coate's orthography	b	d	dj	g	<u>n</u>	ny	ŋ, ˜	r	j

Table 6 shows some of the pronouns (bound and free) discernible in Coate's notes, preserving his spellings. The modern free pronouns are added for comparison; for the modern bound pronouns, see Table 1.

Table 6: Pronouns in Yuendumu Warlpiri, after Coate 1949

	modern Warlpiri	Coate Warlpiri (in original orthography)		
gloss	free pronoun	free pronoun	subject	object
1	ngaju	˜adju	na, <u>na</u>	dju
2	nyuntu	njundu, njindu	npa	4gu
3	nyanungu	njanu4u, njana4u	ø	ø
3 Dat	nyanungu-ku	njana4ugu		
Refl				n(y)anu
12	ngali	˜ali	li	
11	ngajarra	˜adjara	na	
22	nyumpala	njumbala, njundudjara		
33	nyanungu-jarra	njana4udjara		
122	ngalipa	˜alimba	liba(lu), li:ba	
111	nganimpa	˜animba	na…lu	4anba, nimba
222	nyurrula	njurula, njarula		
333	nyanungu-patu	njana4ubandji[12] njana4ubadu	lu [?]	

Parentheses enclose segments which occur only in a longer form; alternates are listed separated by comma (,); … links halves of a discontinuous morpheme.

4.1.2.   Sources 1950-74

In the period before the advent of bilingual education in 1974, a few more researchers left a record of Warlpiri vocabulary: Capell 1952's sketch grammar, vocabulary from the ethnographers Nancy Munn, Mervyn Meggitt, Nicholas and Rosalind Peterson, and grammar and vocabulary from the missionaries Laurie Reece and Lothar Jagst. Apart from Capell 1952, there is a concentration on

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[12] The plural suffix '-bandji' (sc. **-panji**) is recorded by Coate also on the stem 'jali' (sc. **yali**) 'that'. This suffix occurs in modern Warlpiri only in certain kin expressions, such as **ngarrka-panji** 'group of members of mother's mother's subsection' and **kulu-panji**.'group of members of sister's child's subsection'.

vocabulary and short expressions in these sources. Coate and Capell are the only pre-1974 records of the pronominal paradigm.

Table 6a: Pronouns in Warlpiri, after Capell 1962 [1952]

	modern Warlpiri	Capell Warlpiri (in original orthography)		
gloss	free pronoun	free pronoun	subject	object
1	ngaju	˜adju	-∞a	-dja, -dju, -dji
2	nyuntu	njundu	-nba	-4gu
3	nyanungu	jali	-ø	-la or -ø
Refl				-njanu
12	ngali	˜ali	-li	-4ali
11	ngajarra	˜adjara	-lidjara	-djara4u
22	nyumpala	njumbala	-mbula	-4ubula
33	nyanungu-jarra	jalidjara	-bala	-bala, -bala4u
122	ngalipa	˜aliba	-liba	-liba
111	nganimpa	˜animba	-nalu	-nalu
222	nyurrula	njura	-ngulu	-njara
333	nyanungu-patu	jalidjana, jalibandji	-lu ~ -li	-djana

Source: Capell 1962 [1952]:34, 46, recorded in 1952 at Yuendumu and Phillip Creek (a precursor to Alekarenge).

  The pre-1974 textual material is mainly the voluminous transcriptions of Kenneth Hale, 1959-67. Lothar Jagst also recorded texts at Lajamanu, some of which were converted to machine-readable form (no longer extant) in Oklahoma 1971.

4.2.   The Warlpiri pronominal clitics template
The pronominal clitics are one of the more complicated areas of Warlpiri grammar. The details of their morphology, rules of forms, and construable arguments are set out in Hale 1973, and the role in clause structure also in Hale 1978. Of particular interest in the requirement that certain Datives be registered in the Auxiliary (Hale, 1978:48-50); and that 1st and 2nd person arguments must be represented in the Auxiliary.[13] In Nash 1986:59 I proposed a 'morpheme order chart', or 'template' (Simpson & Withgott 1986), for the Warlpiri Auxiliary.

    Complementiser   Tense/Modal Base   Subject   Object *rla*

The Auxiliary ends with slots for the pronominal enclitics, the forms of which are given in the comparative table above. I added that "the further Dative clitic **jinta** may occur after **rla,** and only occurs with **rla** immediately preceding." (1986:60) This was the analysis of:
(A)

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[13] Perlmutter, 1971:89-95 discusses Warlpiri pronominal clitics, and in particular the possible co-occurrence of clitics construed with ABS and DAT, but he does not consider **-rla** and **-jinta.** Costandi also 1975:106,113 addresses the data on **-rla**, in terms of a Turing machine model.

The clitics are subject to the following surface structure constraint, … :
Tense   Nom   Dat/Acc   *rla*   *jinta*   (Perlmutter 1971:89 (9)[14])
Such a formulation thus allows a combination with a (non-zero) non-subject clitic before **-rla-jinta**
such as:

-rna	*-jana*	*-rla*	*-jinta*
1s	333o	Dat	Dat

However, such a combination is ruled out by under an alternative template, such as that of Hale
1973:336-7:
(B)
> subject-object
> subject-dative
> subject-object-*rla* [15]

with **-jinta** arising only through "a late morphological rule which replaces a basic sequence
*-rla-rla by **-rla-jinta**."[16]
A concomitant difference between these two templates is the status of **-rla.** Under (A), **-rla** is **not**
a possible 'Dat/Acc' clitic, whereas under (B) it is a possible filler of the 'dative' slot. If a
template is to be preferred, *ceteris paribus*, when it avoids entering one morph in more than one
slot, then (A) is to be preferred.

4.3.   Contemporary Warlpiri

4.3.1.   Children

Bavin & Shopen 1987 report on a study of Yuendumu children's speech, principally the results of
a questionnaire. See also Bavin (forthcoming), Bavin & Shopen 1991. For instance, Bavin &
Shopen 1987 found that in their sample the free pronoun **nyuntu-jarra** 'you-Dual' was used by
children 30% of the time as opposed to the older form **nyumpala** 70% of thetime. Note that Coate
was taught in 1947 both "njumbala" (sc. **nyumpala**) and "njundudjara" (sc. **nyuntu-jarra**) for
'you-Dual', so the analytic form of the pronoun has been in use for more than a generation.
Table 7 also shows the bound pronominal forms where Yuendumu children's Warlpiri is
simplified from the adult Warlpiri pronominals (repeated for comparison).

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[14] Tense is in the schema representing the Auxiliary base as part of the environment of the
constraint, unlike the remaining items which represent pronominal enclitics subject to the
constraint.

[15] Based on this, Jelinek 1984:64 writes a "rough PS rule" (60) which generates not only the valid
sequence

> (clitic_{NOM}) (clitic_{DAT}) (clitic_{DAT})

but also the invalid sequence

> (clitic_{NOM}) (clitic_{ACC}) (clitic_{DAT}).

[16] The **-rla-rla —> -rla-jinta** rule is also used by Swartz 1982:70,78; his analysis predicts exactly
the same surface clitic combinations as Hale's. Swartz's analysis differs in not including **-rla** in
the subject-object template, but instead adding it to the template by a rule, ordered before the **-rla-
rla —> -rla-jinta** rule.

Table 7: Pronouns in Yuendumu children's Warlpiri

	modern Warlpiri	Yuendumu children's Warlpiri		
gloss	free pronoun	free pronoun	subject	object
1	ngaju			
2	nyuntu			
3	nyanungu			
3 Dat	nyanungu-ku			
Refl				
12	ngali		rna-pala	
11	ngajarra		rna-pala	ju-pala
22	nyumpala	nyuntu-jarra	npa-pala	
33	nyanungu-jarra			
122	ngalipa		rna-lu	ngapa ~ ngarrpa
111	nganimpa		rna-lu	ngapa ~ ngarrpa
222	nyurrula	nyuntu-rra	npa-lu	
333	nyanungu-patu			

Source: after Bavin & Shopen 1987 (Table 9, 10)

The changes exibited by the children's forms follow expected lines of language change, as discussed by Bavin & Shopen 1987, 1991:108. They refer to tendencies noted by Watkins and Kury¬owicz; note however that those tendencies have usually been observed of verbal paradigms. Further, the way in which the 3sg enclitic spreads in the levelling of the pronominal paradigm is not strictly as a base, in that the child **-pala** simply supplants adult portmanteau morphs, and **-lu** spreads only through generalisation of the existing adult form **-rna-lu**.

As Bavin & Shopen 1987 note, Laughren 1977 had reported **-rna-pala** as an alternate of **-rlijarra** '11s'; neither form occurs in Coate's notes. Reece 1970 has only the latter, and Reece 1979:192 has both forms (but assigns to **-rna-pala** a meaning '1111', a 1st person excl. pl. contrasting with purported trial).

4.3.2.   Eastern Warlpiri

Of the variant Eastern Warlpiri forms listed above, the ones that appear to have developed recently are in Table 8.

Table 8: New variant pronominal enclitics in Eastern Warlpiri

	subject	object
11	rljarra	
122		ngalpangu
111		npangu nganpaku

Source: Simpson et al 1990:x-xiii

The forms of Table 8 do not occur in the earlier records of Eastern Warlpiri. The **rljarra** form appears to be by vowel elision from **rlijarra**, cf. the spelling **Warlpri** preferred by some younger Eastern Warlpiri.

4.4.   The polysemy of *-rla-jinta*

Warlpiri *-rla-jinta* has at least four meanings, some pairs more relatable than others.

• 1 Comitative semantic case   (alternate *-ngka-jinta*), on N stems

• 2 Circumstantial Complementiser   on Infinitive (nominalised verb) stems, *-rla-jinta* has a restricted occurrence with the meaning of that the event of the Infinitive is a circumstance of the main event.

• 3 Pronominal enclitic combination
The pronominal enclitic sequence *-rla-jinta* occurs on the Auxiliary when there are two separate 3rd person Dative arguments.

• 4 Double Dative construction
The pronominal enclitic sequence *-rla-jinta* occurs on the Auxiliary in the Double Dative construction with 3rd person argument. This is a derived diathesis available to certain verbs, as described by Hale 1978 [1982]. A simple example is in:

Luwa-rnu   -rna-rla-jinta.
shoot   Past-1s-Con
'I shot at it.'

Hale & Laughren 1986 analyse this as a further instance of two Dative arguments.

4.5.   Status of *-rna-jana-rla-jinta* combinations
We saw in the discussion above on the Warlpiri pronominal clitics template that it is possible to extrapolate in two different directions from simpler Warlpiri pronominal clitic sequences. The it-rla Dative enclitic can be thought of as occurring principally in the slot of the other Object enclitics, or as immediately following the Object enclitic slot. The two extrapolations make different predictions about the occurrence of the twin Dative enclitics *-rla-jinta*.
The approximately 60,000 lines of Warlpiri material available in machine-readable form conform absolutely to the generalisation that *-rla-jinta* cannot follow any (non-zero) non-subject pronominal clitic.
Yet several Warlpiri speakers on different occasions have agreed that such a combination is well-formed and interpretable. I look next at the data from three young adult Warlpiri who have been interviewed on this topic.

4.5.1.   Robin Japanangka Granites
Granites, Hale & Odling-Smee 1976:14 (II The Case System, <A> Basic Grammatical Relations, Section 6 Addenda to the Basic Case System)

(b)	Ergative	Aux-rla-jinta	Dative	Verb
	watingki	ka-rla-jinta	marlu-ku	luwarni

The man is shooting at the kangaroo   OR
The man is trying to shoot the kangaroo

watingki   kapalangu-rla-jinta   marlujarraku   luwarni
The man is shooting at the kangaroos (two) OR
The man is trying to shoot the kangaroos (two)

watingki   kaju-rla-jinta   ngajuku   luwarni
The man is shooting at me   OR
The man is trying to shoot at me

The analysis of Hale 1973, valid for the speech of Hale's Yuendumu consultants to that date, is too restrictive for Robin Granite's speech, in not allowing the optional **-jinta** when the object clitic is

overt (non-zero).[17] In Robin Granites' judgement, **-rla** is added just to make a (non-zero) object clitic be construed with a DAT argument.

Verbs of perception **can** take **-rla(-jinta)** to mean 'try to V'; so *see* becomes *look for*, etc. The **-jinta** is optionally dropped with apparently no meaning change.

4.5.2.   George Jampijinpa Robertson

Comments on Carrier 1976:34[18]:

> (48) Ngaju karnarlajinta Japanangkaku kurduku marlaja-wangkami.
> 'Japanangka is causing me to speak to the child'
> (49) Ngaju karnangkurlajinta malikiki nyuntuku marlaja-wangkami.
> 'Japanangka caused me to speak to your dog.'

> — "Two datives but **not** three would seem acceptable" (48) = I am speaking for the child in place of Japanangka (because he confided the child to me).
> (49) was understood as ... 'nyuntuku=Japanangkaku' This sentence with 'jinta' is not accepted.

4.5.3.   Paddy Patrick Jangala

Paddy Patrick Jangala (p.c., Tennant Creek, 23 October 1986) accepted sentences such as:

> Luwa-rnu   -lu-jana-rla-jinta   (yapa-ku).
> shoot-NPast -333s-333o-Dat-Dat person-Dat

and gave an interpretation like 'They were throwing things at them because of it (e.g. to see if they were there)'. In sentences such as these, in other words, each non-subject enclitic is given a Dative argument interpretation.

4.6.   Speculative history

I seek to derive the enclitic **-rla** from the Locative case of the same form (the Locative allomorph on stems of more than two syllables).[19]

Stage	pronominal enclitics	enclitic combinations	meaning possibilities
I	none	**-rla**	Locative (on N)
		jinta	'one'
Ib	none	**N-[jinta]**	compounding
IIa	none	**[N-rla]-[jinta]**	'proto-Comitative'
IIb		**[V-INF-rla]-[jinta]**	(not essential to argument)
IIc	none	**[N-rla]-jinta**	'proto-Comitative'
		N-[rla-jinta]	

Let X be any word which hosted pronominal clitics at the relevant stage; possibly V, possibly any lexical category; **rna** stands for any subject enclitic, **jana** for any non-zero object enclitic.

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[17] Hale passed on these observations in an MIT class, March 1st 1976.

[18] Laughren's letter of 9 May 1977 to Ken Hale.

[19] The Locative as origin is also proposed for a similar verbal suffix **-la** in the Marrngu language Karajarri, by Sands 1989:100-103.

III	proto	**X-rna**	(intransitive clause)
		X-rna-ø	(transitive clause, 3sgABS or DAT object)
		X-(rna)-jana	
		X-(rna)-[jana-rla]	**jana** not construed as ABS
		X-(rna)-[jana-rla-jinta]	**jana** not construed as ABS
		NO **X-(rna)-ø-rla-jinta**	
		NO **X-(rna)-ø-rla**	
IV	pre-/modern	**X(-rna)-ø-rla-jinta**	OCCURS
		X(-rna)-ø-rla	OCCURS
		X-(rna)-jana-rla	
		X-(rna)-jana-[rla-jinta]	REANALYSIS: **jana** may be construed as ABS

At stage IV, **-rla(-jinta)** are extensions allowable on any object clitic to mark the use of a particular diathesis.

Va	pre-/modern	**X-rna-rla-jinta**	REANALYSIS
		X-rna-rla	
		X-(rna)-jana-rla	
		X-(rna)-jana-[rla-jinta]	

The motivation for the progression from stage III to stage IV is akin to Watkins' Law (Collinge 1985:239-40, cf. Kury¬owicz's Third Law, Collinge 1985:249-52), that the 3rd person singular is basic in verbal paradigm change, and that any 3rd person-singular ending is susceptible to being incorporated into the stem. Here we are not considering a verbal paradigm *per se*, but pronominal enclitics (which may be hosted by a constituent of various grammatical categories). And while the 3rd person ending (**-rla**) is not here incorporated into the stem, it does in my proposal replace an immediately preceding zero-morpheme.

In any case, as soon as **-rla** is taken as the 3sg DAT form, in the object slot of **-jana** etc., the possibility of **-rla-rla(-jinta)** arises. But there is a prohibition on **-rla-rla-**, presumably an instance of the Repeated Morph Constraint of Menn & MacWhinney 1984.

Vb		**X-(rna)-jana-rla**

Allows -**jana** to be construed with one DAT argument, and -**rla** with another, since -**rla** alone can support construal with a DAT argument.

As for the sequence **X-(rna)-jana-rla-jinta**, at stage V it is not crucial whether there is the possibility of construal of -**jinta** with a third DAT argument.

VI	modern/ classic	**X-rna-rla-jinta**	
		X-rna-rla	
		X-(rna)-jana-rla	
		NO **X-(rna)-jana-[rla-jinta]**	

Reanalysis, to allow only two non-subject clitic positions.
Consequently, a morphological rule arises: **-rla-rla —> -rla-jinta**

VII   modern   **X-rna-jana-rla**   **jana** is construed with ABS; **rla** is
                                                         construed with DAT

(possibly, for some speakers: only where the object enclitic construed with ABS is 1st or 2nd
person)

The generalisation holds that
    a phonologically consituted direct object clitic cannot co-occur with a dative clitic.
    (Hale 1973:333-4)
However, beginning with Laughren 1977:11, there has been elicitation of such sentences as (her
(21)):
    Ngajulu-rlu   ka-rna-ngku-rla   yi-nyi nyampu-ku.
    I-Erg   Pres-1s-2o-3DAT   give-NPast   this-Dat
    'I am giving you to this one.'
which shows the emergence of the last stage, VII.

4.7.   Semantics of enclitic *-rla*

Warlpiri enclitic **-rla**, as well as cross-referencing a Dative argument (whether overt or not) of the
predicate of a clause, has other uses where it is not clearly a co-referencing pronominal. These
include:
(a) reference to an oblique participant, which may have the meaning of an argument added by a
Dative Adjunct Preverb (such as **kaji** Benefactive, **marlaja** Causal), but where the preverb is not
expressed [get examples];
(b) 'environmental **-rla**' (a term due to Hale), as in
    Kala-rla   rangkarr-rangkarr-wanti-ja. [ML]
    Aux-3Dat   dawn-Redup-fall-Past
    'The rain fell right up to day break.'

    Yalirla-juku-lpa-rla   rangkarr-ka-ngu. [Winnie-Y]
    there-still-Past-3Dat   dawn-carry-Past
    'She was still there when day dawned on her.'

Sands 1989:100 proposes one of three meanings for Karajarri **-la**:
    Added to any verb (whether or not with the object suffix) to indicate a cause or
    affected noun.
Further, Karajarri **-la** is suffixed to the verb only; similarly in Nyangumarta. The situation in Jaru
is more similar to Warlpiri, in that the pronominal enclitics are not restricted to being suffixed to
the verb. And as Sands notes for Karajarri, and Gurindji,
    the suffix **-rla** has no equivalent in other person and numbers. It is not part of a
    paradigm set. (Sands 1989:94)

Hercus describes a verbal suffix **-la** in Arabana-Wangkangurru which has both Benefactive
('altruistic') and Causative uses. Hercus compares the causative use of **-la** with Pitta-Pitta **-la**, and
Arrernte **-ile** and **lilhe**.
    [T]he **-la** causative conveys only minimal or no participation from the person or object
    that is targeted. (Hercus 1991:146)
This is partly true also of Warlpiri **-rla** cross-referencing an argument of the Dative Adjunct
Preverb **marlaja**, the meaning of which is more like English 'thanks to' than 'caused by'.

5.   Problems

The relative ordering of the pronominal enclitics varies from language to language, and has to be
incorporated in the proposed historical development.

The privileges of occurrence of **-(r)la** are that of pronominal enclitics in the Yapa, Ngumpin and Marrngu languages, whereas **-la** is a verbal aspect suffix in the SA and Queensland languages.

6.   Conclusion

I propose that in the variation in modern Warlpiri pronominal enclitic possibilities, we see the tension between competing models, notably a template model and a phrase-structure rule model. This is in the spirit of Heath's generalisation:

> I often suggest that two or more distinct models, whether or not they make distinct factual predictions, may have some degree of psychological validity for native speakers. Essentially, I argue for the extension of variation models from the study of the social distribution of low-level surface forms (as in the quantitative sociolinguistics of W. Labov) to the study of abstract phonological representations and rules (even in some cases where the surface forms are perfectly stable). One justification for this approach is that it provides an important link between synchronic description and the analysis of historical change. (Heath 1987:5)

The inferred evolutionary history of Warlpiri pronominal enclitic sequences shows the tensions in the suggested reanalyses.

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