

The evolution of object enclitic paradigms in the Eastern Daly language family

MARK HARVEY

This paper examines the development of pronominal Object enclitic paradigms in the two members of the Eastern Daly language family: Kamu and Matngele. Information on the verbal structures of Kamu and Matngele, where these enclitics occur, is provided in Harvey (this volume, Chapter 6). For the purposes of this paper, the principal point to be noted concerning verbal structures in Kamu and Matngele is that there are prefixes to verbs which cross-reference the Subject. However, there are no prefixes which cross-reference Objects, and none can be reconstructed for Proto Eastern Daly. All cross-reference to Objects is via the Object enclitic paradigms. The Object enclitic paradigms of the two languages are obviously related to one another, and further some of the enclitic forms are also evidently related to the corresponding free pronouns.

However, the relationships both of the various Object enclitic paradigms to one another and of the Object enclitic paradigms to the free pronouns present considerable complexities. In order to unravel these complexities, it is necessary to examine a wide range of factors which are of importance in the evolution of Object enclitics generally. Comparison of Kamu and Matngele is of particular interest in elucidating some of the possible interactions between the various factors. The Kamu free pronoun, Direct and Indirect Object enclitic paradigms are set out in Table 1.

Table 1: Kamu free pronouns; Direct and Indirect Object enclitics

	Free Pronoun	Direct Object Enclitic	Indirect Object Enclitic
1 min	<i>nguru</i>	= <i>ngu</i>	= <i>akkurnung</i>
1+2min	<i>ngemu</i>	= <i>ngam</i>	= <i>rnay</i>
2min	<i>nungkurr</i>	= <i>niny</i>	= <i>rnun</i>
3min	<i>kurna</i>	= $\emptyset$ /= <i>rnung</i>	= $\emptyset$ /= <i>rnung</i>
1 aug	<i>ngerru</i>	= <i>wan</i>	= <i>warr</i>
1+2aug	<i>ngerru</i>	= <i>anan</i>	= <i>arrarr</i>
2aug	<i>nungkurr</i>	= <i>nungkun</i>	= <i>nungkurr</i>
3aug	<i>kurna(=wurr)</i>	= <i>wun</i>	= <i>wurr</i>

Nicholas Evans, ed. *The non-Pama-Nyungan languages of northern Australia: comparative studies of the continent's most linguistically complex region*, 185–201. Canberra: Pacific Linguistics, 2003. DOI:10.15144/PL-552.185

Copyright in this edition is vested with Pacific Linguistics.

- Morphemes bound by clisis allow for alternate orderings: the (a) and (b) orderings in (1) and (2) are equally acceptable. Morphemes bound by affixation appear in only one ordering. Morphemes bound by clisis can also alternatively appear as independent words (any of

the = signs in (1) and (2) could be replaced by a pause). This is not possible with affixation. Affixes may show lexically controlled allomorphy: the 1minS prefix shows a lexically controlled variation between *e-* in (1) and *a-* in (2). Clitics in Kamu and Matngele do not exhibit lexically controlled allomorphy.

The reconstruction of Object enclitics for Proto Eastern Daly raises issues both in the relationship of forms, and in the reconstruction of functions. We may begin by considering the marking of Objects in languages ancestral to the Eastern Daly languages. As previously stated, Object enclitics are the only form of Object marking that can be reconstructed for Proto Eastern Daly. This form of Object marking cannot be reconstructed for any more remote ancestral proto-language.

However Proto Eastern Daly is related to the non-Pama-Nyungan languages generally through its Subject prefixes (Harvey this volume, Chapter 16), and to Proto Gunwinyguan more specifically through its verbal system (Harvey this volume, Chapter 6). Both for the non-Pama-Nyungan languages generally, and for Proto Gunwinyguan more specifically, transitive prefixing, with cross-reference for Objects, can be reconstructed (Heath 1976, 1987). Therefore, transitive prefixing may be reconstructed for some proto-language, ancestral to the two Eastern Daly languages. Consequently, the Eastern Daly Object enclitic systems may be viewed historically as having replaced the previous system of transitive prefixing.

Among the non-Pama-Nyungan languages, there are two types of transitive prefixing systems. One type allows for the cross-reference of Indirect, as well as Direct, Objects, with an applicative prefix which indicates that the Object is Indirect rather than Direct. This type may be illustrated the following pair of sentences from Warray.

- (3) *Catpula-yi warri-pa pun-na-y muya mi pikirring-u.*
 old.man-ERG child-PL 3pIO-see-PP tucker got 3pl-DAT
 'The old man saw the kids and got tucker for them.'
- (4) *Catpula-yi warri-pa pun-na-y muya pun-nat-mi.*
 old.man-ERG child-PL 3pIO-see-PP tucker 3pIO-IO-got
 'The old man saw the kids and got them tucker.'

As shown in these two examples, the goal/recipient argument of the verb 'to get' may be coded in two ways. In (3), it is expressed by a free pronoun *pikirring-u*, which bears dative case marking. In (4), it is expressed by a prefix to the verb *pun-*. This prefix also cross-references the 'seen' argument of the verb 'to see'. The applicative Indirect Object prefix *nat-* indicates that the *pun-* prefix cross-references the goal/recipient argument of *get*, rather than the patient argument. A form lacking the Indirect Object prefix *pun-mi* would have to be interpreted as 'got them', where the prefix *pun-* would cross-reference a patient argument.

The other type of transitive prefixing system does not allow for the cross-reference of Indirect Objects, and has no equivalent of (4). The languages to the south and east of Kamu and Matngele: Wagiman, Jaminjung, Wardaman, are languages of this second type. These languages all have paradigms of dative free pronouns, in addition to paradigms of base free pronouns. Some or all of the forms in these dative paradigms cannot be analysed as regularly consisting of the corresponding base + the dative case marker. This may be illustrated with the Wardaman paradigms (Merlan 1994:108, 114 — the Wardaman dative case marker is *-u* /*k*_, *-ku* /[-cont]_, *-wu* / [+cont]_).

Table 3: Wardaman base and dative free forms

	singular	dual	plural
1-base	<i>ngayuku</i>	<i>yawung-kuya</i>	<i>ngarruk</i>
1-dative	<i>nganu</i>	<i>yawu</i>	<i>ngarruk-u</i>
1EX-base		<i>yirruk-kuya</i>	<i>yirruk</i>
1EX-dative		<i>yirruk-u-wuya</i>	<i>yirruk-u</i>
2-base	<i>yinyang</i>	<i>nurruk-kuya</i>	<i>nurruk</i>
2-dative	<i>yingki</i>	<i>nurruk-u-wuya</i>	<i>nurruk-u</i>
3-dative	<i>kunga</i>	<i>wurruku-wuya</i>	<i>wurruku</i>

In Jaminjung, these dative pronouns are commonly encliticised to verbs. In Wagiman, they are more rarely encliticised. In some languages, such as Gaagudju (Harvey 1992:333–338) and Patjiamalh (Ford 1990:101–102), Indirect Objects are the only types of arguments that can be cross-referenced by pronominal enclitics. Direct Objects in these two languages are cross-referenced by pronominal prefixes. There are no languages in Australia where the converse occurs: Direct Objects are cross-referenced by enclitics and Indirect Objects are cross-referenced by affixes. It does not appear that there any languages in the world which have this converse pattern. Therefore it would appear that if a language has a single set of Object enclitics, then that set of enclitics will minimally cross-reference Indirect Object functions. It may or may not also cross-reference Direct Object functions.

Neither Kamu nor Matngele has a distinctive paradigm of dative free pronouns, though the dative case marker *-rnung* may freely be suffixed to the base pronouns. Nonetheless, it would seem likely that the Eastern Daly Object enclitic paradigms originated through the enclisis of free pronouns in a dative/indirect Object function. In order to reconstruct the enclitic paradigm at this starting point, it is helpful to examine the functioning of the two paradigms in Kamu. This comparison illustrates a number of the factors which are relevant in the reconstruction of the Object enclitic paradigms. As an examination of Table 1 reveals, Object enclitics in the 3min category pattern differently from those in the other person categories in Kamu. The differences are illustrated in the following examples.

- | | | |
|-----|---|--|
| (5) | <i>Tey=ngu=Ø-ne-ng.</i>
see=1 minDO=3minS-see-PP
'He saw me.' | <i>Tey=Ø=Ø-ne-ng.</i>
see=3minO=3minS-see-PP
'He saw him.' |
| (6) | <i>Tey-ma=ngu=ku-yang.</i>
see-IMPF=1 minDO=3minS-go.PR
'He is looking at me.' | <i>Tey-ma=Ø/rnung=ku-yang.</i>
see-IMPF=3minO=3minS-go.PR
'He is looking at him.' |
| (7) | <i>Tey-ma=ngu=ku-wu-y.</i>
see-IMPF=1 minDO=3minS-Aux-SUBJ
'He wanted to see me.' | <i>Tey-ma=Ø/rnung=ku-wu-y.</i>
see-IMPF=3minO=3minS-Aux-SUBJ
'He wanted to see him.' |
| (8) | <i>Ngang=ngu=kaniny.</i>
give=1 minDO=3minS.go.PP
'He gave it to me.' | <i>Ngang=rnung=kaniny.</i>
give=3minIO=3minS.go.PP
'He gave it to him.' |

- | | |
|---|---|
| <p>(9) <i>Wart=akkurnung=Ø-rta-m.</i>
 <i>send=1 minIO=3minS-spear-PP</i>
 <i>'He sent it to me.'</i></p> | <p><i>Wart=rnung=Ø-rta-m.</i>
 <i>send=3minIO=3minS-spear-PP</i>
 <i>'He sent it to him.'</i></p> |
| <p>(10) <i>Ø-wa-rning=ngu.</i>
 <i>3minS-burn-PP=1 minDO</i>
 <i>'It burnt me.'</i></p> | <p><i>Ø-wa-rning=rnung.</i>
 <i>3minS-burn-PP=3minIO</i>
 <i>'It burnt him.'</i></p> |
| <p>(11) <i>Wa=akkurnung=kaniny.</i>
 <i>get=1 minIO=3minS.go.PP</i>
 <i>'He got it for me.'</i></p> | <p><i>Wa=rnung=kaniny.</i>
 <i>get=1 minIO=3minS.go.PP</i>
 <i>'He got it for him.'</i></p> |

The patterns of Object cross-reference that occur with categories other than the 3min are summarised in (12).

- (12) *Patterns of Object cross-reference for categories other than 3min*
- A. The Objects of bivalent coverbs are cross-referenced by the Direct Object enclitics — (5)–(7).
 - B. The Dative Object of the trivalent coverb *ngang* 'to give' is cross-referenced by the Direct Object enclitics (the patient/theme argument does not normally receive cross-reference — (8)). The Dative Object of the trivalent coverb *wart* 'to send' is cross-referenced by Indirect Object enclitics (9).
 - C. Directly affected malefactive Objects are cross-referenced by the Direct Object enclitics (10), even though they are not subcategorised.
 - D. Other types of non-subcategorised Objects are cross-referenced by the Indirect Object enclitics (11).

It may be observed that it would not be particularly felicitous to describe the Indirect Object enclitics as Dative enclitics for the categories other than the 3min. The patterns of Object cross-reference that occur in the 3min category are summarised in (13).

- (13) *Patterns of Object cross-reference for 3min*
- A. In Past Perfective clauses, the Objects of bivalent coverbs are cross-referenced by =Ø (5).
 - B. In other types of clauses, the Objects of bivalent coverbs may be cross-referenced by =Ø or by =rnung (6 and 7).
 - C. All other types of Objects are cross-referenced by =rnung (8–11).

In contrast to the other person categories, it does not appear infelicitous to describe =rnung as a Dative Object enclitic (it functions as the Dative case marker in both Kamu and Matngele). In Matngele, this enclitic =rnung marks human Objects generally, rather than Dative Objects. The connection between the two usages is obvious: Dative Objects are nearly always human. The development of Dative Object markers into markers of human Objects generally is well attested (Hindi, Spanish). The reverse pattern of development, from a marker of human Objects to a marker of Dative Objects, is not attested. Consequently, it would appear that Kamu preserves the earlier pattern of usage of =rnung, and that *=rnung may be reconstructed for Proto Eastern Daly as the '3min Dative Object' enclitic.

If we turn to the Augmented number, it may be observed that there is a virtual identity between the Kamu Indirect Object paradigm and the Matngele Object paradigm. Therefore the following augmented enclitics can be reconstructed.

Table 4: Reconstructed pED augmented enclitics

	Kamu IO	Matngele	pED
1 aug	=warr	=arr	*=warr
1+2aug	=arrarr	=arrarr	*=arrarr
2aug	=nungkurr	=nungkurr	*=nungkurr
3aug	=wurr	=wurr	*=wurr

Of these enclitics, only the 2aug =nungkurr relates to the corresponding free base pronoun. It is possible that the augmented enclitics are derived from a paradigm of dative pronouns like that of Wagiman, Jaminjung and Wardaman, distinct from the base pronouns except in the 2aug. If there was such a paradigm, then it has been lost in Kamu and Matngele.

The situation with the other minimal categories; 1min, 1+2min, and 2min, is rather more problematic. As in the augmented number, the Kamu Indirect Object and Matngele Object enclitic correspond in a straightforward way (14).

(14)	Kamu IO	Matngele	pED
1+2min	=rnay	=rney	*=rnay

There also appears to be a relationship between the 1min forms (15). The 1min form *akkurnung* in the Kamu Indirect Object paradigm appears to consist historically of a form **akku* plus the Dative case marker *-rnung*. This **akku* form may relate to the Matngele form *awa*, as there are correspondences between continuants in Matngele, and both single and geminate stops in Kamu: e.g. Kamu *teper* 'shoulder' vs Matngele *tewerr* 'shoulder', Kamu *appeny* 'brother' vs Matngele *eweny* 'sister'.

(15)	Kamu IO	Matngele	pED
1min	=akkurnung	=awa	*=akku(-rnung)

However, for both of these categories, the Kamu 1min and 1+2min Direct Object enclitics must be considered (16), as these appear to be reduced versions of the corresponding free pronouns, a not unexpected development for enclitics vis-a-vis free pronouns.

(16)	Free Pronoun	Direct Object enclitic
1min	nguru	=ngu
1+2min	ngemu	=ngam

The 1+2min enclitic preserves an earlier form of the first vowel than does the free pronoun (Harvey this volume, Chapter 10). This fact, and the irregular reduction of the two enclitics as compared to the pronouns, suggests that these two enclitics are also old and should be reconstructed for Proto Eastern Daly.

Further complications arise with the 2min category. In this category, the correspondence is between the Kamu Direct Object enclitic and the Matngele Object enclitic.

(17)	Kamu DO	Matngele	pED
2min	=niny	=ninyci	*=ninyci

In this case, there is also evidence for **niny(cu)* as a pronominal of some antiquity. The 2min free pronoun and General Object enclitic in Guwema are set out in (18).

(18)	Free Pronoun	Object Enclitic
2min	<i>niny</i>	<i>=ninycu</i>

The Guwema forms suggest that a 2min pronominal with the form **niny(cu)* has been present in the Daly region for some considerable time. This is further supported by evidence from Marramaninjsji and Marrithiyel which have *nany* as their 2min free pronoun.

This is not the only case where an Eastern Daly Object enclitic corresponds to a pronominal form in another Daly language. The Kamu 2min Indirect Object enclitic *=rnun* corresponds to the Malak-Malak 2min Object enclitic *=nunu*. The MalakMalak free pronoun and Object enclitic paradigms are set out in Table 5.

Table 5: MalakMalak free pronouns and Object enclitics

	Free Pronoun	Object Enclitic
1min	<i>nga</i>	<i>=arriny</i>
1+2min	<i>yengki</i>	<i>=nungku</i>
2min	<i>wangarri</i>	<i>=nunu</i>
3m min	<i>yöntön</i>	<i>=nö</i>
3f min	<i>nöntön</i>	<i>=ngayi</i>
3other min	(no form)	(no form)
1aug	<i>yewöt</i>	<i>=yörrö</i>
1+2aug	<i>yerrkit</i>	<i>=arrpurru</i>
2aug	<i>nukut</i>	<i>=nungkurru</i>
3aug	<i>wörröntön</i>	<i>=wörrö</i>

There would appear to be two criteria which would support the reconstruction of enclitics in Proto Eastern Daly. One is correspondence in enclitic forms between Kamu and Matngele. The other is correspondence of an enclitic form to a Proto Eastern Daly free pronoun. In accordance with these two criteria, the following enclitics may be reconstructed for Proto Eastern Daly.

Table 6: Reconstructed pED Object enclitics

	1	1+2	2	3
min	<i>*=ngu,</i> <i>*=akku(-rnung)</i>	<i>*=ngam,</i> <i>*=rnay</i>	<i>*=ninyci</i>	<i>*=Ø,</i> <i>*=rnung</i>
aug	<i>*=warr</i>	<i>*=arrarr</i>	<i>*=nungkurr</i>	<i>*=wurr</i>

There are two interrelated questions which arise in relation to this reconstructed paradigm. One is the distinction between the two forms which are reconstructable for the 1min and the 1+2min. The other is how the Kamu and Matngele paradigms might be related to this set of reconstructed enclitics. Given that a distinction between the two forms in the 1min and 1+2min appears only in Kamu, the most straightforward reconstruction is that Kamu

preserves the original distinction between the forms, with **=ngu* and **=ngam* having been Direct Object enclitics and **=akku(-rnung)* and **=rnay* having been Indirect Object enclitics.

Table 7: Reconstructed pED Indirect and Direct Object enclitic contrasts

1min Direct Object	<i>*=ngu</i>
1min Indirect Object	<i>*=akku(-rnung)</i>
1+2min Direct Object	<i>*=ngam</i>
1+2min Indirect Object	<i>*=rnay</i>
2min Object (Direct ? and Indirect)	<i>*=ninyci</i>
3min Dative Object	<i>*=rnung</i>
3min Non-dative Object	<i>*=Ø</i>
1aug Object (Indirect ? and Direct)	<i>*=warr</i>
1+2aug Object (Indirect ? and Direct)	<i>*=arrarr</i>
2aug Object (Indirect ? and Direct)	<i>*=nungkurr</i>
3aug Object (Indirect ? and Direct)	<i>*=wurr</i>

The derivation of the Matngele Object enclitic paradigm from this proposed proto-paradigm is straightforward. As already discussed, the distinction in the 3min has developed from a dative vs non-dative distinction into a human vs non-human distinction. In a structurally parallel development, the two specifically Indirect Object enclitics **=akku(-rnung)* and **=rnay* have extended their range to replace the corresponding Direct Object enclitics.

The derivation of the Kamu Object enclitic paradigms, by contrast, is not straightforward. The Direct vs Indirect Object distinction would have to be extended to all categories. In the case of the 2min apparently by borrowing a Malak-Malak form as an Indirect Object enclitic, and in the case of the Augmented categories by innovating a set of Direct Object enclitics related to the Indirect Object enclitics by an unusual /n-rr/ consonantism.

These possibilities for the development of the Kamu Object enclitic paradigms must be weighed against considerations relating to the structure of the proposed proto-paradigm in Table 7. The issue that obviously arises in relation to this paradigm is whether and how a distinction between Direct and Indirect Objects was marked in the 2min and in the aug categories.

As a first step in considering this issue, it is necessary to examine the synchronic structuring of Object enclitic paradigms in Australian languages, and the structuring of bound pronominal paradigms more generally. Some of the relevant patterns have already been discussed. If a language has both pronominal affixes and pronominal clitics cross-referencing Object functions, then the clitics will cross-reference Indirect Object functions and the affixes will cross-reference Direct Object functions. This is subject to the proviso that there are complete paradigms for both the affixes and the clitics. It is not uncommon for affixal paradigms to neutralise categories, or develop gaps. In this situation the clitics may cross-reference Direct Objects in these neutralised or gapped categories. This occurs in Kungarakany, the north-western neighbour of Kamu (Evans 1989). It is also incipient in Mayali (Evans pers. comm.).

A second important tendency is for Indirect Object enclitics to extend their range to marking Objects generally, thereby displacing previous cross-reference of Direct Objects, whether affixal or clitic marking (Evans 1989). Cross-cutting this tendency is the pressure for the maintenance of a distinction in marking between Direct and Indirect Objects. The combination of these two tendencies means that the distinction between Direct and Indirect Object cross-reference is likely to be continually eroded and re-created.

A different factor, also of considerable importance, is the distinction between minimal/singular number and augmented/plural number. If there is a number-based difference in the set of distinctions shown by a paradigm of pronominals, then it is predicted on general grounds that the minimal/singular category will show a greater set of distinctions than the augmented/plural number. This is not synchronically exemplified in any Australian language, but there are examples of number-based asymmetries in bound pronominal paradigms. Darkinyung and Awabakal have bound pronominals in the singular only (Dixon 1980:364). Kungarakany has Object enclitics, but only in the Minimal category. The Kungarakany Object enclitics, together with the corresponding free pronouns are set out in Table 8.

Table 8: Kungarakany Object enclitics and free pronouns

	Free Pronoun	Object Enclitic
1min	<i>ngirr-ka ~ ngirr-pa</i>	= <i>ngarrung ~ =arrong</i>
1+2min	<i>ngama-pa</i>	= <i>ngayong</i>
2min	<i>nginya-pa</i>	= <i>kingung</i>
3min	<i>kiny-pa-pa</i>	= <i>kini</i>

The Object enclitics function chiefly as Indirect Object enclitics, but they do have a limited function as Direct Object enclitics (Evans 1989). Patjtjamalh (Bachamal) has a complete paradigm of Indirect Object enclitics. However, the relationship between the Indirect Object enclitics and the free pronouns differs between the singular and plural numbers (Ford 1990:96).

Table 9: Patjtjamalh free pronouns

	Minimal	Unit Augmented	Augmented
1	<i>ngace</i>	<i>ngarra</i>	<i>ngarrara</i>
1+2	<i>ngangka</i>	<i>ngarra</i>	<i>ngarra</i>
2	<i>kane</i>	<i>nawarra</i>	<i>nawarra</i>
3m	<i>camuyic</i>	<i>pörra</i>	<i>parrmuyic</i>
3f	<i>cenymiyic</i>		

Table 10: Patjtjamalh Indirect Object enclitics

	Minimal	Unit Augmented	Augmented
1	= <i>ngarrkka</i>	= <i>ngarrang</i>	= <i>ngarrarang</i>
1+2	= <i>ngangkung</i>	= <i>ngarrang</i>	= <i>ngarrang</i>
2	= <i>wing</i>	= <i>nawarrang</i>	= <i>nawarrang</i>
3m	= <i>nöng</i>	= <i>pörrang</i>	= <i>pörrang</i>
3f	= <i>ngacang</i>		

A comparison of Tables 9 and 10 shows that within the singular category (not including the 1+2 combination), the free pronouns and Indirect Object enclitics are unrelated. Within the non-singular category (including the 1+2 combination), the Indirect Object enclitics consist of the corresponding free pronoun and a suffix *-(u)ng*. This suffix is most probably a reduced form of the Dative case marker *-nōng*, which as elsewhere functions as the 3min Indirect Object enclitic. The one exception is in the 3aug category where the 3UA form appears instead of a form corresponding to the 3aug free pronoun *parrmuyic*.

Given these various number-based asymmetries, it is therefore possible that in Proto Eastern Daly, the minimal number distinguished Direct from Indirect Object enclitics, whereas the augmented number had only one paradigm of Object enclitics. However, this would imply that there was a distinction between Direct and Indirect Object enclitics for the 2min. In this case, the obvious candidate would appear to be the Kamu 2min Indirect Object *=rnun* as a Proto Eastern Daly enclitic with the same meaning.

Table 11: Reconstructed Object enclitic paradigm, including 2min Direct/Indirect contrast

1 min Direct Object	*= <i>ngu</i>
1 min Indirect Object	*= <i>akku</i>
1+2min Direct Object	*= <i>ngam</i>
1+2min Indirect Object	*= <i>rnay</i>
2min Direct Object	*= <i>ninyci</i>
2min Indirect Object	*= <i>rnun</i>
3min Dative Object	*= <i>rnung</i>
3min Non-dative Object	*= <i>Ø</i>
1aug Object (Indirect ? and Direct)	*= <i>warr</i>
1+2aug Object (Indirect ? and Direct)	*= <i>arrarr</i>
2aug Object (Indirect ? and Direct)	*= <i>nungkurr</i>
3aug Object (Indirect ? and Direct)	*= <i>wurr</i>

However, under this reconstruction, the development of Matngele is problematic. In the 2min, the Direct Object enclitic would have extended its range to replace the Indirect Object enclitic. This pattern of development is the reverse of that found with the 1 and 1+2min, and contrary to general patterns of development.

The distinctive patterning of the 2min category suggests that person-based considerations need to be brought in to play. It is well known that address and second person reference, especially minimal address and reference, is a complicated and to some degree problematic issue in Aboriginal society. Indeed, this is probably true to varying degrees of all cultures. There is often more than one register for such address and reference. If forms from one register extend their range, then it is the forms from the more respectful/formal register that replace forms from the more familiar register. Respect is commonly indicated by obliqueness or indirectness. We have seen that the free pronoun *nungkurr*, which was historically a 2aug pronoun, has extended its range to include the 2min in Kamu, presumably via the well-known register-based replacement process.

I would suggest that a similar, and perhaps not unrelated, process has occurred with the Object enclitics. I propose that **=ninyci* was originally the 2min Indirect Object enclitic, and

that some other form, lacking reflexes, was the 2min Direct Object enclitic. The proposed paradigm for Proto Eastern Daly is set out in Table 12.

Table 12: Final reconstructed Object enclitic paradigm

1min Direct Object	*= <i>ngu</i>
1min Indirect Object	*= <i>akku</i>
1+2min Direct Object	*= <i>ngam</i>
1+2min Indirect Object	*= <i>rnay</i>
2min Direct Object	(unknown form)
2min Indirect Object	*= <i>ninyci</i>
3min Dative Object	*= <i>rnung</i>
3min Non-dative Object	*= $\emptyset$
1aug Object (Indirect ? and Direct)	*= <i>warr</i>
1+2aug Object (Indirect ? and Direct)	*= <i>arrarr</i>
2aug Object (Indirect ? and Direct)	*= <i>nungkurr</i>
3aug Object (Indirect ? and Direct)	*= <i>wurr</i>

In Matngele, *=*ninyci* has replaced the original Direct Object enclitic, as did the Indirect Object enclitics in the 1 and 1+2min. The course of development in Kamu is summarised in Table 13.

Table 13: Semantic change in the development of Kamu 2min Object enclitics

	2min DO Fam	2min DO Respect	2min IO
pED	Form X	Form X	*= <i>ninyci</i>
Pre-Kamu Stage 1	Form X	*= <i>ninyci</i>	*= <i>ninyci</i>
Pre-Kamu Stage 2	*= <i>ninyci</i>	*= <i>ninyci</i>	*= <i>ninyci</i>
Kamu	= <i>niny</i>	= <i>niny</i>	= <i>rnun</i>

The original Indirect Object enclitic *=*ninyci* became a respect register form for Direct Objects, and then the sole Object form. This course of development parallels that of the pronoun *nungkurr* in Kamu. It also parallels the synchronic situation in Kungarakany. Kungarakany generally has prefixal cross-reference for Direct Objects. However, there is no prefixal cross-reference for combinations of third person acting on 2min. In this combination, the enclitic =*kingung* must be used to cross-reference the 2min Direct Object (Evans 1989). However, as Kamu otherwise maintains a distinction between Direct and Indirect Object enclitics, a new Indirect Object enclitic =*rnun* was borrowed from Malak-Malak, to re-establish the Direct vs Indirect Object distinction for the 2min.

This then leaves the question of whether the augmented category distinguished Direct from Indirect Objects. There are two possibilities. One is that Proto Eastern Daly was like Kamu and distinguished the two. Under this hypothesis, Kamu maintained the distinction, and presumably the forms. Matngele, on the other hand, extended the Indirect Object forms to cover all Object function, as it did in the minimal. The proto-paradigms reconstructable under this hypothesis are set out in Table 14.

Table 14: Hypothesis #1

	DO	IO
1 min	*= <i>ngu</i>	*= <i>akku(-rnung)</i>
1+2min	*= <i>ngam</i>	*= <i>rnay</i>
2min	Unknown form	*= <i>ninyci</i>
3min	*= $\emptyset$ (Non-dative)	*= <i>rnung</i> (Dative)
1 aug	*= <i>wan</i>	*= <i>warr</i>
1+2aug	*= <i>anan</i>	*= <i>arrarr</i>
2aug	*= <i>nungkun</i>	*= <i>nungkurr</i>
3aug	*= <i>wun</i>	*= <i>wurr</i>

The other alternative is that there was only a single set of Object enclitics in the augmented, and that these descend as Indirect Object enclitics in Kamu, with the Kamu Direct Object enclitics being innovations. The proto-paradigms under this hypothesis are set out in Table 15.

Table 15: Hypothesis #2

	DO	IO
1 min	*= <i>ngu</i>	*= <i>akku(-rnung)</i>
1+2min	*= <i>ngam</i>	*= <i>rnay</i>
2min	(unknown form)	*= <i>ninyci</i>
	Non-Dative	Dative
3min	*= $\emptyset$	*= <i>rnung</i>
	Object	
1 aug	*= <i>war</i>	
1+2aug	*= <i>arrarr</i>	
2aug	*= <i>nungkurr</i>	
3aug	*= <i>wurr</i>	

The first hypothesis is to be preferred as the innovation of a set of Direct Object enclitics is an unusual development. However, there are other factors which suggest that this hypothesis cannot be dismissed simply because it is unusual. Firstly, the two augmented Object enclitic paradigms in Kamu are morphologically related by an /n-rr/ consonantism, which is in itself highly unusual. Secondly, the most immediate relation between free and bound pronominals is the identity between the 2aug pronoun and Indirect Object enclitic, both of which are *nungkurr*. Given that **nungkurr* is an old form, this suggests that the 2aug Direct Object enclitic *nungkun* is based on *nungkurr* and not the reverse. By extension, this would suggest that the other Kamu Direct Object enclitic forms are based on the corresponding Indirect forms and not vice versa.

This direction of morphological relationship appears to receive further support from the fact that a plausible source, in semantic terms, can be provided for the /n/ found in the Kamu augmented Direct Object enclitics. A Direct Object prefix, which may be reconstructed as **n*, is found in the noun class and pronominal prefix paradigms of many northern languages

(Heath 1987). Kungarakany and Warray, the northern neighbours of Kamu, are among the languages showing reflexes of this prefix in their pronominal prefix paradigms. However while this Direct Object prefix seems a promising source for the /n/ found in the Kamu Direct Object paradigm, there is a lack of any plausible mechanism by which the two may be related.

As we have seen the Object enclitics, when relatable to some other forms, relate either to free pronouns or to dative case markers. No northern language has a paradigm of free Direct Object pronouns involving an /n/ affix. Indeed northern languages generally lack a distinctive paradigm of Direct Object pronouns altogether. This is true of Kamu and all its neighbours. There is no motivation for reconstructing such a paradigm for Proto Eastern Daly.

The other alternative would be that Kamu had calqued the /n/ Direct Object enclitics on the /n/ Direct Object prefix constructions of its northern neighbours, Kungarakany and Warray. This hypothesis entirely lacks plausibility with Warray. Kamu and Warray do not otherwise show any diffusional commonalities. The **n-* prefix is only segmentable in Warray at a very abstract level, as a comparison of the Warray Subject and Object prefix paradigms in Table 16 shows.

Table 16: Warray Subject and Object prefixes

Subject	Minimal	Augmented	Object	Singular	Plural
1	<i>at-</i>	<i>i-</i>	1	<i>pan-</i>	<i>in-</i>
1+2	<i>ma-</i>	<i>i-</i>	2	<i>ana-</i>	<i>in-</i>
2	<i>an-</i>	<i>a-</i>	3	<i>Ø-</i>	<i>pun- ~ pin-</i>
3	<i>Ø-</i>	<i>pa-</i>			

The calquing hypothesis is slightly less implausible with Kungarakany. Kungarakany and Kamu show one old similarity. Kungarakany has a prefix *ki-*, which is found on adjectives and part nouns. Many adjectives in Kamu and in Matngele, including a number of reconstructable forms, have a now completely lexicalised initial syllable *ki-* ~ *ku-* ~ *kun-* which is probably historically related to the Kungarakany prefix. The **n-* in the Kungarakany prefix paradigms is somewhat more obviously segmentable than in Warray.

Table 17: Kungarakany Subject and Object prefixes

Subject	Non-Future	Future	Object	Minimal	Augmented
1 minS	<i>arr-</i>	<i>arrV-</i>	1	<i>kan-</i>	<i>ngi-rri-n-</i>
1+2 minS	<i>ma-</i>	<i>ma-</i>	1+2	<i>ma-n-</i>	<i>ku-rru-n- ~ ku-n-</i>
2 minS	<i>ngi-</i>	<i>ngi-</i>	2		<i>ni-rri-n-</i>
3 minS	<i>Ø-</i>	<i>ka-</i>	3	<i>Ø-</i>	<i>pu-rru-n- ~ pu-n-</i>
1 augS	<i>ngi-rr-</i>	<i>ngi-rrV-</i>			
1+2 augS	<i>ku-rr-</i>	<i>ku-rrV-</i>			
2 augS	<i>ni-rr-</i>	<i>ni-rrV-</i>			
3 augS	<i>pi-rr-</i>	<i>pi-rrV-</i>			

However, the hypothesis still remains implausible with Kungarakany. The two languages do not evidence any significant degree of diffusion. The factoring out of the /n/ from the Kungarakany paradigms would still be an exercise with a considerable degree of abstractness. Consequently, the apparent relationship of the /n/ in the Kamu augmented Direct Object paradigms with the *n- found extensively in prefixal paradigms must be viewed as unproven, and possibly simply the result of chance.

Nonetheless, it still remains the case that the augmented Direct Object paradigm appears to be based on the Indirect Object paradigm, and not the converse. As such, the augmented Direct Object enclitics appear to be an innovation, either in Kamu or alternatively in some later stage of Proto Eastern Daly. Therefore, while the proto-paradigms in Table 14 are the preferred reconstruction, the reconstruction in Table 15 cannot be rejected.

A related issue, which arises whatever the reconstruction or sequence of reconstructions is chosen, is a consideration of the types of relationships between free pronouns and Object enclitics. We have seen that the 2aug free pronoun is identical to the Kamu Indirect Object enclitic and the Matngele Object enclitic. The other relationship is between free pronouns and Kamu Direct Object enclitics.

(18)	Pronoun	Kamu DO
1min	<i>nguru</i>	<i>=ngu</i>
1+2min	<i>ngemu</i>	<i>=ngam</i>

We have seen that the Eastern Daly languages descend ultimately from a language with transitive prefixing for Direct Objects, and that the Object enclitics most probably descend ultimately from free pronouns encliticised as cross-reference for Dative/Indirect Objects. The appearance of *=ngu* and *=ngam* as Direct Object enclitics in Proto Eastern Daly, therefore, presumably arises through the sequence set out in (19).

- (19) *Presumed development of Object enclitics*
 Pronoun encliticised as cross-reference for Indirect Object
 > Enclitic for Objects generally
 > Direct Object enclitic with new Indirect Object enclitics.

This sequence may be extended to the 2min category, and is illustrated for the non-third person minimal categories in Table 18.

Table 18: Illustration of development for 1 and 2 person Object forms

		Pronoun	DO cross-ref	IO cross-ref
pED – Stage 1	1min	* <i>nguru</i>	Prefix	*= <i>ngu</i>
	1+2min	* <i>ngemu</i>	Prefix	*= <i>ngam</i>
	2min	*X	Prefix	*= <i>Y</i>
pED – Stage 2	1min	* <i>nguru</i>	*= <i>ngu</i>	*= <i>ngu</i>
	1+2min	* <i>ngemu</i>	*= <i>ngam</i>	*= <i>ngam</i>
	2min	*X	*= <i>Y</i>	*= <i>Y</i>
pED – Stage 3	1min	* <i>nguru</i>	*= <i>ngu</i>	*= <i>akku(-rnung)</i>
	1+2min	* <i>ngemu</i>	*= <i>ngam</i>	*= <i>rnay</i>
	2min	*X	*= <i>Y</i>	*= <i>ninyici</i>

However, there are problems in extending this sequence to the 3min. The equivalent sequence for the 3min is illustrated in Table 19.

Table 18: Equivalent, problematic development of the 3min Object form

	Pronoun	DO cross-ref	IO cross-ref
Stage 1	* <i>kurna</i>	Prefix	*=Ø
Stage 2	* <i>kurna</i>	*=Ø	*=Ø
Stage 3	* <i>kurna</i>	*=Ø	*= <i>rnung</i>

It is most unlikely that 3min Indirect Objects were originally cross-referenced by a null enclitic. No enclitic system in Australia has a null enclitic for 3min Dative/Indirect Objects. Languages which do not have base pronouns for the third person, have substantive 3min pronouns in dative/possessive paradigms, as exemplified by the Wardaman paradigms in Table 3.

There are two possibilities as to the original, substantive, 3min Indirect Object enclitic. One is that *=*rnung* is the original form. Alternatively, some other form, lacking synchronic reflexes, was the original form. It seems unlikely that *=*rnung* was the original form. If it was the original form, then the prediction is that it would have become the marker for human Objects generally, when the other minimal Indirect Object enclitics extended their ranges to become general Object enclitics.

Table 19: Hypothesis: original 3min IO was =*rnung*

	Pronoun	DO cross-ref	IO cross-ref
Stage 1	* <i>kurna</i>	Prefix	*= <i>rnung</i>
Stage 2	* <i>kurna</i>	*= <i>rnung</i> (human)	*= <i>rnung</i>
Stage 3	* <i>kurna</i>	*= <i>rnung</i> (human)	*= <i>rnung</i>

We have seen that the 3min category patterns differently from the other categories, when there is a distinction in Object enclitic paradigms. Consequently, it is possible that *=*rnung* would have continued to cross-reference Indirect Objects, when new Indirect Object enclitic forms were innovated elsewhere in the minimal category.

If some other form was the original 3min Indirect Object enclitic, then the predicted course of development for the 3min in Proto Eastern Daly is set out in Table 20.

Table 20: Hypothesis: original 3min IO was some other form, =X

	Pronoun	DO cross-ref	IO cross-ref
Stage 1	* <i>kurna</i>	Prefix	*=X
Stage 2	* <i>kurna</i>	*=X (human)	*=X
Stage 3	* <i>kurna</i>	*=X (human)	*= <i>rnung</i>

This is not the reconstruction for the 3min in the stage of Proto Eastern Daly immediately preceding its break-up. This stage has *=Ø as its 3min Direct Object enclitic (Tables 14 and 15). In considering the marking of 3min Direct Objects, the universal preference for cross-

referencing 3min Subjects and Direct Objects with null morphemes is of importance. Given this preference it appears plausible that an enclitic cross-referencing only human Direct Objects could be displaced by null cross-reference. As such, there would be a fourth stage to the sequence:

	Pronoun	DO cross-ref	IO cross-ref
Stage 4	* <i>kurna</i>	*= $\emptyset$	*= <i>rnung</i>

The complex relations between free and enclitic pronominals, and the very different paths taken by the Object enclitic paradigms in Kamu and Matngele argue that these paradigms are rather unstable diachronically. This instability derives from the interaction of the factors listed in (20).

(20) *Factors behind the diachronic instability of the Object enclitic paradigms*

- A. The tendency for Object enclitics to expand from their minimal range of cross-referencing Indirect/Dative Objects to become general Object markers. This expansion in functional range means that the core vs peripheral opposition is no longer coded.
- B. A countervailing tendency to create new ways of coding the core vs peripheral opposition.
- C. The role of the Minimal category as the unmarked category.
- D. Respect registers, and their effects on the second person categories, particularly the 2min category.
- E. The preference for null cross-referencing of 3min Direct Objects.

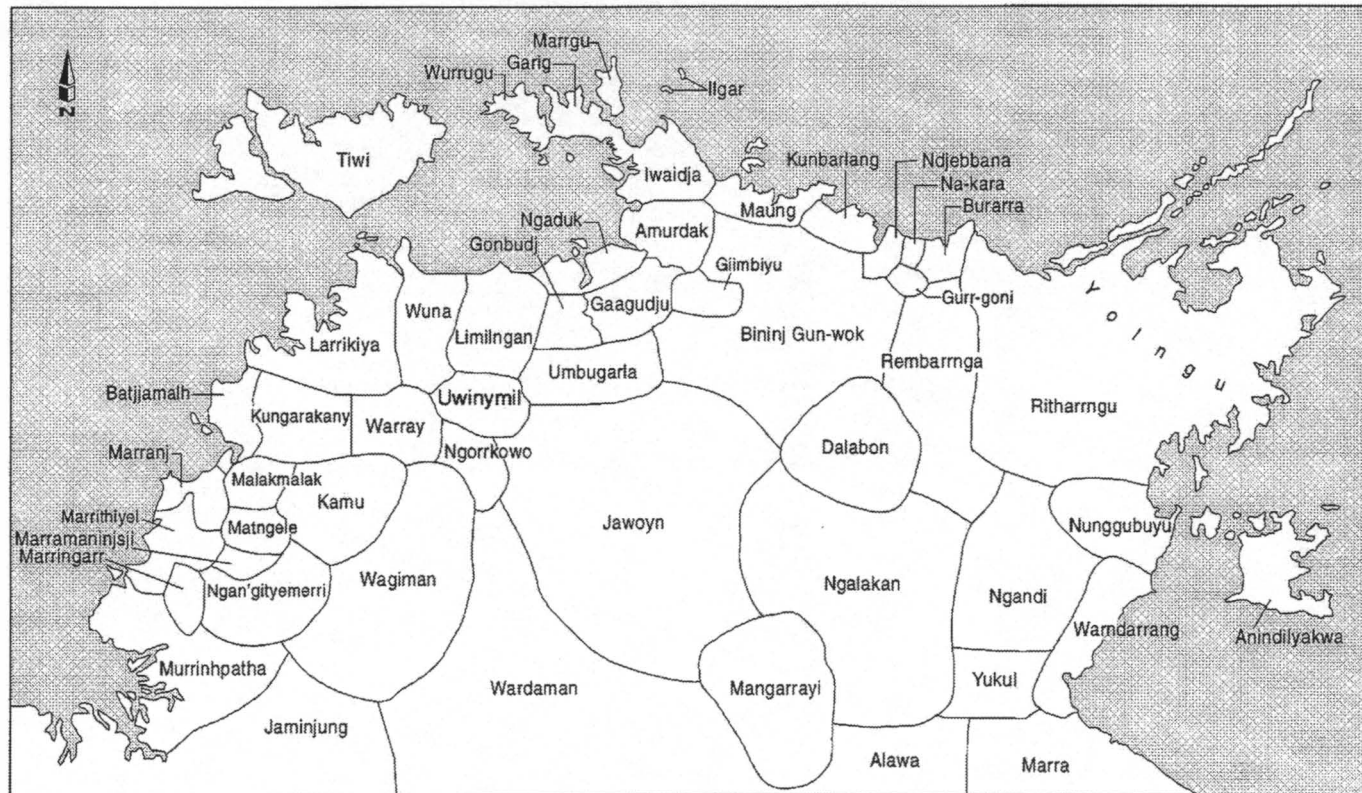
The factors in (20) have all played a role in the evolution of the Object enclitic paradigms of Kamu and Matngele. They also appear to be of relevance to the evolution of Object enclitic systems in the other languages of the region: Kungarakany, Guwema, Kenjdjerramal, MalakMalak, and Patjtjamalh. Comparison of the Kamu and Matngele systems with each other, and among the languages of the area, shows that there is no single determinate pattern of interaction between these three factors. Rather there are many possible patterns of interaction which could produce a variety of outcomes.

References

- Dixon, R.M.W., 1980, *The languages of Australia*. Cambridge: Cambridge University Press.
- Evans, Nicholas, 1989, Linguistic convergence in the North Daly: the case of Wadyiginy, Pungu-Pungu and Kungarakany. Paper presented at Non-Pama-Nyungan Workshop, Monash University, September 1989.
- Ford, Lysbeth J., 1990, The phonology and morphology of Bachamal (Wogait). MA thesis, ANU, Canberra.
- Harvey, Mark, 1992, The Gaagudju people and their language. PhD thesis, University of Sydney.

- Heath, Jeffrey, 1976, Substantival hierarchies: addendum to Silverstein. In R.M.W. Dixon, ed. *Grammatical categories in Australian languages*, 172–190. New Jersey: Humanities Press. Australian Institute of Aboriginal Studies Linguistics Series 22.
- 1987, The story of *-n-: *CV- vs *CV-n- noun-class prefixes in Australian languages. In D. Laycock and W. Winter, eds *A world of language: papers presented to Professor S.A. Wurm on his 65th birthday*, 233–243. Canberra: Pacific Linguistics.
- Merlan Francesca, 1994, *A grammar of Wardaman*. Berlin: Mouton de Gruyter.

IV. Arnhem Land



Map 3: Languages of the Top End