

# VERB AFFIXES FROM CASE MARKERS

## SOME AUSTRALIAN EXAMPLES

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### 1. Introduction

In this paper a number of resemblances between case markers and verb affixes in Australian languages are pointed out, and it is suggested that a recurrent development is the extension of case marking to verbs. These case markers may be added directly to the verb root or there may be one or more stem-forming formatives between the verb base and the case marker. It is argued that there are two common sources for these stem forming suffixes, namely the proprietive or 'having' suffix and tense/aspect markers reanalysed as stem-forming suffixes. In the final section of the paper a few examples are given of case markers with a verbal origin.

### 2. Preliminaries

#### 2.1 Methodology

Where there is identity between a case marker and a verbal affix of related function there is prima facie evidence of a common origin. This identity may be complete identity of single morphs or of sets of allomorphs, or it may be an identity that is only apparent after allowance has been made for the effect of phonological change operating in two different environments. Of course formal identity is no guarantee of a common origin, since there may be accidental homophony. A clear indication that a common origin underlies two similar forms with similar functions is to be found where another dialect or language exhibits a different root in the same pair of functions. Another indication is parallelism involving more than one pair of markers within the same language. Both these indications can be illustrated from Kala Lagaw Ya (Kennedy 1984:156ff). Table 1 displays the case markers and the verbal affixes that resemble them. Since the resemblance between *-pa* (allative) and *-pa* (incompletive) in dialect 1 (Saibai, Dauan, Boigu) is matched by a resemblance between *-ka* (allative) and *-ka* (incompletive) in dialect 2 (Mabuyag and Badu), it is highly likely that the matches are not fortuitous, particularly as there is a common semantic thread. The allative signals destination, what is aimed at, and iricompletive refers to an activity that has not been fully carried out. The other interesting point about Kala Lagaw Ya is the fact that there are matches between five cases and five tense/aspect markers. Any single match could be dismissed as fortuitous, but the parallelism covering five matches is a highly suggestive indication that there has been a transfer of affixes from one domain to another.

TABLE 1. Kala Lagaw Ya

case	marker	verb function	marker
nominative	∅		
ergative	<i>-n</i> <sup>1</sup>	completive	<i>-n</i>
accusative	<i>-n</i> <sup>2</sup>	completive	<i>-n</i>
locative	<i>-flu</i>	immediate past	<i>-nu</i>
comitative	<i>-ia, -pu</i>	habitual	<i>-pu</i>
ablative	<i>-ngu</i>	yesterday past	<i>-ngu</i>
allative (dialect 1)	<i>-pa</i>	incompletive (dialect 1)	<i>-pa</i>
allative (dialect 2)	<i>-ka</i>	incompletive (dialect 2)	<i>-ka</i>

<sup>1</sup> The ergative marker *-n* occurs on common nouns.

<sup>2</sup> The accusative marker *.n* is found on singular pronouns. It also occurs with masculine proper nouns in accusative and genitive function (Kennedy 1984:165).

Kennedy sees the use of the same markers on nouns and verbs as evidence that there are abstract categories that manifest themselves in two domains. While not denying this, I would suggest that it is likely that the markers in question spread from nouns to verbs, since it is generally agreed that forms used for abstract categories develop from forms used for more concrete categories. The categories found with nouns, certainly the local cases, are more Concrete than the categories found with verbs. There is one other point to be illustrated from the Kala Lagaw Ya data and that is the fact that the marker for completive aspect, namely *-n*, resembles both the ergative marker and the accusative marker. This highlights the hazardous nature of identifying forms. One can give a post hoc explanation' for an ergative-instrumental developing into a completive or for an accusative developing into a completive. It may be that the completive derives from neither.

## 2.2 The data

The languages of Australia can be classified into a dozen or so families.<sup>3</sup> One of these families, Pama-Nyungan, covers all of the mainland except for an area in the north of the continent running from Dampier Land to the Gulf o Carpentaria (see map). I refer to the non-Pama-Nyungan languages of the north of the continent collectively as the Northern languages (Blake 1988).

Most of the data in this paper derives from Pama-Nyungari languages. This is partly because there is more data available from Pama-Nyungan sources and partly because there are fewer case markers in Northern languages, none at all in languages in the western part of the Top End.

The data is from published sources augmented by my field notes for Kalkatungu and I. hanima and my field notes and Gavan Breen's for Yalarnga and Pitta-Pitta. There is virtually no data other than lexical extant from the languages of Tasmania so they are excluded.

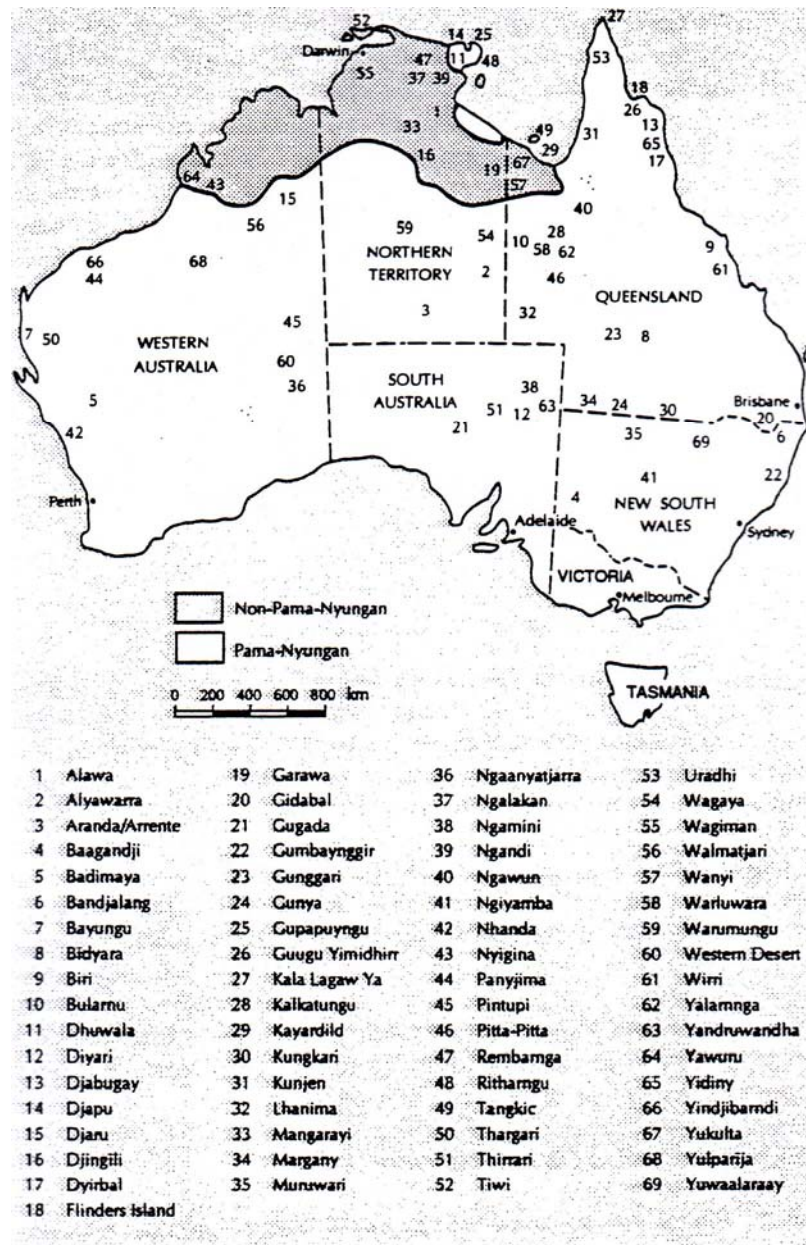
## 2.3 Orthography

The data in the sources has been transcribed into a standard system as shown in Table 2. In Pitta-Pitta and some related languages and dialects there are three rhotics; besides the alveolar flap (*tr*) and the retroflex glide (*r*) that are common in Australian languages there is a trill. This is represented by *rh*. In most languages there is no voice distinction in stops and I have generally transcribed the notation of my sources. Where I have standardised, *it* is in favour of the voiceless series.

TABLE 2. Orthography

	laminal			apical		
	labial	dental	palatal	alveolar	retroflex	velar
stop	<i>p/b</i>	<i>th/dh</i>	<i>ty/dy</i>	<i>t/d</i>	<i>rt/rd</i>	<i>k/g</i>
nasal	<i>m</i>	<i>nh</i>	<i>ny</i>	<i>n</i>	<i>rn</i>	<i>ng</i>
lateral		<i>lh</i>	<i>ly</i>	<i>l</i>	<i>rl</i>	
rhotic				<i>rr</i>	<i>r</i>	
semi-vowel			<i>y</i>			<i>w</i>

<sup>3</sup> The classification is largely lexicostatistical and was originally produced by O'Grady, Wurm & Hale (1966). See also O'Grady, Voegelin & Voegelin (1966).



There are typically only three vowels: *i*, *a* and *u*, sometimes with a length distinction yielding *ii*, *aa* and *uu*. The notation *T* will be used, as in Table 3, to indicate a series of stops (*th*, *ty*, *t* and *rt*) where the choice is determined by the environment. The notation *TH*, *NH* will be used to indicate a laminal. Some Australian languages have the six series of stops and nasals shown in Table 2, but others have only one laminal series. According to Dixon 1970, the ancestral language had a single laminal series. The notation *TH* indicates a proto-laminal stop that typically shows up as a palatal before *i* in a double laminal language and a dental before *a* and *u*. Similarly the notation *NH* indicates a proto-laminal nasal that shows up as a palatal nasal before *i* in a double laminal language and as a dental before *a* and *ii*. In a *single laminal language* there is, of course, only one possibility and this laminal is conventionally represented as a palatal. The notation *TH*, *NH* is also used to represent laminal morphophonemes that are realised as dentals or palatals according to environment.

### 3. Verb inflection deriving from case inflection

#### 3.1 Introductory remarks

The verb affixation illustrated from Kala Lagaw Ya in Table 1 is atypical in that it consists of monosyllabic or even monophonemic markers.<sup>4</sup> In a typical Australian language, certainly in a typical Pama-Nyungan language, there are a few suffixes consisting of a single syllable or perhaps a single phoneme and another group, usually larger, which is polysyllabic or consists of a consonant plus a syllable (e.g. *-nku*). Both internal and cross-language comparisons suggest that these longer suffixes have a polymorphemic origin and that in the majority of instances there are matches between a formative of the verb suffix and a case marker. The following inventory of verb suffixes in Kalkatungu is typical (Blake 1979a)

present	<i>0</i>	imperfective	<i>-minha</i>
past	<i>-nha</i>	perfective/sequential	<i>-mpa</i>
future	<i>-mi</i>	possibility	<i>-miya</i>
imperative	<i>-ya</i>	participle	<i>-n<sup>y</sup>in, -t<sup>y</sup>in</i>
		imperfective participle	<i>-manhthi</i>
		habitual	<i>n<sup>y</sup>t<sup>y</sup>rangu</i>
		purposive	<i>n<sup>y</sup>t<sup>y</sup>aaya</i>

A comparison of the last three suffixes listed here with other forms in the language suggests that *-manhthi* contains a locative marker *-thi*; *-nytyangu* a locative marker *-ngu*, and the purposive a dative marker *.aya*.<sup>5</sup> It should also be noted that suffixes like *-mpa* and *-nytyangu* have shapes that are unlikely roots. One would naturally expect the nasal to have an origin separate from that of tollows.<sup>6</sup> Note in passing that *-minha* and *-miya* may be built on *-mi* which shows up as the future tense marker. There is also reason to believe *-n<sup>y</sup>in* and *-t<sup>y</sup>in* have a compound origin, so it seems all the verb suffixes that are longer than one syllable have a polymorphemic origin.

In the following subsections examples of matches between case markers and formatives of verb suffixes will be grouped into dative-purposive matches (section 3.2), matches in nominal and verbal aversive forms (3.4), matches between local case markers and various verb suffixes, mostly subordinating suffixes (3.5), and matches between the ergative-instrumental and verb suffixes (3.6).

The cases commonly found in Pama-Nyungan languages are displayed in table 3. Where there are common markers, these are shown in the second column. Where proto-forms can be established, these are shown in the third column.

<sup>4</sup> It is not certain that Kala Lagaw Ya is in fact an Australian language though it has been treated so since O'Grady, Voegelin & Voegelin (1966).

<sup>5</sup> A comparison of the participial marker *-nyin* with its counterpart *-nyana* in Yalarnnga suggests that *-nyin* derives from *\*-nyana*. The loss of final vowels is independently attested as is the raising of *a* to *i* following a laminal: compare Kalkatungu *thina* 'they' from protoPama-Nyungan *\*THana*. If this derivation of *-nyin* from *\*-nyana* is correct, then it can be said that *-na* invites comparison with the locative formative *-na* found in Garawa and Lhanima.

<sup>6</sup> Evans (1985:222) notes that in the Northern language Kayardild all the verb inflections are derived from nominalisations inflected for case except the imperative, the irrealis imperative and the desiderative.

TABLE 3. Pama-Nyungan cases

case	markers	proto-form <sup>7</sup>
nominative	<i>-∅</i>	
ergative-instrumental	<i>-lu, -ngku, -Tu</i>	<i>*-lu</i>
accusative	<i>-nya or -nha</i>	<i>*-NHa</i>
dative	<i>-ku, -wu</i>	<i>*-ku</i>
locative	<i>-la, -ngka, -Ta</i>	<i>*-la</i>
allative	various, often based on dative	
ablative	<i>-ngu</i> plus various arguments	<i>*-ngu<sup>8</sup></i>
aversive	various	
proprietary 'having'	various	
abessive 'lacking'	various	

The case status of the proprietary ('having') and abessive ('lacking') morphemes is not entirely clear. In the past these morphemes have been considered derivational. Blake 1987 shows that they have characteristics of both inflection and derivation. Dench & Evans 1988 argue that they are inflectional largely because they figure in concord. It should be noted, however, that some incontrovertibly derivational suffixes figure in concord. For instance, in some languages verbs with adverb-like meanings change in transitivity to match the lexical verb they modify.<sup>9</sup> What is of relevance here is that the proprietary and abessive appear as suffixes to nouns, often followed by one of the recognised case suffixes.

### 3.2 Dative to future and purposive

The mostly widely recognised match between a case marker and a verb inflection in Australia involves *-ku*. This form is found in a majority of Pama-Nyungan languages and in a number of Northern languages. In the case system it marks the dative and its functions range over indirect object, purpose, beneficiary, possessor and destination. In some languages another case or two covers some of these functions. For instance, in some languages there is a genitive separate from the dative. On the verb *-ku* has a purposive function and is used in contexts such as 'She went to gather berries'. It may also be used in other functions, e.g. in indirect commands ('I told him to go').

Some matches between a dative or purpose case and a purposive verbal inflection are displayed in Table 4. Note that there are matches with forms other than *-ku*, which demonstrates that those with *-ku* do not reflect accidental homophony. The fact that different languages instantiate a dative- purpose/purposive match with different forms also suggests that the semantic extension involved has been calqued.

<sup>7</sup> For the source of these proto-forms see Dixon 1970, Hale 1976, Dixon 1980, Blake 1979c.

<sup>8</sup> In some Pama-Nyungan languages *.ngu* appears as a genitive, mainly with pronouns.

<sup>9</sup> See Dixon (1972) for Dyirbal and Blake (1979a97) for Kalkatungu.

**TABLE 4 Dative-purposive**

Language	case marker	case label	future	purposive
Thargari	<i>-ku</i>	dative	<b>-la</b>	<i>-ku</i>
Yulparija	<i>-ku</i>	dative	<b>-nya</b>	<i>-lku-ra-ku</i> <sup>10</sup>
Pintupi	<i>-ku</i>	dative	<b>-ku</b>	<i>-nytyaku</i>
Western Desert	<i>-ku</i>	dative	<b>-ku</b>	<i>-tyaku</i>
Badimaya	<i>-ku</i>	dative	<b>-la</b>	<i>-lku</i>
Alyawarra	<i>-ika</i>	dative		<i>-ityiku</i>
Warluwara	<i>-yi</i>	dative		<i>-tyiyi (&lt;*nytyayi)</i>
Bularnu	<i>-yi</i>	dative		<i>-dhayi (&lt;*nhdhayi)</i>
Wagaya	<i>-(r)iy</i>	dative		<i>-(n)dhariy</i>
Kalkatungu	<i>-a(y)a</i>	dative	<b>-mi</b>	<i>-.nytyaaya</i>
Yalarnnga	<i>-rta</i> <sup>11</sup>	purpose	<b>-mi</b>	<i>-nytyarta</i>
Pitta-Pitta	<i>-nga</i> <sup>12</sup>	purpose	<b>-∅</b>	<i>-linga</i>
Yandruwandha	<i>-ngarri</i>	dative		<i>-iningarri</i>
Kungkari	<i>-ku</i>	dative	<b>-la</b>	<i>-laku</i>
Bandjalang	<i>-ya(a)</i>	locative	<b>-:ny</b>	<i>-yaa</i>
Muruwari	<i>-ku</i>	dative	<b>-ku</b>	<i>-ku</i>
Yawaalaraay	<i>-ku</i>	dative	<b>-i</b>	<i>-iku</i>
Baagandji	<i>-ru, -mandi</i>	dative		<i>-mandi</i>
Biri	<i>-ku</i>	dative	<b>-nha</b>	<i>-nhagu</i>
Bidyara	<i>-ku</i>	dative	<b>-nga</b>	<i>-lku</i>
Ngawun	<i>-ntu</i>	dative	<b>-lngu</b>	<i>-ntu</i>
Kunjen	<i>-gh</i>	dative		<i>-nhagh</i>
Uradhi	<i>-ghu</i>	dative	<b>-ngka</b>	<i>-nhughu</i>
Ritharngu	<i>-gu</i>	dative	<b>-wu</b>	<i>-rawu</i>
Mangarayi	<i>-ku, -wu</i>	dative		<i>-wu, -(ny)tyinku</i>
Wagiman	<i>-gu</i>	dative	<b>-dya</b>	<i>-ygu</i>
	<i>-ga</i>	allative		<i>-yga</i>
Garawa	<i>-(g)anyi</i>	dative	<b>-dya</b>	<i>-yganyi</i>
Nyigina	<i>-dyi</i>	dative		<i>-dyi</i>
Yawuru	<i>-yi, -dyi</i>	dative		<i>-yi</i>

Future tense markers are also displayed, since there are some matches between the dative-purposive and the future

<sup>10</sup> The formative *-lku* would appear to be made up of the *-l* of the *l*-conjugation plus the dative *-ku* as is found in the future in some languages. In Yulparija *-lku* marks the irrealis stem. The formative *-ra* is the optative.

<sup>11</sup> Yalarnnga has two cases with the same range of functions. One is *-wu* (<\**-ku*) which I call dative and *-rta* (probably from \**ta* < \**la*, the proto-Pama-Nyungan locative) which I call purpose.

<sup>12</sup> PitaPitta has a locative *ina*. The expected allomorphs of the proto-Pama Nyungan \**la*, namely *-ngka* and *-la* do appear but with new functions. The form \**-ngku*, appears as *-nga* (compare *-ngu* future nominative reflecting \**-ngku*, the ergative-instrumental) with a purpose function and *-la* appears with an aversive function

The form *-nyunda* marks subordinate verbs, but it is not purposive. This function is filled by another form *-na*.

As Austin has demonstrated (1981), a bloc of languages in central and western Australia shows a difference in the marking of purposive clauses according to whether the subject of the purpose clause is the same as or efferent from the subject of the governing clause. The form *-tyaku*, for instance, which is given in Table 4 for Western Desert, is used only where the subject of the purpose clause is different from the subject of the governing clause ('I told him to get firewood). Where the subjects are the same ('I went to get firewood), another marker *-kitya* is used.

The obvious question that arises with these matches is one of direction. Did the case markers spread to verbs or vice versa, or did an earlier free form settle on both nouns and verbs? Before we answer this, it should be pointed out that the verbal forms appear in two different morphological contexts (attached directly to the base and attached to a nominaliser) and, as illustrated in (4) and (5) below, two different syntactic contexts (dependent and independent). This is shown schematically in (1) using two common exponents *-nytya* for the nominaliser and *-ku* for the future or purposive.

- (1) a. VERB-*ku* future, independent  
 b. VERB-*nytya-ku* purposive, dependent  
 c. VERB-*nytya.ku* purposive, independent

On general grounds one would expect the lines of development to have been from the most concrete function to a more abstract one, specifically to have been from the allative case function to the more abstract dative and to the various verbal functions. Where the dative or purpose case form is found following a nominalising suffix, we can be fairly certain that a case suffix has been extended from its natural domain (nominals) to a less natural domain (verbs) which requires the nominalisation of the marked class of roots. Certainly there is ample precedent for such a development in other languages. A Latin infinitive like *dicere* 'to say', for instance, derives from the locative *\*deike-s-i* and in Vedic Sanskrit infinitives were formed with the addition of the accusative, dative, ablative-genitive or locative to the verb (Burrow 1955:364). Regarding the fact that the purposive can appear in both dependent and independent clauses, one can also be fairly certain that the use of purposive verbal forms in independent clauses derives from their use in dependent clauses, presumably via deletion of the governing clause, which in many instances is redundant. A common context for purposives is 'x is going to ...'. The 'going to' clause tends to be redundant and it is easy to imagine it being eliminated and the subject being used with the erstwhile infinitive. The suggested development is shown schematically in (2).

- (2) a. x is going (x) to-gather berries  
 b. x to-gather berries

Here are three Pitta-Pitta sentences that illustrate the purposive case (3), a dependent purposive verb (4) and an independent purposive verb (5).

- (3) *Karnrta-ka ngamari maka-nga*  
 go-PAST mother fire(wood)-PURP  
 'Mother went for fire.'
- (4) *Karnrta-ka ngamari maka-nha marri-linga*  
 go- PAST mother fire-ACC get-PURPOSIVE  
 'Mother went to get fire.'
- (5) *Ngamari-lu marri-linga maka-nha*<sup>13</sup>  
 mother-ERG get-PURPOSIVE fire-ACC  
 'Mother is-going-to get fire.'

<sup>13</sup> The verb *marrilinga* is transitive and the subject can be marked either by the ergative or the future-subject form *.ngu*.

The use of **-ku**, and other markers of the dative or a similar case, with a nominalised verb to form a purposive is quite separate from and apparently later than the use of **-ku** and other case markers attached directly to the verb base. In the Western Desert language **-ku** marks the future, but **-ku** with monosyllabic roots has been reanalysed as part of the stem. Compare the following inflected forms of *ngara* 'to stand' and *pu-* 'to hit' (Warburton Ranges dialect).

(6)	past	present	future
	<i>ngarangu</i>	<i>ngarala</i>	<i>ngaraku</i>
	<i>pungu</i>	<i>pungkula</i>	<i>pungku</i>

As can be seen the future *pungku* (<*pum-ku*) has been reanalysed as the stem for the present. This suggests that the use of **-ku** as a future inflection is old; certainly it is older than the use of **-ku** as a purposive marker, since a form with reanalysed future **-ku** can appear in the stem to which the purposive is attached:

(7)	<i>ngara-tyaku</i>
	<i>pungku-tyaku</i>

It is not clear what the mechanism of change is here. It may be that a free form became bound to both nouns and verbs rather than becoming bound to nouns and later extended to verbs. There are no irrefutable instances of **ku** as a free form available and given the fact that **ku** is one of the most widely spread forms and often deeply embedded within the morphology it is probably of some antiquity. However, in Kalkatungu a form *ku=* serves as a host for clitic pronouns in certain transitive constructions: *itya ku=ngi* (bite *ku=*1SG.OBJ) 'It might bite me'.

This *ku=* may reflect the same root that the dative **-ku** does. There is a semantic connection in that *ku=* in Kalkatungu is used in transitive constructions expressing apprehension about a possible event with undesirable consequences, an event that should be avoided (see section 3.4 below), and the dative is used in some languages, including Kalkatungu, to mark the patient of a two-place verb where there is reduced semantic transitivity in the sense of Hopper and Thompson 1980.

### 3.3 Proprietary and tense to stem-forming suffix

As we have seen in the previous Section one of the features distinguishing the purposive from the future is that the purposive is not added directly to the verb root whereas the future is. This raises the question of where the intervening stem-forming formative or formatives come from. The most common formative to be found in this position is **THa**, which is often preceded by another formative **-ny-** as in *-nytyaku* in Pintupi. The form **THa** or a clear derivative of it is found in Adnyamathana, the Western Desert language and in a number of other languages in the Northern Territory and western Queensland including the Arandic languages, the Warluwaric languages, Warumungu, Kalkatungu, Yalarnnga and the Northern languages of the Tangkic group plus Mangarayi. The formative **-tya** may plausibly be derived from *-tyarra* the proprietary or 'having' suffix in the Western Desert language.<sup>14</sup> This derivation is suggested by a number of matches between proprietives and verb suffixes, mostly non-final verb suffixes. Some examples are presented in Table 5 where Gugada represents the Western Desert language, and where the Lhanima and Nhanda form **-tha** is presumably cognate with **-tya**.

<sup>14</sup> Dixon (19BO.32S) states that *tyarra* is 'probably a development from *kutyarra* two'. The semantic extension is plausible. In some languages *pula* a widespread root for 'two' is used in conjoining noun phrases so that 'A and B' or 'A with B' is literally *A B pula* and *pula* is effectively the equivalent of English 'and' or the comitative 'with'.

With nouns the proprietive suffix is used to form nouns meaning ‘having X’ as in Pitta-Pitta: *tyirra* ‘boomerang’, *tyirra-marru* ‘having a boomerang’. These derived nouns tend to be used like attributive or predicative adjectives in English. The following examples from Pitta-Pitta illustrate typical predicative usage (ci. Blake 1979b:199),

- (8) *Karnti-ma-ka nganytya paraty-marni*  
 go-AROUND-PAST I torch-PROP  
 ‘I went around [looking for him] with a torch.’
- (9) *Para yi-marru nganytya*  
 torch-PROP I  
 ‘I have a torch.’

TABLE 5 Proprietives as verb formatives

Language	proprietive	proprietive as formative on verb
Thargari	<i>-barri</i>	<i>-d-barri</i> reciprocal
Nhanda	<i>-tha</i>	<i>-tha-?i</i> optative, <i>-tha-wu</i> purposive
Badimaya	<i>-barri</i>	<i>-ba-la</i> aversive
Gugada	<i>-tyarra</i>	<i>-ny-tya-ku</i> desiderative
Pitta-Pitta	<i>-marru</i>	<i>-marru</i> general subordinator
Lhanima	<i>-tha</i>	<i>-tha-rra</i> conditional, <i>-li-tha</i> habitual
Yalarnnga	<i>-ri</i>	<i>-nytyi-ri</i> habitual
Gunya	<i>-bari, -bayi</i>	<i>-ny-badi-nga, -nybayi-nga</i> aversive
Dyirbal	<i>-bila</i>	<i>-bila(gu)</i> aversive
Yidiny	<i>-dyi, -yi</i>	<i>-dyi-n</i> reflexive
Rotharngu	<i>-mirri</i>	<i>-mirri</i> reflexive-reciprocal
Alawa	<i>-wanytyi, etc</i>	<i>-nytyi</i> reflexive

It is this predicative use that may have provided the model for the extension of the proprietive to verbs as in (10) (cf. Blake 1979b:15).

- (10) *Krismati-nha nga-thu thatyi-ka-marru marnukarnta-ka=lhayi nganytya*  
 Christmas-ACC I-ERG eat-NM-PROP worried-PAST=VERY I  
 ‘After I had Christmas [dinner], I was still very agitated.’

Here *-marru* signals that the verb to which it is attached is subordinate, but it does not indicate any specific semantic relationship. The use of *after* in the translation is based on the context in which a woman is describing how she was fretting for her family after she married and went to live with her husband.

In some languages there is a strong resemblance between the proprietive and the reflexive and/or reciprocal (in a majority of languages a single form expresses both reflexive and reciprocal). These matches are probably not coincidental since they have parallels outside Australia. In Indonesian, for instance, *ber-* is proprietive as in *ber-anggap-an* ‘having an idea’, reflexive in *bercukur* ‘to shave oneself’ and reciprocal in *ber-kirim-an surat* ‘(have

send-ing letter) ‘to correspond with one another’. Heath suggests that *-mirri*, the reflexive-reciprocal marker in Ritharngu, derives from the proprietive (1978 :79).<sup>15</sup>

There is another point of interest in (10). Note the homophony between *-ka* in the subordinate clause, which is glossed as nominaliser (NM) and the past tense marker *-ka* in the main clause. Although (10) might suggest that *-ka* in the subordinate clause is in fact the past tense marker, consideration of a wide range of examples establishes that *-ka* in the subordinate clause is simply serving to facilitate the addition of a noun suffix to a verb and has no connection with tense. However, it would appear that the nominaliser has derived from the past tense marker since there are other matches between tense markers and nominalisers in various Australian languages. Some of these are shown in Table 6

TABLE 6. Tense to nominaliser

Language	tense	subordinate verb marker
Bayungu	<i>-n, -yi</i> (present)	<i>-yi-tha(ku)</i> (-NM-SUB(-DAT)) subordinate
Thargarri	<i>-nya, -dya</i> (past)	<i>-nya-du, -dya-du</i> participle
Badimaya	<i>-ya</i> (present)	<i>-ya-nha</i> (NM-ACC), etc.
Djanu	<i>-nyan</i> (pres)	<i>-nyanggu</i> (continuous purposive)
Kalkatungu	<i>-mi</i> (future)	<i>-mi-thi</i> ‘when ...’
Pitta-Pitta	<i>-ka</i> (past)	<i>-ka-inu</i> (NM-ALL) ‘until’, also hortative
Lhanima	<i>-nya</i> (past)	<i>-nya-minya</i> (NM-ABL) ‘after, etc.’
Yidiny	<i>-nyu</i> (past)	<i>-nyu-nda</i> (NM-DAT) simultaneous
Flinders Is	<i>-n</i>	<i>-n-iya</i> (NM-ABL) general subordinate
Gidabal	<i>-:n</i> (past)	<i>-:n-du</i> (NM-ERG/INST) habitual
Kungkari	<i>-la</i> (future)	<i>-la-ku</i> (NM-PURP)
Yuwaalaray	<i>-i</i> (future)	<i>-iku</i> (NM-PURP)
Bidjara	<i>-na</i> (imperfective)	<i>-na-nga</i> (NM-LOC) ‘when ...’
"	<i>-la</i> (perfective)	<i>-la-nga</i> (NM-LOC) ‘when ...’
Gunggari	<i>-la</i> (perfective)	<i>-la-ya</i> (NM-?) ‘when ...’
"	<i>-nga</i> (imperfective)	<i>-nga-ya</i> (NM-?) ‘when ...’
"	<i>-na</i> (imperfective)	<i>-na-ya</i> (NM-?) ‘when ...’
Wirri	<i>-na</i> (imperfective)	<i>-na-gu</i> (NM-DAT) purposive
"	<i>-na</i> (imperfective)	<i>-na-ngga</i> (NM-LOC) ‘when ...’
"	<i>-ba</i> (perfective)	<i>-ba-ngga</i> (NM-LOC) <sup>16</sup> ‘when ...’
Djapu	<i>-nya, nha, -na</i> (past)	<i>-nya-(ra)-ngu</i> (NM-LIG-ABL) ‘from VERB -ing’

<sup>15</sup> Matches or near matches between the proprietive and the reflexive or reflexive-reciprocal include the following (Dixon 1980:433),

	proprietive	reflexive-reciprocal
Yidiny	<i>-dyi</i>	<i>-dyi-n</i>
Dhuwala	<i>-mi</i>	<i>-mi</i>
Gupapuyngu	<i>-marri</i>	<i>-mirri</i>
Alawa	<i>-wanydyi</i>	<i>-nydyi</i>
Thargari	<i>-parri</i>	<i>-parri</i>

<sup>16</sup> The formative *-ba* could possibly derive from the proprietive *-barri*, though the parallelism between *-na* and *-ba* suggests a perfective provenience. It could be that perfective *-ba* derives from the proprietive.

These matches allow us to suggest that the formative *-ny-* in the nominaliser *-nytya*, which occurs in the Western Desert and other languages (Table 4), derives from past tense markers like *-nya* and *-nyu* which are widespread among the Pama-Nyungan languages and which, according to Dixon (1980:381) derive from a proto-form *\*N<sup>y</sup>u*. It is not necessary that reflexes of *\*N<sup>y</sup>u* be found in the same languages as *-nytya* for this derivation to hold. In Kalkatungu past tense *-nha* occurs alongside *-nytya-*, while in Yalarnnga the past tense is *-mu* (forming a series with *-ma* ‘present’ and *-mi* ‘future’) alongside *-nytya*. In the Western Desert language *-nu* and *-mu* occur as past tense markers. These may or may not reflect *\*N<sup>y</sup>u*.

The pattern that emerges is as follows:

- a) a dative case marker is suffixed to a verb stem to form a future tense.  
Western Desert: *pitya-ku* ‘will go’
- b) a tense-marked form may be suffixed with a dative case marker to yield a dependent purposive form.  
Yuwaalaray: *dhurrinba-y-gu* (hide-FUT-DAT) ‘in order to hide’
- c) a tense-marked form may be suffixed by a proprietive case marker to yield a subordinate form.  
Lhanima: *karnrta-nya-tha* (go-PAST-PROP) dependent form
- d) a tense-marked form may be suffixed by a proprietive case marker and further suffixed by a dative case marker to yield a dependent, purposive form.  
It is suggested that *-nytyaku* in the Western Desert languages and cognate forms in other languages derive from *\*N<sup>y</sup>u* (PAST) *-T<sup>y</sup>arra* (PROPRIETIVE) *-ku* (DATIVE)
- e) In general dependent purposive forms come to be used as independent purposive forms.  
See the Pitta-Pitta examples (4) and (5).<sup>17</sup>

### 3.4 Nominal aversive to verbal aversive

In approximately half the Pama-Nyungan languages and in many of the Northern languages there is a case that marks entities that are to be avoided because they are dangerous or taboo. This case has been referred to as the causal (since it often covers cause as in ‘drunk because of rum’) or the aversive. The latter label will be used here. The following Pitta-Pitta example is fairly typical.

- (11) *Wilakana-ya kinyarri kupakupa-la.*  
hide-PRES girl old.man-AVER  
‘The girl is hiding from the old man.’

Aversive case markers are frequently found on verbs in a clearly related sense. They indicate an activity that might happen, something that is unwanted and which should be avoided. The following Pitta-Pitta sentence should be compared with the previous one.

<sup>17</sup> A brief note on the formative *-li* in *-linga* (see Table 4). In Pitta-Pitta the antipassive marker is *-li*. In Yalarnnga the language formerly spoken immediately to the north the antipassive marker is also *-li*. In Kalkatungu the antipassive is *yi* (*-\*li*) with some instances of *-li*. In Yalarnnga and Kalkatungu the antipassive is used in a purpose clause when the agent of the purpose clause is coreferent with the absolutive of the governing clause. This means that the antipassive is used in sentences of the type, ‘The woman went to get yams’ (where the agent of GET is coreferent with the intransitive subject of GO), and in sentences of the type, ‘The woman sent the girl to get yams’ (where the agent of GET is coreferent with the object of SEND). These types account for something like 90% of purpose clauses. It may be that Pitta-Pitta once had the same principle and that the use of the antipassive was generalised to all purpose clauses so that all purpose clauses came to be marked by *-li-nga* (Blake 1979c:380).

- (12) *Wilakana-ya kinyarri nhan-(nh)a-ka piyawali-lu patya-kala*  
 hide-PRES girl she-ACC-HERE dog-ERG bite-LEST  
 ‘The girl is hiding lest the dog bite her.’

The suffix *-kala* glossed as LEST would appear to be composed of *-ka*, originally the past tense marker (see Table 6) and the aversive case marker *-la*.<sup>18</sup>

Table 7 shows a number of matches between the nominal and verbal aversive. In languages that do not have an aversive case the aversive function is expressed variously, by the ablative, the locative, the dative or by whatever case is used to express the instrument, namely ergative-instrumental or locative-instrumental. Even in languages with an aversive case, there is often the option of using one of these other cases to express the same or a very similar meaning. In Table 7 two entries are given for Pintupi because the aversive sense can be expressed by the dative *-ku*, the locative *-ngka* or the aversive *-ngkamarra* and both *-ku* and *-marra* show up as formatives in the verbal aversive.

It is assumed that in most instances at least a case suffix has been extended from an unmarked domain (nouns) to a marked domain (verbs) where a stem-forming suffix is required.

Although aversive or ‘lest’ clauses are often juxtaposed to independent clauses and are related to them semantically, there is usually little syntactic connection. In other words there will typically be one clause meaning ‘x tears’, ‘x hides’, etc. and another meaning ‘y might do so-and-so’, and the listener will be expected to infer a causal connection ‘x fears because y might do so-and-so’. Not surprisingly the causing event will often be left implicit and the clause with the verbal aversive will appear as an independent clause. In Pitta-Pitta, for instance, one finds examples like the following (Blake 1979b:202):

- (13) *Mipa-kana-kala inpa*  
 blind-INCH-LEST you  
 ‘You might go blind.’

This is an independent sentence uttered in the context of someone looking at the sun. The only hint of subordinate status lies in the etymology of *-kala*. Of course an aversive clause is marked in terms of the relatively small range of contexts in which it can occur.

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<sup>18</sup> The form *-li* derives from a locative allomorph (See note 10).

TABLE 7. Aversive to lest

Language	nominal	verbal
Thargari		<i>-langu, -rrangu</i>
Panyjima	<i>-puru</i> <sup>19</sup>	<i>-puru</i>
Badimaya	<i>-la</i>	<i>-bala</i> <sup>20</sup>
Arrente	<i>-ketye</i>	<i>-ketye</i>
Pintupi	<i>-ku</i> (dat), <i>-ngka(marra)</i>	<i>-tyakumarra</i>
Pitta-Pitta	<i>-la</i>	<i>-ka-la</i>
Lhanima	<i>-rra</i>	<i>-lira</i> <sup>21</sup>
Ngamini		<i>-nda</i>
Muruwarri	<i>-ngu</i>	<i>-ngu</i>
Ngiyamba	<i>-dyi, -dhi</i>	<i>-waadyi, -nhaaranh-dhi</i>
Margany	<i>-du</i> (inst)	<i>-nydyu</i> <sup>22</sup>
Djabugay	<i>-nda-bi</i>	<i>-yabi</i> <sup>23</sup>
Yidiny	<i>-dyida</i>	<i>-dyi</i> <sup>24</sup>
Dyirbal	<i>-gu</i> (dative)	<i>-bilagu</i>
Nyigina	<i>-dyunu</i>	<i>-dyunu</i>
Wagiman	<i>-gunda</i>	<i>-ygunda</i>
Kyardild	<i>-marra</i> (utilitive)	<i>-NHarra</i> <sup>25</sup>

### 3.5 Local to subordinating

In this section examples are given of the local cases used to mark the verbs of subordinate clauses other than purpose-type clauses and aversive-type clauses. As noted in connection with purpose clauses, some Australian languages employ various means of marking subordinate clauses to indicate patterns of coreference with governing clauses (see section 3.2). A common device is to use suffixes on the verb of the subordinate clause that signal particular patterns of coreference. These suffixes are usually referred to as SWITCH-REFERENCE MARKERS. Switch reference in Australia has been the subject of a study by Austin (1981) who shows that switch reference is found in a bloc of languages running from the centre of the continent to the west coast. These languages are not all closely related, so it would appear that the phenomenon has diffused. What is of interest in the present context is

<sup>19</sup> Dench (1991) glosses *puru* as 'obscured by'. It has this meaning and also the sense of 'because of' as in 'We can't hear because of the noise. It is opposed to *-mari* which has causal and aversive senses and *-ngarala* which has a causal sense.

<sup>20</sup> Compare *-barri* the proprietive suffix. See also Table 5.

<sup>21</sup> The identification of the flapped rhotic (*rr*) in the aversive (which is cognate with *l* in Pitta-Pitta) with the retroflex rhotic glide (*r*) is problematic.

<sup>22</sup> With stems ending in *-a* the allomorph is *-aanydyu*, with *-i* stems *-inydyu* and with *-u* stems *-winydyu*. It seems that *-dyu* derives from *\*-du* via assimilation.

<sup>23</sup> The nominal aversive marker is the locative plus *-bi*, which Patz identifies with the emphatic enclitic *-bi* (1991:268). The verbal aversive invites comparison with *-ya* subordinator.

<sup>24</sup> The aversive *-dyida* appears to me made up of the proprietive *-dyi* plus a locative *-da*, so the lest form on the verb reflects only the proprietive.

<sup>25</sup> Evans derives *-NHarra* from *\*THmarra* where *TH* reflects *\*THa* the proprietive discussed in section 3.3 (1985:214.23). In the closely related Yukulta the aversive is *-nymarra*. Evans assumes that *TH* has assimilated to the nasality of the following *m* and that the *m* has been lost in Kayardild.

that Austin points out that case marking plays a major part in the marking of switch reference. He distinguishes two types of subordinate clause. The first is what is called in this paper the purposive clause. The second covers the equivalent of English adverbial clauses, relative clauses and the complement of sense verbs ('I saw her drinking'). I will refer to these simply as subordinate clauses. Austin demonstrates that in these non-purposive subordinate clauses, the locative is very frequently employed to signal switch reference. South of Warlpiri and the Arandic languages (see map) the locative signals 'different subject', i.e. a change of subject between the main and the subordinate clause. To the north the locative signals 'same subject, i.e. the subject of the subordinate clause is the same as the subject of the main clause. Over most of this northern area the locative is complemented by the allative which is used to signal different subject.

To illustrate the syntactic distinction the following Alyawarra examples are presented. In this language a marker of locative provenience indicates same subject (SS) in accordance with Austin's generalisation, and *-inytya* indicates different subject (DS), usually a switch from object to subject as in (15). The marker *-inytya* is another example of the *-nytya* form discussed above where it was suggested that *-tya* derives from *tyarra* 'having' (see section 3.1 especially Tables 4 and 5).

In (14) *-ha* marks the verb as subordinate and as having an unexpressed subject coreferential with the subject of the independent clause (Yallop 1977:130).

- (14) *Dorothy atntirr-ika amuly-ikitya atirir-ila*  
 Dorothy run-PAST lizard-AVER fear-PARTICIPLE.SS  
 'Dorothy ran away frightened of the lizard.'

In (15) *-inytya* marks the verb as dependent and as having an unexpressed subject different from the subject of the independent clause to which the non-finite clause is an adjunct (Yallop 1977:131).

- (15) *Aringk-irnimā itwarin-ika atntirr-irr-inytya*  
 dog-SOME see.across- PAST run-PL-PARTICIPLE.DS  
 '[We] looked across at the dogs, [which were] running.'

Table 8 gives examples of Austin's northern group where the common pattern is for a marker of locative origin to indicate same subject (SS) and in the most northerly languages a marker of allative origin to indicate different subject

TABLE 8. Switch reference – northern

Language	case marker	case label	subordinate marker	switch ref
Wanyi	<i>-na</i>	locative	<i>-tyin</i> <sup>26</sup>	SS
	<i>-wurru</i>	allative	<i>-kurru</i>	DS
Garawa	<i>-(ny)ina</i>	loc/inst	<i>-tyina</i>	SS
	<i>-kurri</i>	allative	<i>-kurri</i>	DS
Wagaya	<i>-rl</i>	erg/inst/loc	<i>-rl</i>	SS
	<i>-rl</i>	allative	<i>-rl</i>	DS
Alyawarra	<i>-ila</i>	loc/inst	<i>-ila</i>	SS
			<i>-inytya</i>	DS
Djingli	<i>-mpili</i>	locative	<i>-mpili</i>	SS
	<i>-ngka</i>	ablative	<i>-ngka</i>	DS

<sup>26</sup> *-tyin* is plausible derived from *\*-THa-na* where *THa* is proprietive and *-na* locative.

Table 9 gives examples of Austin's southern group where the locative regularly expresses different subject.

Holmer reports that in Wirri in northeastern Queensland the verb of a subordinate clause modifying an object is marked by *-badi*, but the verb of subordinate clauses in other circumstances are marked by *-nangga* (if imperfective) or *-bangga* (if perfective) where *-ngga* is a locative marker (Holmer 1983:297-8).

TABLE 9. Switch reference - southern

Language	case marker	case label	subordinate marker	switch ref
Gugada	<i>-la</i>	locative	<i>-ra</i> <i>-inytyala</i>	SS DS
Ngaanyatjarra	<i>-ngka</i>	loc/inst	<i>-nytya</i> <i>-ngka</i>	SS DS
Pintupi	<i>-ngka</i>	loc	<i>-nytya</i> <i>-ngka</i>	SS DS
Diyari	<i>-nhi</i>	loc	<i>-rna</i> <i>-rnanhi</i>	SS DS

Table 10 provides a sample of other matches between case markers, mostly local, and markers of various types of subordinate clause where switch reference is not a factor.

As with purpose and aversive clauses, other types of subordinate clause can come to be used as independent clauses. In Kalkatungu, for instance, the form glossed as participial in section 3.1, namely *-nyin*, *-tyin*, is not only used in subordinate clauses corresponding to English participial clauses, but also in independent clauses where it supplies a form that neutralises distinctions of past and present tense and of perfective and imperfective aspect. It also differs from most other verb inflections in that it cannot take any marking for the person and number of the subject or object. It is rather like the historic infinitive of Latin narrative.

TABLE 10. Local to subordinating

Language	case marker	case label	verb marker	function
Pitta-Pitta	<i>-ina</i>	locative	<i>-ka-ina</i>	when
	<i>-inu</i>	allative	<i>-ka-inu</i>	until
	<i>-inya</i>	blative	<i>-kanya</i>	after
Yidiny	<i>-m(u)</i>	ablative	<i>-nyu-m</i>	prior event
	<i>-nda</i>	dative	<i>-nyu-nda</i>	simultaneous event
Bandjalang	<i>na, -nga</i>	genitive	<i>-na</i>	relative clause marker
Baagandi	<i>-na</i>	inst-loc	<i>-ana</i> <i>-ngana</i>	participle continuous
Margany	<i>-ngga</i>	locative	<i>-ngga</i>	when
Dyirbal	<i>-ngu</i>	genitive	<i>-ngu-</i>	relative clause marker
Flinders Island	<i>-ira</i>	ablative	<i>-niya</i>	general subordinator
Muruwari	<i>-la</i>	locative	<i>-la</i>	general subordinator
Yindjibarndi	<i>-la</i>	locative	<i>-la</i>	when
Kalkatungu	<i>-ngu</i>	locative	<i>-nytya-ngu</i>	habitual
	<i>ta</i>	locative	<i>-nyin-ta</i> <sup>27</sup>	when
Yalarnnga	<i>-ngu-rta</i>	locative	<i>-nya-ngu</i>	habitual
Yandruwandha	<i>-ngurra</i>	ablative	<i>-ini-ngurra</i>	after
Arrente	<i>-nge</i>	ablative	<i>-tyenhe</i> <i>ng</i> <sup>28</sup>	
Guugu-Yimidhirr	<i>-:ga</i>	purposive	<i>:yga</i>	general subordinator
Ritharngu	<i>-gu, -ngu</i>	dat-gen	<i>-ngu</i>	relative etc. cl marker

### 3.6 Ergative

The ergative is found in almost all Pama-Nyungan languages and in a number of Northern languages. The label ergative implies that the case in question encodes the agent complement of a transitive verb. In a majority of Australian languages the ergative also expresses the instrumental function; in a minority the instrumental function is expressed via the locative.

Ergative markers do not figure prominently in verb morphology, but there are some matches. In Bandjalang the habitual consists of the past tense marker *-:n* or the remote past tense marker *-dya* followed by *-du*, which matches the appropriate allomorph of the ergative: *-:ndu, -dya:ndu* (Crowley 1978:96). Similarly in Thargari the participle consists of the past tense markers *-nya* and *-dya* followed by *-du* which matches the expected allomorph of the ergative: *-dyadu, -dyadu* (Klokeid 1969).<sup>29</sup>

In Margany the ergative case markers are used to express the aversive and the verbal aversive appears to reflect the marker *-du* if we allow that the stop has assimilated to a preceding palatal nasal, a process attested in other Australian languages: *\*-nya(PAST)-lu(ERG)>-nylu>-nydu>-nydyu* (see also Table 7).

<sup>27</sup> *-nyin* is the participial marker and can be followed by any concordial case marker.

<sup>28</sup> *-tyenhe* matches non-past completive.

<sup>29</sup> In Bandjalang and Thargari the ergative expresses the instrumental function.

Peter Austin has provided some examples of the ergative figuring in the switch-reference system. In Thirriari verbal purposive reflects the future tense marker followed by an ergative case marker (*-lha-li*) and in Jiwari and Mantharta the same-subject marker in what he calls a perfective relative clause is *-nytya-lu* which seems to reflect the *-nytya* discussed in section 3.3 above and the appropriate ergative marker *-lu* (Austin 1990).

This does not exhaust the possible reflexes of the ergative in the morphology of the verb, but it would appear that the ergative is not reflected as widely as the cases listed above.

#### 4. Derivational morphology

In Australian languages derivational suffixes, apart from nominalisers like those discussed in section 3.3, frequently appear on the verb with the following functions:

- (a) deriving an intransitive verb from a noun or adjective
- (b) deriving a transitive verb from a noun or adjective
- (c) deriving a transitive verb from an intransitive one
- (d) deriving an intransitive reflexive verb from a transitive one

The same suffix may be used for (b) function and (c) function and there may be several suffixes for function (C) (see below). With a verb like RETURN, the addition of a transitivising suffix will normally have a causative effect and produce a verb meaning MAKE SOMEBODY RETURN. With a verb like LAUGH or CRY, the addition of the same suffix will typically produce verbs meaning LAUGH AT or CRY FOR (Austin: to appear). In some languages there are suffixes specifically to mark the advancement to direct object of roles normally expressed outside the core. Advancement of beneficiary, instrument and locative is found.

In general these derivational suffixes appear to derive from verbs. The most widespread suffix marking the derivation of transitive verbs from intransitive ones, and in some languages the derivation of transitive verbs from nouns and adjectives, is *-ma*. This is generally recognised as cognate with lexical verbs meaning ‘do’, ‘speak’ or ‘hold’. There may be more than one lexical candidate for the same. Dixon (1980:405) reconstructs *ma-l* ‘speak’, ‘do’ and *maa-n* ‘hold’, but these may ultimately reflect the same root. Other transitive-verb forming suffixes include *bu-*, found, for example, in Kalkatungu *-puni* (as in *yurru-puni* ‘make a man (by initiation)’), which would appear to be cognate with a widespread lexical root *bu-* ‘to hit’ (Dixon 1980:404 gives *\*bu-m*).

However, among these derivational suffixes there are a few of nominal origin. Song (1989, 1992) claims that causative constructions have their origin either in clauses linked by AND or in clauses linked by PURPOSE. For instance, constructions of the pattern *I told/made him for to speak* can give rise to morphological causatives. He gives the following example from the Pama-Nyungan language Kunjen of an analytic causative with a purpose-marked complement. The suffix *-agh* glossed as COMPLEMENTISER matches a dative case marker (Song 1992:3.23, Sommer 1972:118).

- (16) *abm ay arngg adhen ingun adhun ergenh-agh ambar*  
 person 1SG.ERG child 1sg.gen 3SG.ACC 1SG.ACC speak-COMP cause  
 ‘I caused my child to speak to me.’

It is well known that the higher causing verb can become a causative affix, but Song points out that the purposive complementiser may also become part or all of the causative morphology. He illustrates his point with examples of dative-allative forms showing up in causatives from numerous languages including Australian languages. In Gumbaynggir, for instance, the form *-ygurra* is used to mark the derivation of transitive verbs from intransitive ones and ditransitive verbs from transitive ones (e.g. ‘show’ from ‘see’) (Eades 1979:304).

The form invites comparison with -y present tense, **-ygu** purposive and **-gu** dative. The purposive **-ygu** is undoubtedly another example of the addition of the dative (**-gu**) to a tense-marked form of the verb (-y) where the tense-marking becomes stem-forming. It seems that one can tentatively identify the distinctive purposive **-ygu** with the **-ygu-** of **-yгурra** on format grounds, and one can accept the identification more readily in light of Song's generalisation about the genesis of causatives. It is not clear what the origin of the formative **-rra** is. It may be a remnant of a causing verb.

Other languages exhibiting a formal resemblance between the dative or purposive case and a transitivity suffix include the following:

Pitta-Pitta where **-kurrj** (cf. dative **-ku**) derives transitive verbs from nominal stems (Blake 1979b:211). A formative **-rri**, sometimes **-ri**, is found as a transitivity suffix in various languages of central and southern Queensland (Holmer 1983). A non-productive **-ri** occurs in Pitta-Pitta.

Ngandi where **-(n)guba** invites comparison with **n?** nominaliser, **-ku** dative-purposive and **bu-** 'hit' and **batya-** 'hit'. The former, and possibly the latter, reflects a widespread root for 'hit', which frequently develops into a transitive-forming derivational suffix (cf. Kalkatungu example above).

Walmatjari where the causative **.kutyi** invites comparison with dative **-ku** possibly the widespread root **tyu-** 'put' (Hudson 1978:45).

As mentioned earlier in this section the addition of a transitivity suffix does not always result in causativisation. The addition of a causative-like suffix to a stem meaning ENTER may result in a verb meaning INSERT where the S of ENTER becomes the P of INSERT, but the addition of the same suffix to an intransitive verb meaning CLIMB may result in a transitive verb CLIMB. We might compare *He climbed on/up the ladder* and *He climbed the ladder*. In Relational Grammar the suffix on the verb would be described as registering the advancement of the locative to direct object (Blake 1:990). Some languages have derivational suffixes specially devoted to registering the advancement of certain relations. In Kalkatungu, for instance, the form **-nti**, which is widely distributed among Pama-Nyungan languages specially in Queensland, registers the advancement of locatives and instrumentals to direct object and **-nytyama** marks the advancement of beneficiaries. In most instances the etymology of these causatives/advancement markers remains obscure, but where a relationship with a lexical form can be established it seems the origin is verbal. The Kalkatungu form **-nytyama** can be shown to consist of **-nytya** and **-ma**. The form **-ma**, which also occurs independently (*rumpi* 'to fear', *rumpima* 'to frighten') is doubtless another reflex of **\*ma-l** 'do/speak' or **\*maa-n** 'hold', though **-nytya** may have a nominal origin in that it is probably another example of the nominaliser **-nytya** referred to in section 3.3.

It is certainly not the general rule for the same form that marks a peripheral case to appear on the verb indicating that the direct object is to be interpreted as locative or whatever. In Indo-European something like this does happen. Certain forms can appear as a preposition or as a verbal prefix. Compare Latin *Ambulat per aedes* 'He walks through the house' and *Perambulatur aedes* 'He walks through/inspects the house'. However, in some Northern languages this phenomenon is found. A clear instance occurs in Yawuru where **-ngany** occurs on nouns as the proprietive suffix and on verbs with a similar function. Here is an example of **-ngany** with a noun phrase. In this language the case markers, including **-ngany**, follow the first constituent of the noun phrase (Hosokawa 1991 :280),

- 17) *Manydya-ngany bilyka marlu mabu-dyunu nyamba lanydyi-yi*  
 many-PROP gnarl not good-really this boomerang-DAT  
 This [wood] has a lot of gnarls; it's no good for a boomerang.'

In the next example *-ngany* appears with the verb for ‘come’; the combination of ‘come’ and the propriative means ‘come with’ in the sense of ‘bring’ (cf German *mitbringen*) (Hosokawa 1991:176),

- (18) *Ngunu-ni dyanu ingarra-bula-ny-ngany mayi*  
 sister-ERG 1SG.GEN they-come-IMP-PROP food  
 ‘My sisters brought the food.’

In this language the form *-barri*, which is widespread as a propriative, occurs the instrumental. However, it covers some of the semantic field typical covered by the propriative, in particular temporary states and possession 1-tosokawa does not give a pair of sentences that differ only in the position of *-ngany*, but he does give a pair with *-barri* on the noun phrase indicating temporary possession, and *-ngany* on the verb (Hosokawa 1991:177)

- (19) a. *Miny-dyali-nda warli-barri*  
 2-return-PERF meat-INST  
 ‘You came back with the meat.’  
 b. *Miny-dyali-nda-ngany warli*  
 2-return-PERF-PROP meat  
 ‘You brought the meat back.’

In another Northern language, Ngalakan, there are two forms marking advancement, *-bak-* marking the advancement of beneficiaries (also found in Ngandi and Rembarnga), and *-barta-* which could be said to mark something like forced accompaniment in examples like the following (Merlan 1983:50),

- (20) *Burru-barta-dyurruweniyn nugu-geywarr*  
 3PL-PROP-rush . MASC-young man  
 ‘The young men rushed away with them [sc. the girls].’

The marker *-bak-* is not found with nouns, but *barta-* in conjunction with the suffix *-yi?* expresses the propriative notion with nouns: *barta-wapawapa-yi?* ‘with cloth’ (Merlan 1983:39).

In yet another Northern language, Tiwi, there is a form *-ma(rri)* used in the verb to express the comitative rather like the separable German prefix *mit* ‘with’ as in *mitgehen* (with.go) ‘accompany’. It may be incorporated into the verb along with a noun as in (21) or on its own as in (22) (Lee 1987:163.6).

- (21) *Yu-wuni-marri-wa-yangirri*  
 he-them-PROP-words-send  
 ‘He sent them with a message.’  
 (22) *Pi-ri-ma-jawurinji kapi ampurikuluwurri*  
 they-LIG-PROP-go.in LOC vehicle  
 ‘They took [the school boys] in a truck.’

I do not have anything to say about the origin of *-ma(rri)*, but it is interesting to note that Tiwi is a head-marking language with no case marking and few prepositions. The form *-ma(rri)* is the functional equivalent of the propriative case marker found in other languages. In light of the examples given from Yawuru and Ngalakan one would expect that *-ma(rri)* had its origin as a nominal marker, probably as a preposition. It would appear that there is an areal tendency among the Northern languages to incorporate nominal markers into the verb.

## 5. Case with a verbal origin

It is well known that adpositions and case suffixes frequently derive from verbs. In Australia most of the case markers are of some antiquity and there is no obvious verbal origin for any of them. However, in a few languages there are forms with verb inflection serving as case markers. These ‘verbal cases’ are a feature of the Tangkic languages. The following example is from Kayardild (Evans 1985:126),

- (23) *Bilarri-tya nguku-wa dathin-mula-tha wuruman-mula-tha*  
 tip-IMP water-NOM that-ABL-IMP billy-ABL-IMP  
 ‘Tip the water out of the billy.’

The formative *-mula* (~*-wula*) can be related to *bula-* ‘pull off, remove’. In (23) it carries verbal inflection that shows concord with the verb, but it behaves like a case marker in terms of its distribution, including concord within the noun phrase. Evans lists the following verbal cases that have corresponding verbs (1985 :119):

- |     |             |                   |                  |                    |
|-----|-------------|-------------------|------------------|--------------------|
| 24) | dative      | <i>-maru-tha</i>  | <i>marutha</i>   | ‘put’              |
|     | translative | <i>-marii-tya</i> | <i>mariitya</i>  | ‘be put’           |
|     | ablative    | <i>-wula-tha</i>  | <i>bula-tha</i>  | ‘pull off, remove’ |
|     | evitative   | <i>-waalu-tha</i> | <i>waalu-tha</i> | ‘drive away’       |
|     | purposive   | <i>-tyani-tya</i> | <i>tyani-tya</i> | ‘look for’         |
|     | gift case’  | <i>-wu-tya-</i>   | <i>wuu-tya</i>   | ‘give’             |
- (the ‘gift case’ marks the item given in a giving clause)

These are for the most part alternatives to the normal cases.

There is also another type of verbal case that is based on the locative plus the inchoative. Consider the following examples (Evans 1985:118-9).

- (25) *Ngada (warra-tyu) dathin-kiiwa-thu ngilirr-iwa-thu*  
 I go-FUT that-ALL-FUT cave-ALL-FUT  
 I will go to that cave.’

In (25) the formative *-kiiwatha* consists of the locative *-kiya* plus the inchoative *-wa-tha*. In a number of Australian languages the inchoative can be suffixed to a locally marked noun. In Pintupi, for instance, we find the inchoative suffixed to the allative as in the following (Hansen and Hansen 1978:1 45).

- (26) *Pupanyi-tyanu=la pitya-la Yayayi-kutu-rri-ngu*  
 Papunya-ABL=1PL come-PART Yayayi-ALL-INCH-PAST  
 After going from Papunya we came to Yayayi.’

In Pintupi the inchoative and case marker have not been reanalysed as a verbal case as appears to have happened in Kayardild, but this use of the inchoative may explain an anomaly in the case system of the two Queensland languages, Kungkari (Breen 1990:29ff) and Margany (Breen 1981:302). The paradigms are as follows,

- |      |            |                             |                   |
|------|------------|-----------------------------|-------------------|
| (27) | nominative | Kungkari                    | Margany           |
|      | ergative   | <i>-∅</i>                   | <i>-∅</i>         |
|      | locative   | <i>-ngu, -Tu</i>            | <i>-nggu, -Du</i> |
|      | dative     | <i>-nga, -Ta</i>            | <i>-ngga, -Da</i> |
|      | allative   | <i>-ku</i>                  | <i>-gu</i>        |
|      | ablative   | <i>-tharri</i>              | <i>-dhadi</i>     |
|      |            | <i>-parri</i> <sup>30</sup> | <i>-mundu</i>     |

<sup>30</sup> The ablative *-parri* in Kungkari matches the widespread proprietive *-parri*. There is a derivational suffix *-barra* in Dyirbal meaning ‘one who is from a place’ (Dixon 1972:224).

The ergative, locative and dative forms all derive from the widely reflected proto-forms *\*-lu* ergative, *\*-la* locative and *\*-ku* dative, but the allative is unexpected. The allative function is typically expressed by the locative, the dative or an augmented dative marker. However, *tharri* is a widespread inchoative (e.g. Kalkatungu *-thati* 'become', *kupangurru-thati* 'become an old man'). It may be that these unexpected allatives derives from expressions of the type 'become to X' as in the Pintupi example given in (26).

## 6. Conclusion

The general picture that emerges is of a small set of verb markers that reflect forms reconstructible only as verb markers plus a larger set of verb markers in which case marking is prominent. Among the verb-only markers are reflexes of remote proto-forms such as *\*-ga* for the imperative, *\*-NHu* past tense and *\*-gi* past or perfect (Dixon 1980:381). Reflexes of these proto-forms are monosyllabic or in some languages monophonemic. In most Australian languages some verb suffixes are polysyllabic and a majority of these seem from casual internal and cross-language inspection to reflect more than one morpheme. In fact a majority of polysyllabic inflectional markers on the verb look as if they contain a case marker. In Australian languages there is often no verbal inflection with zero realisation (Dixon 1980:379), so if case markers are transferred to verbs, then they are going to be suffixed to forms bearing overt inflection and thus produce polysyllabic markers.

There is no motivation to add case markers to an independent verb, but where a verb, and hence a clause, realises a complement or an adjunct, there is every reason to use case marking on the verb to signal its function. It is not surprising, therefore, to find numerous instances of dependent verbs bearing nominalisers plus identifiable case markers. What is perhaps not so expected is the use of such verbs as independent verbs. In a majority of Pama-Nyurigan languages the purposive is used in independent clauses (see (5)); in some languages participial forms are used as main verbs, and in a few languages inflections consisting of a nominaliser plus case marker are used as part of the tense system. In Warluwara, for instance, the present tense markers are *-dha* and *-dya*, which can be shown to derive from *-nhdha* and *-nydya*. These markers also show up as the nominaliser and appear to reflect the widespread -nominaliser *-NHDHa-* discussed in section 3.3.

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