

# Zero Arguments in Jiwarli, Western Australia<sup>\*</sup>

PETER K. AUSTIN

*Jiwarli is an Australian Aboriginal language that was formerly spoken in the north-west of Western Australia. It shows a high degree of (suffixing) morphological complexity, has a split-ergative case-marking system, and a switch-reference system in dependent clause linkage. Verbs are also strictly subcategorized for transitivity and there are interactions between clause type and case marking. A prevalent feature of Jiwarli discourse is the non-occurrence of overt arguments in both main and dependent clauses. In narratives, 65–75% of transitive clauses have at least one missing argument (depending on genre), with 20% consisting of just a verb alone. Also, 25% of intransitive clauses lack their single (intransitive subject) argument. Zero arguments in Jiwarli can have either unspecified reference or else be anaphoric. This paper discusses the occurrence of zero arguments and outlines the means by which anaphoric relations are expressed. I will show that there is an interaction between verb transitivity, clause type, switch-reference, and the case-marking system which assists with reference determination in narrative discourse.*

## 1. Introduction

Jiwarli is an Australian Aboriginal language traditionally spoken in the north-west of Western Australia, inland from the towns of Carnarvon and Onslow. It is closely related to three neighbouring languages: Thiin, Warriyangka and Tharrkari, constituting the Mantharta subgroup (Austin 1981, 1988a,b). The last speaker of Jiwarli, Jack Butler, died in 1986 after recording textual and elicitation materials between 1981 and 1985, including some 70 texts (published in Austin (1997)). These texts form the database for the current paper.

The recent literature on the morpho-syntax of Australian Aboriginal languages has identified many of them as being of the non-configurational type (Hale 1980, 1983; Blake 1983; Simpson 1983, 1991; Jelinek 1984; Heath 1986; Laughren 1989; Austin & Bresnan 1996; Austin 2000; Bresnan 2001), with the following characteristics:

1. word order at the clause level is free—any arrangement or rearrangement of

---

<sup>\*</sup> This paper would not have been possible without the assistance of the late Jack Butler who taught me Jiwarli and shared his knowledge of the language and culture with me. Thanks also to Mary Laughren, Simon Musgrave, David Nash, and Patrizia Pacioni for references, comments, and advice on an earlier draft.

- words within a clause results in no change in linguistic meaning. There is no ‘syntactically neutral’ ordering of subjects, objects, and verbs;
2. elements which can be thought of as a single semantic unit (say nominal heads and their associated demonstratives and modifiers) can be, and often are, represented discontinuously within the clause. These languages have rich systems of nominal case marking, and it is generally true that discontinuous nominal expressions with the same morphological marking can be interpreted as semantic units (so-called ‘split NP syntax’);
  3. nominals are freely omissible.

Jiwarli is clearly of this non-configurational type, as shown by Austin and Bresnan (1996); its split-NP syntax has been discussed in Austin (1995), and word order characteristics in Austin (2000). The present paper is concerned with omission of nominals.

Morphologically, Jiwarli is an entirely suffixing dependent-marking language with fairly transparent agglutinating word structure. The following section describes the basic morphological categories.

## 2. Morphological Background

Jiwarli has two major morphosyntactic categories: Nominal and Verb. Nominals inflect for case according to a split-ergative system (Silverstein 1976; Blake 1987) in main clauses where formal marking shows syncretism according to inherent lexical content (animacy) of the marked nominal. Nominals include the semantic subclasses of noun, adjective, pronoun and demonstrative. The first-person singular pronoun *ngatha* (and optionally the second-person pronoun *nhurra*) syncretize on a nominative/accusative pattern, i.e. the forms for intransitive and transitive subject functions (abbreviated following Blake (1987) as S and A, respectively) fall together, while there is a different form (accusative) for transitive object (P) function. Inanimate nominals and demonstratives syncretize ergative and absolutive, i.e. there is one form (ergative) for A function, but S and P functions are marked by a single form. All other nominals have three distinct forms for A, S, and P functions (see also Austin 1995). Case coding of P varies in dependent clauses and occurs as dative or allative, depending on clause type (see Austin 2000).

Case marking applies at the word level since in Jiwarli all (non-predicate) nominals bear case. Semantically related nominals (such as heads and their modifiers) are all coded for grammatical function,<sup>1</sup> realized locally according to the animacy of the nominal, regardless of whether they are adjacent or not. Consider the following examples (semantically related nominals are bolded):<sup>2</sup>

---

<sup>1</sup> In some Australian languages a sequence of adjacent related nominals bears case on the right edge constituent only; when separated by other constituents, such as the verb, each nominal is then coded for case.

<sup>2</sup> Sources for examples are indicated by a code at the end of the English free translation line: T plus a number refers to texts in Austin (1997), N plus a number refers to page and sentence number of elicitation notebooks.

- (1) *Yinha* *nhurra* *parlura-rni-nma* *payipa* *nganaju*.  
 this.acc 2sg.erg full-caus-imper pipe.acc 1sg.dat.acc  
 ‘You fill up this pipe of mine!’ [T61s11]
- (2) *Juru-ngku* *ngatha-nha* *kulypa-jipa-rminyja* *parna*.  
 sun-erg 1sg-acc be sore-tr-past head.acc  
 ‘The sun made my head sore.’ [T19s3]
- (3) *Kutharra-rru* *ngunha* *ngurnta-inha* *jiluru*.  
 two.nom-now that.nom lie-pres egg.nom  
 ‘Now those two eggs are lying (there).’ [T51s9]
- (4) *Karla* *wantha-nma-rni* *jarnpa* *juma*.  
 fire.acc give-imper-hence light.acc small.acc  
 ‘Give me a small fire light.’ [T61s15]

Adnominal modifiers such as alienable possessors carry two case markers: a dative coding adnominal genitive and a further case in agreement with the function of the head (resulting in case stacking—see Austin 1995; Nordlinger 1998), as in:

- (5) *Juma* *jirrilarri-a* *thuthu-wu* *nganaju-wu* *yakan-ku-wu*.  
 child.abs be afraid-pres dog-dat I.dat-dat spouse-dat-dat  
 ‘The child is afraid of my wife’s dog.’ [N13p55s3]
- (6) *Payal-pa* *wirripuka* *warnti-ja* *manyja-nhu* *thurnti-yi*  
 that is all-phon many.nom get up-past hunt-imperfss vegetable food-dat  
*pirru-ngka,* *ngula* *thana-mpa-la* *wayurta-la* *pirru-ngka*  
 meat-loc that.loc they pl-dat-loc opossum-loc meat-loc  
 ‘So they all got up and went hunting for food, for their possum meat.’  
 [T43s18]

Adjuncts in Jiwari also carry case markers in agreement with a controlling element in their clause. Thus, adjuncts whose scope includes a transitive subject will take ergative case following their adjunct case marker (ablative, allative), as in:

- (7) *Juma-ngku* *ngatha-nha* *nhanya-nyja* *maya-ngka-nguru-lu*.  
 child-erg I-acc see-past house-loc-ablat-erg  
 ‘The child watched me from the house.’ [N10p10s3]

Similar ergative agreement applies to manner adverbs and epistemic modals, as in:

- (8) *Wurnta-nma* *nhapa* *pirru* *tharti-ngku*.  
 cut-imper this.acc meat.acc quickly-erg  
 ‘Cut this meat quickly!’ [N5p71s1]

This kind of case agreement plays a role in disambiguation of cross-clausal anaphoric reference, as discussed in Section 5.2 below.

Members of the category of Verb in Jiwarli are morphologically marked for tense or mood in main clauses, and for various types of clause linkage in hypotactically linked dependent clauses (including switch-reference—see below). Verbs are strictly subcategorized for transitivity in Jiwarli into one of four types:

1. *intransitive* verbs that take a single S argument;
2. *extended intransitive* verbs that take an S argument and a dative marked complement;
3. *transitive* verbs that take an A argument and a P argument;
4. *ditransitive* verbs that take an A argument and two arguments both marked like a P argument.

For any given inflected verb it is thus possible to tell if it has ‘missing’ arguments since transitivity is strictly adhered to.<sup>3</sup> As we will see, it is particularly common in Jiwarli for arguments to be missing in both main and dependent clauses.

### 3. Expression of Arguments in Jiwarli Discourse

Verbs in Jiwarli sentences may be accompanied by one or more arguments, or else may occur with no arguments at all. A count of selected traditional mythological narrative texts (from Austin 1997) reveals the argument and word order distributions for approximately 200 clauses (elliptical clauses are shown in bold) shown in Table 1.

**Table 1.** Traditional mythology

	Text 39	Text 40	Text 41	Text 42	Text 43	Text 44	Total
S V <sub>i</sub>	12	13	8	9	25	14	81
V <sub>i</sub> S	1	1	2	5	10	2	21
<b>V<sub>i</sub></b>	4		1	2	6	12	25
							127
A P V <sub>tr</sub>	1				2	1	4
A V <sub>tr</sub> P			2		5		7
P A V <sub>tr</sub>				2	3	1	6
P V <sub>tr</sub> A					1		1
V <sub>tr</sub> A P			1				1
<b>A V<sub>tr</sub></b>	1	1	3	1	1	2	9
<b>P V<sub>tr</sub></b>		6		2	6	1	15
<b>V<sub>tr</sub> A</b>				1	1	1	3
<b>V<sub>tr</sub> P</b>		2		3	10	2	17
<b>V<sub>tr</sub></b>		2	1	6	4	6	19
							82

<sup>3</sup> There are a few pairs of homophonous verbs where one is intransitive and the other transitive; however, they are conjugated differently in Jiwarli, e.g. *tharrpa*-V<sub>tr</sub> ‘to insert’ is in conjugation 1 while *tharrpa*-V<sub>i</sub> ‘to enter’ is in conjugation 4.

**Table 2.** Historical narratives

	Text 57	Text 58	Text 59	Text 60	Text 61	Text 62	Text 63	Total
S V <sub>i</sub>	13	5	7	1	15	5	8	54
V <sub>i</sub> S	6		4	3	9	4	1	27
V <sub>i</sub>	5	5	4		6	2	1	23
								104
A P V <sub>tr</sub>	1	1	1	1				4
A V <sub>tr</sub> P	1		1		2		2	6
P A V <sub>tr</sub>		2	1	2	1			6
P V <sub>tr</sub> A	1	1			1			3
V <sub>tr</sub> A P								
V <sub>tr</sub> P A					1			1
A V <sub>tr</sub>			4	1	3		2	10
P V <sub>tr</sub>	4	3	1		3			11
V <sub>tr</sub> A	1	1	2	2	1			7
V <sub>tr</sub> P					1	1		2
V <sub>tr</sub>		1			4		1	6
								56

**Table 3.** Word order summary

	Total 1	Total 2	Grand total
S V <sub>i</sub>	81	54	135
V <sub>i</sub> S	21	27	48
V <sub>i</sub>	25	23	48
	127	104	231
A O V <sub>tr</sub>	4	4	8
A V <sub>tr</sub> O	7	6	15
O A V <sub>tr</sub>	6	6	12
O V <sub>tr</sub> A	1	3	4
V <sub>tr</sub> A O	1		1
V <sub>tr</sub> O A		1	1
A V <sub>tr</sub>	9	10	19
O V <sub>tr</sub>	15	11	26
V <sub>tr</sub> A	3	7	10
V <sub>tr</sub> O	17	2	19
V <sub>tr</sub>	19	6	25
	82	56	138

**Table 4.** Elliptical clauses

	Traditional	Historical	Total
Intransitive	61%	65%	63%
Elliptical intransitive	20%	22%	21%
Elliptical transitive	77%	64%	72%
Sentences counted			
—intransitive	127	104	231
—transitive	82	56	138
—total	209	160	369

**Table 5.** Text-initial clauses

	Elementary	Conversation	Myth	Ethnography	Reminiscence	Total
S V <sub>i</sub>	11	3	7	4	6	31
V <sub>i</sub> S	1		2	1	1	5
V <sub>i</sub>					2	2
S N <sub>pred</sub>	1			1	1	3
N <sub>pred</sub> S				1	4	5
A V <sub>tr</sub>	1	2				3
A P V <sub>tr</sub>	1					1
A V <sub>tr</sub> P	1	2		1		4
P V <sub>tr</sub> A	1		1			2
P A P V <sub>tr</sub>					1	1
V <sub>tr</sub> - A P	1					1
V <sub>tr</sub> P <sup>a</sup>	1					1
loc V <sub>tr</sub>				1		1
Total	19	7	10	9	15	60

<sup>a</sup> This sentence is imperative with the second person addressee omitted.

For narrative texts about historical events we find a similar distribution shown in Table 2.

Table 3 sets out a summary of the orders and types found in the two text genres.

If we look at the distribution in terms of transitivity and ellipsis, we find that fully 21% of intransitive clauses are missing their S argument while 77% of traditional narrative and 64% of historical narrative are missing at least one of their A or P arguments, as shown in Table 4.

Importantly, elliptical clauses are almost never found as the first sentence of a text—Table 5 shows the word order counts for initial sentences of 60 texts in Austin (1997). Only six of these are elliptical; they are primarily in the conversations and personal reminiscences (where the speaker is describing his life history), and it is always the S or A that is missing.

The circumstances under which arguments may be omitted in non-initial clauses

are the focus of the remainder of this paper: essentially omission occurs for non-specific reference and for zero anaphora.

#### 4. Non-specific Reference

Non-specific reference occurs when the speaker is unable or chooses not to identify a referent (Carlson 1995). In Jiwarli, such non-specific third person referents can be simply omitted, as in the following examples (see also line 4 of example (11) below). Firstly, we have the case of the speaker choosing not to provide a specific S referent (notice that this is not a generic reference since in Jiwarli bare generic nouns such as *mantharta* ‘person’ are used for this purpose, as in the P of the third sentence in this example):

(9) *Jilinpirrira wangka-ja.*  
 mudlark.nom say-past  
 ‘Mudlark said.’ [T44s16]

*Warri wanka-rra-ra parru ngapa-minyjaparti nganthurra-lu.*  
 not alive-inchoat-fut again bury-perfds 1pl-erg  
 ‘(They) will not become alive again after we have buried (them).’ [T44s17]

*Ngapa-lka mantharta marrungku.*  
 bury-fut person.acc for ever  
 ‘(We) will bury people for ever.’ [T44s18]

Omission may also occur when the speaker simply does not know the identity of a referent, as in the second line of the following extract from a text involving the mythological hero Pulhapayara and another protagonist whose name the speaker could not recall:

(10) *Pulhapayara-lu kanya-nyja pirru ngunha.*  
 Pulhapayara-erg carry-past meat.acc that.acc  
 ‘Pulhapayara carried that meat.’ [T45s3]

*Mujiya-minyja kajalpu ngarri-ngka kampa-minyjalu.*  
 steal-past emu.acc ashes-loc cook-perfss  
 ‘(Someone) stole the emu after (Pulhapayara) had cooked it in the ashes.’  
 [T45s4]

#### 5. Specific and Anaphoric Reference

##### 5.1. Main Clauses

In Jiwarli texts, as in other languages, referring expressions are used to introduce participants to the discourse and track them. First mentions are typically in S or A function in main clauses and are achieved by use of nouns (including names) which

may be modified by accompanying adjectival nominals or demonstratives. Subsequent reference, when the entity is accessible or predictable to the addressee, typically involves shorter and semantically less explicit forms (Givón 1983; Ariel 1990; Ewing this volume; Stirling this volume). In Jiwarli a common pattern is for the second mention of third persons to be just a distal demonstrative (*ngunha* ‘that’, or its inflected forms) functioning like a third-person pronoun.<sup>4</sup> Such a demonstrative can be accompanied by the suffix *-pa* which indicates identifiability, i.e. the speaker assumes that the hearer can identify the referent of the referring expression. Third and subsequent mentions are usually expressed by omission of the argument (zero anaphora). The following two examples illustrate this; firstly the beginning of Text 44 where the culture hero Pulhapayara is introduced (cf. (10) above)—the expressions used to refer to Pulhapayara are indicated in Table 6 (note the zero non-specific A in line 4):

- (11) *Wirntu-ri-nyja*      *ngunha-pa*      *pulhapayara*.  
 dead-inchoat-past    that.nom-spec    Pulhapayara.nom  
 ‘Pulhapayara died.’ [T44s1]

*Pulhapayara*      *mantharta*    *ngunha-purra-thu*.  
 Pulhapayara.nom    person      that-time-top  
 ‘Pulhapayara was a man at that time.’ [T44s2]

*Ngunha*      *wirntu-ri-nyja*.  
 that.nom      dead-inchoat-past  
 ‘He died.’ [T44s3]

*Ngapa-rninyja*    *ngunha*.  
 bury-past      that.acc  
 ‘(They) buried him.’ [T44s4]

*Yalha-ngka*    *wantha-rninyja*.  
 ground-loc    put-past  
 ‘(They) put (him) in the ground.’ [T44s5]

*Kumpa-ja*    *juru-ngka*    *nhaa-la*    *ngulha*    *jarrku-ngka*    *juru-ngka*.  
 stay-past    day-loc      what-loc    nothing    three-loc    day-loc  
 ‘(He) stayed in the ground for, what was it, three days.’ [T44s6]

<sup>4</sup> Jiwarli has third person pronouns, such as *panha* ‘3sg.nom’ *panhalu* ‘3sg.erg’ however they are very infrequently used and are emphatic.

**Table 6.** Referent representation Text 44

Line	Function	Form
1	S	Demonstrative- <i>pa</i> Noun
2	S	Noun
3	S	Demonstrative
4	P	Demonstrative
5	P	Ø-anaphor
6	S	Ø-anaphor

A second example comes from Text 45 in the Appendix—here Pulhapayara is introduced as a Noun in line 3, then referred to with a distal demonstrative on second mention and then expressed as a zero anaphor in the following six sentences. Then for two sentences the speaker highlights a second referent (‘the stick’), previously introduced as a peripheral instrument, and in line 11 the main participant is reintroduced with a distal demonstrative marked with the identifiability suffix *-pa*, plus the suffix *-thu* that codes topical information. A second mention after the reintroduction is again with a demonstrative and then the next mention uses a zero anaphor. This is summarized in Table 7.

**Table 7.** Referent representation Text 45

Line	Function	Form
3	A	Noun
5	S	Demonstrative
6	S	Ø-anaphor
7	S	Ø-anaphor
8	A	Ø-anaphor
9	A	Ø-anaphor
10	A	Ø-anaphor
11	S	Ø-anaphor
14	S	Demonstrative- <i>pa-thu</i>
15	S	Demonstrative
17	A	Ø-anaphor
18	S	Ø-anaphor

As these examples clearly show, main participant referring expressions are introduced in core argument functions, usually S or A, first as nouns and demonstratives, then subsequently referred to using the distal demonstrative and then zero anaphora. Typically such zeros are highly continuous S or A function elements and zero anaphora can persist over six sentences in narrative texts.

It is important to note that zero anaphors in Jiwarli are not restricted to third persons but can be used for reference to any person. Thus, the following example shows zeros with first person singular reference:

- (12) *Warri yana-artu ngatha kartaju-la.*  
 not go-usit 1sg.nom night-loc  
 ‘I never used to go in the night.’ [T47s44]
- Yana-artu ngulha jurrinypi-rnu.*  
 go-usit nothing walk about-imperfss  
 ‘(I) never used to go walking about.’ [T47s45]
- Ngurru-martu-la kumpa-artu.*  
 old man-pauc-loc sit-usit  
 ‘(I) used to live with the old men.’ [T47s46]

First person plural is found in:

- (13) *Juma-rti nganthurra-ju warri yana-artu kartaju-la*  
 child-pl.nom 1pl-excl.nom not go-usit night-loc  
*jurrinypi-rnu.*  
 walk about-imperfss  
 ‘We children never used to go walking about at night.’ [T55s33]
- Kumpa-artu.*  
 sit-usit  
 ‘(We) used to sit.’ [T55s34]
- Ngurnta-artu.*  
 lie-usit  
 ‘(We) used to lie down.’ [T55s35]

In the following example we have second person singular reference for a zero anaphor in the last sentence (note the intervening first person dual A which is skipped in preference to the second person participant introduced in the first line—this example comes from a tape-recorded message sent to the addressee):

- (14) *Tape, ngunha nhurra-lu karla-rninyja-rni.*  
 that.acc 2sg-erg send-past-hence  
 ‘You sent the tape here.’ [T67s4]
- Yinha ngali-ju kumpa-inha wangka-arni.*  
 this.nom 1dl-excl.nom sit-pres talk-non sing  
 ‘So we (this one and I) are talking [on the tape].’ [T67s5]
- Warri yana-nyja-rni kuwarti jurruru-wu ngurnu*  
 not come-past-hence now Jurruru-dat that.dat  
*piyal-ku warriyangka-wu piyal-ku jiwarli-yi.*  
 language-dat Warriyangka-dat language-dat Jiwarli-dat  
 ‘(You) didn’t come this time for Jurruru, Warriyangka and Jiwarli languages.’  
 [T67s6]

These examples illustrate the fact that zero anaphora is used for continuous reference to any person and number in Jiwarli.

### 5.2. Hypotactically Linked Dependent Clauses

Jiwarli has a number of non-finite clause types that are linked to their main clause by hypotaxis (dependency but without embedding). Most of these clauses code both the type of dependency (in terms of relative tense and aspect categories) plus switch-reference, i.e. coreference or non-coreference of the dependent clause subject (S or A) with the main clause subject (S or A)—see Austin (1981c) and Stirling (this volume). Crucially, the subject of the dependent clause *must* be a zero anaphor: if the dependent clause is marked SS then this anaphor must be identified as coreferential with the main clause subject. When the main clause controlling coreferential NP is a transitive subject then in elicitation ergative case is added to the dependent verb inflection, as in:

- (15) *Nhurra-kara-lu thika-nma yarrukarri-ngu-ru-thu.*  
 you-pl-erg eat-imper want-imperfss-erg-def  
 ‘You eat it if you want it!’ [N11p39s3]

In narrative texts this ergative agreement does not appear:

- (16) *Ngatha papa-ngku-rru puntha-rninyja pirtura-rni-rnu*  
*I.erg water-erg-now douse-past extinguish-caus-imperfss*  
*karla-wu.*  
 fire-dat  
 ‘I doused (him) with water and put the fire out.’ [T52s22]

For different subject clauses there are two possible situations:

1. there is coreference with some element other than the main clause subject;
2. there is no cross-clausal coreference.

In relative non-future clauses, when there is non-subject coreference then the dependent verb subject (typically S, rather than A) *must be* a zero anaphor and there is a case marker attached to the DS-marked verb to code the *case* of the element in the clause which binds the zero anaphor. Examples are the following (the agreeing case marker is bolded—note as in example (18) that the controlling nominal may itself be a zero anaphor):

- DS-subject coreferential with main **P**:

- (17) *Tharla-nma yinha julyu-nha kamu-rru-ya-nha.*  
 feed-imper this.acc old man-acc hunger-inchoat-imperfds-acc  
 ‘Feed this old man who is becoming hungry!’ [T13s1]

- (18) *Payalpa-nthu-rru ngatha nhanya-nyja wirmtu*  
 at last-again-now I.erg see-past dead.nom  
*ngurnta-iniya-nha.*  
 lie-imperfds-acc

‘At last I saw (him) lying dead.’ [T14s4]

• DS-subject coreferential with main clause **dative**:

- (19) *Juma-rti jirril-arri-a mantharta-wu*  
 child-pl.nom afraid-inchoat-pres man-dat  
*nyirnta kumpa-iniya-wu.*  
 there.loc sit-imperfds-dat

‘The children are afraid of the man sitting there.’ [N10p11s3]

- (20) *Kujinu ngunha ngurru-nyjarri-yi kulypa-iniya-wu.*  
 medicine that.nom old man-pl-dat be ill-imperfds-dat

‘It is a medicine for old people when they are sick.’ [T52s50]

• DS-subject coreferential with main clause **locative**:

- (21) *Wuru ngunha tharrpa-rminyja ngarti-ngka*  
 stick.acc that.acc insert-past inside-loc  
*kajalpu-la ngarri-ngka ngurnta-iniya-la.*  
 emu-loc ashes-loc lie-imperfds-loc

‘(He) inserted the stick inside the emu lying in the ashes.’ [T40s9]

It is important to note that the agreement is with the case of the controlling nominal, not its grammatical function. The following complex example illustrates this—Jiwarli dependent verb transitive objects take special case coding depending on the clause type (Austin 2000), for purpose-same subject clauses this is allative case, which is then copied to the verb of the clause which is dependent on it:

• DS-subject coreferential with controlling clause **allative**:

- (22) *Ngurnmu-malu-ru mantharta-nyjarri-lu wantha-rminyja-rni ngatha-nha*  
 that.dat-pl-erg person-pl-erg give-past-hence 1sg-acc  
*pirru kumpa-iniya-rla yinha yana-puka ngatha*  
 meat.acc sit-imperfds-allat this.acc go-purpds 1sg.nom  
*julyu-rla wantha-rru nyirnta kumpa-iniya-rla.*  
 grey hair-allat give-purpss here.loc sit-imperfDS-allat

‘Those people gave me this meat to go to give it to the old man sitting here.’ [N9p108s1]

In the Jiwarli text data there are *no* examples of dependent transitive clauses showing coreference between the dependent transitive subject and a matrix non-subject nominal. Only intransitive subject may be controlled in different subject clauses with coreference.

These examples clearly show the role of the case markers added to the switch-reference inflected verb in serving to indicate the referential binding of the anaphoric zero subject of the hypotactically linked clause. This is parallel to the use of case for adverbs and adjuncts noted above.

## 6. Conclusions

Non-expression of nominals in Jiwarli is widespread and serves a number of functions, including unspecific reference and zero anaphora (for all persons and numbers). The interpretation of zero anaphors in different clause types is unambiguous and arises from an interaction between several morphosyntactic systems and discourse preferences:

- strict verbal transitivity and split-ergative case marking;
- switch-reference plus case coding on verbs of dependent hypotactically linked clauses;
- restriction of controlled anaphora in dependent clauses to intransitive subject only;
- discourse preferences for anaphoric reference to be second or third mentions in linked main clauses.

Although a number of other Australian Aboriginal languages have been identified in the literature as dependent marking non-configurational like Jiwarli, little research to date has been published on the role of zero anaphora in this language type. Hopefully, future research will reveal how general are the patterns we have identified for this particular language.

## References

- Ariel, Mira 1990 *Accessing Noun-Phrase Antecedents* Routledge London.
- Austin Peter 1981a 'Proto-Kanyara and proto-Mantharta historical phonology' *Lingua* 54: 41–77.
- Austin Peter 1981b 'Switch-reference in Australia' *Language* 57: 309–334.
- Austin Peter 1988a 'Classification of southern Pilbara languages' *Papers in Australian Linguistics* No. 17: 1–17. *PL A*-71.
- Austin Peter 1988b 'Aboriginal languages of the Gascoyne–Ashburton region' *La Trobe University Working Papers in Linguistics* 1: 43–63.
- Austin Peter 1992a 'Cases and clauses in Jiwarli Western Australia' Ms La Trobe University.
- Austin Peter 1992b 'A reference grammar of the Mantharta languages' Ms La Trobe University.
- Austin Peter 1995 'Double case marking in Kanyara and Mantharta languages' in Frans Plank (ed.) *Agreement by Suffixaufnahme* Oxford University Press Oxford: 363–379.
- Austin Peter 1997 *Texts in the Mantharta Languages Western Australia* ILCAA Tokyo University of Foreign Studies Tokyo.
- Austin Peter 2000 'Word order in a free word order language: the case of Jiwarli' Ms University of Melbourne (to appear in a Festschrift with Pacific Linguistics, 2001).
- Austin Peter & Joan Bresnan 1996 'Non-configurationality in Australian Aboriginal languages' *Natural Language and Linguistic Theory* 14: 215–268.
- Blake Barry J. 1983 'Structure and word order in Kalkatungu: the anatomy of a flat language' *Australian Journal of Linguistics* 3: 143–175.
- Blake Barry J. 1987 *Australian Aboriginal Grammar* Croom Helm London.
- Bresnan Joan 2001 *Lexical-functional Syntax* Blackwell Oxford.

- Carlson Gregory 1995 *The Generic Book* Chicago University Press Chicago.
- Givón, Talmy 1983 'Topic continuity in discourse: an introduction' In T Givón (ed.) *Topic continuity in Discourse: a quantitative cross-language study* John Benjamins Amsterdam.
- Hale Kenneth 1980 'The position of Walbiri in a typology of the base' Indiana University Linguistics Club Bloomington.
- Hale Kenneth 1983 'Warlpiri and the grammar of non-configurational languages' *Natural Language and Linguistic Theory* 1(1): 5–74.
- Heath Jeffrey 1986 'Syntactic and lexical aspects of non-configurationality in Nunggubuyu (Australia)' *Natural Language and Linguistic Theory* 4: 375–408.
- Jelinek Eloise 1984 'Empty categories and non-configurational languages' *Natural Language and Linguistic Theory* 2: 39–76.
- Laughren Mary 1989 'The configurationality parameter and Warlpiri' in L Maracz & P Muysken (eds.) *Configurationality: the typology of asymmetries* Foris Dordrecht: 319–353.
- Nordlinger Rachel 1998 *Constructive Case: evidence from Australia* Center for the Study of Language and Information Stanford.
- Silverstein Michael 1976 'Hierarchy of features and ergativity' in RMW Dixon (ed.) *Grammatical Categories in Australian Languages* AIAS Canberra/Humanities Press New Jersey: 112–171.
- Simpson Jane 1983 'Aspects of Warlpiri morphology and syntax' Doctoral dissertation MIT.
- Simpson Jane 1991 *Warlpiri Morpho-syntax: a lexicalist approach* Kluwer Dordrecht.

## Appendix: Text 45

1 *Ngunha-pa ngunha kajalpu ngarri-ngka wantha-rninyja*  
that-spec that.acc emu.acc ashes-loc put-past

*jirnti-nyungu-lu ngulu-pa.*  
sky-provenience-erg that.erg-spec  
'At that time the god<sup>5</sup> put the emu in the ashes.'

2 *Yawartamayi pulhapayara kartumayi.*  
Yawartamayi Pulhapayara Kartumayi  
'Yawartamayi, Pulhapayara and Kartumayi.'

3 *Pulhapayara-lu kanya-nyja pirru ngunha.*  
Pulhapayara-erg carry-past meat.acc that.acc  
'Pulhapayara carried that meat.'

4 *Mujiya-rninyja kajalpu ngarri-ngka kampa-rninyjalu.*  
steal-past emu.acc ashes-loc cook-perfss  
'(Someone) stole the emu after (Pulhapayara) had cooked it in the ashes.'

5 *Ngunha yana-nyja ngurnta-nhu-rru kumpa-yi.*  
that.nom go-past lie-imperfss-now sit-purpss  
'He went to lie down.'

---

<sup>5</sup> The god referred to here has three names, all mentioned in the following line. The major name used by Jack Butler is Pulhapayara.

6 *Kuru-rrri-rarringu.*  
eye-inchoat-intent  
'(He) woke up.'

7 *Yana-rarringu ngurlu-pa ngarri-rla.*  
go-intent that.allat-spec ashes-allat  
'(He) went to the ashes.'

8 *Yirrara-thu ngunha wuru-ngku ngarri kala-rni-rninyja-rru.*  
top.loc-top that.acc stick-erg ashes.acc like this-causat-past-now  
'On top of the ashes (he) went like this with a stick.'

9 *Wuru ngunha tharrpa-rninyja ngarti-ngka kajalpu-la*  
stick.acc that.acc insert-past inside-loc emu-loc  
*ngarri-ngka ngurmta-iniya-la.*  
ashes-loc lie-imperfds-loc  
'(He) inserted the stick into the emu lying in the ashes.'

10 *Jikalpa-lkarringu-rru.*  
hold up-intent-now  
'(He) went to lift (it) up.'

11 *Pampa-rru kumpa-ja jikalpa-rru.*  
cannot-now sit-past hold up-imperfss  
'(He) couldn't lift it up.'

12 *Wuru-thu ngunha panyji-nyja-rru.*  
stick.nom-top that.nom break-past-now  
'The stick broke.'

13 *Wuru ngunha panyji-nyja martura-rru.*  
stick.nom that.nom break-past middle.nom-now  
'The stick broke in the middle.'

14 *Ngunha-pa-thu warni-nyja yarnara-rru.*  
that.nom-spec-top fall-past on back.nom-now  
'He fell on his back.'

15 *Ngurmta-ja ngunha-pa kurlkanyu-rri-ngu-rru.*  
lie-past that.nom-spec thinking-inchoat-imperfss-now  
'(He) lay there thinking.'

16 *Nhaa-nha yilu wantha-rninyja nyirnta ngarri-ngka*  
what-acc this-erg put-past here.loc ashes-loc  
*kajalpu-parnti-la.*  
emu-ablat-loc  
'What has he put here in the ashes after the emu?'

17 *Nhanya-rarri yuwi-rru puni-ya yirrara-kurirra-rru*  
look-intent fly.nom-now go-imperfds above-direct-now

*kurla-niya wakararri-ya yuwi yirrara-kurirra.*  
climb-imperfds fly-imperfds fly.nom above-direct  
'(He) saw a fly going up climbing and flying up.'

18 *Nhanya-ngu ngurnta-irarri.*  
look-imperfss lie-intent  
'(He) lay down looking.'