

1982 e.1

WORK PAPERS OF SIL-AAB

Series A Volume 6

**PAPERS IN WARLPIRI GRAMMAR:
IN MEMORY OF LOTHAR JAGST**

Editor: S. Swartz

SUMMER INSTITUTE OF LINGUISTICS
AUSTRALIAN ABORIGINES BRANCH
DARWIN
JUNE 1982

SUMMER INSTITUTE OF LINGUISTICS
AUSTRALIAN ABORIGINES BRANCH
GERMAN, DARWIN
N.T. 5709 AUSTRALIA



SUMMER INSTITUTE OF LINGUISTICS 1982

ISBN 0 86892 237 4

PREFACE

These Work Papers are being produced in two series by the Summer Institute of Linguistics, Australian Aborigines Branch, Inc. in order to make results of SIL research in Australia more widely available. Series A includes technical papers on linguistic or anthropological analysis and description, or on literacy research. Series B contains material suitable for a broader audience, including the lay audience for which it is often designed, such as language learning lessons and dictionaries.

Both series include both reports on current research and on past research projects. Some papers by other than SIL members are included, although most are by SIL field workers. The majority of material concerns linguistic matters, although related fields such as anthropology and education are also included.

Because of the preliminary nature of most of the material to appear in the Work Papers, these volumes are being circulated on a limited basis. It is hoped that their contents will prove of interest to those concerned with linguistics in Australia, and that comment on their contents will be forthcoming from the readers. Papers should not be reproduced without the authors' consent, nor cited without due reference to their preliminary status.

Views expressed by the authors are not necessarily those of SIL.

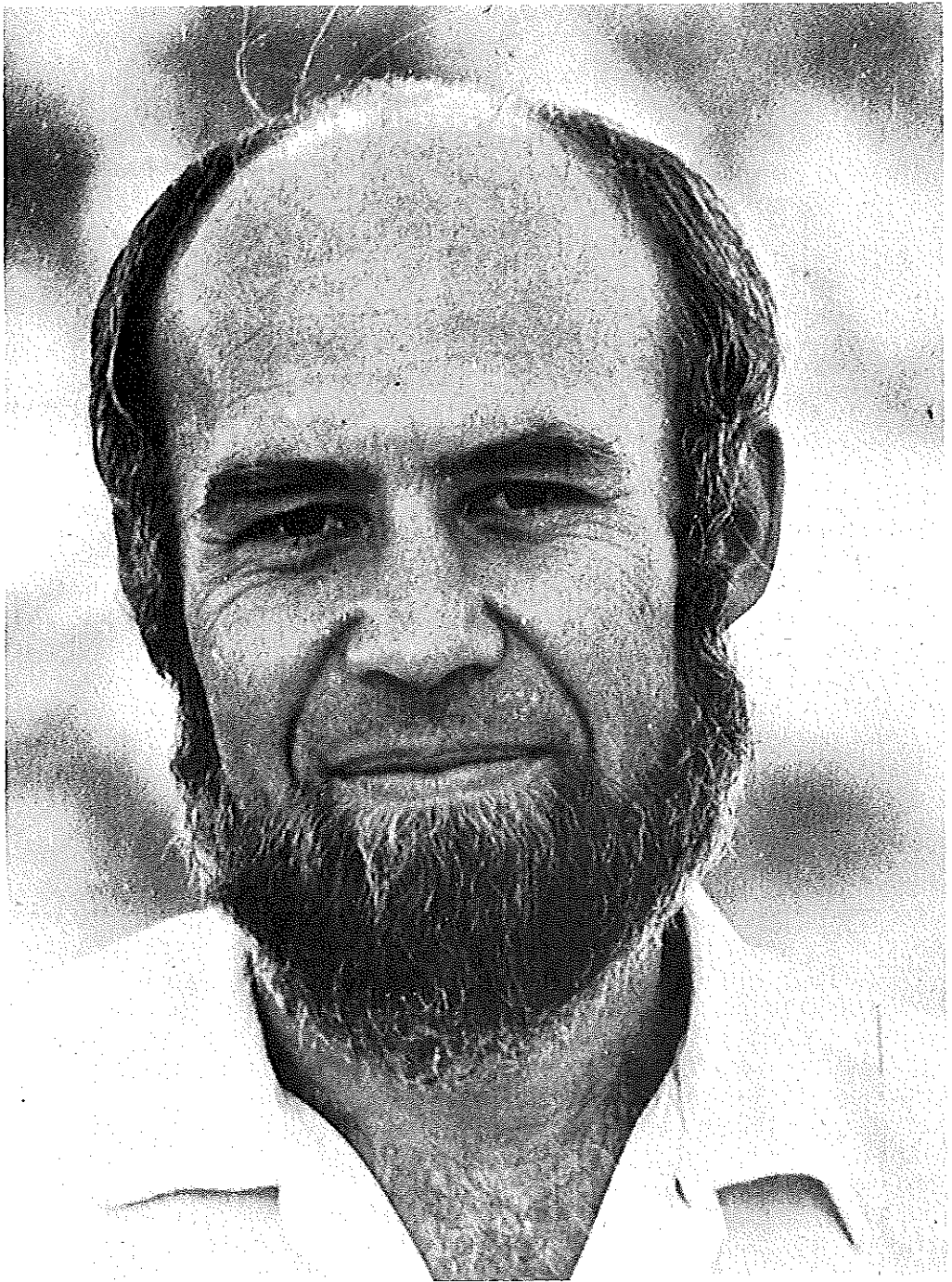
Research resulting in this volume was partially funded by grants from the Department of Aboriginal Affairs.

To order individual volumes of the Work Papers, or to place a standing order for either series, write:

Bookseller
SIL
PO Berrimah
Darwin NT 5788
Australia

S. K. Hargrave
Series Editor





LOTHAR H. JAGST

INTRODUCTION TO SERIES A VOLUME 6

By all accounts and recollections, Lothar Jagst (1934 - 1976) was an independent and determined individual. Working under the auspices of the Summer Institute of Linguistics, Australian Aborigines Branch, he, along with his wife Else and four children, commenced work with the Warlpiri people at Hooker Creek (now Lajamanu) in 1969. Already multilingual, he plunged into the acquisition of Warlpiri with the same perfectionist zeal which apparently characterized his previous language experience. It is said by his colleagues that his speech bore no trace of foreign accent, but that he strove to adapt his speech entirely to the local idiom. And even today, those Warlpiris who can be encouraged to speak of this lost friend readily acknowledge that he spoke Warlpiri *pirrjirdi manu jungarni nyayirni*, 'hard and really true'.

Lothar Jagst died unexpectedly while hunting wallaby near Darwin with Kenny Walker Jupurrula, a Warlpiri mate and kinship father. He died as he was just beginning to realize his true ambition, that of translating the Bible into the Warlpiri tongue. But he was more than a Bible translator to the people of Hooker Creek. He was a friend. He gave himself selflessly to a variety of community services: carting firewood and beef to those without, keeping accounts for the local store, repairing automobiles, taking men on hunting trips and to sacred sites, teaching a few to read their own language, and probably much, much more of which I am unaware.

Lothar Jagst left behind, among other things, an incomparable measure of good will. Since 1978 when my wife and I moved to Lajamanu to take up Lothar's work of Bible translation and language study, we have been continually aware that our acceptance has depended in large part upon his legacy and that of his family. I recall that on our first evening in Lajamanu, I was driven several miles out of town to the men's 'sacred business' camp. I was introduced as being like Jakamarra, doing what he had done, learning the language, translating the Bible. As one by one the old men shook hands with me I felt they were shaking hands with a friend from long ago.

This volume has been compiled in memory of Lothar Jagst. The first paper is a previously unpublished work by Lothar, written sometime around 1972 but never completed. It was only recently discovered in a collection of his files. The orthography has been changed to conform to current use, but apart from this and a few minor editorial changes, the paper is presented as he wrote it. The other papers have been graciously submitted in his memory by Drs. Nash,

Hale, and Laughren, who each have spent considerable time and energy studying the Warlpiri language. I, who have benefited greatly from previous work by all the others, also submit my paper in his memory.

One final tribute to Lothar Jagst is included, written by Maurice Luther Jupurrula, a Warlpiri man who knew him and on occasion assisted him in his language study. It is reproduced here as it was written in Warlpiri with the English translation following.

*Nyampu karna yirrarni manngi nyanjakarrarlu
Jilpirliwanakurlu, Jakamarra. Kujarnalu
yirrarnu nganimpanyangurla yardayardarla, walya
nganimpanyangurla. Puntu manu wampirralparna
ngarrumu. Jarlupatu ngajunyangu warrawarraka-
ngujana. Kangulpajana wirlinyi manu manjiki.
Ngulangka karna purda nyanyi ngajunyangu
mikilyirla. Ngajunyangu Warlpiri rdirri yungu
jaru wangkanjaku manu yirrarninjaku pipangka.
Wampirrakurlangu jaru kapu yirrakarla pipangka
Warlpirikirli ngajunyangurla jarungka. Kapurna
tarnnganguku purda nyanyi ngurrjunyayirmi
Jakamarra. Kujakalu ngajunyangurlu yapangu
Warlpiripaturlu purda nyanyi nginyinginyirla
manu kurturdurmurla. Kujanganpa milki yirrarnu
Wapirra Kaatu manu nyamungunyangu ngalapi nyanu
Jiju. Kapurnalu purda nyanyi tarnnganguku manu
yimi ngarrirmi Jilpirliwana.*

Thinking about him I am telling this about Jakamarra, the one buried at Jilpirli. We buried him at Jilpirli, our sacred place. I called him friend and father. He took care of my old people. He would take them hunting and camping. Because of that I think of him in my mind. My Warlpiri langugae he started to speak and to put on paper. He would have put God's word on paper in my language. I will always remember how really good Jakamarra was. My Warlpiri people remember him in their minds and hearts. He showed us Father God and his son Jesus. We will always remember him and talk about the one buried at Jilpirli.

Stephen M. Swartz
Volume Editor

TABLE OF CONTENTS

	Page
Preface	iii
Introduction	vii
A TENTATIVE DESCRIPTION OF NGARDILPA (WARLPIRI) VERBS by Lothar H. Jagst	
0. Introduction	1
1. Verb Transitive	3
1.1 Transitive Declarative Without Locative	3
1.2 Transitive Declarative With Locative	20
2. Verb Transitive	27
2.1 Intransitive Declarative Without Locative	28
2.2 Intransitive Declarative With Locative	37
3. Verb Middle	46
4. Verb Stative	46
5. Query	50
5.1 Query With Verb Transitive	51
5.2 Query With Verb Intransitive	59
5.3 Query With Verb Transitive or Intransitive and Locative	66
5.4 Query With Verb Stative	66
SYNTACTIC STRUCTURE OF WARLPIRI CLAUSES by Stephen M. Swartz	
0. Introduction	69
1. Semantic Features of Verbs	72
2. Syntactic Verb Classes	74
2.1 Definition of Key Terms	74
2.2 Intransitive Verbs	77
2.3 Bi-Intransitive Verbs	80
2.4 Middle Verbs	81
2.5 Transitive Verbs	82
2.6 Bi-Transitive Verbs	85

	Page
3. Ranking in the Selection of Pronominal Clitics	86
4. Comparison With the Analysis of Warlpiri by K. Hale	88
Footnotes	93
Appendix 1 - Warlpiri Orthography	95
Appendix 2	97
Text 1 - 'The Firesaw'	98
Text 2 - 'Christian Dances'	104
Text 3 - 'The Crow and the Boy'	106
Vocabulary	120
References	127
A PRELIMINARY DESCRIPTION OF PROPOSITIONAL PARTICLES IN WARLPIRI	
by Mary Laughren	129
1. Particle: Phonological, Morphological and Syntactic Status	130
1.1 Phonological Status	130
1.2 Morphological Characteristics	131
1.3 Syntactic Behaviour	132
2. Propositional Particles	
2.1 Defining Characteristics	137
2.2 Nganta	137
2.3 Kari	141
2.4 Karinganta	144
2.5 Kulanganta	148
2.6 Marda	150
2.7 Ngari ~ Ngayi	152
2.8 Ngarra	155
2.9 Wayi	156
2.10 Kapi/Kapu	157
2.11 Murra	158
3. Conclusion	158
Footnotes	160
Abbreviations	162
References	163

	Page
WARLPIRI VERB ROOTS AND PREVERBS by David Nash	165
0. Introduction	166
1. Some Issues Relevant to Preverbs	169
1.1 Typological Parallels	169
1.2 Morphological Structure of Suffixed Compounds	171
2. Preverbs in Warlpiri	173
2.1 Semi-Productive Preverbs	173
2.2 Lexical Preverbs	176
2.3 Semantic Compositionality	177
2.4 Productive Preverb-Verb Combinations	180
2.4.1 Adverbial Preverbs	180
2.4.2 Dative-Adjunct Preverbs	183
2.4.3 Derived Preverbs	184
2.5 Etymology of Preverbs	185
2.6 Examples: Verbs in /yi-nyi/ 'to give'	186
2.6.1 Productive Preverbs	186
2.6.2 Semi-Productive Preverbs	186
2.6.3 Lexical Preverbs	186
2.7 Summary of Preverb Properties	190
3. Classification of Warlpiri Roots	190
3.1 Roots With Many Preverb-Derived Stems	191
3.2 Roots With a Few Preverb-Derived Stems	192
3.3 Roots With No Derived Stems (Combine Only With Productive Preverbs)	192
3.4 Etymologically Complex Roots	196
4. Comparison of Verb-Root Inventories	197
5. Conclusion	200
Appendix - Verb Roots in Neighbouring Languages	201
Table 1 - Gurindji Verb Roots	202
Table 2 - Walmatjari Verb Roots	203
Table 3 - Jaru	204

	Page
Table 4 - Warlmanpa	205
Footnotes	209
References	213
SOME ESSENTIAL FEATURES OF WARLPIRI VERBAL CLAUSES by Kenneth Hale	217
0. Introductory Remarks	217
1. The Ergative-Absolutive Case System and the Principal Verbal Subcategories	220
1.1 Subjectless Sentences	231
1.2 Verbs With a Single (Subject) Argument	232
1.3 Problems of Transitivity	237
1.4 Verbs With Two Arguments	241
1.5 Another Two Argument-Pattern	248
1.6 Three-Argument Verbs	250
1.7 The Adjunct Dative	253
2. The Semantic Cases and the Complementizers	256
2.1 The Spatial Cases	257
2.2 Instrumental Adverbs and Adverbs of Manner and Time	275
2.3 Purposive and Jussive Expressions	281
2.4 Tense-Relative Complementizers: Temporal Coincidence	290
2.5 Temporal Succession	302
2.6 Negative Purposive and Admonitive Expressions	305
3. Concluding Remarks	310
Footnotes	311
References	314

SOME ESSENTIAL FEATURES OF WARLPIRI VERBAL CLAUSES¹

Kenneth Hale

0. INTRODUCTORY REMARKS

The primary division among Warlpiri predicators corresponds to the major two-way division in the Warlpiri parts of speech system, i.e. verbs and nominals. Thus Warlpiri has main clauses which can appropriately be designated 'verbal' — in which the predicator is a verb (V) — and it has main clauses which might analogously be designated 'nominal' — in which the predicator belongs to the nominal (N) part of speech. The first type is illustrated by such sentences as

- (1) (a) Kurdu ka yula-mi.
child PRES cry-NPST
'The child is crying.'
- (b) Ngaju ka-rna parnka-mi.
I PRES-1 run-NPST
'I am running.'
- (c) Ngarrka-ngku ka karli jarnti-rni.
man-ERG PRES boomerang trim-NPST
'The man is trimming the boomerang.'
- (d) Kurdu wanti-ja.
child fall-PST
'The child fell.'

- (e) Ngaju-rna wanti-ja.
 I-1 fall-PST
 'I fell.'
- (f) Ngarrka-ngku karli jarntu-rnu.
 man-ERG boomerang trim-PST
 'The man trimmed the boomerang.'
- (g) Ngajulu-rlu-rna marlu pantu-rnu.
 I-ERG-1 kangaroo spear-PST
 'I speared the kangaroo.'

And the second type is illustrated by such sentences as the following:

- (2) (a) Kurdu mata.
 child tired
 'The child is tired.'
- (b) Ngaju-rna mata.
 I-1 tired
 'I am tired.'
- (c) Nyuntu-mpa wati.
 you-2 man
 'You are a (fully initiated) man.'
- (d) Ngaju-rna ngapa-ku ngampurrpa.
 I-1 water-DAT desirous
 'I want water.'
- (e) Nyuntu-mpa jaru-ku ngurrpa.
 you-2 language-DAT ignorant
 'You do not know (the) language.'

This general, and quite clear-cut, two-way classification of predicate types corresponds not only to the major division in parts of speech, but also to a semantic distinction between active and stative predicators.

All verbal predicators, so far as I am aware, are active in Warlpiri — they all appear with the full range of modality categories (tense-mood-aspect) associated with the Warlpiri verb and auxiliary system. In main clauses, verbs are inflected for tense and mood and they co-occur with the entire range of auxiliary bases (cf. Hale 1976) which flesh out the full tense-mood-aspect system. Verbs are also classified into five conjugations (two populous polysyllabic conjugations and three very sparsely populated monosyllabic ones). Although the range of meaning covered by Warlpiri verbs subsumes categories classified as stative in other languages — e.g. the perception verbs — these cannot be classified as stative in Warlpiri, since no known test for stativity will succeed in separating them from other Warlpiri verbs in any way corresponding to the well-known active-stative distinction of other languages.

By contrast, the nominal predicators bear all of the earmarks of stativity. They do not combine with the modality categories at all. While it is possible to say that they co-occur with an auxiliary, it is formally the most impoverished — consisting of the zero (i.e. phonologically null) base — and its existence can be detected only by virtue of the overt person markers which attach to it in the same manner as in verbal sentences. These person markers are visible in (2b-e) above, /-rna/ '1 (first singular subject)', and /-npa/'2 (second singular subject)'. The first of these is also seen in the verbal sentence (1b) above, where it is attached to the phonologically overt auxiliary base /ka-/ 'PRES (present)', and in (1e,g) where it is combined with the zero base and is phonologically enclitic to the first non-auxiliary word of the sentence. (Cf. Hale 1973, Nash 1980 for some discussion of the position of auxiliaries in the surface forms of Warlpiri sentences.) The possible presence of an auxiliary in (2a) can only be assumed by analogy with (2b), since the subject noun phrase, being third person singular, contributes no overt person marker to the auxiliary. This is a general fact concerning the third singular and can be seen in the verbal sentences (1a,c,d,f) as well. It should also be pointed out in this regard that the auxiliary is optional in non-verbal sentences, while it is obligatory (albeit sometimes not overt) in verbal sentences. Thus, beside (2b-c), the following are also possible:

- (2') (b) Ngaju mata
 I tired
 'I am tired.'
- (c) Nyuntu wati.²
 you man
 'You are a man.'

But the auxiliary cannot be similarly omitted from (1b,e), for example. Hence,

- (1') (b) *Ngaju parnka-mi.
(c) *Ngaju wanti-ja.

This is another contrast between verbal and nominal predicators.

The range of meanings covered by nominal predicators embraces not only concepts typically associated with the noun and adjective categories of other languages, but also concepts associated with the category of stative verbs, e.g.:

/ngampurrpa/	'desirous'	(cp. 'to want')
/jukuru/	'apathetic'	(cp. 'not to want')
/pina/	'knowing'	(cp. 'to know')
/ngurrpa/	'ignorant'	(cp. 'not to know')

However, unlike verbs, whose principal grammatical function is predicative, nominals have a variety of other functions. Morphologically, they are clearly opposed to the class of verbs and are associated with a distinct system of nominal inflections described in detail in Nash 1980. While the Warlpiri verb has an infinitive form, which is in effect a nominalization of the verb, the verbal theme cannot enter directly into the nominal morphology. Verbal and nominal inflections belong to utterly distinct systems in Warlpiri — the verbal-nominal opposition is thus clear-cut and fundamental. The primary area of overlap consists in the syntactic fact that both categories may function predicatively.

In the following sections, a more detailed treatment of Warlpiri sentence patterns will be given. My attention here will be focused upon the verbal sentence rather than on the non-verbal sentence.

1. THE ERGATIVE-ABSOLUTIVE CASE SYSTEM AND THE PRINCIPAL VERBAL SUBCATEGORIES

The minimal tensed clause in Warlpiri consists of an inflected verb, the argument(s) thereof, and an auxiliary. The auxiliary (AUX) is briefly discussed in a variety of sources (Hale 1973, 1976; Nash 1980). It consists, abstractly speaking, of 1) a base, functioning in concert with the verbal inflections to mark tense, mood, and aspect, and 2) pronominal suffixes indicating person and number of the principal arguments of the verb (i.e. subject, object).

The principal arguments of the verb, when overtly represented by noun phrases, participate in a system of case marking which conforms to the so-called ergative-absolutive type. According to this pattern

of case marking, the subject of an intransitive sentence and the direct object of a transitive sentence are treated alike — in Warlpiri they are in the absolutive (ABS) case, which is phonologically unmarked — and they are jointly opposed to the subject of a transitive sentence, which is especially marked for case. The pattern is exemplified in the following sentences:

- (3) (a) Marlu ka parnka-mi.
 kangaroo AUX run-NPST
 'The kangaroo is running.'
- (b) Ngarrka ka wangka-mi.
 man AUX speak-NPST
 'The man is speaking.'
- (c) Marlu-ngku ka ngarrka nya-nyi.
 kangaroo-ERG AUX man see-NPST
 'The kangaroo sees the man.'
- (d) Ngarrka-ngku ka marlu panti-rni.
 man-ERG AUX kangaroo spear-NPST
 'The man is spearing the kangaroo.'

Notice that the subjects of (3a-b) and the objects of (3c-d) are treated in identical fashion, from the point of view of case marking; they are unmarked, or absolutive. But the subjects of (3c-d) are marked for case, by suffix. This is typical of the ergative system of case marking. Following established tradition, I will refer to the ending appearing on the subjects of (3c-d) as the 'ergative' (ERG) ending. It has two distinct alternants in Warlpiri (and in many other Australian languages as well; see, for example, Dixon 1976). The selection of ergative alternants, with marginal exceptions, is governed by the following simple principle: the velar-initial alternant /-ngku/ appears on disyllabic stems (as in 3c-d above), while a lateral-initial alternant /-rlu/ appears on stems longer than disyllabic. (For the purposes of this principle, long vowels, written VV, count as disyllabic.) The second alternant is observed in the following sentences:

- (4) (a) Japanangka-rlu ka marlu panti-rni.
 japanangka-ERG AUX kangaroo spear-NPST
 'Japanangka (i.e. a person designated by the subsection name /japanangka/) is spearing the kangaroo.'

(b) Maliki-rli ka kurdu yarlki-rni.

dog-ERG AUX child bite-NPST

'The dog is biting the child.'

The vocalism of the ergative ending in (4b) conforms to an extremely general rule of Warlpiri phonology according to which suffixal /u/ assimilates to a preceding stem-final /i/. The same assimilation rule applies to the velar-initial alternant of the ergative ending as well, of course, as can be seen in the following:

(5) Wati-ngki ka wawirri panti-rni.

man-ERG AUX kangaroo spear-NPST

'The man is spearing the kangaroo.'

The meaning of (5) is the same as (3d); the two sentences illustrate an interesting feature of the Warlpiri lexicon, namely the existence of synonymous sets (consisting of two or more phonologically distinct morphs) for an extraordinarily large number of concepts. This is especially noticeable in the nominal lexicon, but it is to some extent true of verbs and minor categories as well. I mention this feature of Warlpiri here so that the reader will not be surprised to see phonologically distinct items identically glossed in the illustrative examples.

Before proceeding, an additional aside should be made concerning the format in which Warlpiri examples are presented. No attempt is made to ensure that the English translations, given in single quotes, cover the full range of meanings of the Warlpiri. In particular, except where an overt determiner is present, the Warlpiri examples do not specify definiteness in the noun phrases. Hence, any natural English rendition is necessarily more specific in this regard than is the Warlpiri. For the most part, I arbitrarily choose to use the definite article in the English translations. The reader should not infer from this that the corresponding noun phrase is necessarily definite in Warlpiri. With regard to the analytic glossing, major lexical items are written in their conventional English spellings, while suffixes are in upper case (often in the form of abbreviations, e.g. DAT for 'dative', NPST for 'non-past', and so on). Unless it is relevant to the discussion, the auxiliary is left unanalyzed and glossed AUX. Where the AUX is subanalyzed, the base is glossed in upper case (e.g. PRES for 'present tense auxiliary base', FUT for the 'future' base, and so on), and person marking suffixes are glossed by means of numerals (e.g. 1 for 'first singular', 11 for 'first dual exclusive', 12 for 'first dual inclusive', 22 for 'second dual', 333 for 'third plural', and so on). Hyphenation in the Warlpiri is used simply as an analytical aid for the reader and is not intended to conform to the hyphenation practices which have

been adopted or are under consideration in the Warlpiri community. Word divisions conform to accepted Warlpiri conventions; thus auxiliaries beginning in the zero base or in the imperfective base /-lpa/ are attached, in writing, to the word preceding them. All other auxiliaries are written unattached.

Returning now to the Warlpiri patterns of case marking, I should mention at the outset that the ergative-absolutive (ERG-ABS) combination is not the only case array which exists for two-argument verbs. A prominent second pattern is illustrated in the sentences of (6) below, in which the subject is absolutive while the object is marked for a case category which is traditionally called the 'dative' (DAT) in the Australianist literature (cf. Dixon 1980 and Dixon 1976):

- (6) (a) Kurdu ka-rla ngarrka-ku parda-rni.
child PRES-rla man-DAT wait-NPST
'The child is waiting for the man.'
- (b) Marlu ka-rla maliki-ki jija-mi.
kangaroo PRES-rla dog-DAT succumb-NPST
'The kangaroo is succumbing to the dog.'

The variable vocalism of the dative ending is due to the assimilation rule mentioned in connection with (4b) above. The element /-rla/ appearing in the auxiliary is not a person marker in the usual sense; rather, it is what Perlmutter (personal communication) has called a 'registration' marker. In this instance, it signals the presence of a third singular dative argument.

These two most conspicuous case arrays — the ERG-ABS array and the ABS-DAT array — will be discussed in detail in subsequent paragraphs.

My identification of Warlpiri case marking as 'ergative' conforms to the traditional usage according to which the sentence type employing the ABS-DAT array (not considered 'fully transitive') is left out of consideration in assessing the typological position of the system as a whole. The assessment is made solely upon the comparison exemplified in (3) above. Within this traditional scheme, the Warlpiri system of case marking is classically ergative, since it accords uniform treatment to the intransitive subject and the transitive object while opposing these two functions jointly to the transitive subject. Crucial to this definition, however, are the notions 'subject' and 'object', and it is appropriate here to mention at least one criterion by which they can be identified with ease and without ambiguity. A variety of behavioral properties are

associated with the subject and object relations, but person-number agreement is the most readily observable.

As mentioned above, the auxiliary includes pronominal suffixes in agreement with the principal arguments of the verb. These person markers occur in two sets, one of which is construed with subjects, the other with objects. The full system is described elsewhere (Hale 1973), but enough will be introduced here to reveal the basic principle involved.

In sentences like (3a-d) above, it is not possible to observe the behavior of the person marking system because of the simple fact that third person singular, whether subject or object, is not overtly marked in the auxiliary. But if the noun phrases in (3a-d) are replaced by corresponding non-singular forms, the person marking becomes clearly visible. Thus, consider the following sentences, parallel to (3a-d) but with the subject noun phrases in a plural number (glossed PL):

- (7) (a) Marlu-patu ka-lu parnka-mi.
kangaroo-PL PRES-333 run-NPST
'The (several) kangaroos are running.'
- (b) Ngarrka-patu ka-lu wangka-mi.
man-PL PRES-333 speak-NPST
'The (several) men are speaking.'
- (c) Marlu-patu-rlu ka-lu ngarrka nya-nyi.
kangaroo-PL-ERG PRES-333 man see-NPST
'The (several) kangaroos see the man.'
- (d) Ngarrka-patu-rlu ka-lu marlu panti-rni.
man-PL-ERG PRES-333 kangaroo spear-NPST
'The (several) men are spearing the kangaroo.'

And consider the following, parallel to (3c) and (7c) but with the object in the plural:

- (8) (a) Marlu-ngku ka-jana ngarrka-patu nya-nyi.
kangaroo-ERG PRES-333 man-PL see-NPST
'The kangaroo sees the (several) men.'

- (b) Marlu-patu-rlu ka-lu-jana ngarrka-patu nya-nyi.
 kangaroo-PL-ERG PRES-333-333 man-PL see-NPST
 'The (several) kangaroos see the (several) men.'

In sentences (7a-b), the element /-lu/ is required in the auxiliary because of the plural noun phrases /marlu-patu/ 'the (several) kangaroos' and /ngarrka-patu/ 'the (several) men'. If we assume, as is customary, that the sole argument in an intransitive sentence of this simple type is to be identified as the 'subject', then we can say that /-lu/ is associated with the subject relation — it serves to indicate that the subject argument is third person plural. Now let us assume further, following customary practice again, that /-lu/ fulfills this same function in transitive sentences. This enables us to determine which of the two case categories — ergative or absolutive — is to be associated with the subject relation in transitive sentences. As is quite evident from our sample, it is the ergative case which is associated with the subject relation, since an ergatively marked plural noun phrase requires /-lu/ in the auxiliary. By the same sort of reasoning, we can determine that the element /-jana/ is associated with the object relation. It serves to indicate that the object argument is third person plural.

Now if the grammatical relations 'subject' and 'object', as identified in terms of the agreement system, are aligned with the case system, the classical ergative pattern emerges: intransitive subject and transitive object are in the absolutive, while transitive subject is in the ergative.

Precisely the same picture emerges when we consider sentences in which the arguments are first or second person. Thus consider

- (9) (a) Ngaju ka-rna wangka-mi.
 I PRES-1 speak-NPST
 'I am speaking.'
- (b) Nyuntu ka-nga wangka-mi.
 you PRES-2 speak-NPST
 'You are speaking.'
- (c) Ngajulu-rlu ka-rna marlu nya-nyi.
 I-ERG PRES-1 kangaroo see-NPST
 'I see the kangaroo.'

- (d) Nyuntulu-rlu ka-mpa marlu panti-rni.
you-ERG PRES-2 kangaroo spear-NPST
'You are spearing the kangaroo.'
- (e) Marlu-ngku ka-ju ngaju nya-nyi.
kangaroo-ERG PRES-1 me see-NPST
'The kangaroo sees me.'
- (f) Ngajulu-rlu ka-rna-ngku nyuntu nya-nyi.
I-ERG PRES-1-2 you see-NPST
'I see you.'
- (g) Nyuntulu-rlu ka-mpa-ju ngaju panti-rni.
you-ERG PRES-2-1 me spear-NPST
'You are poking (spearing) me.'

From these sentences it is quite clear that the first and second singular person markers /-rna/ and /-mpa/ are associated with the subject relation, while the corresponding markers /-ju/ and /-ngku/ are associated with the object relation.

We can arrange the person markers so far illustrated (including the null forms corresponding to the third person singular) in the following table, which portrays the person and number of each marker together with the grammatical relation with which it is associated:

(10)		<u>subj</u>	<u>obj</u>
	1	-rna	-ju
	2	-mpa	-ngku
	3	zero	zero
	333	-lu	-jana

With certain exceptions (see Hale 1973 for details) person markers of the two sets appear in the relative order *subj-obj* when they co-occur in the auxiliary. Their construal — i.e. their association with overt noun phrases — can be stated strictly in terms of the case system. We may formulate the principle of subject construal as follows:

(11) Subject Construal

Person markers belonging to the *subj* set are construed with the ergative, if there is one, otherwise the absolutive.

The disjunction {ergative, absolutive} plays a role in other areas of Warlpiri grammar where the identification of the subject is at issue (e.g. control). The construal rule formulated in (11) above will pick out the ergative noun phrase in a transitive sentence of the type represented by (3c-d), (7c-d), (8a-b) and (9c-g), and it will pick out the absolutive noun phrase in the intransitive type represented by (3a-b), (7a-b) and (9a-b). Notice also that this rule will pick out the absolutive noun phrase, for construal with the *subj* set of person markers, in ABS-DAT sentences of the type represented by (6a-b) above. That this is indeed the correct subject construal is shown by the following sentences, chosen not only to illustrate subject construal but also to reveal the full principle involved in object construal as well:

- (12) (a) Kurdu-patu ka-lu-rla ngarrka-ku parda-rni.
 child-PL PRES-333-rla man-DAT wait-NPST
 'The (several) children are waiting for the man.'
- (b) Kurdu ka-jana ngarrka-patu-ku parda-rni.
 child PRES-333 man-PL-DAT wait-NPST
 'The child is waiting for the (several) men.'
- (c) Kurdu-patu ka-lu-jana ngarrka-patu-ku parda-rni.
 child-PL PRES-333-333 man-PL-DAT wait-NPST
 'The (several) children are waiting for the (several) men.'
- (d) Ngaju ka-rna-rla kurdu-ku parda-rni.
 I PRES-1-rla child-DAT wait-NPST
 'I am waiting for the child.'
- (e) Ngaju ka-rna-jana kurdu-patu-ku parda-rni.
 I PRES-1-333 child-PL-DAT wait-NPST
 'I am waiting for the (several) children.'
- (f) Kurdu ka-ju ngaju-ku parda-rni.
 child PRES-1 me-DAT wait-NPST
 'The child is waiting for me.'
- (g) Ngaju ka-rna-nkgu nyuntu-ku parda-rni.
 I PRES-1-2 you-DAT wait-NPST
 'I am waiting for you.'

These data suggest that (11) is the proper rule for subject construal and, moreover, that the following is the appropriate formulation for object construal:

(13)

Object Construal

Person markers belonging to the *obj* set are construed with the dative, if there is one, otherwise the absolutive.

The full implications of this formulation will become evident in a later subsection (1.6) when three-argument verbs are discussed. The role of the disjunction {dative, absolutive} in identifying the object relation is also manifest in other areas of Warlpiri grammar. For the present, it is sufficient to note that (13) will correctly select the dative noun phrase for object construal in two-argument sentences exhibiting the ABS-DAT case array, and it will select the absolutive for object construal in the 'classically transitive' two-argument sentences exhibiting the ERG-ABS array. The full account must also, of course, provide for the 'registration' within the auxiliary (by means of the element /-rla/) of a third singular dative in sentences of the type represented by (6) and (12a,d). (See Hale 1973 for some discussion.)

The foregoing has outlined the essential features of the ergative case system of Warlpiri. It should be mentioned at this point — though it will become increasingly obvious as we proceed — that Warlpiri shows relatively little ergativity in its grammar as a whole. In fact, the case system just outlined is the principal manifestation of ergativity in Warlpiri. As we have seen, the agreement system operates according to the 'accusative' principle in which subjects — whether of transitive or intransitive sentences — are treated uniformly and in opposition to the objects of transitive sentences. (See the papers in Dixon 1976 for discussions of ergative as opposed to accusative systems.) Warlpiri is predominantly accusative, not ergative, and it properly belongs to the type sometimes designated 'morphologically ergative' (cf. Comrie 1978) by virtue of the fact that the major manifestation of ergativity is in the case marking of noun phrases.

The three case categories so far mentioned — ergative, absolutive, and dative — by no means exhaust the inventory of Warlpiri cases. However, these three constitute the set to which I will refer by means of the term 'grammatical cases' and which I will oppose to a numerically larger set of 'semantic cases'. The distinction between grammatical and semantic cases is fundamental in Warlpiri and its validity will become evident enough as we proceed. For the present, we can mention one readily appreciable contrast between the two, namely their behavior with respect to the agreement phenomena just

introduced: grammatical cases are construed with person markers in the auxiliary, while semantic cases are not.

From the point of view of meaning and general function, the semantic cases correspond to various 'oblique' categories, such as locative, allative, relative, etc. It is possible, also, that the 'complementizer' suffixes appearing on infinitival subordinate clauses in Warlpiri should also be viewed as a special subvariety within the class of semantic cases since, morphologically and in other respects as well, they share many features with the elements conventionally classified as semantic cases. The semantic cases of Warlpiri will be catalogued fully in section 2, but I briefly exemplify here the 'locative' (LOC /-ngka ~ -ria/) with alternants selected according to the same principle as that which operates in the ergative (see above), the 'allative' (ALL /-kurra/ indicating the end-point of motion or trajectory), and the 'relative' (EL /-ngurlu/ indicating the starting-point of motion or trajectory). Notice, in particular, that noun phrases marked with these cases are not 'co-indexed' in the auxiliary:

- (14) (a) Kurdu ka ngaju-kurra ya-ni-rni.
child PRES me-ALL go-NPST-HITHER
'The child is coming to me.'
- (b) Ngalipa kapi-rlipa pirli-patu-rla nyina-mi.
we FUT-122 stone-PL-LOC sit-NPST
'We (plural inclusive) will sit on the (several) stones.'
- (c) Kurdu-patu ka-lu ngaju-ngurlu parnka-mi-rra.
child-PL PRES-333 me-EL run-NPST-THITHER
'The (several) children are running from me (i.e. from the place where I am).'

In the subsections which follow (1.1-1.6), Warlpiri verbs are classified in terms of their argument structures — i.e. their 'diathesis' or 'valency', which is to say, the immediate syntactic environment in which they appear. Before embarking upon this discussion, however, it is appropriate to mention a conspicuous fact about Warlpiri sentences in natural speech. In most of the examples used heretofore, verbs which are quite correctly said to 'take' a certain number of arguments are actually exhibited with their full complement of arguments overtly expressed as noun phrases in the appropriate grammatical cases. In a significant percentage of instances in actual speech, however, these arguments would not be present as overt noun phrases — rather, their referents would,

so to speak, be 'understood' through a combination of context, the known (semantic) argument structure of the verb, and the person-number marking present in the auxiliary. These 'missing noun phrases' are interpreted in essentially the same way as pronouns are interpreted in languages like English. Thus, while a verb like /parnka-mi/ 'x run' can be said, correctly, to require a subject argument (represented by the x-variable in the gloss here) — and it indeed has an overt noun phrase argument in (1b) above, for example — it may appear in perfectly well-formed sentences *without* a noun phrase corresponding to the subject function. Such sentences, with noun phrases 'missing' in this sense, are as well-formed and as appropriate in usage as are their English translations, which require pronouns in subject position:

- (15) (a) Parnka-mi ka.
run-NPST PRES
'He/she/it is running.'
- (b) Parnka-mi ka-rna.
run-NPST PRES-1
'I am running.'
- (c) Parnka-mi ka-lu.
run-NPST PRES-333
'They are running.'

The only stricture on the acceptability of sentences like (15a,c) above is that they be used 'co-operatively' (in the sense of Lasnik 1976, for example) — i.e. that the speaker have reason to believe that the addressee knows the referents of the third person forms. The exactly analogous observation applies in the case of verbs which take more than one argument. Thus the following — with noun phrases 'missing' — are perfectly well-formed, their use being constrained only by the 'co-operation' principle:

- (16) (a) Marlu ka nya-nyi.
kangaroo PRES see-NPST
'He/she/it sees the kangaroo.'
- (b) Marlu-ngku ka nya-nyi.
kangaroo-ERG PRES see-NPST
'The kangaroo sees him/her/it.'
- (c) Nya-nyi ka.
see-NPST PRES
'He/she/it sees him/her/it.'

- (d) Nya-nyi ka-rna.
 see-NPST PRES-1
 'I see him/her/it.'
- (e) Parda-rni ka-rna-jana.
 wait-NPST PRES-1-333
 'I am waiting for them.'

Although it is an interesting question, and one of some theoretical importance as well, I will not argue here for any one of the conceivable answers to the question of how sentences with 'missing' noun phrases are derived in a grammar of Warlpiri — whether by a process of 'pronoun drop' or as an option in the base-forms of sentences (but see Hale 1979, 1981). The phenomenon is mentioned here primarily to prepare the reader for illustrative examples in which one or more arguments are omitted in the above sense.

1.1 SUBJECTLESS SENTENCES

Although, as we have just seen, any Warlpiri verb may appear without overt noun phrase arguments, it is somewhat doubtful that any verbs necessarily so occur. Specifically, it is doubtful that so-called subjectless verbs exist in Warlpiri. It is possible that /rangkarr-ka-nyi/ 'it become pre-dawn', as in (17) below, is such a verb:

- (17) Rangkarr-ka-nyi ka.
 predawn-verb-NPST PRES
 'It is becoming predawn.' (Cf. /rangkarrkurlu-rangkarrkurlu/ 'the period between midnight and sunrise')

And there may be others referring, as this one does, to diurnal phases. A verb like /munga-jarri-mi/ 'it become dark, night' (cf. /munga/ 'night, dark') is typically subjectless in expressions like

- (18) Munga-jarri-mi-lki ka.
 dark-INCHOATIVE-NPST-NOW PRES
 'It is getting dark now.'

but it is sometimes suggested by Warlpiri speakers that the 'understood' subject is /ngurra/ 'camp, home, country', or else /nguru/ 'sky, country, area'. In any event, the verb of (18) readily accepts overt noun phrase subjects — including the suggested 'understood' subjects — and verbs of the type represented in (17), not yet documented with an overt subject, are exceedingly rare.

Weather expressions in Warlpiri are, for the most part, intransitive sentences in which an overt 'weather noun' subject — e.g. /ngapa/ 'water, rain', /payi/ 'wind' — appears with a verb whose meaning is not limited to this sphere:

- (19) (a) Ngapa ka wanti-mi.
 water PRES fall-NPST
 'It is raining.'
- (b) Ngapa ka wangka-mi.
 water PRES speak-NPST
 'It is thundering.'
- (c) Payi ka wangka-mi.
 wind PRES speak-NPST
 'It is windy. The wind is blowing.'

1.2 VERBS WITH A SINGLE (SUBJECT) ARGUMENT

As mentioned in the introduction to this section, stative predicators are not verbs in Warlpiri; rather, they are nominals. However, these readily combine with the derivational suffix /-jarri-mi/ 'inchoative' (INCH), which forms first conjugation intransitive verbs of process or change-of-state:

- (20) wita-jarri-mi (small-INCH-) 'ABS become small'
 wiri-jarri-mi (big-INCH-) 'ABS become big, grow'
 ngurrju-jarri-mi (good-INCH-) 'ABS become good, improve'
 maju-jarri-mi (bad-INCH-) 'ABS become bad, worsen'
 nyurnu-jarri-mi (sick/dead-INCH-) 'ABS sicken, die'
 palka-jarri-mi (manifest-INCH-) 'ABS become manifest, be born'
 lawa-jarri-mi (absent-INCH-) 'ABS disappear, become absent'
 linji-jarri-mi (desiccated-INCH-) 'ABS become desiccated'
 pampa-jarri-mi (blind-INCH-) 'ABS become blind'
 lani-jarri-mi (afraid-INCH-) 'ABS become afraid, frightened'
 ngarrka-jarri-mi (man-INCH-) 'ABS become a man, be initiated'

N.B. When verbs are cited out of context, they are given in the nonpast form (NPST, though the ending is not glossed in out-of-context citations). The form of the nonpast ending will serve to locate the verb within the conjugation system (see Nash 1980). The English translation of Warlpiri verbs employs case-linked variables (ABS, ERG, etc.) so that the reader can see at a glance what the syntax of the Warlpiri verb is — thus 'ABS grow' indicates that the verb translates as *grow* and that it takes a single, absolutive argument in Warlpiri.

Derived inchoatives of the type represented by (20) above constitute the vast majority of process verbs in the Warlpiri lexicon. Some process verbs, however, are morphologically simple — e.g.

- (21) pali-mi 'ABS die; ABS (fire) go out'
janka-mi 'ABS burn'
kampa-mi 'ABS burn (syn. of preceding)'
lirri-mi 'ABS swell'
papi-mi 'ABS ignite, catch fire'
parnti-mi 'ABS smell, emit odor'

— and a number are morphologically complex, consisting of a preverb and a verbal base:

- (22) rdilyki-ya-ni (broken-go-) 'ABS break'
kaljarr-(y)a-ni (PV-go-) 'ABS melt'
yawu-pardi-mi (PV-arise/emerger-) 'ABS abate, stop (e.g. rain)'
lakarn-pardi-mi (peeling-arise/emerger-) 'ABS come unstuck,
open (as flower bud)'
jarra-pardi-mi (flame-arise/emerger-) 'ABS burst into flame'

N.B. In the analytic glossing of morphologically complex verbs, a preverb not attested outside a particular combination, and therefore of unclear meaning, is simply rendered PV (= preverb). Likewise, a verbal base which does not contribute in any clear way to the meaning of the verbal theme as a whole is simply glossed 'verb' — as, for example, in /karalyarr-nga-rni/ (sliding-verb-) 'ABS slip, slide (as on slippery surface)', where the verbal element /nga-rni/ (elsewhere 'ERG eat ABS, ERG drink ABS') is not clearly related to the meaning of the theme as a whole.

Process verbs appear readily in sentences of the simplest intransitive type, i.e. sentences containing a single argument (the subject) in the absolutive case:

- (23) (a) Kurdu palka-jarri-ja.
 child manifest-INCH-PST
 'A child was born.'
- (b) Ngapa ka lawa-jarri-mi.
 water PRES absent-INCH-NPST
 'The water is vanishing, disappearing.'
- (c) Wijini ka lirri-mi.
 sore PRES swell-NPST
 'The sore is swelling.'
- (d) Ngapa ka yawu-pardi-mi.
 water PRES PV-arise/emerge-NPST
 'The rain is abating.'
- (e) Puluku pali-ja.
 bullock die-PST
 'The bullock died.'

To this same intransitive type belong a large number of 'activity' verbs which can be classified under the rubrics of 'stance' (24), 'motion' (25), and 'sound production' (26). As is the case with process verbs, these activity verbs may be morphologically simple or complex:

- (24) nyina-mi 'ABS sit, be sitting'
 karri-mi 'ABS stand, be standing'
 nguna-mi 'ABS lie, be lying (prone)'
 parntarri-mi 'ABS crouch, be in a crouching stance'
 rdalji-nyina-mi (rigid-sit-) 'ABS sit still, motionless'
 rdalji-karri-mi (rigid-stand-) 'ABS stand still, rigid'
 juka-karri-mi (upright-stand-) 'ABS stand sticking up'
 jarda-nguna-mi (sleep-lie-) 'ABS sleep, lie asleep'

- (25) ya-ni 'ABS go, move linearly'
 karrka-mi 'ABS proceed (as to objective)'
 yarnka-mi 'ABS set out, start out'
 pardi-mi 'ABS arise, emerge, start going'
 kulpa-mi 'ABS return'
 yuka-mi 'ABS enter, go in'
 jiti-mi 'ABS descend'
 wanti-mi 'ABS fall'
 parnka-mi 'ABS run, move swiftly'
 warrka-rni 'ABS ascend, climb up'
 karli-mi 'ABS (liquid) flow out'
 jarnti-mi 'ABS limp, walk with a limp'
 wapa-mi 'ABS walk about'
 wirnti-mi 'ABS dance, ABS (hawk) hover'
 yururri-mi 'ABS stir, move'
 karlirr-(y)a-ni (diversion-go-) 'ABS turn, change direction'
 karlirr-parnka-mi (diversion-run-) 'ABS turn while running'
 wilypi-pardi-mi (exit-arise-) 'ABS emerge, go out'
 paarr-pardi-mi (PV-arise-) 'ABS take off in flight, fly off'
 rurruny-pardi-mi (detachment-arise-) 'ABS come loose, detach'
 rurruny-(w)anti-mi (detachment-fall-) 'ABS detach and fall off'
 rurruny-(y)a-ni (detachment-go-) 'ABS come off, detach'
 wira-nga-rni (PV-verb-) 'ABS fly off (as bird)'
 kinyirr-nga-rni (start-verb-) 'ABS start, leap in alarm'
 karlirr-nga-rni (diversion-verb-) 'ABS turn off (as off road)'
 juurl-pi-nyi (PV-verb-) 'ABS jump, hop'
 pirrmarn-pi-nyi (PV-verb-) 'ABS bounce, rebound'
 jiwin-pi-nyi (PV-verb-) 'ABS roll about sleeplessly'
 pirri-ma-ni (PV-verb) 'ABS sit down, alight, land'
- (26) wangka-mi 'ABS speak sound'
 purla-mi 'ABS shout, yell'
 yula-mi 'ABS cry, weep'

- ngarlarri-mi 'ABS laugh'
 wirnpirli-mi 'ABS whistle'
 warurr-(w)angka-mi (PV-speak-) 'ABS (wings) whirr, (wind) howl,
 (airplane) drone'
 luyuku-yula-mi (PV-cry-) 'ABS (bees) hum, drone'
 ngaarr-ma-ni (PV-verb-) 'ABS (frog) croak'
 murnturr-ma-ni (PV-verb-) 'ABS (e.g. engine) roar'
 taarl-ma-ni (PV-verb-) 'ABS cluck, make clucking sound, pop'
 warlkurr-ma-ni (barking-verb-) 'ABS (dog) bark'
 winywiny-ma-ni (PV-verb-) 'ABS whistle under breath'

The designation 'activity verb' must not be taken to mean that the subject arguments are limited to entities which are capable of voluntary action — i.e. animates, or so. A great many of these verbs accept inanimate as well as animate subjects. The stance verbs, for example, not only depict the various postures which animate beings can assume, but also the characteristic modes of being of certain inanimate entities:

- (27) (a) Mingkirri ka karri-mi.
 anthill PRES stand-NPST
 'The anthill (i.e. termite mound) stands.'
 (b) Karru ka nguna-mi.
 creekbed PRES lie-NPST
 'The creekbed lies, extends.'
 (c) Yuwarli ka parntarri-mi.
 house PRES crouch-NPST
 'The house stands, is in position (lit. crouches).'

Similarly, motion verbs are appropriately used to depict situations in which an inanimate entity moves or is perceived as moving:

- (28) (a) Wanta ka yuka-mi.
 sun PRES enter-NPST
 'The sun is setting, going down.'
 (b) Ngawarra ka parnka-mi.
 floodwater PRES run-NPST
 'The water is running, it is flooding.'

- (c) Ngapa ka ya-ni-rni.
 water PRES go-NPST-HITHER
 'Rain is approaching.'

And the sound-production verb /wangka-mi/ 'ABS speak, sound' can be used to describe the production of a sound characteristic of any entity whatsoever, animate or inanimate (cf. the weather expressions 19-bc above); the verb /purla-mi/ 'ABS shout, yell' is used to describe the blast of a train's whistle; and so on. In short, these verbs select subjects virtually without constraint, the sole requirement being the purely semantic, or perhaps 'pragmatic', one that the activity or stance depicted by the verb be applicable in some reasonably appropriate way to the situation in which the entity denoted by the subject is involved. But, in particular, there is no requirement that the subject be capable of voluntary action.

1.3 PROBLEMS OF TRANSITIVITY

By and large, verbs requiring only a subject argument in Warlpiri have that argument in the absolutive case. In fact, exceptions to this are quite rare, and some of the exceptions which have been noted are amenable to alternative explanation. One possible class of exceptions consists in certain verbs of performance (music and dance) which appear with overt objects in (29) below but can appear without overt objects equally well, as in (30):

- (29) (a) Ngarrka-ngku ka purlapa yunpa-rni.
 man-ERG PRES corroboree sing-NPST
 'The man is singing a corroboree.'
- (b) Ngarrka-ngku ka purlapa pi-nyi.
 man-ERG PRES corroboree hit-NPST
 'The man is performing/dancing (lit. hitting) a
 corroboree.'
- (30) (a) Ngarrka-ngku ka yunpa-rni.
 man-ERG PRES sing-NPST
 'The man is singing.'
- (b) Ngarrka-ngku ka pi-nyi.
 man-ERG PRES hit-NPST
 'The man is dancing (corroboree-style).'

This case is different from the 'missing noun phrase' phenomenon discussed earlier, in which the missing argument normally is

interpreted as having definite reference (i.e. like definite pronouns). In (30), the missing arguments are indefinite or, better, understood constants — like those of so-called 'object deletion' verbs of English (*eat, drink, etc.*). The Warlpiri verbs of performance are, of course, open to various analyses. They might, for example, be regarded as special 'detransitivized' variants of the clearly transitive verbs of (29). The relationship would be analogous to that of transitive and intransitive *kick* in English, for example. But if this is so, the performance verbs fail to conform fully to the intransitive type, because their subject is in the ergative, not the absolutive. An alternative would be to regard sentences like (30) to be derived in the same way as are Warlpiri sentences with a missing, definitely interpreted, object — i.e. like (16b-d) above — with the added provision that, for the performance verbs at least, the missing object can be understood as indefinite or constant in reference. Under this conception of the problem, the relationship between the verbs of (29) and (30) would be closely analogous to that holding between the 'object-present' and 'object-deleted' uses of English *eat, drink, etc.* The appearance of ergative case on the subjects in (30) would then follow from the essential transitivity of the verbs.

It is relevant to point out here that the suppression of indefinite objects — to achieve the effect of the English uses of *eat*, for example — is not extensive in Warlpiri. While the performance verbs of (30) above are clearly examples of this, far more common is the indefinite use of an appropriate, semantically general noun in object function, as in

- (31) (a) Karnta-patu-rlu ka-lu miyi nga-rni.
 woman-PL-ERG PRES-333 food eat-NPST
 'The women are eating (lit. eating vegetable food).'
- (b) Ngarrka-patu-rlu ka-lu kuyu pi-nyi.
 man-PL-ERG PRES-333 meat hit/kill-NPST
 'The (several) men are hunting (lit. killing meat).'
- (c) Kurdukurdu-rlu ka-lu puku ritiyi-ma-ni.
 children-ERG PRES-333 book read-verb-NPST
 'The children are reading (lit. reading books).'
- (d) Ngajulu-rlu ka-rna pama nga-rni.
 I-ERG PRES-1 delicacy drink-NPST
 'I am drinking (lit. ingesting "delicacy", applied to beer and liquor as well as to indigenous delicacies such as honey, nectar, etc).'

A second class of verbs with ergative subject, but lacking an overt noun phrase object, consists in the small set of morphologically complex body-function verbs illustrated in (32) below:

- (32) (a) Ngarrka-ngku ka ngungkurru-pangi-rni.
man-ERG PRES snore-dig-NPST
'The man is snoring.'
- (b) Kurdu-ngku ka ngaany-kiji-rni.
child-ERG PRES breath-throw-NPST
'The child is breathing, expelling breath.'
- (c) Kurdu-ngku ka ngalngal-kiji-rni.
child-ERG PRES pulsing-throw-NPST
'The child is panting (from exhaustion).'
- (d) Karnta-ngku ka kuntul-pi-nyi
woman-ERG PRES cough-hit-NPST
'The woman is coughing.'

In these cases, a preverb — sometimes quite clearly nominal in origin (/ngungkurru/ 'snore, snoring'; /ngaanypa/ 'breath'; /kuntulpa/ 'cough, catarrh') — appears attached to a verbal base. It is possible that these preverbs were once true objects syntactically, and that the development of these exceptional verbs came about by means of a process of incorporation. This is a reasonable etymological suggestion, but even so, the verbs of (32b-d) at least must be considered true exceptions to the generalization that single-argument verbs take absolutive subjects. The process of object incorporation is not a productive one in Warlpiri, and these verbs must be considered lexical items — analyzable ones, to be sure — which, from a strictly syntactic point of view, take a single noun phrase argument (i.e. a subject) which in turn, irregularly, appears in the ergative case. It is perhaps not surprising that the verbs of (32b-d) have also been recorded with absolutive subjects, as better befits their syntactic intransitivity. The verb of (32a) has not been so recorded, and it is quite possible that I am mistaken in treating it as a complex verbal theme rather than an idiom which, from the syntactic point of view, actually consists of a transitive verb /pangi-rni/ with a direct object /ngungkurru/. Other body-function expressions — in particular, those dealing with elimination — are quite clearly verb-object combinations:

- (33) (a) Maliki-rli ka kuna ngaja-rni.
dog-ERG PRES excrement excrete-NPST
'The dog is defecating.'

- (b) Puluku-rlu ka mawu ngaja-rni.
 bullock-ERG PRES urine excrete-NPST
 'The bullock is urinating.'
- (c) Kurdu-ngku ka nyuyu kiji-rni.
 child-ERG PRES spittle throw-NPST
 'The child is spitting.'
- (d) Ngajulu-rlu ka-rna jirrjinti kiji-rni.
 I-ERG PRES-1 sneeze throw-NPST
 'I am sneezing.'

Certain others are morphologically complex verbal themes built upon an intransitive base and conforming syntactically to the typical intransitive pattern — e.g. /mirr-mirr-karri-mi/ 'ABS shiver' and /kuntuk-karri-mi/ 'ABS cough' (a near synonym of the verb in 32d above), based upon the stance verb /karri-mi/ 'ABS stand' which, like other stance verbs, often enters into the formation of intransitive verbal themes (with concomitant loss, or generalization, of the basic meaning).

With minor exceptions, the transitivity of verbs is extremely stable in Warlpiri. And verbs which could be said to be doubly subcategorized — as transitive and intransitive — are exceedingly rare. In concluding this subsection, however, I will mention a synonymous pair of verbs which are, to my knowledge, the only representatives of their kind — they are doubly classified, quite clearly. These are the verbs /janka-mi/ and /kampa-mi/, both meaning (a) 'ABS burn/cook' and (b) 'ERG burn/cook ABS'. The intransitive (a) and transitive (b) uses are exemplified (using /janka-mi/) in the following:

- (34) (a) Warlu ka janka-mi.
 fire PRES burn-NPST
 'The fire is burning.'
- (b) Warlu-ngku ka kuyu janka-mi.
 fire-ERG PRES meat burn-NPST
 'The fire is cooking/burning the meat.'

The intransitive use permits any subject whatsoever which can be consumed by fire or which can be cooked — by fire or by the sun (i.e. ripened). The transitive use is appropriate with any subject which can be hot enough to cause a burn or a burning sensation (e.g. hot sand, hot metal, hot tea, the sun, and so on), and the

object can be anything which can be consumed by fire, burnt, cooked, or is capable of feeling a burning sensation. The verb is not appropriate for describing the situation in which heat is used as an instrument by an animate agent. The appropriate verb in this case is /purra-mi/ 'ERG burn/cook ABS', as in

- (35) (a) Ngarrka-ngku ka kuyu purra-mi.
 man-ERG PRES meat burn-NPST
 'The man is cooking meat.'
- (b) Kalaka-npa-ju purra-mi.
 ADMON-2-1 burn-NPST
 'You are liable to burn me.'

1.4 VERBS WITH TWO ARGUMENTS

In the introduction to the ergative system of case marking above, it was pointed out that two-argument verbs in Warlpiri fall predominantly into two large classes — those which select the ERG-ABS case array (as in 3c-d), and those which select the ABS-DAT array (as in 6). This subcategorization of verbs is certainly not random, and it is appropriate to require of a description of Warlpiri grammar that the principle underlying it be determined, in so far as possible. The principle is evidently a semantic one, and some insight into it can be gained by examining derived verbs whose semantics are, to some extent at least, perspicuous.

Recall (sec. 1.2) that a large number of intransitive process and change-of-state verbs are formed from nominals by means of the inchoative suffix /-jarri-mi/. Warlpiri also possesses a causative suffix /-ma-ni/ which is added to nominals to form fifth conjugation transitive verbs selecting the ERG-ABS case array:

- (36) wita-ma-ni (small-CAUS-) 'ERG cause ABS to become small'
 wiri-ma-ni (big-CAUS-) 'ERG cause ABS to become big; ERG
 raise ABS (as person raises a child)'
 ngurrju-ma-ni (good-CAUS-) 'ERG cause ABS to become good;
 ERG fix ABS; ERG make ABS'
 maju-ma-ni (bad-CAUS-) 'ERG ruin ABS; ERG make ABS sick'
 nyurnu-ma-ni (sick/dead-CAUS-) 'ERG make ABS sick; ERG kill
 ABS'
 palka-ma-ni (manifest-CAUS-) 'ERG find ABS; ERG (woman)
 conceive ABS (child)'

lawa-ma-ni (absent-CAUS-) 'ERG deplete ABS; ERG finish ABS'
 linji-ma-ni (desiccated-CAUS-) 'ERG desiccate ABS'
 pampa-ma-ni (blind-CAUS-) 'ERG blind ABS'
 lani-ma-ni (afraid-CAUS-) 'ERG frighten ABS'
 ngarrka-ma-ni (man-CAUS-) 'ERG initiate ABS to manhood'

These are clearly causative counterparts to the process verbs listed in (20) above. Moreover, the semantics of their arguments are quite straightforward — the ergative subject corresponds to the agent of causation and the absolutive object corresponds to the patient, i.e. the entity which undergoes the process or change of state involved in the meaning of the verbal theme.

It is reasonable, in light of this, to suggest that the principle which governs the selection of the ERG-ABS case array is intimately associated with the semantic predicate 'cause'. Thus if the verb denotes an activity in which one entity (the agent) brings about, or causes, a process or other state of affairs directly affecting a second entity (the patient, or 'theme' in the sense of Gruber 1965, Jackendoff 1972, 1974), then that verb selects as its basic case array the ERG-ABS, with the ergative subject corresponding to the agent and the absolutive object corresponding to the patient. This seems quite appropriate not only for the semantically perspicuous derived verbs of (36) above but also for a large number of morphologically simple verbs and for certain complex verbal themes built upon other patterns of derivation. Thus, also belonging to the ERG-ABS subcategory are verbs of physical transfer and holding (37), depicting events in which, very roughly, an agent causes a patient to move, to change location or to remain in a location, as well as various 'affective' verbs (38), depicting events in which an agent produces an effect (change, damage or injury, or the like) upon a patient:

(37) yilya-mi 'ERG send ABS; ERG cause ABS to go'
 yirra-rni 'ERG put ABS, ERG position ABS'
 yirрпи-rni 'ERG insert ABS; ERG cause ABS to enter, go in'
 kiji-rni 'ERG throw ABS, ERG drop ABS; ERG cause ABS to fall'
 marda-rni 'ERG hold ABS; ERG have ABS'
 ka-nyi 'ERG carry ABS, ERG transport ABS'
 ma-ni 'ERG get ABS, ERG take ABS'
 jakurr-yirra-rni (lift-put-) 'ERG put ABS up'
 nyina-nja-yirra-rni (sit-INF-put-) 'ERG put ABS in a sitting position'

- karri-nja-yirra-rni (stand-INF-put-) 'ERG put ABS in a standing position'
- nguna-nja-yirra-rni (lie-INF-put-) 'ERG put ABS in prone position'
- jinarn-kiji-rni (tripping-throw-) 'ERG trip ABS; ERG cause ABS to stumble and fall'
- puuly-marda-rni (PV-hold-) 'ERG catch ABS'
- jirri-marda-rni (PV-hold-) 'ERG secure ABS, hold ABS securely'
- rarra-ka-nyi (dragging-transport-) 'ERG drag ABS'
- jakurr-ka-nyi (lift-transport-) 'ERG carry ABS uplifted'
- wajili-pi-nyi (running-verb-) 'ERG chase ABS'
- murupi-nyi (PV-verb-) 'ERG insert ABS'
- wilypi-ma-ni (exit-take-) 'ERG extract ABS, take ABS out'
- jakurr-ma-ni (lift-take-) 'ERG lift ABS up'
- (38) tirlpi-mi 'ERG chip ABS by percussion (as in making a stone tool)'
- nyurla-mi 'ERG knead ABS'
- paka-rni 'ERG strike ABS'
- paji-rni 'ERG cut ABS; ERG tear ABS (as with tooth or claw); ERG break ABS (a horse)'
- panti-rni 'ERG pierce/poke ABS; ERG spear ABS'
- kati-rni 'ERG press on ABS, step on ABS; ERG weigh ABS down'
- luwa-rni 'ERG pelt ABS, hit ABS with missile thrown; ERG shoot ABS; ERG (missile) hit ABS by flying through the air or falling'
- yurupa-rni 'ERG grind ABS (as seed, ochre)'
- maja-rni 'ERG straighten ABS'
- wardi-rni 'ERG straighten ABS'
- jarnti-rni 'ERG trim ABS (as boomerang); ERG scratch ABS; ERG shave ABS'
- yarlki-rni 'ERG bite ABS'
- pi-nyi 'ERG hit ABS; ERG kill ABS; ERG damage ABS (in accordance with primary means available to agent — e.g. 'bite' of dog; 'hit, punch' of person; 'cause to suffer, pierce' of cold air, etc.)'

nga-rni 'ERG ingest ABS; ERG eat ABS, drink ABS'
 wily-paka-rni (PV-strike-) 'ERG whip ABS'
 rdawirn-paji-rni (sawing-cut-) 'ERG cut ABS by sawing'
 rdawirn-(y) urrpa-rni (sawing-grind-) 'ERG file ABS with
 sawing motion'
 rdilyki-pi-nyi (broken-hit-) 'ERG break ABS'
 palu-pi-nyi (die-hit-) 'ERG extinguish ABS (fire)'

To these lists must be added the verb /yampi-mi/ 'ERG refrain from affecting ABS; ERG leave ABS alone; ERG reject ABS' which functions as a universal antonym to verbs of this transitive type.

Although it is premature at this point to claim that the semantics of Warlpiri verbs like those in (37) and (38) are fully understood, it is nonetheless quite evident that the semantic predicate 'cause' is involved in most, if not all, of them. Certain of them are evidently the causative counterparts of intransitive verbs listed earlier. In some cases this relationship is evident from the morphological make-up of the paired verbs, e.g.:

<u>intransitive</u>	<u>transitive</u>
/rdilyki-ya-ni/ 'ABS break'	/rdilyki-pi-nyi/ 'ERG break ABS'
/pali-mi/ 'ABS go out (of fire)'	/palu-pi-nyi/ 'ERG extinguish ABS (fire)'
/karri-mi/ 'ABS stand'	/karri-nja-yirra-rni/ 'ERG put ABS in a standing position'

But certain simple verb themes are also felt to form such pairs, at least in a portion of the ranges of their meanings, e.g.:

/ya-ni/ 'ABS go'	/yilya-mi/ 'ERG send ABS'
/yuka-mi/ 'ABS enter'	/yirrpi-rni/ 'ERG insert ABS, cause ABS to enter'
/wanti-mi/ 'ABS fall'	/kiji-rni/ 'ERG drop ABS'

Compare the last example to the complex pair

/ngardaly-(w)anti-mi/ inversion-fall- 'ABS turn over, flip over'	/ngardaly-kiji-rni/ inversion-throw- 'ERG turn ABS over, ERG flip ABS over'
--	--

I take it as reasonably well established by the above considerations that the selection of the ERG-ABS case array correlates semantically with the causative structure, and that the ergative case is aligned with the agent of causation while the absolutive is aligned with the

patient. The use of the term 'agent' here should not be taken to imply that the subject in such transitive sentences is limited to entities which act wilfully to produce an effect upon the patient. The choice of subjects is in fact extremely free in Warlpiri, the only requirement being that the entity denoted by the subject be appropriately viewed as capable of causing the effect depicted by the verb. Thus, for example, the following sentences are perfectly natural:

- (39) (a) Pirriya-rlu ka-ju pants-rni.
 cold-ERG PRES-1 pierce-NPST
 'The cold (air) is piercing me (and causing me discomfort or harm).'
- (b) Kuntulpa-rlu ka karnta pi-nyi.
 catarrh-ERG PRES woman hit-NPST
 'The catarrh/cough is hitting the woman (and causing her to suffer).'
- (c) Warlu-ngku ka kurdu kati-rni.
 firewood-ERG PRES child press-NPST
 'The (load of) firewood is weighing the child down (i.e. is too heavy for it).'
- (d) Pirli-ngki ka-lu murdukayi luwa-rni.
 stone-ERG PRES-333 motorcar pelt-NPST
 'The stones (thrown up by tires) are pelting the motorcar.'
- (e) Marna-ngku ka nantuwu jinarn-kiji-rni.
 spinifex-ERG PRES horse tripping-throw-NPST
 'The spinifex grass is tripping the horse (causing it to stumble).'

The association of the ERG-ABS array with causation is substantiated further when this array is contrasted with the other principal two-argument array, the ABS-DAT. Verbs selecting the latter array have the property that their absolute subjects, far from being agents of causation, correspond rather to the entity most directly affected by the process depicted by the verb — i.e. they correspond more closely to the 'patient' or 'experiencer' role than to the 'agent' role — while their dative objects correspond to entities which are themselves unaffected by the process but are related to it in a

variety of other ways — e.g. the source of an emotion, the object of an encounter, the object of a quest, a beneficiary, and so on.

There is a tacit convention in much Australianist literature according to which verbs of the ABS-DAT category are not regarded as 'fully transitive' in comparison with verbs of the ERG-ABS category. There is some justice in this, and I will adhere to this somewhat narrow, and perhaps technically incorrect, use of the term 'transitive', reserving it for verbs with ergative subjects. A great many ABS-DAT verbs are appropriately classified as taking an optional dative argument, so that in one of their uses they are in fact intransitive in the technical sense. Moreover, many of them are formed by means of the inchoative derivational suffix /-jarri-mi/ which figures so prominently in the formation of intransitive verbs, for example:

- (40) wardinyi-jarri-mi 'ABS rejoice; ABS rejoice in DAT'
nyurunyuru-jarri-mi 'ABS hate/despise DAT'
mari-jarri-mi 'ABS pity DAT, feel sorry for DAT'
kulu-jarri-mi 'ABS get angry; ABS be angry at DAT'
wajampa-jarri-mi 'ABS worry about DAT, become anxious about DAT'
yirraru-jarri-mi 'ABS be homesick, lovesick; ABS pine for DAT,
become homesick for DAT'
lani-jarri-mi 'ABS be afraid; ABS fear DAT, be afraid of DAT'
yikirrinji-jarri-mi 'ABS avoid DAT, abstain from DAT'

The semantic argument structure of these verbs is quite uniform. The verbs depict various emotions or reactions of which the entity denoted by the subject is the experiencer, while the dative object corresponds to the source, or cause, of the emotion or reaction. The full inventory of ABS-DAT verbs is extremely heterogeneous semantically, by comparison with the rather perspicuous verbs in /-jarri-mi/, but they are nonetheless consistent in terms of the semantic role of the absolutive subject — the subject is never the agent of causation in any sense akin to the characteristic role of the subject of a paradigm ERG-ABS verb. Additional ABS-DAT verbs are listed in (41) below:

- (41) wangka-mi 'ABS speak; ABS speak to DAT'
purla-mi 'ABS shout/yell; ABS shout to DAT'
ngurnturri-mi 'ABS grumble at DAT'
rdipi-mi 'ABS encounter DAT, come upon DAT'
japirdi-mi 'ABS make threat against DAT (behind back, not
face-to-face)'

yulka-mi 'ABS cherish DAT, love DAT'
 kapati-mi 'ABS feel uneasy in DAT (place or situation)'
 jija-mi 'ABS succumb to DAT'
 waraparnpi-mi 'ABS announce DAT, mention name of DAT'
 wupal-wangka-mi (search-speak-) 'ABS guess at DAT, verbally
 search for DAT'
 wupalwupal-wapa-mi (search 2-walk-) 'ABS move about in search
 of DAT'
 parda-rni 'ABS wait for DAT'
 rdanpa-rni 'ABS accompany DAT'
 yura-ka-nyl (PV-verb-) 'ABS stalk DAT, sneak up on DAT'

The reader will have noticed, no doubt, that the conjugation membership of verbs correlates to a large extent with transitivity - in the narrow sense. Thus, of the two most populous conjugations of morphologically simple verb themes — i.e. those whose stems are disyllabic or longer — the 'first' conjugation (with NPST in /-mi/) predominates among verbs taking an absolutive subject, while the 'second' conjugation (with NPST in /-rni/) predominates among verbs taking an ergative subject. There are, to be sure, exceptions in both directions, but the correlation is quite strong. This is another respect in which the ABS-DAT verbs appear to exhibit intransitive characteristics — they are predominantly first conjugation verbs.

The evidence adduced so far indicates that the case array associated with a two-argument verb is to a very large extent predictable. However, our knowledge of the meanings of Warlpiri verbs is not very detailed, and there are numerous apparent exceptions to the principal correlation we have observed above. Thus, for example, it is not clear at this stage of our knowledge whether causation is in any way involved in the semantics of verbs of perception and mental apprehension, yet these are typically ERG-ABS verbs:

- (43) nya-nyl 'ERG see ABS; ERG look at ABS'
- kari-nya-nyl (other-see-) 'ERG visually misapprehend ABS'
 purda-nya-nyl (PV-see-) 'ERG hear ABS; ERG listen to ABS;
 ERG feel ABS (a sensation);
 ERG understand ABS;
 ERG ponder ABS;
 ERG remember ABS'
- kanginy-purda-nya-nyl (erringly-PV-see-) 'ERG mishear ABS;
 ERG misunderstand ABS'

- manngi-nya-nyi (PV-see-) 'ERG figure out ABS; ERG recall ABS to mind'
- miyimiyi-nya-nyi (scrutiny-see-) 'ERG scrutinize ABS, inspect ABS; ERG take aim at ABS'
- parnti-nya-nyi (smell-see-) 'ERG smell ABS, perceive odor of ABS'
- parnti-pura-mi (smell-follow-) 'ERG follow scent of ABS (as bees follow scent of blossoms)'
- milya-pi-nyi (PV-verb-) 'ERG know ABS, recognise ABS'
- kanginy-pi-nyi (erringly-verb-) 'ERG not know ABS, fail to recognise ABS'
- parlu-pi-nyi (PV-verb-) 'ERG catch sight of ABS'

All but the first of these verbs are morphologically complex, and the strictly verbal portions of the complex themes exist independently as ERG-ABS verbs (i.e. /nya-nyi/ 'ERG see ABS', /pi-nyi/ 'ERG hit ABS, etc.' and /pura-mi/ 'ERG follow ABS'). It is interesting, nonetheless, that this subdomain of the verbal lexicon should consist primarily of verbal themes taking the ERG-ABS case array. ABS-DAT verbs in this domain are quite rare. An example is /kanginy-karri-mi/ (erringly-stand-) 'ABS fail to recognize DAT', which is a near synonym of the ERG-ABS verb /kanginy-pi-nyi/ appearing in the list (43) above.

1.5 ANOTHER TWO ARGUMENT-PATTERN

Of somewhat more marginal status among Warlpiri two-argument patterns is the ERG-DAT case array. The paradigm verb selecting this array is /warri-rni/ 'ERG seek DAT', as exemplified in the sentences of (44) below:

- (44) (a) Ngarrka-ngku ka-rla karli-ki warri-rni.
man-ERG PRES-rla boomerang-DAT seek-NPST
'The man is looking for a boomerang.'
- (b) Karnta-patu-rlu ka-lu-rla kurdu-ku warri-rni.
woman-PL-ERG PRES-333-rla child-DAT seek-NPST
'The (several) women are looking for the child.'
- (c) Karnta-ngku ka-jana kurdukurdu-ku warri-rni.
woman-ERG PRES-333 children-DAT seek-NPST
'The woman is looking for the children.'

As can be seen from the agreement behavior in (44b-c), the ergative argument corresponds to the subject relation while the dative corresponds to the object. This conforms exactly to the two construal principles formulated in (11) and (13) above.

The ERG-DAT case array is typically associated with 'verbs of seeking'. In addition to the 'paradigm' verb /warri-rni/ of (44), these include certain verbs which are primarily associated with the ERG-ABS array but which have secondary uses as verbs of seeking, e.g.:

- (45) nya-nyi (1) 'ERG see ABS'; (2) 'ERG look about in search of DAT'
karla-mi (1) 'ERG dig up ABS (as yams)'; (2) 'ERG dig in search of DAT (e.g. yams)'
pangi-rni (1) 'ERG dig ABS (hole, well)'; (2) 'ERG dig in search of DAT (e.g. water)'

Verbs of seeking are also formed from ERG-ABS bases by means of the preverb /wapal-/ 'in search of'. Thus we also have the verbs of (46) below which, like the simple verb theme /warri-rni/, require the ERG-DAT array:

- (46) wupal-karla-mi 'ERG dig in search of DAT (e.g. yams)'
wupal-pangi-rni 'ERG dig in search of DAT (e.g. water)'

Another, quite different, use of the ERG-DAT case array is illustrated in the following sentences:

- (47) (a) Ngarrka-ngku ka-rla-jinta marlu-ku luwa-rni.
man-ERG PRES-rla-jinta kangaroo-DAT shoot-NPST
'The man is shooting at the kangaroo.'
--
(b) Kurdu-ngku ka-ju-rla ngaju-ku paka-rni.
child-ERG PRES-1-rla me-DAT strike-NPST
'The child is striking at me.'

Certain ERG-ABS verbs may be used with dative case, rather than absolutive case, on their objects to describe the situation in which the effect normally resulting from the action denoted by the verb is, for one reason or another, aborted or else is subordinated in importance to the action itself. This semantic effect, which is present in (47a-b), can be contrasted to the meanings associated with the same verbs in their 'more basic' ERG-ABS use, as in:

- (48) (a) Ngarrka-ngku ka marlu luwa-rni.
man-ERG PRES kangaroo shoot-NPST
'The man is shooting the kangaroo.'

- (b) Kurdu-ngku ka-ju ngaju paka-rni.
 child-ERG PRES-1 me strike-NPST
 'The child is striking me.'

Where these latter sentences are spoken truthfully, the effect depicted by the verb is successfully transmitted to the object.

The grammatical process involved in (47a-b) above involves more than just the use of dative case on the object; it also involves special registration in the auxiliary. The element /-rla/ appearing in (47b) is the registration marker corresponding to the special semantic effect (i.e. 'unachieved'). Normally a dative first person would be represented in the auxiliary by /-ju/ alone (as in 48b above). Where the dative object is third singular, double registration is required — the third dative object itself is registered and, in addition, there is a registration corresponding to the special semantic effect. The double registration is expressed by the sequence of elements /-rla-jinta/. It is obligatory with third singular objects. It is also possible, redundantly, where the object is other than third singular. Thus beside (47b) we also find the following:³

- (49) Kurdu-ngku ka-ju-rla-jinta ngaju-ku paka-rni.

Not all ERG-ABS verbs are capable of entering into this construction. The construction is evidently limited to verbs whose semantic structure is 'bi-partite' in the sense that the effect caused by the agent is brought about by causing an instrument (stick, hand, missile or the like) to move against the entity denoted by the object. It is possible that the ERG-DAT array (together with the special registration in the auxiliary) is used to give prominence to the motional portion of the verbal meaning and to suppress the affective portion. This would be consistent with the use of the dative case elsewhere to indicate the goal of motion, as in the ABS-DAT use of the motion verb /ya-ni/ 'ABS go, ABS go to DAT (as to visit)', and in verbs of physical transfer and giving (see the following subsection).

1.6 THREE-ARGUMENT VERBS

Warlpiri also possesses verbs which select the three-place case array ERG-ABS-DAT. Prominent among these are verbs of physical transfer depicting the situation in which an agent (represented by the ergative subject) causes some entity (concrete or abstract, expressed by the absolutive 'direct' object) to move to or from a goal or source (represented by the dative 'indirect' object). The two verbs of giving and dispossession listed in (50) take a dative argument in all cases, while the other verbs of physical transfer — e.g. those listed in (51) — may appear with or without a dative argument:

- (50) yi-nyi 'ERG give ABS to DAT'
 punta-rni 'ERG take ABS away from DAT'
- (51) yilya-mi 'ERG send ABS; ERG send ABS to DAT'
 kiji-rni 'ERG throw ABS; ERG throw ABS to DAT; ERG put ABS
 (decoration) on DAT (person)'
 yirra-rni 'ERG place ABS; ERG put ABS (decoration) on DAT
 (implement)'
 ka-nyi 'ERG carry ABS; ERG carry ABS to DAT'
 ma-ni 'ERG take ABS (intestines) out of DAT (slain animal)'
 parnta-yirra-rni 'ERG put ABS (blanket) over DAT (e.g. child)'
 milki-yirra-rni 'ERG show ABS to DAT; ERG display ABS for DAT'

Although verbs of physical transfer predominate in this pattern, there are verbs of other semantic types which may, in some of their uses, select the ERG-ABS-DAT array as well:

- (52) ngarri-rni 'ERG tell ABS (things, words) to DAT'
 payi-rni 'ERG ask ABS (person) about DAT'
 japi-rni (synonym of preceding)

These three-argument verbs are directly relevant to the formulation of the construal principles which express the proper agreement relations between the auxiliary and case-marked noun phrase arguments.

Recall that the auxiliary includes a set of person markers construed with the subject in accordance with the principle embodied in (11) above. The auxiliary may also include person markers construed with the object, and it necessarily does if the verb takes an object argument. Now the verbs under discussion in this subsection take two arguments which qualify as 'objects' broadly defined — one in the absolutive case (the 'direct' object), the other in the dative (the 'indirect' object). But there is, strictly speaking, only one set of object markers in the auxiliary. In accordance with the principle of object construal expressed in (13) above, it is the dative object, not the absolutive, which is represented in the auxiliary in such 'double object' constructions. Thus consider the following sentences:

- (53) Ngajulu-rlu kapi-rna-ngku nyuntu-ku karli-patu punta-rni.
 I-ERG FUT-1-2 you-DAT boomerang-PL take-NPST
 'I am going to take the (several) boomerangs away from you.'

In this sentence the direct object, represented by the absolutive /karli-patu/ '(several) boomerangs', is not recorded in the auxiliary at all. This follows from (13) which stipulates that object construal pick the dative, if there is one, otherwise the absolutive. Since sentence (53) above contains both a dative and an absolutive, the dative is construed and the absolutive is not. Notice that the absolutive in (53) could be construed with a object marker /-jana/ if it were the sole object, as it is in the following:

(54) Ngajulu-rlu kapi-rna-jana karli-patu jarnti-rni.

I-ERG FUT-1-333 boomerang-PL trim-NPST

'I will trim the (several) boomerangs.'

It should be pointed out further that when the dative is third singular and therefore not overtly represented by an object person marker (*per se*, i.e. as opposed to the registration element /-rla/), an absolutive direct object still cannot be overtly represented in the auxiliary, despite the fact that the position in which the object marker would appear is phonologically 'empty'. Thus we have

(55) Ngajulu-rlu kapi-rna-rla kurdu-ku karli-patu punta-rni.

I-ERG FUT-1-rla child-DAT boomerang-PL take-NPST

'I am going to take the (several) boomerangs away from the child.'

but not

(56) *Ngajulu-rlu kapi-rna-jana-rla kurdu-ku karli-patu punta-rni.

This, again, follows from the object construal principle of (13) above. It cannot, incidentally, be explained in terms of mutual incompatibility between the registration marker /-rla/ and overt object markers since, as we have seen in section 1.5, /-rla/ may in fact follow an overt object marker (as it does, for example, in 47b).

First and second person objects *must* be represented in the auxiliary. This requirement may come into conflict with the principle according to which the dative is selected over the absolutive when both are candidates for object construal. Thus one cannot say the following:

(57) *Ngarrka-ngku ka-ju ngaju-ku nyuntu punta-rni.

man-ERG PRES-1 me-DAT you take-NPST

'The man is taking you away from me.'

There are, of course, various ways in which the intent of (57) can, with various degrees of preciseness, be rendered in Warlpiri, but it cannot be done in this 'direct' way. One reasonably close paraphrase of (57) would be the following, using a different verbal expression with which the divestee can be represented by a semantic case

(the relative) rather than by the dative:

(58) Ngarrka-ngku ka-ngku (nyuntu) ngajulu-ngurlu wuruly-ka-nyi.

man-ERG PRES-2 (you) me-EL seclusion-carry-NPST

'The man is taking you off (into seclusion) from me (or from the place where I am).'

This brings me to a final remark concerning certain of these three-argument verbs. The dative arguments receive an interpretation which corresponds closely to the meanings associated with certain semantic cases. Thus the dative argument of /yi-nyi/ 'ERG give ABS to DAT' corresponds to the semantic relation 'goal', also expressed by the allative case; and the dative argument of /punta-rni/ 'ERG take ABS away from DAT' corresponds to the semantic relation 'source', also expressed by the relative case. The verbs of physical transfer listed in (37) readily accept these semantic cases as an alternative to the dative. Thus, for example, the verb /kiji-rni/ 'ERG throw ABS ...' may appear either with a dative (as in 59a) or with an allative (as in 59b), both expressing the goal relation:

(59) (a) Ngarrka-ngku ka-rla kurdu-ku japujapu kiji-rni.

man-ERG PRES-rla child-DAT ball throw-NPST

'The man is throwing the child the ball.'

(b) Ngarrka-ngku ka japujapu kurdu-kurra kiji-rni.

man-ERG PRES ball child-ALL throw-NPST

'The man is throwing the ball to the child.'

There is a difference, however. The dative in (59a) implies that the child is the recipient of the ball, not merely the endpoint of motion. The allative in (59b), on the other hand, implies that the child — or the child's location — is merely the end-point of the trajectory traversed by the ball. This sort of distinction is consistent with the observation that the semantic cases are appropriate on any nominal which can designate a location, while the dative is more appropriate where the entity denoted by the nominal is more actively involved in the action — e.g. as recipient, divestee — or is in some way, however indirect, affected by the action. Not surprisingly, therefore, in the vast majority of actual instances the dative argument with physical transfer verbs is animate.

1.7 THE ADJUNCT DATIVE

In addition to dative arguments which are - with reason - said to be selected by a verb, there are also datives which are quite properly

regarded as 'additional' to the case array associated with a verb. I will refer to these as 'adjunct' datives.

From the syntactic point of view, the adjunct dative in Warlpiri clearly belongs to the category of 'grammatical cases'. Thus, for example, it is construed with an object person marker in the auxiliary and, if third person singular, it is registered there just as an inherent dative would be. The adjunct dative figures prominently in Warlpiri by virtue of its involvement in certain grammatical processes which introduce elaborations upon the propositional content of more 'basic' predications of the type discussed heretofore in this section. Although these processes will not be discussed at great length in this essay, I will briefly exemplify the adjunct dative here since, morphologically and in gross syntactic terms, it is essentially identical to the dative which is inherent to the case arrays selected by certain Warlpiri verbs.

For expository purposes, when a basic predication is elaborated by inclusion of an adjunct dative, I will refer to it as the 'host' of the adjunct.

The simplest sort of adjunct dative, speaking from the morphological standpoint, is the 'benefactive'. This involves the mere addition of a dative argument to the case array selected by the verb of the host sentence. The meaning of the benefactive is somewhat broader than the term suggests, embracing a considerable range of possible semantic connections which may hold between an entity and an event or process described by a host predication — a range of meanings not unlike that covered by the term 'ethical dative' often employed in grammatical treatises. Consider, for example, the sentences of (60) below. The 'benefactive' and 'adversative' senses appropriately associated with (60a) and (60b) respectively are very typical, but the 'possessive' sense reflected in the alternative English translations is also quite consistent with the Warlpiri usage:

- (60) (a) Ngarrka-ngku ka-rla kurdu-ku karli jarnti-rni.
man-ERG PRES-rla child-DAT boomerang trim-NPST
'The man is trimming the boomerang for the child.'
'The man is trimming the child's boomerang.'
- (b) Nantuwu ka-rla japanangka-ku mata-jarri-mi.
horse PRES-rla japanangka-DAT tired-INCH-NPST
'The horse is tiring on Japanangka.'
'Japanangka's horse is tiring.'

The hose sentences of (60a-b) are presented bereft of the adjunct dative in (61a-b) below:

- (61) (a) Ngarrka-ngku ka karli jarnti-rni.
man-ERG PRES boomerang trim-NPST
'The man is trimming the boomerang.'
- (b) Nantuwu ka mata-jarri-mi.
horse PRES tired-INCH-NPST
'The horse is tiring (i.e. getting tired).'

Not surprisingly, an adjunct dative may co-occur with an inherent dative, i.e. it may appear together with a dative which is an inherent part of the case array selected by the verb of the host sentence. In (62) below, a benefactive argument appears as an adjunct with the verb /warri-rni/ 'ERG seek DAT' (cf. 44 above):

- (62) (a) Ngarrka-ngku ka-ju-rla ngaju-ku karli-ki warri-rni.
man-ERG PRES-1-rla me-DAT boomerang-DAT seek-NPST
'The man is looking for a boomerang for me.'
- (b) Ngarrka-ngku ka-rla-jinta kurdu-ku karli-ki warri-rni.
man-ERG PRES-rla-jinta child-DAT boomerang seek-NPST
'The man is looking for a boomerang for the child.'

In (62a) the first person singular benefactive argument is construed with the object person marker /-ju/, in accordance with the principles of object construal embodied in (13) above. In addition, the inherent dative object of the verb, namely the third person singular noun phrase /karli-ki/ (boomerang-DAT), is registered by means of the element /-rla/. In (62b) both the inherent dative and the adjunct dative are third singular. Accordingly, both are registered in the auxiliary. This illustrates another circumstance in which the 'double registration' is required, hence the sequence of elements /-rla-jinta/. (Cf. also the special use of the dative represented by the sentences of 47 above.)

Besides this morphologically simple usage, the adjunct dative is also employed in concert with the members of a special set of preverbs to express much more specific semantic connections between an adjunct argument and a host predication. In (63a) below, for example, the dative functions in concert with the preverb /marlaja-/ to express an indirect causal connection between the entity denoted by the adjunct dative argument, /kurdu-ku/ (child-DAT), and the event described by the host sentence (given separately as 63b):

- (63) (a) Maliki-rli ka-rla kurdu-ku kuyu marlaja-nga-rni.
 dog-ERG PRES-rla child-DAT meat causal-eat-NPST
 'The dog is eating meat because of the child. The child brought it about that the dog is eating meat.'
- (b) Maliki-rli ka kuyu nga-rni.
 dog-ERG PRES meat eat-NPST
 'The dog is eating meat.'

2. THE SEMANTIC CASES AND THE COMPLEMENTIZERS

In the following subsections I will be concerned with the total range of complements and adverbial categories which fall outside the realm of the grammatical cases, as defined in the preceding section, but which are marked by means of a rather rich system of case-like endings. These include both the traditional 'semantic' or 'oblique' cases and certain categories semantically analogous to various desentential complements and adverbials found widely among the languages of the world. The terminological distinction which I have drawn between cases and complementizers does not correspond to a sharp and precise classification in Warlpiri syntax or morphology. Very roughly, complementizers have the property that they readily appear on infinitival (i.e. nominalized) clauses, as well as on strictly nominal elements. Cases, by contrast, are for the most part restricted to the latter. But this division is not altogether clear-cut. For instance, the instrumental, traditionally regarded as a case category, may combine with infinitivals in Warlpiri as well as with basic nominals. Moreover, there is a great deal of apparent syncretism between cases and complementizers, so that an element whose function falls clearly within the range of traditional case categories may have a phonologically identical partner fulfilling a distinct, though often semantically related, complementizer function. The phonological syncretism of the dative case and the purposive/jussive complementizer (see sec. 2.3), for example, is observed not only in Warlpiri but in languages widely distributed throughout Australia, and it has been the focus of considerable interest in the literature (cf. Dixon 1976).

I have mentioned one readily observable distinction between grammatical cases and the more heterogeneous set consisting of the semantic cases and complementizers, namely the difference that the former, but not the latter, are construed with person markers in the auxiliary. There is another important distinction, although it does not serve as an entirely consistent criterion for classification. With the obvious exception of the adjunct dative, grammatical cases are by and large

obligatory components of the case arrays selected by individual verbs, corresponding to the argument positions inherent to verbal lexical items. The grammatical cases 'have meaning' only to the extent that they are linked to argument positions of verbs. Semantic cases and complementizers are quite different in this regard. They are rarely obligatory in the case arrays of verbs, and they have meanings which are independent of the argument structures of verbs. A part of the task of the ensuing subsections will consist in characterizing the meanings of semantic cases and complementizers, as well as in identifying certain formal properties which they exhibit. I will begin with the four spatial cases of Warlpiri.

2.1 THE SPATIAL CASES

In discussing the meanings of the Warlpiri spatial cases, I will use the term 'place' to refer to the entity denoted by the nominal to which a spatial case ending is attached. Thus in the following sentences the nominal /pirli/ 'stone' represents the 'place':

- (64) (a) Karli ka pirli-ngka nguna-mi.
 boomerang PRES stone-LOC lie-NPST
 'The boomerang is lying on the stone.'
- (b) Ngarrka-ngku ka karli pirli-ngka yirra-rni.
 man-ERG PRES boomerang stone-LOC put-NPST
 'The man is putting the boomerang on the stone.'

The notion 'place' is not a term of grammar but rather a term which designates one of the components in a spatial relationship, i.e. a 'locality' with respect to which some other entity may be oriented in spatial terms. I will use the term 'figure' to refer to an entity — represented by an argument of the predicate — whose location or path of movement, as the case may be, is related in spatial terms to the 'place'. In the sentences of (64) above, the nominal /karli/ 'boomerang' represents the figure. In (64a), the location of the figure may be said to 'coincide' with the place; and in (64b), the agent, represented by the subject, is bringing about the circumstance in which the location of the figure will coincide with the place. In (65) below the same nominals represent the figure and the place, but in this instance the spatial relation expressed by the case ending is that in which the place constitutes the 'starting-point' of the path followed by the figure in its downward movement:

- (65) Karli ka pirli-ngirli wanti-mi.
 boomerang PRES stone-EL fall-NPST
 'The boomerang is falling from the stone.'

The spatial cases of Warlpiri are tabulated in (66) below:

(66)	-ngka ~ -rla	'locative' (LOC)
	-wana	'perlative' (PERL)
	-kurra	'allative' (ALL)
	-ngurlu	'relative' (EL)

The alternation in the locative ending is governed by the same principle as that which operates in the ergative — thus the velar-initial ending occurs with disyllabics, the lateral-initial with bases which are trisyllabic or longer. The /u/- vowels of the allative and relative endings are subject to the general rule of assimilation observed earlier in connection with the ergative and dative — hence the vocalism in the relative of (65) above.

The semantic dimension of 'coincidence' serves to partition the system of spatial cases into two opposed sets. The locative and perlative share the property that they express a coincidence, subject to physical limitations, of the place with the location of the figure. The allative and relative, on the other hand, express a different sort of relation, namely an association of the place with one or the other terminus of a path or linear extension along which the figure moves or is arranged. The allative associates the place with the end-point, while the relative associates the place with the starting-point. The semantic dimensions involved in the spatial cases can be brought out vividly through a comparison of minimally distinct sentences as, for example, the following:

- (67)
- (a) Waya ka pirli-ngka nguna-mi.
wire PRES stone-LOC lie-NPST
'The wire is lying on the stone.'
 - (b) Waya ka pirli-wana nguna-mi.
wire PRES stone-PERL lie-NPST
'The wire is lying along the stone.'
 - (c) Waya ka pirli-kirra nguna-mi.
wire PRES stone-ALL lie-NPST
'The wire extends to the stone.'
 - (d) Waya ka pirli-ngirli nguna-mi.
wire PRES stone-EL lie-NPST
'The wire extends from the stone.'

In (67a) and (67b) the location of the wire coincides with the stone; that is to say, the stone *is the place* where the wire is located. The difference between the locative and the perlocative consists in the dimension of linearity. The perlocative stipulates that the figure, in this case the wire, is arranged along a linear extension coinciding with the stone. In the most natural interpretation, the wire is stretched out, forming a line from one end of the stone to the other. A telephone line running along a hill would be perfectly described by (67b); the noun /pirli/ includes 'hill' in its semantic range. It should be pointed out that the linearity stipulated by the perlocative is not inconsistent with the meaning of the locative; the locative simply expresses the coincidence of figure-location and place, without reference to the arrangement of the figure. Thus the situation described in (67b) is included in the more general range of situations covered by (67a).

The situations described in (67c-d) do not involve a coincidence of figure-location and place. It is nonetheless correct to speak of a 'coincidence' in these cases, but it is the coincidence of a terminus with the place. Depending upon the actual situation, the linear extension along which the wire is arranged may be said either to begin or to end at the stone. If it is the starting-point which coincides with the stone (*terminus a quo*), then the elative expression is appropriate; if the end-point coincides with the stone (*terminus ad quem*), then the allative is the appropriate expression.

The sentences of (67) involve a stance verb. All of the spatial cases may also co-occur very naturally with verbs of motion, in which case the location of the figure is understood as being the path along which the figure moves. In the following sentences, the nominal /nantuwu/ 'horse' represents the figure and the nominal /karru/ 'creek, creekbed' represents the place:

- (68) (a) Nantuwu ka karru-ngka parnka-mi.
horse PRES creek-LOC run-NPST
'The horse is running in the creek.'
- (b) Nantuwu ka karru-wana parnka-mi.
horse PRES creek-PERL run-NPST
'The horse is running along the creek.'
- (c) Nantuwu ka karru-kurra parnka-mi.
horse PRES creek-ALL run-NPST
'The horse is running to the creek.'

(d) Nantuwu ka karru-ngurŭ parnka-mi.

horse PRES creek-EL run-NPST

'The horse is running from the creek.'

In both of (68a-b), the path along which the horse moves coincides with the creek, but in (68b) it is understood to coincide with the linear arrangement of the creek as well. In (68c) and (68d), the creek constitutes the end-point and starting-point, respectively, of the horse's path of movement.

The notion 'coincidence' is central to the meanings of the Warlpiri spatial cases, particularly where it is claimed, as it is for the locative and perlocative, that the meaning involves a coincidence of place and figure-location. The precise nature of the coincidence depends upon the natures of the figure and place. Although the perlocative attributes linear extension to the figure, the locative merely expresses coincidence, no more. The locative is thus extremely general, permitting all possible realizations of coincidence. Thus, for example, if the place is characterized primarily by inner space and therefore the ability to contain, the relationship expressed by the locative is, in the most natural usage, that according to which the figure is located within the place, provided of course that the nature of the figure permits this interpretation, as it does in the following:

(69) (a) Ngapa ka kartaku-rla karri-mi.

water PRES billycan-LOC stand-NPST

'Water is standing in the billycan.'

(b) Lungkarda ka ngulya-ngka nguna-mi.

bluetongue PRES burrow-LOC lie-NPST

'The bluetongue skink is lying within the burrow.'

But if the foremost characteristic of the place is, say, its upper surface, then the locative would most likely be used to express location of the figure upon that upper surface, as in

(70) (a) Maliki ka walya-ngka nyina-mi.

dog PRES ground-LOC sit-NPST

'The dog is sitting on the ground.'

(b) Kurdu ka pangkarra-rla nguna-mi.

child PRES blanket-LOC lie-NPST

'The child is lying on the blanket.'

And so on. Moreover, if the place constitutes a discrete entity located within a larger ground, it can be understood to designate a point coinciding with the location of the figure, within the limits of physical possibilities, of course. In this instance the locative is appropriate for describing adjacency of the figure to the place, as in

- (71) (a) Ngarrka ka warlu-ngka nyina-mi.
 man PRES fire-LOC sit-NPST
 'The man is sitting at the fire.'
- (b) Ngalipa kapi-rlipa ngapa-ngka nguna-mi.
 we FUT-122 water-LOC lie-NPST
 'We(plural inclusive) will camp (lit. lie) at the water.'

If the place combines a variety of characteristics (e.g. an upper surface and inner capacity) and is, in addition, appropriately viewed as a discrete point in space, then the locative is correspondingly polysemous. Thus, for example, the sentences of (71) above are readily open to alternative interpretations, as is (72) below:

- (72) Kurdu ka yuwarli-rla karri-mi.
 child PRES house-LOC stand-NPST
 'The child is standing in/on/at the house.'

This polysemy is entirely consistent with the semantic characterization of the locative as merely expressing a coincidence of place and figure-location. The polysemy resides not in the locative itself but rather in the nature of the figure and place.

There exist in Warlpiri various means by which the spatial relations expressed by the locative can be more narrowly specified. The meaning of the verb, for example, might narrow the range of possibilities. Thus, for example, the verb of (71b) above permits a wide range of interpretations for the locative expression. But if the same verbal base is combined with the preverb /julyurl-/ 'in water, in fire', giving the complex theme /julyurl-nguna-mi/ 'ABS lie in water, in fire', the locative expression /ngapa-ngka/ is correspondingly narrowed to depict the situation in which the figure is located in, rather than besides, the water:

- (73) Kurdu ka ngapa-ngka julyurl-nguna-mi.
 child PRES water-LOC julyurl-lie-NPST
 'The child is lying in the water.'

But the most productive device for specifying precise locative relationships consists in the complex locative construction, in which a locative expression combines with a member of a semantically coherent subset of nominals possessing inherent space-relational meanings. The following sentences exemplify the complex locative constructions:

- (74) (a) Kurdu ka yuwarli-rla kankarlarni karri-mi.
 child PRES house-LOC upon stand-NPST
 'The child is standing on top of the house.'
- (b) Ngarrka ka yuwarli-rla kaninjarni nyina-mi
 man PRES house-LOC within sit-NPST
 'The man is sitting inside the house.'
- (c) Karnta ka nyina-mi warlu-ngka kutu.
 woman PRES sit-NPST fire-LOC near
 'The woman is sitting near the fire.'
- (d) Maliki ka nguna-mi yuwarli-jarra-rla kulkurru(jarra).
 dog PRES lie-NPST house-DUAL-LOC between
 'The dog is lying between the two houses.'

Here the locative expresses coincidence of place and figure-location, while the space-relational nominal functions to specify the particular realization of the coincidence. The meaning of the space relational may be such that it is not, strictly speaking, consistent with what I have asserted to be the core meaning of the locative, i.e. the coincidence of place and figure-location. In fact, the highly structured subset of space relationals referring to the cardinal directions (see the excellent detailed account given in Laughren 1978) formally recognizes an opposition which, in complex locatives, distinguishes coincidence from non-coincidence. I will use the terms centripetal and centrifugal to designate the polar values of this opposition. The former are marked by means of the ending /-rni/ (seen, in fact, in the space relationals of 74a-b above), while the latter are marked by means of the ending /-rra/. (These endings also occur as a part of the system of verbal space-relational suffixes, see Nash 1980.) The centripetal forms are often extended by means of the special locative ending /-nginti/ which is limited in its combinatorial possibilities to the space relationals. The opposition is exemplified in the following:

- (75) (a) Nantuwu ka karri-mi pirli-ngka yatija-rni-nginti.
 horse PRES stand-NPST hill-LOC north-CENTRIPET-nginti
 'The horse is standing on the north side of the hill.'

(b) Nantuwu ka karri-mi pirl-i-ngka yatija-rra.

horse PRES stand-NPST hill-LOC north-CENTRIFUG

'The horse is standing north of (or north from) the hill.'

The centripetal space relational in (75a) is not in conflict with the coincidence aspect of the locative meaning; in fact, it reinforces it. The centrifugal space relational of (75b), however, attenuates the coincidence meaning of the locative. In combinations of this latter sort, the force of the locative is simply to express the fact that there is a spatial relationship (but not one of coincidence) holding between the place and the location of the figure. Some space relational forms so severely contradict the core meaning of the locative that the use of that case in forming complex locatives with them is strongly disfavored. This is true, for instance, of the space relational /wurnturu/ 'far'; although the locative is possible with it, the relative is preferred, thereby embodying in the case ending itself the spatial separation of the figure from the place. Thus,

(76) Ngaju ka-rna nyina-mi wurnturu Yurntumu-ngurlu.

I PRES-1 sit-NPST far Yuendumu-EL

'I live (lit. sit, am in position) far from Yuendumu.'

It is also possible to use the ending /-ku/ on the place nominal, instead of the locative, to form complex locative expressions of this type. This ending is identical in form to the dative, though it is not construed with the auxiliary as the grammatical case would be.

The spatial cases of Warlpiri co-occur abundantly with verbs of stance and motion, verbs whose meanings involve spatial relationships in essential ways. In intransitive stance and motion sentences, like those exemplified so far, it is of course the subject which corresponds to the entity depicted as being in some location or as being in motion; and it is, therefore, the subject which represents the figure in the situations described by the intransitive sentences. In transitive stance and motion sentences, on the other hand, the object represents an entity located, held, or moved, and it is therefore the object which represents the figure. It follows, then, that the absolutive argument will represent the figure in stance and motion sentences, both transitive and intransitive. This is amply exemplified for intransitives in the foregoing discussion, and it is exemplified for the transitive by (64b) above. The transitive situation is further exemplified by the following sentences:

(77) (a) Karnta-ngku ka kurdu parraja-rla marda-rni.

woman-ERG PRES child coolamon-LOC hold-NPST

'The woman is holding the baby in the coolamon.'

(b) Ngarrka-ngku ka kuyu yakuju-kurra yirrpi-rni.

man-ERG PRES meat bag-ALL insert-NPST

'The man is putting the meat into the bag.'

(c) Purlka-ngku ka maliki yilya-mi ngurra-ngurlu.

oldman-ERG PRES dog send-NPST camp-EL

'The old man is sending (i.e. shooing) the dog from camp.'

(d) Pirli ka-lu-jana yurutu-wana yirra-rni.

stone PRES-333-333 road-PERL put-NPST

'They are placing stones along the road.'

In each of these sentences, the object — i.e. the absolutive argument — represents the figure. The figure is related to the place in accordance with the meaning expressed by the spatial case ending. Thus in (77a) the location of the baby coincides with the coolamon — a shallow, elongated, wooden carrying dish — and the natural interpretation of the coincidence is that according to which the baby is lying within the convex surface of the implement. In (77b), the verb depicts an action in which an agent (represented by the ergative subject) moves some entity (the absolutive object) along a path which terminates at some point internal to another entity. In this instance, the meat is moved along a path whose end-point coincides with the interior of the bag (that it is the interior, rather than, say, the outer surface of the bag, is deducible from the meaning of the verb). In (77c), the verb depicts an action in which an agent, in one way or another, causes some entity to move along a linear trajectory; no terminus is implied by the verb itself, but one may be specified by means of a spatial case; in this instance, the elative stipulates that the path followed by the dog begins at the camp. In (77d) the agent moves the stones into a location coinciding with the road. The perlative stipulates that this location has linear extension, so the natural interpretation is that the stones are arranged in a linear array coinciding with the linear arrangement of the road.

It is important to bear in mind that the use of the spatial cases with stance and motion verbs is not limited by arbitrary lexical properties of the verbs. It does not make sense to classify the verbs in terms of the spatial cases they select. Since the spatial cases are themselves meaningful, it is sufficient to know the meaning of a verb to determine whether or not it will be compatible with a particular spatial case expression. On the other hand, the spatial cases can often be used to test for the meaning of a verb. Thus, for example, while the verbs /wapa-mi/ and /ya-ni/ both refer to motion characteristic of the species represented by their subjects — e.g. walking of a legged

creature, flying of a bird, swimming of a fish or water fowl, etc. — they do not co-occur indiscriminately with the spatial cases. Rather, /wapa-mi/ more readily appears with the locative than with the other cases, while the reverse is true of /ya-ni/. This follows from the fact that /wapa-mi/ depicts motion without linear direction, e.g. 'walking around, wandering about'. Like the basic stance verbs, the motion verb /wapa-mi/ denotes a 'manner of being' characteristic of certain entities, in this case entities which can propel themselves. Thus it is often used in assertions whose purpose is merely to describe the typical location of an entity which characteristically moves about, as in

- (78) (a) Jurɪpu ka-lu kankarlu wapa-mi.
 bird PRES-333 above move-NPST
 'Birds live in the air (lit. up above).'
- (b) Jipilyaku ka-lu ngapa-ngka wapa-mi.
 duck PRES-333 water-LOC move-NPST
 'Ducks live in/on the water.'
- (c) Wakulyarri ka-lu pirli-ngka wapa-mi.
 wallaby PRES-333 hill-LOC move-NPST
 'Rock wallabies live in the hills.'

In this quite normal usage, /wapa-mi/ is little different from the stance verb /nyina-mi/ 'ABS sit, be', which likewise figures prominently in discussions of the habitats of animals. By contrast, the verb /ya-ni/ is seldom used in this way. Rather, it refers to motion with linear direction and therefore readily accepts an allative or an elative complement, designating a terminus of the path of motion. To be sure, it is also compatible with the locative. But with /ya-ni/, the locative either expresses the coincidence of the path of motion with the place — i.e. the path is within the area corresponding to the place (cf. 68a above) — or else the locative expresses the normal coincidence of figure-location and place; but the place is a vehicle which is itself in linear motion, as in

- (79) Japanangka ka ya-ni-rni tiraki-rla.
 japanangka PRES go-NPST-HITHER truck-LOC
 'Japanangka is coming in the truck.'

In the sentences examined so far, the figure corresponds to the absolutive argument of the verb with which the spatial case expression is used. This is the normal situation with verbs of

stance, motion, physical transfer, holding, and the like, which depict events in which an entity occupies a position in space or undergoes motion. But it is not always the case that the figure corresponds to the absolutive, nor is it true to say that the use of Warlpiri spatial cases is limited to stance and motion sentences of the type so far exemplified.

Certain verbs of physical transfer entail that the agent, as well as the patient or theme, is in motion. This is true, for example, of the verb /ka-nyi/ 'ERG carry ABS' and certain verbal themes built upon it, e.g. /jarna-ka-nyi/ 'ERG carry ABS (as slain animal) on the shoulders' and /rdanjarr-ka-nyi/ 'ERG carry a full load of ABS'. Such a verb is different in this respect from, say, /yirra-rni/ 'ERG put ABS, ERG place ABS' or /yirrp-i-rni/ 'ERG insert ABS' which entails only that the patient undergoes motion. In a sentence like (80) below, both the agent and the patient — represented by the ergative subject and the absolutive object respectively — undergo motion along a path whose end-point coincides with the place; thus, properly speaking, both the agent and the patient are 'figures' with respect to the spatial case expression:

- (81) Ngarrka-ngku ka kuyu ka-nyi ngurra-kurra.
 man-ERG PRES meat carry-NPST camp-ALL
 'The man is carrying the meat to the camp.'

It is possible, in Warlpiri, to focus upon the fact that the agent bears the figure relation to the place by inflecting the spatial case expression to agree with the ergative subject. Thus an alternative to (81) is the following:

- (82) Ngarrka-ngku ka kuyu ka-nyi ngurra-kurra-rlu.
 man-ERG PRES meat carry-NPST camp-ALL-ERG

This results in 'double case marking', in which a semantic case suffix is immediately followed by a grammatical case suffix.

A closely similar situation can be observed in relation to the verb /wajili-pi-nyi/ 'ERG chase ABS' and its synonym /purrjurl-pi-nyi/. Chasing, at least in the sense of these Warlpiri verbs, entails motion on the part of the agent. In fact, the meaning of these verbs is approximately 'agent causes patient to run by running behind patient'. However, it is not necessary, in truthfully using these verbs, that the agent run the same distance as the patient; the agent can run less. Thus, in (83) below, the child does not necessarily arrive at the camp (though it is understood that the dog does, if the action is successfully completed):

- (83) Kurdu-ngku ka maliki ngurra-kurra wajili-pi-nyi.
 child-ERG PRES dog camp-ALL running-verb-NPST
 'The child is chasing the dog to camp.'

It is, however, possible to employ double case marking here — inflecting the allative expression to agree with the ergative subject — but so doing adds to the propositional content of the sentence by explicitly stipulating that the child arrives at the camp. Thus the following sentence is more informative than is the nearly synonymous (83) above:

(84) Kurdu-ngku ka maliki ngurra-kurra-rlu wajili-pi-nyii.

child-ERG PRES dog camp-ALL-ERG running-verb-NPST

'The child is chasing the dog (all the way) to camp.'

Here it is proper to say that the agent (as well as the patient) bears the figure relation to the place represented by the nominal in the allative case expression. The distinction between (83) and (84) is brought out clearly in an excellent bilingual (Warlpiri-English) essay in Granites 1976.

The verb /yilya-mi/ 'ERG send ABS', like the verb of (83) and (84) above, depicts an action in which an agent induces motion in a patient. But in this case, it is not entailed that the agent is also in motion. Thus the normal interpretation of (85) below is that in which only the dog goes to the camp:

(85) Ngarrka-ngku ka maliki ngurra-kurra yilya-mi.

man-ERG PRES dog camp-ALL send-NPST

'The man is sending the dog to the camp.'

If the allative expression were inflected to agree with the ergative subject here, the meaning would be quite different. The allative would be predicated of the subject (cf. Hale 1979, Nash 1980), and the sentence would imply no relation whatsoever between the dog and the camp. Thus,

(86) Ngarrka-ngku ka maliki yilya-mi ngurra-kurra-rlu.

man-ERG PRES dog send-NPST camp-ALL-ERG

'The man, on his way to camp, is sending (e.g. shooting away) the dog.'

The spatial case expression here serves to supply additional information, quite independent of the content of the verb itself, regarding the agent. It corresponds, in effect, to a subordinate proposition, incidental to that depicted by the verb itself but involving one of the arguments of the latter.

The predicational use of spatial cases is common in Warlpiri, constituting one of a variety of mechanisms for incorporating subordinate propositions into sentences. Predication is signaled by case agreement, giving rise to a full range of 'double case

markings' in which a spatial case is extended by one of the grammatical cases. In this predicational usage, the absence of an overt grammatical case is often used precisely to indicate that the spatial case expression is predicated of the absolutive (i.e. the unmarked) argument. Further examples of this predicational usage are given in (87) below:

- (87) (a) Ngarrka-ngku ka yankirri luwa-rni ngapa-ngka-rlu.
 man-ERG PRES emu shoot-NPST water-LOC-ERG
 'The man is shooting the emu at the water hole.'
- (b) Ngarrka-ngku ka-rla-jinta yankirri-ki luwa-rni
 ngapa-ngka-ku.
 man-ERG PRES-rla-jinta emu-DAT shoot-NPST water-LOC-DAT
 'The man is shooting at the emu at the water hole.'
- (c) Karnta-ngku ka-rla kurdu-ku miyi yi-nyi parraja-rla-ku.
 woman-ERG PRES-rla child-DAT food give-NPST
 coolamon-LOC-DAT
 'The woman is giving the baby, which is in the coolamon, food.'
- (d) Karnta-ngku ka-rla kurdu-ku miyi yi-nyi parraja-rla.
 woman-ERG PRES-rla child-DAT food give-NPST coolamon-LOC
 'The woman is giving the child food in the coolamon.'
- (e) Ngalipa-rlu kapi-rlipa kuyu paka-rninja-ya-ni
 yurutu-wana-rlu.
 we-ERG FUT-122 meat strike-INF-go-NPST road-PERL-ERG
 'We (pl. incl.) will kill meat (on our way) along the road.'

In (87a) the man is necessarily at the water hole. If the locative case expression were unmarked, the sentence would not stipulate that the man is at the water hole; it would be neutral in this regard. In (87b) the locative is marked dative in agreement with the dative object; while this stipulates that the emu is at the water hole, the man may or may not be. In (87c) the locative is predicated of the indirect object, hence the baby is in the coolamon; but in (87d) the locative is predicated of the direct object — both are unmarked, hence absolutive — and it is understood that the food is in the coolamon. In (87e), finally, the perlocative expression is predicated of the subject, indicating the location, or path of movement, of the individuals engaged in the action depicted.

For some speakers of Warlpiri, the elative may also be marked to agree with an ergative subject. One such usage is analogous to (86) above:

- (88) Kurdu-ngku ka maliki ngurra-ngurlu-rlu wajili-pi-nyi.
 child-ERG PRES dog camp-EL-ERG running-verb-NPST

'The child is chasing the dog (all the way) out of camp.'

But there is, in addition, a use of the elative in apposition to an ergative subject to indicate the static location of an entity engaged in an activity or process which can be viewed as having its 'point of origin' in that entity, the latter being represented by the ergative subject. This usage is quite straightforward in sentences involving a verb like /kiji-rni/ 'ERG throw ABS ...', as in

- (89) (a) Kilyawu-rlu ka walya kiji-rni-rni ngulya-ngurlu-rlu.
 lizard-ERG PRES dirt throw-NPST-HITHER burrow-EL-ERG

'The lizard (sp., defenceless dragon) is throwing dirt out from the burrow (the lizard is in the burrow).'

- (b) Wirriya-rlu ka kiji-rni watiya pirli-ngirli-rli.
 boy-ERG PRES throw-NPST stick hill-EL-ERG

'The boy is throwing a stick from the hill (the boy is on the hill).'

Interestingly, this usage is also observed with the perception verb /nya-nyi/ 'ERG see ABS, ERG look at ABS':

- (90) Purlka-ngku ka marlu nya-nyi-rni ngurra-ngurlu-rlu.
 oldman-ERG PRES kangaroo see-NPST-HITHER camp-EL-ERG

'The old man, in camp, is looking this way at the kangaroo.'

The appearance of an allative, elative or perrelative expression in apposition to a dative argument is not particularly frequent in observed speech, but it is possible, as the following examples attest:

- (91) (a) Ngaju ka-rna-rla kurdu-ku mari-jarri-mi ngurra-kurra-ku.
 I PRES-1-rla child-DAT sorry-INCH-NPST camp-ALL-DAT

'I feel sorry for the child (who is on its way) to camp.'

- (b) Purika-ngku ka-rla yapa-ku miyi marda-rni ngurra-ngurlu-ku.⁴
 oldman-ERG PRES-rla person-DAT food hold-NPST camp-EL-DAT
 'The old man is holding the food for the person (who is on his way) from camp.'
- (c) Ngarrka ka-rla marlu-ku jaarl-parnka-mi yuwurrku-wana-ku.
 man PRES-rla kangaroo-DAT blocking-run-NPST scrub-PERL-DAT
 'The man is running to intercept the kangaroo (that is going) through the scrub.'

The phenomenon of double case marking constitutes an additional feature distinguishing certain of the semantic cases (particularly the spatial cases) from the grammatical cases. A semantic case expression may be further marked by means of a grammatical case ending to indicate apposition to a principal argument of the verb; a grammatical case, by contrast, may not be further marked by any case category. Certain complementizers share this double case marking capability with the semantic cases (see sec. 2.4 below).

An additional remark should be made at this point concerning the locative case. In the examples cited to this point, the place nominal (i.e. the nominal inflected for locative) designates the location of an entity represented by one or another of the grammatical case arguments. There is another use of the locative as well, namely to designate the location of an event or condition. This is the normal interpretation of the locative in such sentences as the following:

- (92) (a) Ngapa ka wanti-mi Yurntumu-rla.
 water PRES fall-NPST Yuendumu-LOC
 'It is raining at Yuendumu.'
- (b) Yuwarli ka-lu-jana panu nganti-rni Yurntumu-rla.
 house PRES-333-333 many build-NPST Yuendumu-LOC
 'They are building lots of houses at Yuendumu.'

When, in a transitive sentence, the locative is inflected to agree with the ergative subject, it is understood that the locative has scope over the entire activity denoted by the verb. Thus in a sentence like (87a) above, the object, as well as the subject, is normally understood to be located at the place indicated by the locative expression. It may not, therefore, be entirely correct to say that the locative in such cases is strictly speaking in apposition to the subject; rather, this may be another instance in which the locative designates the location of the event — i.e. it is,

so to speak, predicated of the event depicted by the matrix predication as a whole rather than of just one of the arguments. The issue is by no means clear, however.

A natural extension of the use of the locative to designate the spatial location of an event, as in (92) above, is its use to designate the temporal location of an event or condition, as in

- (93) (a) Ngapa ka wanti-mi wajirrkinyi-rla.
water PRES fall-NPST greentime-LOC
'Rain falls during the "green" season.'
- (b) Kula-ka-rna warrki-jarri-mi yulyurru-rla.
NEG-PRES-1 work-INCH-NPST coldtime-LOC
'I don't work in the winter.'
- (c) Kula-ka-rna munga-ngka warrki-jarri-mi, lawa;
parra-ngka-mipa ka-rna warrki-jarri-mi.
NEG-PRES-1 night-LOC work-INCH-NPST, negative;
daytime-LOC-ONLY PRES-1 work-INCH-NPST
'I don't work at night, I don't; I only work during the day.'
- (d) Kardiya-wangu-rla-wiyi kala-lu yapa-ngku kuyu
kurlarda-rlu pantu-rnu.
European-PRIVATIVE-LOC-BEFORE USIT-333 person-ERG
meat spear-INSTRUMENTAL spear-PST
'Before the Europeans came (lit. before, in the absence of Europeans), people used to spear meat with spears.'
- (e) Ngapa-wangu-rla, kajika-rlu jukurra wirliny ya-ni.
water-PRIVATIVE-LOC, POTEN-12 tomorrow hunting go-NPST
'If it doesn't rain (lit. in the absence of rain), we (dual inclusive) could go hunting tomorrow.'

Time and circumstance are often united in Warlpiri usage, hence the conditional reading associated with (93e) above.

The uses of the spatial cases so far discussed might, with some justice, be termed the 'concrete' uses of them, in the sense that the nominal element with which they combine corresponds to the spatial notion 'place' (with an extension to 'time' in the case of

the locative, to be sure). There are, however, special uses of these case categories which depart from the strictly spatial domain. In these special uses the nominal with which they combine does not correspond to the notion 'place', nor is there a single semantic notion which can be uniformly associated with it — although it is usually possible to imagine a connection between the special and the concrete sense in each instance. In the remainder of this subsection, I will discuss these special uses, case by case, and I will introduce certain more marginal semantic cases which are related in one way or another to the four basic spatial cases.

Certain verbs must be said to 'select' the locative case as a part of their basic argument structure. Thus, for example, the verb /manyu-karri-mi/ (play-stand-NPST), used in the sense 'to play a game', selects the locative case on the nominal designating the game. Thus,

(94) Ngarrka-patu ka-lu karti-ngka manyu-karri-mi karru-ngka.

man-PL PRES-333 cards-LOC play-stand-PRES creek-LOC

'The men are playing cards in the creekbed.'

Notice that the selected locative /karti-ngka/ (cards-LOC) co-occurs here with another locative /karru-ngka/ (creek-LOC) bearing the concrete spatial meaning. The number of Warlpiri verbs which select the locative in this way is, so far as I am aware, rather small. Although the locative in this usage is selected, and therefore like a grammatical case, it is not construed with the auxiliary, and in this respect it behaves like an ordinary semantic case.

Closely related to the locative, both in meaning and in form, is the comitative, used to indicate that the location or path of some individual represented by a principal argument of the verb — e.g. the subject, as in (95) below — coincides with the location or path of another individual, represented by the nominal of the comitative expression:

(95) (a) Kurdu ka karnta-ngkajinta nyina-mi.

child PRES woman-COMIT sit-NPST

'The child is sitting with the woman.'

(b) Maliki ka nantuwu-rlajinta parnka-mi.

dog PRES horse-COMIT run-NPST

'The dog is running along with the horse.'

(c) Kurdu-ngku ka ngurlu kipi-rni karnta-ngkajinta-rlu.

child-ERG PRES mulgaseed winnow-NPST woman-COMIT-ERG

'The child, with the woman, is winnowing mulga seed.'

The comitative ending consists of two parts, the first of which is identical to the locative — i.e. the alternants /-ngka ~ -rla/ selected in accordance with the same principle that governs the ergative and simple locative alternations. The second portion is the element /-jinta/, perhaps related etymologically to the nominal element /jinta/, which functions as a singular indefinite determiner (often translated 'one') and as a predicate expressing either singularity ('one') or identity (often translated 'the same').

It is perhaps not surprising, in view of its meaning, that the perlative also has a comitative use, as in

(96) Ngaju kapi-rna wirlinyi ya-ni japangardi-wana.

I FUT-1 hunting go-NPST japangardi-PERL

'I will go hunting with Japangardi.'

Here the path or itinerary followed by Japangardi coincides with that of the individual denoted by the subject.

It should, of course, be borne in mind that the category 'comitative' entails more than mere coincidence of location or path, though this is surely relevant to explaining why the locative and perlative cases are implicated. The comitative asserts in addition that the individuals involved are engaged in the same activity at the same time.

An ending consisting, evidently, of a reduplication of the perlative — i.e. /-wanawana/ — combines with nominals to designate an item exchanged for another in trade or purchase, as in

(97) Japanangka-rlu ka-ju karli yi-nyi miyi-wanawana.

japanangka-ERG PRES-1 boomerang give-NPST food-EXCH

'Japanangka is giving me a boomerang in exchange for food.'

The relative ending /-ngurlu/ has an important use in Warlpiri which departs radically from the concrete spatial sense but, at the same time, is related to the latter by means of a metaphorical association which is not at all unfamiliar, namely the association of 'source' or 'origin' with 'reason' or 'motive'. In (98) below, the relative expression designates the reason behind the action described:

(98) Maliki-jarra-rlu ka-pala-nyanu kulu-ngku yarlki-rni kuyu-ngurlu.

dog-DUAL-ERG PRES-22-r anger-INST bite-NPST meat-EL

'The (two) dogs are fighting (lit. biting each other in anger) over the meat.'

For many speakers of Warlpiri, the favored form of the relative is /-jangka/ rather than /-ngurlu/. And in the speech of all Warlpiris, so far as I am aware, the ending /-jangka/ exists with a temporal, or mixed temporal-causal, sense corresponding to certain uses of English 'after' and 'from', as in

- (99) (a) Ngarrka-patu ka-lu warrki-jangka mata nguna-mi-lki.
 man-PL PRES-333 work-EL tired lie-NPST-NOW
 'The men are lying down tired now after/from work.'
- (b) Jurru ka-rna rapa-jarri-mi yakajirri-jangka.
 head PRES-1 ache-INCH-NPST Solanum-EL
 'I have a (pounding) headache after/from (eating) desert raisin (Solanum ellipticum).'
- (c) Karnta-ngku ka-ju ngapa yi-nyi wirlinyi-jangka-ku.
 woman-ERG PRES-1 water give-NPST hunting-EL-DAT
 'The woman is giving me water after (I have been) hunting.'

The nominal combining with /-jangka/ corresponds to an event which is temporally prior to the event or condition described by the verb. Often, the prior event is only alluded to in the most indirect way by the nominal in the relative expression — as in (99b) above, for example. But these relatives may also be used in concert with infinitivals in /-warnu/ to elaborate more amply as to the nature of the prior event. Thus, for example,

- (100) (a) Jurru ka-rna rapa-jarri-mi yakajirri-jangka
 nga-rninja-warnu.
 head PRES-1 ache-INCH-NPST Solanum-EL eat-INF-warnu
 'I have a headache from eating desert raisin.'
- (b) Kurdu ka nyurnu nguna-mi warna-jangka yarlki-rninja-
 warnu.
 child PRES sick lie-NPST snake-EL bite-INF-warnu
 'The child is lying sick from being bitten by a snake.'
- (c) Ngaju ka-rna mata-jarri-mi warlu-jangka paka-rninja-
 warnu.
 I PRES-1 tired-INCH-NPST firewood-EL chop-INF-warnu
 'I am getting tired from chopping wood.'

This second relative is also used to designate the material source of an item manufactured, as in

- (101) Karli ka-lu manja-jangka ngurrju-ma-ni.
boomerang PRES-333 mulga-EL good-CAUS-NPST
'They make boomerangs out of mulga wood.'

Like the other spatial cases, the allative has also been observed in uses which depart from the strictly spatial sphere. Thus, for example, while the verb /wangka-mi/ 'ABS speak ...' normally selects the dative case on the nominal representing an individual to whom speech is directed (i.e. the addressee), it has also been recorded in spontaneous discourse, albeit only rarely, with an allative expression corresponding to addressee, as in the following excerpt:⁵

- (102) ... nyampu-kurra-lku kupa-ka-rna wangka-mi walypali-kirra,
ngula pina.
... this-ALL-NOW REL-PRES-1 speak-NPST whiteman-ALL, that
knowing
'... (and) when I speak to this white man, it is with
knowledge (that what I am saying is true).'

Notice that although the allative exactly paraphrases the dative here, it behaves properly like a semantic case in that it is not registered in the auxiliary.

This concludes my discussion of the spatial cases of Warlpiri. The locative, allative, and comitative have homophonous partners among the complementizers which will be discussed in the appropriate subsections below. I will not attempt to answer the question as to whether the homophony corresponds to a real relationship in the synchronic grammar of Warlpiri.

2.2 INSTRUMENTAL ADVERBS AND ADVERBS OF MANNER AND TIME

The instrumental case in Warlpiri is identical in phonological shape, and in its allomorphy, to the ergative. Moreover, it is limited in its occurrence to transitive sentences, in the narrow sense of section 1. That is to say, it may co-occur with a verb only if that verb belongs to the subcategory selecting the ergative case on its subject argument. Unlike the ergative, however, the instrumental is not construed with person markers in the auxiliary, nor does it behave in any other way like a true grammatical case. Examples of the instrumental (glossed INST) are presented in (103) below:

- (103) (a) Yapa-ngku ka-lu kurdiji palya-ngku jarnti-rni.
 people-ERG PRES-333 shield adze-INST trim-NPST
 'People shape shields with the adze.'
- (b) Wawirri kapi-rna kurlarda-rlu panti-rni ngajulu-rlu.
 kangaroo FUT-1 spear-INST spear-NPST I-ERG
 'I will spear the kangaroo with a spear.'
- (c) Karli-ngki kala-lu yapa-ngku kuyu luwa-rnu.
 boomerang-INST USIT-333 people-ERG meat hit-PST
 'People used to kill (lit. pelt, hit with missile) meat
 with the boomerang.'
- (d) Makiti-rli ka-rlipa luwa-rni kuyu ngalipa-rlu.
 gun-INST PRES-122 shoot-NPST meat we-ERG
 'We (plural inclusive) shoot meat with guns.'

In these examples, the nominal marked instrumental represents the instrument or tool by means of which the action depicted by the verb is carried out. And this is the primary function of the instrumental case in Warlpiri. It is understood always that the entity using the instrument or tool is that represented by the ergative subject. It follows naturally from its meaning that there will be a certain co-occurrence restriction on the instrumental. Specifically, it will be limited to co-occurrence with subjects which represent entities capable of using an instrument.

One might be tempted to argue that an inanimate subject, like that in (104) below, is in fact in the instrumental case rather than the ergative as I have implied heretofore:

- (104) Marna-ngku-ju jinarn-kuju-rnu.
 spinifex-ERG-1 trip-throw-PST
 'The spinifex grass tripped me (causing me to fall).'

I think this would be a mistake, however. For one thing, the subject in (104) is not semantically an instrument but an agent, in the accepted sense of an entity causing the effect depicted by the verb. And for another thing, inanimate ergative subjects — unlike instrumentals — are construed with the auxiliary, as can be seen readily where the relevant nominal is nonsingular, and therefore overtly represented in the auxiliary by a subject person marker.

Thus,

- (105) Kurlarda-jarra-rlu kalaka-pala kurdu yalumpu jinarn-kiji-rni.
spear-DUAL-INST ADMON-33 child that trip-throw-NPST
'The two spears are liable to trip that child (causing it to fall).'

But the very same nonsingular nominal, used in instrumental function, would yield its construal to the subject even where the latter, being third person singular, would not be overtly construed:

- (106) Wirriya-rlu kalaka kurdu wita jinarn-kiji-rni kurlarda-jarra-rlu.
boy-ERG ADMON child little trip-throw-NPST spear-DUAL-INST
'The boy is liable to trip the small child with the two spears.'

Considering the meaning of the instrumental, it is perhaps surprising that it cannot co-occur with an intransitive verb. But this is a steadfast rule of Warlpiri grammar — the instrumental case is selected by transitive verbs only. (See Nash 1980 for a suggested explanation of this.) There is, to be sure, another method for expressing the instrumental relation. The proprietive suffix /-kurlu/ (together with its synonym /-parnta/) combines with nominals to form a proprietive, or possessive, expression which can be used either as main predicates or, like the locative, etc., predicated of one or another of the arguments of a verb, as in

- (107) (a) Ngarrka ka ya-ni-rni kuyu-kurlu.
man PRES go-NPST-HITHER meat-PROP
'The man is coming with meat.'
- (b) Kurdu ka-rla ngarrka-ku rdanpa-rni kuyu-kurlu-ku.
child PRES-rla man-DAT accompany-NPST meat-PROP-DAT
'The child is accompanying the man possessed of meat.'

The argument of which the proprietive is predicated represents the possessor of the entity denoted by the proprietive nominal; thus the man possesses the meat in (107a-b) above. The proprietive is readily extended in Warlpiri to indicate not only *possession* but also *use*, and where the use interpretation is appropriate it is often the foremost one. This instrumental function of the proprietive is available for intransitive and transitive sentences alike:

- (108) (a) Purika ka watiya-kurlu warru-wapa-mi.
 oldman PRES stick-PROP around-walk-NPST
 'The old man walks around with a stick.'
- (b) Ngarrka-ngku ka warlu paka-rni warlkurru-kurlu-rlu.
 man-ERG PRES firewood chop-NPST axe-PROP-ERG
 'The man is chopping firewood with an axe.'

While (108b) could simply imply that the man possesses an axe, not that he is using it, such a sentence is normally interpreted in the same way as the following, in which the true instrumental is used:

- (109) Ngarrka-ngku ka warlu paka-rni warlkurru-rlu.
 man-ERG PRES firewood chop-NPST axe-INST
 'The man is chopping firewood with an axe.'

There is no 'true instrumental' comparable to this for (108a) above, but it is possible for the proprietive there to receive the instrumental reading.

The instrumental combines with infinitival clauses as well as with pure nominals. Infinitival instrumentals consistently lack overt subjects, and it is understood that the subject of the infinitive is co-referential with the subject of the main clause. I will henceforth refer to this co-reference relationship by the terms 'construal' and 'control'. In this instance, the subject position in the argument structure of the infinitive verb is 'construed with' or 'controlled by' the subject of the main clause. The instrumental in this combination is used to indicate that the action depicted by the infinitive verb is the means or method by which the effect described by the main verb is brought about:

- (110) (a) Ngarrka-ngku pirilyipirilyi pu-ngu kati-rninja-rlu.
 man-ERG beetle kill-PST tread-INF-INST
 'The man killed the beetle by stepping on it.'
- (b) Parrulka ka-lu yapa-ngku kirlka-ma-ni pinkirra manu
 yumurru walji-rninja-rlu.
 turkey PRES-333 people-ERG clean-CAUS-NPST feather and
 down pluck-INF-INST
 'People clean wild turkeys by plucking out the feathers
 and down.'

Notice that the object, as well as the subject, is non-overt in the infinitival clause of (110a); it is understood that the object in

the infinitival is co-referential with the object of the main verb.

The verbs /pina-ma-ni, pinapina-ma-ni, pinarri-ma-ni/ 'ERG teach ABS ...' select the instrumental case on a nominal or infinitival expression representing a subject matter transmitted by teaching. Thus,

- (111) (a) Karntakarnta-rlu ka-lu-jana kurdukurdu jaru-ngku
pinarri-ma-ni.
women-ERG PRES-333-333 children language-INST
knowing-CAUS-NPST
'The women are teaching the children language.'
- (b) Ngajulu-rlu kapi-rna kurdu nyampu pinapina-ma-ni
karli kiji-rninja-rlu.
I-ERG FUT-1 child this knowing-CAUS-NPST boomerang
throw-INF-INST
'I am going to teach this child how to throw the boomerang.'

It is not clear, to me at least, exactly how this last use of the instrumental is to be understood. It is possible that the infinitival instrumental expression /karli kiji-rninja-rlu/ designates an activity — performed by the individual represented by the subject of the main verb — which is used as a means of instruction. If this is true, then the proper translation of (111b) is 'I am going to teach the child by throwing the boomerang'. Here it would be correct to say that the subject of the infinitive is construed with the subject of the main clause. This usage might then differ in meaning from that in (112) below, where the infinitive is marked with the jussive ending /-ku/ (cf. sec. 2.3 below):

- (112) Ngajulu-rlu kapi-rna kurdu nyampu pinapina-ma-ni
karli kiji-rninja-ku.
I-ERG FUT-1 child this knowing-CAUS-NPST boomerang
throw-INF-JUSS
'I am going to teach this child how to throw the boomerang.'

It is very likely that (111b) and (112) differ in the way in which the subject of the infinitive is construed — i.e. the main-clause subject controls in (111b), while the main-clause object controls in (112).

Manner adverbs, such as those listed in (113) below, have the property that they take an ending identical to the ergative and instrumental when they appear in transitive sentences:

(113)	muurlpa	'carefully, accurately'
	kilji	'fast, rapidly'
	yaruju	'quickly, in a hurry'
	kapanku	'quickly, in a hurry'
	pingka	'slowly, softly'
	wakurturdu	'strongly, loudly'
	pulya	'slowly, gently, softly'
	wurulypa	'secretly, out of sight or hearing'
	jaalya	'at a whisper'
	kulu	'in anger'

The following sentences exemplify the use of a manner adverb:

- (114) (a) Karnta ka muurlpa wangka-mi
 woman PRES carefully speak-NPST
 'The woman is speaking carefully, with precision.'
- (b) Karnta-ngku ka kurdu muurlpa-rlu ka-nj-a-ni
 woman-ERG PRES child carefully-ERG/INST carry-INF-go-NPST
 'The woman is carrying the child along carefully.'

It is not possible at this time to say whether the ending appearing on the manner adverb in (114b) is to be identified with the ergative or with the instrumental, hence the equivocal glossing. One could argue, with some justice, that the ending is the ergative case, since it is paralleled by the absolutive in an intransitive sentence. It may be, for example, that the correct thing to say about manner adverbials is that they are in semantic apposition to the subject. This would account automatically for their case marking — absolutive in intransitives, ergative in transitives.

Time adverbials like

(115)	jalangu	'today, now'
	jukurra	'tomorrow, the next day'
	jukurrakari	'the day after tomorrow'
	pirrarni	'yesterday'
	yangkurra	'some days ago'
	yangkurrakari	'the day before yesterday'
	tarnnga	'always, eternally'
	wurra	'still, not yet'

may also bear the ERG/INST ending in transitive sentences, although this is not strictly adhered to as an obligatory practice as it apparently is in the case of the manner adverbs:

(116) (a) Jalangu-rna ya-nu-rnu ngaju.

today/now-1 go-PST-HITHER I

'I came today. I just now came.'

(b) Jalangu-rlu ka-lu-jana puluku turnu-ma-ni yapa-ngku.

today/now-ERG/INST PRES-333-333 bullock

assembled-CAUS-NPST people-ERG

'The people are mustering the cattle today.'

Here again, there is the possibility of viewing the time adverb as being predicated of the subject — hence absolutive in intransitives, ergative in transitives. And this would make sense in view of the theme of the unity of time and space which figures prominently in Warlpiri usage (cf. 93), i.e. an entity can be located in a time as well as in a place. The possibility of omitting the ergative ending from the time adverb in a transitive sentence would then correspond to the use of a locative expression in apposition to the absolutive object or to designate the location of the action as a whole.

However, there is a flaw in the idea that time adverbs parallel, in this manner, the spatial expressions discussed at length in section 2.1. This consists in the observation that time adverbials never, so far as I am aware, inflect for dative case, as they would if they could be freely predicated of any of the grammatical arguments of the verb.

2.3 PURPOSIVE AND JUSSIVE EXPRESSIONS

The ending /-ku/, identical in form to the dative, has a broad range of uses as a complementizer in Warlpiri. It must be distinguished from the dative case, in that it is not construed with, or registered in, the auxiliary — although many of its functions are semantically reminiscent of certain of the semantic roles played by true dative arguments, and it is quite certain that there is at least an etymological relationship connecting the two. Be this as it may, the ending of concern in this subsection quite clearly belongs to the class of complementizers, insofar as that is a distinguishable category in Warlpiri. It readily combines with infinitivals, as well as with pure nominals, and it corresponds in its function to subordinating conjunctions which, in other languages (cf. English *for*), clearly belong to the complementizer category.

It is somewhat difficult to settle upon a uniformly appropriate label for the ku-complementizer. Its function as a marker of purpose clauses (e.g. 117a-b below) has led to the use of the term 'purposive' (PURP) in reference to it (cf. Dixon 1976), and its function as a subordinator on complements of command verbs (as in 117c-d below) is no doubt responsible for the occasional use of the term 'jussive' (JUSS) in reference to the ending. (Cf. Strehlow 1944, where its Arandic cognate is so labelled.) Examples follow forthwith:

- (117) (a) Yapa ka-lu ya-ni-rni miyi ma-ninja-ku.
 people PRES-333 go-NPST-HITHER food get-INF-PURP
 'The people are coming in order to get food.'
- (b) Ngarrka-jarra-rlu ka-pala parlku pangi-rni marlu
 purra-nja-ku.
 man-DUAL-ERG PRES-33 trench dig-NPST kangaroo
 cook-INF-PURP
 'The two men are digging a cooking trench in order to
 cook the kangaroo.'
- (c) Ngarrka-ngku ka-palangu kurdu-jarra ngarri-rni
 maliki yampi-nja-ku.
 man-ERG PRES-333 child-DUAL tell-NPST dog leave-INF-JUSS
 'The man is telling the two children to leave the dog
 alone.'
- (d) Jakamarra-rlu-ju jinjinyi-ma-nu warlu yarrpi-rninja-ku.⁶
 Jakamarra-ERG-1 PV-verb-PST kindle-INF-JUSS
 'Jakamarra ordered me to build a fire.'

The jussive usage represented by (117c-d) above is distinct from the purposive in one important respect. In (117c-d) the subject of the infinitive is construed with the object of the main verb. And this is a regular feature of transitive verbs of ordering, and the like, which can be said to *select* jussive infinitival complements. Purposive infinitivals, by contrast, are more *váriable* in their construal. In (117a-b), the subject of the infinitive is construed with the subject, but it is possible for the subject of a purposive infinitival to be construed with an object in the main clause, given semantically appropriate conditions. Thus in (118) below, the subject of the infinitive may be — and in the most natural reading is — construed with the dative argument in the main clause:

- (118) Karnta-ngku ka-rla kurdu-ku pangkarra yi-nyi jarda
 nguna-nja-ku.
 woman-ERG PRES-rla child-DAT blanket give-NPST sleep
 lie-INF-PURP
 'The woman is giving the child a blanket in order for it
 to sleep.'

It is quite probable that the difference here is not one of semantics at all, but rather one of syntax. The 'jussive' infinitival complement is evidently a structure of 'obligatory control' (cf. Chomsky and Lasnik 1977) — i.e. one whose subject is necessarily non-overt and is, moreover, necessarily construed with a stipulated argument of the verb which the jussive complements. The 'purposive' is evidently not a structure of obligatory control. A non-overt subject is freely construed, within the limits of semantic appropriateness. Moreover, the subject of a purposive may be overt and disjoint in reference from all main-clause arguments, as in:⁷

- (119) Pangkarra-rna ka-ngu-rnu, kurdu jarda nguna-nja-ku.
 blanket-1 carry-PST-HITHER, child sleep lie-INF-PURP
 'I have brought a blanket in order for the child to sleep.'

Henceforth I will use the term 'jussive' to refer to ku-complements which are structures of obligatory control. And I will use the term 'purposive' for those which are not. I will adhere to this usage even where it is not strictly speaking consistent with the semantics involved. Thus, for example, I label the complement in (119) above 'jussive' even though the main verb there is not properly a verb of command.

Jussive infinitivals provide a dimension along which verbs are subcategorized, evidently. Thus some verbs, but not all, have the ability to select a jussive complement. The following is a partial listing of Warlpiri verbs which have this capability (the ellipsis in the translation corresponds to the complement):

- | | | | |
|-------|-----|---------------------|-----------------------------|
| (120) | (a) | kapakapa-jarri-mi | 'ABS fail to ...' |
| | | pinarri-jarri-mi | 'ABS learn to ...' |
| | | ngampurrpa-jarri-mi | 'ABS develop desire to ...' |
| | | jukuru-jarri-mi | 'ABS lose desire to ...' |
| | (b) | kapakapa-ma-ni | 'ERG prevent ABS from ...' |
| | | pinarri-ma-ni | 'ERG teach ABS to ...' |
| | | jinyijinyi-ma-ni | 'ERG order ABS to ...' |

yaja-rni	'ERG enlist ABS to ...'
ngarri-rni	'ERG tell ABS to ...'
yilya-mi	'ERG send ABS to ...'
wangka-mi	'ABS tell DAT to ...'

It is apparently not necessary in Warlpiri to stipulate for each jussive-selecting verb, as an arbitrary feature of its entry in the lexicon, which of its arguments controls the subject of the infinitive. The controller is predictable according to the following principle: if the verb takes a single argument (list 120a above), its subject, naturally, will control the infinitive subject; but if the verb takes two arguments (list 120b,) its object will control. Thus the morphologically related intransitive and transitive verbs /kapakapa-jarri-mi/ and /kapakapa-ma-ni/ exhibit control by subject and object, respectively:

- (121) (a) Walya kiji-rninja-ku ka-rna kapakapa-jarri-mi (ngaju);
walya ka-ju pina-larrarlarra-nga-rni-rni.
earth throw-INF-JUSS PRES-1 fail-INCH-NPST (I); earth
PRES-1 back-crack 2-verb-NPST-HITHER
'I am failing to throw the dirt out (of the well); it
keeps caving back in here on me.'
- (b) Nyuntulu-rlu ka-npa-ju (ngaju) kapakapa-ma-ni walya
kiji-rninja-ku.
you-ERG PRES-2-1 (me) fail-CAUS-NPST earth throw-INF-JUSS
'You are preventing me from (succeeding in) throwing
the dirt (out).'

In both of (121a-b) above, it is the absolutive argument in the main clause which controls the infinitive subject. It would, however, be a mistake to assume that this is the principle of control with jussives. Rather, with two-argument verbs, it is the 'object' — defined, presumably, in the same way as for auxiliary construal (see 13 in sec. 1)— which controls. Thus the dative object of /wangka-mi/ 'ABS tell DAT to ...' controls in the following sentence:

- (122) Japangardi-ji (ngaju-ku) wangka-ja warlu ma-ninja-ku.
Japangardi-1 (me-DAT) speak-PST firewood get-INF-JUSS
'Japangardi told me to get firewood.'

The ku-complementizer can combine with pure nominals as well as with infinitivals. There are several ways in which this can come about. An absolutive argument within a purposive or jussive infinitival clause may take on the ku-complementizer, as an alternative to

appearing in its normal unmarked, absolutive, form. This is seen most often in transitive infinitivals, as illustrated by the following alternatives to (117b) and (117d):

- (123) (a) Ngarrka-jarra-rlu ka-pala pariku pangi-rni,
marlu-ku purra-nja-ku.
man-DUAL-ERG PRES-33 trench dig-NPST,
kangaroo-PURP cook-INF-PURP
'The two men are digging a cooking trench in order to
cook the kangaroo.'
- (b) Jakamarra-rlu-ju jinjinyi-ma-nu, warlu-ku
yarrpi-rninja-ku.
Jakamarra-ERG-1 PV-verb-PST, fire-JUSS kindle-INF-JUSS
'Jakamarra ordered me to build a fire.'

More commonly, a nominal may appear in combination with the complementizer outside of, and separated from, the remainder of the infinitival clause. Thus in (124) — an alternative to (123b) — the complementized nominal /warlu-ku/ is separated from the verb of the jussive expression by the verb of the main clause:

- (124) Jakamarra-rlu-ju warlu-ku jinjinyi-ma-nu yarrpi-rninja-ku.
Jakamarra-ERG-1 fire-JUSS PV-verb-PST kindle-INF-JUSS

In constructions of this general sort — i.e. involving a complementized nominal in concert with a complementized infinitive verb — the nominal is understood to fulfill the function of the absolutive argument in the case array selected by the verb. That is to say, the nominal is construed with the absolutive position in the argument structure of the verb. Thus /warlu-ku/ (fire-JUSS) is the object of /yarrpi-rninja-ku/ (kindle-INF-JUSS in (124) above.

Extremely common, and of very great importance in Warlpiri speech, is what might be called the 'autonomous' use of complementized nominals, i.e. the use of nominal-plus-complementizer constructions in the absence of infinitives with which they can be construed. This usage is common to all complementizers; it is not limited to the purposive/jussive. I will refer to this as the 'vague predicational' use of complementized nominals. It is illustrated in the following:

- (125) (a) Yapa ka-lu muku-ya-ni miyi-ki.
people PRES-333 all-go-NPST food-PURP
'The people are all going for food.'

- (b) Ngaju-ka-rna jaru-ku kapakapa-jarri-mi.
 | PRES-1 language-JUSS fail-INCH-NPST
 'I fail at, make mistakes in, language.'
- (c) Japangardi kapi-rna yaja-rni wirlinyi-ki.⁸
 Japangardi FUT-1 enlist-NPST hunting-JUSS
 'I will enlist Japangardi for hunting.'
- (d) Nyuntu ka-rna-ngku kuyu-ku yilya-mi.
 you PRES-1-2 meat-JUSS send-NPST
 'I am sending you for meat.'

It is reasonable to think of the meaning of a vague predicational expression as being constructed by means of a special interpretive process which 'builds' the logical form of a sentence, in which the complementized nominal would correspond to the argument position associated with the absolute and in which the verb is left unspecified, to range over the total set of meanings of verbs which could select the nominal. The relation of this abstract subordinate predication to other nominals present in the main clause would be determined in accordance with the very same principles which operate for overt infinitival complements — e.g. free construal for purposives, control for jussives, and so on. This scenario seems appropriate for the interpretation of autonomous complementized nominals generally, with the exception of the subtype represented by (125c) above. In the autonomous complement function, nominals like /wirlinyi/ 'hunting'; /wurna/ 'travel, going'; /wajili/ 'running'; and /jarda/ 'sleep' are not strictly speaking vague predicational. They do not correspond to the absolute argument of an abstract verb but rather to the verb itself. Thus in (125c), the complementized nominal /wirlinyi-ki/ (hunting-JUSS) is synonymous with the fully verbal form /wirlinyi ya-ninja-ku/ (hunting go-INF-JUSS), and the sentence is no less explicit without the verb than it would be with it.

The proposal that — with the exception just noted — the interpretation of an autonomous complementized nominal involves an abstract, semantically unspecified, verb in logical form is intended to capture the fact that the predication is indeed vague. Thus, for example, the purposive expression /miyi-ki/ 'for food' in (125a) above has a range of interpretations corresponding to, among many others, the following explicit infinitival expressions:

- (126) (a) miyi nga-rninja-ku 'to eat food'
 (b) miyi ma-ninja-ku 'to gather/obtain/buy food'
 (c) miyi karla-nja-ku 'to dig food (e.g. yams)'
 (d) miyi paji-rninja-ku 'to pick (lit. cut) food'

...

Of course, a 'normal' reading of a sentence like (125a) would involve a 'most general and typical collocation' such as (126a-b). Only in an extremely rich speech context would it be reasonable to impose a more specific reading, such as (126c-d), or a reading involving a less typical collocation like /miyi nya-nja-ku/ 'to see food' or /miyi yumpa-rninja-ku/ 'to sing the food (e.g. to sing a totemic ritual song pertaining to some vegetable species)'.

Sentences of the type represented by (124) above, in which a ku-complement appears to be 'split up', are most probably to be viewed as involving autonomous complementized nominals in concert with complementized infinitives. The existence of this alternative form of expression in Warlpiri is functional, in that it enables the speaker to foreground an argument of the infinitive verb by representing it as a constituent of the main clause. Thus the object of the complement verb is foregrounded in (124), while in (123d) it is subordinated within the complement expression. This use of complementized nominals to achieve the foregrounding effect is prominent in Warlpiri speech, but it will not be dealt with in detail here (see Nash 1980 for some discussion).

The ku-complementizer can be extended by suffix to form a 'desiderative' purposive or a 'prioritive' purposive. The suffixal combinations are as follows:

- (127) (a) -ku-purda desiderative
 (b) -ku-ngarnti prioritive

The desiderative is used to indicate that the individual corresponding to the subject of the infinitive desires, or intends, to carry out the action depicted in the infinitive clause. The prioritive is used to indicate that one event or condition (that of the main clause) is prerequisite to, or typically prior to, another (that of the infinitive clause). Unlike plain ku-complements, the desiderative and prioritive can be marked to agree in case with a main-clause argument with which they are in apposition — i.e. the main-clause argument with which a non-overt infinitive subject is construed. Examples of these more complex complementizers are given in (128) below:

- (128) (a) Ngaju ka-rna Yalijipiringi-kirra ya-ni, pija
 nya-nja-ku-purda.
 I PRES-1 Alice-ALL go-NPST, picture see-INF-PURP-DESID
 'I am going to Alice Springs with the desire, or intent,
 of seeing a picture show.'
- (b) Ngajulu-rlu ka-rna maniyi ma-ni, Yalijipiringi-kirra
 ya-ninja-ku-purda-rlu.
 I-ERG PRES-1 money get-NPST, Alice-ALL
 go-INF-PURP-DESID-ERG
 'I am getting money with the desire, or intent, of
 going to Alice Springs.'
- (c) Kurdu ka karri-nja-pardi-mi, wangka-nja-ku-ngarnti.
 child PRES stand-INF-arise-NPST, spear-INF-PURP-PRIOR
 'The child is standing up prior to speaking.'
- (d) Ngarrka-ngku ka parlku pangi-rni, marlu
 purra-nja-ku-ngarnti-rli.
 man-ERG PRES trench dig-NPST, kangaroo
 cook-INF-PURP-PRIOR-ERG
 'The man is digging a trench prior to cooking the
 kangaroo.'

In the vast majority of recorded instances of the desiderative and prioritive, the subject of the infinitive is construed with the subject of the main clause, whether that is transitive or intransitive. Thus these structures do not exhibit the control properties of the jussive. Nor are they in any sense 'selected' by the main verb as the jussive evidently may be. I therefore consider the desiderative and prioritive to be special subtypes of the purposive rather than of the jussive. Although the subject of the desiderative infinitival is in all recorded instances non-overt and construed with a main-clause argument, the prioritive has been observed with an overt subject, as in (129) below; hence the prioritive, at least, is not a structure of obligatory control:

- (129) Mangkurdu ka-lu pardi-mi marumaru, ngapa wanti-nja-ku-ngarnti.
 cloud PRES-333 arise-NPST black 2, water fall-INF-PURP-PRIOR
 'Black rain clouds come up prior to its raining (lit. prior
 to rain falling).'

Like the simple purposive, the desiderative and prioritive purposives can appear on pure nominals. The following sentences illustrate this usage:

- (130) (a) Ngaju-rna ya-nu-rnu miyi-ki-purda.
 I-1 go-PST-HITHER food-PURP-DESID
 'I have come desirous of food.'
- (b) Japanangka-rlu ka-nyanu nantuwu ma-ni
 wurna-ku-ngarnti-rlu.
 Japanangka-ERG PRES-r horse get-NPST
 travel-PURP-PRIOR-ERG
 'Japanangka is getting himself a horse prior to travel,
 as a prerequisite to travel.'

Often observed, but not yet adequately understood, is an additional form evidently related to the purposive. This involves the ending /-kurra/, perhaps related to the allative but possibly also just an extension (by an element /-rra/) of the ku-complementizer. It appears on infinitives of verbs of directional motion, and it expresses an intention, on the part of the individual corresponding to the infinitive subject, to begin going. This construction has been recorded only with a transitive main verb and in semantic apposition to the ergative subject thereof; it is therefore further marked for ergative case:

- (131) (a) Jakamarra-rlu ka-ngalpa jakuru-pi-nyi
 ya-ninja-kurra-rlu.
 Jakamarra-ERG PRES-122 PV-verb-NPST go-INF-PURP-ERG
 'Jakamarra is taking leave of us (plural inclusive)
 with the intention of going.'
- (b) Ngajulu-rlu ka-rna makiti ma-ni wirlinyi
 ya-ninja-kurra-rlu.
 I-ERG PRES-1 gun get-NPST hunting go-INF-PURP-ERG
 'I am getting the gun to go hunting.'

In addition to the purposive and jussive uses of the ku-complementizer, there is a much more restricted use of what is evidently the same ending on complements of certain verbs of linguistic communication, e.g. /ngarri-rni/ 'ERG tell ABS about ..., ERG tell ABS that ...'; /payi-rni/ 'ERG ask ABS about ...':

- (132) (a) Napurrula-rlu-jarrangku ngarru-rnu pina-rni ya-ninja-ku,
ngaka nganta kapi ya-ni-rni.
Napurrula-ERG-11 tell-PST back-HITHER go-inf-PURP, anon
supposedly FUT go-NPST-HITHER
'Napurrula told us (dual exclusive) about coming back,
i.e. (that) she will, according to her, come anon.'
- (b) Yalumpu-rlu-ju ngarru-rnu pirrarni-rli, ngapa
wanti-nja-ku nganta.
that-ERG-1 tell-PST yesterday-ERG, water fall-INF-PURP
supposedly
'That person (nearby) told me yesterday that it was
supposed to rain.'
- (c) Yalumpu-rlu-ju ngarru-rnu, nyuntu nganta ya-ninja-ku;
yi-npa nganta nyuntu ya-ntarla Yalijipirlingi-kirra.
that-ERG-1 tell-PST, you supposedly go-INF-PURP,
COMP-2 supposedly you go-IRR Alice-ALL
'That person told me you were supposedly going, i.e. you
were supposed to be going to Alice Springs.'
- (d) Ngali-ngki kapi-rli payi-rni Jakamarra ngapa-ku yangka-ku.
we-ERG FUT-12 ask-NPST Jakamarra water-PURP that-PURP
'We (dual inclusive) will ask Jakamarra about that water
hole.'

Unlike the jussive infinitival complements, these are evidently not structures of obligatory control, since the subject of the infinitive may be overt as in (132b-c). In (132a) the infinitive subject is construed with the main-clause subject. Since the verb there is /ngarri-rni/, a verb which selects jussive complements as well, the sentence is in fact ambiguous. The appended clause, following the comma, makes it clear that the jussive is not the reading which the speaker intends.

2.4 TENSE-RELATIVE COMPLEMENTIZERS: TEMPORAL COINCIDENCE

There exists in Warlpiri an important set of four endings whose shared semantic function is to indicate that one event (that depicted in the main clause) coincides in time with another (that depicted in the infinitive clause). That there are four endings, rather than just one, results from the fact that the set also encodes a somewhat elaborated system of 'obviation' or, as it is often called, 'switch

reference' (cf. Jacobsen 1967, Munro 1980). Thus in addition to expressing temporal coincidence between main-clause and subordinate-clause events, the endings indicate whether or not a principal argument of the main-clause verb controls the subject of the infinitive and, if so, which one. The endings are tabulated below:

(133)	-karra	pure proximate (PROX)
	-ngkajinta ~ -rlajinta	proximate reflexive (PROXr)
	-kurra	obviative of object control (OBVo)
	-ngkarni ~ -rlarni	pure obviative (OBV)

The terminology employed in glossing these complementizers is adapted from that recently used in Uto-Aztecan linguistics (cf. Hale 1969, fn. 3; Voegelin and Voegelin 1975; Jeanne 1978) and is itself an extension, due to Charles Hockett (cited in Grimes 1967) of the traditional Algonquianist opposition known as 'obviation'. In this extended usage, obviation embraces the category termed 'switch reference' by William Jacobsen in his seminal paper on the phenomenon (Jacobsen 1967).

For our present purposes, the proximate (PROX) pole in the obviation dichotomy corresponds to the circumstance in which the subjects of the main and subordinate clauses are shared, or in our terms, the main-clause subject controls the subject of the infinitive. The obviative (OBV) pole in the opposition corresponds to the circumstance in which the subjects of the two clauses are distinct in reference. This binary opposition is evidently present in the Warlpiri system, but there are additional principles entering into it as well, giving rise to four, rather than just two, endings.

Tense-relative clauses marked by means of the ending /-karra/, which I have labelled 'pure proximate', are structures of obligatory control and, for most speakers at least, it is the subject of the main clause which controls — hence the classification of this ending as proximate. If the subject of the main clause is ergative, then the karra-clause is likewise marked ergative as in the final two examples below:

- (134) (a) Ngarrka ka wirnpirli-mi, karli jarnti-rninja-karra.
 man PRES whistle-NPST, boomerang trim-INF-PROX
 'The man is whistling, while trimming the boomerang.'
- (b) Napurrula ka-ju ngaju-ku wangka-mi, ngurlu
 kipi-rninja-karra.
 Napurrula PRES-1 me-DAT speak-NPST, seed
 winnow-INF-PROX
 'Napurrula is speaking to me, while winnowing mulga
 seed.'

- (c) Ngarrka-ngku ka purlapa yunpa-rni, karli
jarnti-rninja-karra-rlu.

man-ERG PRES corroboree sing-NPST, boomerang
trim-INF-PROX-ERG

'The man is singing a corroboree, while trimming the boomerang.'

- (d) Kurdu-ngku ka-rla ngapa-ku wapal-pangi-rni
wangka-nja-karra-rlu.

child-ERG PRES-rla water-DAT search-dig-NPST
speak-INF-PROX-ERG

'The child is digging in search of water while speaking.'

For at least one speaker whom I have consulted, it is not the case that the subject of a karra-infinitival is necessarily construed with the main-clause subject. Rather, it can be construed with the subject or the object; in either circumstance, the infinitival agrees in case with the controlling main-clause argument. For this speaker, karra-clauses are not properly termed 'proximate', since the main and subordinate clauses need not share subjects.

The ending /-ngkajinta ~ -rlajinta/ is identical in form and allomorphy to the comitative case (see 2.1 above). Although I have not indicated this in hyphenation or in glossing, there is certainly an etymological connection between the first syllable of this ending and the locative case /-ngka ~ -rla/. This connection, which also involves the initial syllable of the other obviously bipartite tense-relative complementizer /-ngkarni ~ -rlarni/, may or may not be real from the point of view of the synchronic grammar of Warlpiri, but it is nonetheless understandable in light of the fact that these tense-relative endings express temporal coincidence, just as the locative expresses spatial coincidence.

In the vast majority of recorded instances, the ending /-ngkajinta ~ -rlajinta/ is used where the subject of the infinitive is construed with the main-clause subject and where the latter, in turn, is co-referential with the main-clause object — that is to say, where the main clause is reflexive. Thus,

- (135) (a) Ngarrka-ngku-nyanu ramparl-paju-rnu, karli
jarnti-rninja-rlajinta.

man-ERG-r mistake-cut-PST, boomerang trim-INF-PROXR

'The man accidentally cut himself while trimming the boomerang.'

- (b) Ngajulu-rlu-rna-ju wirliya paka-rnu, watiya
paka-rninja-rlajinta.

I-ERG-1-1 foot chop-PST, tree chop-INF-PROXr

'I cut (chopped) myself on the foot while I was
chopping the tree.'

This ending is not further extended by the ergative case, even though the subject of the infinitive is construed, partially at least, with an ergative main-clause subject. Although the usage just described prevails in recorded utterances and I have accordingly labelled the ending 'proximate reflexive', I do not wish to leave the impression that full understanding of this ending, or of the tense-relative complementizer system as a whole, has been achieved. Here as elsewhere in the study of Warlpiri grammar, an enormous amount of research remains to be done. In relation to the issue directly at hand, it should be pointed out that the use of the proximate reflexive is not obligatory where the main clause is reflexive. Thus consider (136) below, in which a pure proximate infinitival complements a reflexive main clause:

- (136) Ngarrka-ngku ka-nyanu mapa-rni wangka-nja-karra-rlu.

man-ERG PRES-r rub-NPST speak-INF-PROX-ERG

'The man is rubbing himself (e.g. with red ochre) while
speaking.'

Evidently the proximate reflexive requires that there be some direct connection between the action depicted in the infinitive clause and that depicted in the main clause; hence it is used in cases where the action of the infinitive clause could lead naturally to that of the main clause, as in the case of the mishaps described in (135a-b) above. The proximate reflexive would be out of place in (136), where mere temporal coincidence is involved.

The complementizer /-kurra/, identical in form to the allative case ending, forms tense-relative infinitivals which are controlled by the object of the main clause:

- (137) (a) Ngarrka-ngku marlu pantu-rnu, marna nga-rninja-kurra.

man-ERG kangaroo spear-PST, grass eat-INF-OBVo

'The man speared the kangaroo (while it was) eating
grass.'

- (b) Kurdu-ngku ka karnta nya-nyi, ngurlu yurupa-rninja-kurra.

child-ERG woman see-NPST, seed grind-INF-OBVo

'The child sees the woman grinding mulga seed.'

- (c) Karnta ka-rla wangka-mi ngarrka-ku, karli
jarnti-rninja-kurra-ku.

woman PRES-rla speak-NPST man-DAT, boomerang
trim-INF-OBVo-DAT

'The woman is speaking to the man (while he is) trimming
the boomerang.'

- (d) Ngarrka ka-rla marlu-ku yura-ka-nyi, marna
nga-rninja-kurra-ku.

man-ERG PRES-rla kangaroo-DAT PV-verb-NPST, grass
eat-INF-OBVo-DAT

'The man is stalking the kangaroo (while it is) eating
grass.'

- (e) Ngarrka-ngku-rla-jinta marlu-ku pantu-rnu, marna
nga-rninja-kurra-ku.

man-ERG-rla-jinta kangaroo-DAT spear-PST, grass
eat-INF-OBVo-DAT

'The man shot at the kangaroo (while it was) eating
grass.'

Note that the kurra-clause is marked for dative case where its subject is controlled by a dative object in the main clause, as it is in (137c-e). This is the practice in considered speech, but it is not strictly adhered to in spontaneous usage.

I have asserted here that the subject of a kurra-clause is controlled by a main-clause object. This is true, but it is misleading in that it leaves the impression that the principle of control here utilizes the same definition of the notion 'object' that has heretofore been in force, namely that embodied in the object construal principle expressed in (13) above. This is evidently not true, however. The controller of a kurra-clause must, it seems, be an object which is an integral part of the lexical argument structure of the main-clause verb. Specifically, the control properties of kurra-complements distinguish among dative arguments, unlike the construal principle of (13) which treats all datives uniformly as 'objects'. While an inherent dative may control the subject of a kurra-complement, an adjunct dative argument may not. Instead, where an adjunct dative controls, the 'pure obviative' ending is used (see below).

Infinitival complements in /-kurra/ are classified as obviative since their subjects are distinct in reference from those of the main clauses which they complement. This follows from the fact that the kurra-clauses are construed with main-clause objects, not subjects.

There is, however, one situation in which the subjects of the main and subordinate clauses may be co-referential. When the main clause is reflexive, a kurra-complement may be used provided certain semantic conditions are met, as in

- (138) (a) Ngajulu-rlu-rna-ju purda-nya-ngu,
 ngungkurru-pangi-rninja-kurra.
 I-ERG-11 hearing-see-PST, snoring-dig-INF-OBVo
 'I heard myself snore.'
- (b) Kurdu-ngku ka-nyanu nya-nyi, karri-nja-kurra.
 child-ERG PRES-r see-NPST, stand-INF-OBVo
 'The child sees himself standing (as in mirror or glass door).'

This usage is appropriate only where it is possible to think of the object of the reflexive main clause as in some sense 'disjoint' from the subject — e.g. where the object corresponds to an image or sound and therefore is not strictly speaking identical to the entity represented by the subject. Thus while the main clause in sentences like (138a-b) above is syntactically reflexive, it is perhaps not semantically so. Under this interpretation, the classification of /-kurra/ as obviative is, in fact, reinforced by these examples.

The ending which I have labelled 'pure obviative' — i.e. the bipartite /-ngkarni ~ -rlarni/ whose initial portion corresponds in form and allomorphy to the locative — is used on tense-relative infinitivals whose subjects are not controlled by an argument of the main-clause, as in (139a-b) below. When the subject of the infinitival is overt, it is marked with a special 'subjective' ending (glosses SUBJ), identical in form to the dative case and to the purposive/jussive complementizer. If the infinitive verb is transitive and would therefore otherwise select ergative case on its subject, the subjective ending appears in place of, not in addition to, the ergative:

- (139) (a) Ngarrka-ngku ka karli jarnti-rni, kurdu-ku maliki
 wajili-pi-nja-rlarni.
 man-ERG PRES boomerang trim-NPST, child-SUBJ dog
 running-verb-INF-OBV
 'The man is trimming a boomerang while the child is chasing the dog.'

- (b) Nyalali-rli ka warlu yarrpi-rni, karnta-ku kurdu-ku
miyi yi-nja-rlarni.

girl-ERG PRES fire kindle-NPST, woman-SUBJ child-DAT
food give-INF-OBV

'The girl is building a fire, while the woman is giving
food to the baby.'

This is not the sole use of the pure obviative complementizer, however. As mentioned earlier, an infinitival bearing this ending may be construed with an adjunct dative in the main clause. In this usage, of course, the subject of the infinitive is non-overt, being controlled by the adjunct dative:

- (140) (a) Ngarrka ka-rla karnta-ku marlaja-wangka-mi, ngurlu
yurupa-rninja-rlarni(-ki).

man PRES-rla woman-DAT causal-speak-NPST, seed
grind-INF-OBV(-DAT)

'The man is speaking, because of (or inspired by) the
woman, while she is grinding mulga seed.'

- (b) Ngarrka-ngku ka-rla kurdu wita-ku karli kaji-jarnti-rni,
jarda nguna-nja-rlarni(-ki).

man-ERG PRES-rla child small-DAT boomerang
benefactive-trim-NPST, sleep lie-NPST-OBV(-DAT)

'The man is trimming a boomerang for the little child
while it is sleeping.'

The adjunct dative may be used for the specific purpose of foregrounding the subject of a pure obviative complement by permitting it to be overtly represented in the main clause. Thus the following two sentences can be understood as contrasting in just this way — the subject of the infinitival is foregrounded in (141a), while in (141b) it is subordinated within the infinitival complement:

- (141) (a) Kurdu-ngku ka-rla jarntu warru-wajili-pi-nyi karnta-ku,
miyi purra-nja-rlarni(-ki).

child-ERG PRES-rla dog around-running-verb-NPST
woman-DAT, food cook-INF-OBV(-DAT)

- (b) Kurdu-ngku ka jarntu warru-wajili-pi-nyi, karnta-ku
miyi purra-nja-rlarni.

child-ERG PRES dog around-running-verb-NPST, woman-SUBJ
food cook-INF-OBV

'The child is chasing the dog around, while the woman is
cooking food.'

Sentence (141a) is open to a benefactive reading ('... chasing ... for the woman ...'), but it can also be interpreted as differing from (141b) only in terms of foregrounding. Where the complement is construed with an adjunct dative, it is possible to inflect it to agree in dative case therewith, though this is seldom done in normal speech.

Superficially close in meaning to the ending which I have labelled 'pure obviative' is a fifth-tense-relative ending /-puru/. This formative exhibits certain differences in behavior, however, which incline me to the view that it is not truly a part of the system tabulated in (133) above. As far as I know, puru-clauses are never linked with an argument of the main clause — i.e. their subjects are never construed with an argument there. This fact is evidently related to a somewhat subtle difference in meaning which separates /-puru/ from /-ngarni ~ -rlarni/ and from the other tense-relative complementizers. The force of the four complementizers of (133) includes, in addition to the temporal coincidence which I have asserted to be the shared core of their meaning, a relationship between 'participants' (represented by the arguments in the main and subordinate predications) as well. This is evidenced by the fact that obviation is interwoven into the system. Even in the pure obviative, in cases where no participants are shared by the main and subordinate clauses, there is still a semantic relationship of sorts between participants — the pure obviative *counterposes* the activity of one actor to that of another. The system of (133) is, in short, not purely tense-relational. By contrast, puru-clauses seem to be *purely* tense-relational (and, accordingly, the ending is glossed TNSREL in illustrative examples). The event or condition depicted in a puru-expression simply identifies a time during which the proposition of the main clause holds. In fact, the most common puru-expressions are built upon infinitivals, or upon pure nominals, which describe conditions, of weather and the like, capable of serving as a situational backdrop for what is proposed in the main clause. The following sentences exemplify /-puru/:

- (142) (a) Ngarrka-patu ka-lu yujuku-rla nyina-mi, ngapa
wanti-nja-puru.
man-PL PRES-333 shelter-LOC sit-NPST, water
fall-INF-TNSREL
'The men are sitting in the shelter while it is raining.'
- (b) Wanta-puru ka-rna yama-ngka nyina-mi.
sun-TNSREL PRES-1 shade-LOC sit-NPST
'I sit in the shade when it is hot (lit. during the sun time).'

(c) Pirriya-puru ka-rna nyina-mi yuwarli-rla kaninjarni.

cold-TNSREL PRES-1 sit-NPST house-LOC inside

'I sit inside the house when it is cold.'

The contrast between the pure tense-relational /-puru/ and the obviative /-ngkarni ~ -rlarni/ is made vivid by the observation that the latter ending could not be used — or at least would not normally be used — with an infinitival of the type represented in (142a) above. The pure obviative requires that the subordinate clause contain a subject which can be identified as the principal participant, or actor, of which the remainder of the clause is predicated. This follows from the fact that an integral part of the force of the pure obviative involves counterposing the activity of one actor to that of another. Although raining, as described by the Warlpiri locution, involves a subject nominal (i.e. /ngapa/ 'water, rain'), it does not, strictly speaking, involve a principal participant, or actor, in the required sense. The infinitive clause of (142a) describes a condition of weather, not an activity predicated of an actor. This may also explain why the subject of the puru-clause there does not bear the subjective ending /-ku/, as would the overt subject of a pure obviative clause (see 139a-b above). Thus it may be the case that the subjective ending appears on the grammatical subject of a tense-relational clause only if that argument is an actor in the correct sense. The subject of a puru-clause, like that of a pure obviative clause, may bear the subjective ending provided that this actor-predicate partitioning of the puru-clause is appropriate. However, I have recorded this only in elicited, as opposed to spontaneous, speech. The following is an example:

(143) Ngarrka-patu-rlu ka-lu-jana puluku turnu-ma-ni, karnta-pafu-ku miyi purra-nja-puru.

man-PL-ERG PRES-333-333 bullock muster-CAUSE-NPST,
woman-PL-SUBJ food cook-INF-TNSREL

'The men are mustering the cattle while the women are cooking the food.'

The five complementizers introduced in this subsection may combine with pure nominals as well as with infinitival clauses. The pure tense-relational /-puru/ is, in fact, most often observed in combination with nominals depicting environmental conditions, as in (142b-c) above. The four endings of (133) also figure prominently in the use of autonomous complementized nominals, but these depict concrete entities or activities rather than conditions of environment:

(144) (a) Ngarrka-ngku ka miyi nga-rni karli-karra-rlu.

man-ERG PRES food eat-NPST boomerang-PROX-ERG

'The man is eating food while occupied with the boomerang.'

- (b) Kurdu-ngku-nyanu ramparl-paju-rnu kuyu-ngkajinta.
 child-ERG-r mistake-cut-PST meat-PROXR
 'The child cut itself by accident while occupied with the meat.'
- (c) Yankirri-rna ngapa-kurra luwa-rnu.
 emu-1 water-OBVo shoot-PST
 'I shot an emu (while it was) occupied with the water.'
- (d) Ngarrka-ngku ka-rla kurdu-ku karli kaji-jarnti-rni
 manyu-ngkarni(-ki).
 man-ERG PRES-rla child-DAT boomerang benefactive-trim-NPST
 play-OBV(-DAT)
 'The man is trimming a boomerang for the child (while it is) at play.'

The first three of these illustrate the 'vague predicational' usage described in the preceding subsection in connection with the purposive/jussive complementizer. In (144a), for example, the nominal of the karra-expression corresponds to the object in an abstract transitive predication whose verb is unspecified. The complementized nominal there could be used quite appropriately in reference to any of the predications more exactly described in explicit verbal form in (145) below, among others:

- (145) (a) ... karli jarnti-rninja-karra(-rlu)
 '... while trimming the boomerang'
- (b) ... karli paka-rninja-karra(-rlu)
 '... while cutting (chopping) the boomerang'
- (c) ... karli mapa-rninja-karra(-rlu)
 '... while rubbing the boomerang (with grease or ochre)'
- (d) ... karli nguntu-pi-nja-karra(-rlu)
 '... while vibrating the boomerang (to test its balance)'

And the presence in (144a) of the proximate ending /-karra/, together with the (essentially redundant) ergative case marking, indicates that the subject argument in the vague predication is construed with the subject of the main clause.

Analogous interpretive procedures would apply to the complementized nominals of (144b-c). In (144d), however, the complementized

nominal itself denotes an activity and would, therefore, correspond to the predicate of the tense-relative expression — making the predicate explicit, rather than vague, just as would the explicitly verbal form /manyu-karri-nja-rlarni(-ki)/ '... while he/she is/was playing'.

The interpretations sketched above do not exhaust the readings assignable to complementized nominals of the type represented in (144) above. Not surprisingly, in view of the common use of space-time analogies, an ending belonging to the set (133) may express spatial, rather than temporal, coincidence between an argument in the main clause and the complementized nominal, provided the latter can denote a place. Sentence (144c) above, in particular, is especially open to this spatial reading: 'I shot an emu at the water hole.' In fact, the spatial reading is probably the favored one for that sentence. The identification of the 'figure' in this usage is governed by the same principle as that which governs the construal of the subject of an infinitival tense-relative clause. Thus, for example, the appearance of /-kurra/ in (144c) indicates that it is the object of the main predication that is to be identified as the figure, just as it is the main-clause object which controls the infinitive subject in the sentences of (137) above.

The prominence of the locative interpretation of autonomous nominal complements in /-kurra/ is quite possibly responsible for the fact that certain transitive verbs can actually be said to select them — in preference to 'true' locatives in /-ngka ~ -rla/ — to designate the location of an entity denoted by the direct object during the time an action, depicted by the verb, is being performed on it. The verbs of the following sentences are evidently of this type:

- (146) (a) Yarla kuja-ka-lu yirnmilki parripaka-rni karlinngki kurdiji-kirra, manyama-ni ka-lu-nyanu purikapurika-rlu.
yam REL-PRES-333 ripe-NOW PV-strike-NPST boomerang-INST shield-OBVo, soft-CAUSE-NPST PRES-333-r oldmen-ERG
'When they then beat up ripened yams with a boomerang in a shield, the old people (thereby) soften them up for themselves.'
- (b) Yinjiripi ka-lu nyurla-mi mardu-kurra manu parraja-kurra.
yinjiripi PRES-333 knead-NPST bowl-OBVo and/or coolamon-OBVo
'They knead yinjiripi (vegetable sp.) in a wooden bowl or in a coolamon.'

- (c) Yunpayiyunpayi ka-lu puyu-pi-nyi pirli-kirra,
 manya-karda-nyayirni.

flax PRES-333 PV-verb-NPST stone-OBVo,
 soft-UNTIL-EXTREME

'They crush/pound (flowers of) native flax (*Calocephalus platycephalus*) on a stone until they are very soft (or fluffy).'

Tense-relative complementized nominals may also be used in concert with tense-relative infinitivals. The complementized nominals in the sentences of (147) below fulfill the object role in the argument structures of the infinitive verbs. Again, the availability of these 'split' complements permits an argument of a subordinated proposition to appear as a constituent of the main clause and, therefore, to be susceptible to foregrounding:

- (147) (a) Jarntu-lpa kuyu-karra ngurra-ngka nguna-ja
 nga-rninja-karra.

dog-IMPERF meat-PROX camp-LOC lie-PST eat-INF-PROX

'The dog was lying in camp eating meat.'

- (b) Marna-kurra-rna marlu luwa-rnu nga-rninja-kurra.

grass-OBVo-1 kangaroo shoot-PST eat-INF-OBVo

'I shot a kangaroo (while it was) eating grass.'

- (c) Karli-ngkajinta-nyanu ngarrka-ngku ramparl-paju-rnu
 jarnti-rninja-rlajinta.

boomerang-PROXr-r man-ERG mistake-cut-PST
 trim-INF-PROXr

'The man accidentally cut himself while trimming the boomerang.'

- (d) Miyi-ngkarni-lpa-rla purra-nja-rlarni kurdu-ngku
 jarntu wajili-pu-ngu karnta-ku.

food-OBV-IMPERF-rla cook-INF-OBV child-ERG dog
 running-verb-PST woman-DAT

'The child was chasing the dog while the woman was cooking food.'

Tense-relative complementizers are of considerable importance in Warlpiri usage, since the expressions which they mark bear a rather large portion of the expressive burden involved in the semantic subordination of one proposition to another. It is important to

re-emphasize, however, that the system of four endings tabulated in (133) is by no means well understood. The precise conditions on their use remains somewhat elusive, as evidenced in part by the observed variability in the 'ambiguous' control situation represented by the reflexive, i.e. where the subject and object arguments of the main clause are identical. Another potentially ambiguous situation is presented by the two obviatives /-kurra/ and /-ngkarni ~ -rlarni/, both of which can mark infinitival complements which are controlled by an object in the main clause. While observed usage normally conforms to the control principle asserted above — i.e. an inherent object controls a clause marked by /-kurra/, while an adjunct dative controls a clause marked by /-ngkarni ~ -rlarni/ — at least one Warlpiri verb selects an inherent dative argument which can be used in concert with the pure obviative complementizer. The verb /parda-rni/ 'ABS wait for DAT' may co-occur with a pure obviative expression designating an activity in which the individual represented by the dative argument is engaged:

(148) Tiyi-ngkarni-ji parda-ka (ngaju-ku).

tea-OBV-i wait-IMP (me-DAT)

'Wait for me while I (drink my) tea.'

It is not clear whether this is explainable in terms of some semantic principle or whether it should be regarded as an unpredictable lexical property of this verb that it may select a pure obviative complement.

2.5 TEMPORAL SUCCESSION

The complementizers discussed in the preceding subsection have in common a certain semantic property in regard to the relationship referred to as 'temporal coincidence'. The relationship there is one in which the time of one event (that of the main clause) is 'contained within' the time of another (that of the subordinate clause). It is not the case that one of the events precedes or follows the other — or, at least, that is not the temporal relationship that these complementizers primarily express. To the extent that it is possible, given the real-world nature of the events depicted, that of the main clause is *contemporaneous* with all or a part of that of the subordinate clause.

There is, in Warlpiri, an additional proximate tense-relative complementizer — namely /-rla/ (glossed PROX'), identical in form to the lateral-initial alternant of the locative (see sec. 2.1) — which relates activities on the part of a common actor, as does the pure proximate complementizer /-karra/ of the preceding subsection. Although /-rla/ can be used in the situation where the temporal relationship between events is that of containment — and, therefore,

an infinitival complement in /-rla/ can paraphrase one in /-karra/ — this is not the predominant temporal relationship with which the ending is associated. There is another possible relationship between events which is properly included under the rubric of temporal coincidence, namely that in which one event immediately succeeds another. Here the termination of one event coincides temporally with the onset of another, to the extent that coincidence is possible, or natural, given the events and their real-world properties. It is this relationship of temporal *succession* which best characterizes the use of /-rla/. In this characteristic usage, the event of the complement clause is temporally prior to that of the main clause. Examples follow:

- (149) (a) Ngarrka-ngku kuyu paju-rnu, junma ma-ninja-rla.
 man-ERG meat cut-PST, knife get-INF-PROX'
 'The man cut the meat, having gotten the knife.'
- (b) Ngarrka-jarra-rlu-pala warlu yarrpu-rnu, parlku
 pangi-rninja-rla.
 man-DUAL-ERG-33 fire kindle-PST, trench dig-INF-PROX'
 'The two men built a fire, having dug a cooking trench.'
- (c) Kurdu-ngku karnari wajili-pi-nja-rla puuly-marda-rnu.
 child-ERG lizard running-verb-INF-PROX' PV-hold-PST
 'The child chased the reticulated dragon (lizard sp.)
 and caught it.'
- (d) Karnta yuka-nja-rla wangka-ja.
 woman enter-INF-PROX' speak-PST
 'The woman entered and spoke.'

Notice, incidentally, that infinitival complements in /-rla/ are not inflected for ergative case in agreement with a controlling ergative subject, as in (149a-c). In this respect, /-rla/ is formally distinct in its behavior from /-karra/ which regularly agrees with a controlling ergative subject.

The pattern represented by (149c-d) above is extremely popular in Warlpiri, particularly where the main and subordinate clauses share all arguments, as in these two sentences. The close succession of infinitive and finite verbs, in that order and without intervening intonational break, achieves an effect which is semantically more closely akin to co-ordination than to subordination. Thus the sentences of (149c-d) are reasonably close paraphrases of

the following, in which parataxis is used to co-ordinate the predicates:

- (150) (a) Kurdu-ngku karnari wajili-pu-ngu, puuly-marda-rnu(-lku).
child-ERG lizard running-verb-PST, PV-hold-PST(-THEN)
'The child chased the reticulated dragon and (then) caught it.'
- (b) Karnta yuka-ja, wangka-ja(-lku).
woman enter-PST, speak-PST(-THEN)
'The woman entered and (then) spoke.'

Although it is somewhat difficult to make secure judgments on matters of this sort, it is my impression that in usages of the type represented by (149c-d) neither verb can properly be said to correspond to the main assertion of the sentence — rather, the two together co-operate to make a single assertion. In sentences like (149a-b), on the other hand, the finite clause is evidently the bearer of the main assertion.

The proximate complementizer under discussion here is identical to one of the alternants of the locative case. In the most natural use of this ending, it is impossible to be sure whether it is fully identical in its allomorphy to the locative because, unlike the complementizers discussed heretofore, it does not combine with pure nominal stems. It is therefore not possible to determine whether it has the velar-initial alternant /-ngka/ which would appear on a disyllabic nominal. Disyllabic infinitives exist, but they do not serve to reveal the velar-initial alternant since they are exceptional in taking the lateral-initial alternant, not only in combination with the ending of interest here (e.g. /pi-nja-rla/ (hit-INF-PROX'); /nya-nja-rla/ (see-INF-PROX'); etc.), but also in combination with endings which otherwise clearly mimic locative allomorphy (e.g. the initial syllables of the proximate reflexive and pure obviative endings: /pi-nja-rlajinta/ (hit-INF-PROXr), not */pi-nja-ngkajinta/; and /pi-nja-rlarni/, not */pi-nja-ngkarni/).

The above remarks apply to the PROX' ending in its characteristic and fully productive use as a tense-relative complementizer. As with certain other Warlpiri complementizers, this one also evidently has a specialized use as a part of the argument structure of certain verbs. In this function, PROX' exhibits fully the allomorphy of the locative, since it can combine with pure nominals as well as with infinitivals. At least two verbs are known to select the PROX' complementizer. These are /wirnki-jarri-mi/ 'ABS be/get busy at/on PROX'', and its near synonym /wartardi-jarri-mi/ 'ABS be/become

preoccupied with PROX'', as in

- (151) (a) Karli jarnti-rninja-rla-rna wirnki-jarri-ja.
boomerang trim-INF-PROX'-1 busy-INCH-PST
'I got busy at trimming the boomerang.'
- (b) Karli-ngka-rna wirnki-jarri-ja.
boomerang-PROX'-1 busy-INCH-PST
'I got busy on the boomerang.'
- (c) Yapa-jarra-rlu yi-lpa-ju-pala pura-nj-ina-nu,
ngula-ngka-rna wartardi-jarri-ja.
person-DUAL-ERG COMP-IMPERF-1-33 follow-INF-PROG-PST,
that-PROX'-1 preoccupied-INCH-PST
'As two people were following me along, I became pre-
occupied with that.'

Where the complement is an infinitival clause, as in (151a), the main-clause subject controls the subject of the infinitive verb, as expected of a proximate complementizer. It should be said of the usage exemplified in (151) above that it is by no means clear that it properly belongs to the realm of complementizers. It may well be that this is a specialized use of the locative case rather than of a homophonous, but synchronically distinct, PROX' complementizer. This, however, is simply a part of the larger question of the extent to which case-complementizer syncretism in morphological form should be taken to reflect synchronically real connections of one sort or another, as opposed either to accidental convergences or to the historical residue of once real, but no longer real, connections.

2.6 NEGATIVE PURPOSIVE AND ADMONITIVE EXPRESSIONS

The admonitive complementizer /-kujaku/ (ADMON) combines with infinitival clauses to express a 'negative purposive' relationship between events depicted in main and subordinate clauses. Specifically, it indicates that if the event of the main clause is instantiated, that of the complement clause will not be — or, to put it in a way which is more in tune with predominant usage, if the circumstance described in the main clause is realized, an otherwise likely (usually undesirable) event, depicted in the admonitive complement clause, will be circumvented:

- (152) (a) Watiya-ngurlu jiti-ya, wanti-nja-kujaku.
 tree-EL descend-IMP, fall-INF-ADMON
 'Get down from the tree, so you don't fall.'
- (b) Maliki ka-rna nyampu jirri-marda-rni, kurdu wita
 yarlki-rninja-kujaku.
 dog PRES-1 this restraining-hold-NPST, child small
 bite-INF-ADMON
 'I am holding this dog, so that it doesn't bite the
 little child.'
- (c) Wurdungu-jarri-yarla-lpa-rlipa, kurdukurdu
 yakarra-pardi-nja-kujaku.
 silent-INCH-IRR-IMPERF-122, children
 awake-arise-INF-ADMON
 'We should be quiet so the children don't wake up.'
- (d) Murdukayi kapi-rna-ju ma-ni, wirliya ya-ninja-kujaku.
 motorcar FUT-1-i get-NPST, foot go-INF-ADMON
 'I am going to get myself a car, in order not to
 (have to) walk on foot.'

The subject of the infinitival clause may be overt, as in (152c) above. Thus the admonitive, like the purposive, is not a structure of obligatory control. And further, as in the purposive, an overt subject in an admonitive infinitival is not marked by means of the special subjective suffix /-ku/ as it would be in a pure obviative clause, for example (see sec. 2.4). Evidently this special ending is restricted to the subjects of tense-relative infinitivals.

In (152c) above, the overt subject is unmarked or absolutive, as is proper in an intransitive clause. In (153) below, the verb of the infinitival clause is transitive; hence the subject is expected to be in the ergative. However, for some speakers it is possible, optionally, to omit the ergative ending from an overt subject in an infinitive clause, even if ambiguity could result:

- (153) Ngarrka-ngku ka kurdu ngamirlji-rla marda-rni, jarntu(-ngku)
 yarlki-rninja-kujaku.
 man-ERG PRES child embrace-LOC hold-NPST, dog(-ERG)
 bite-INF-ADMON
 'The man is holding the child in his embrace, so that the
 dog won't bite it.'

With retention of the ergative ending, the overt nominal in the admonitive clause of (153) is unambiguously associated with the subject relation with respect to the infinitive verb, while the non-overt argument bears the object relation within the admonitive clause. But if the ergative were omitted, as is allowed by some speakers, the inverse association of grammatical relations would become available as a possible alternative reading of the admonitive clause — albeit a reading which is contextually unlikely in this instance. Given the appropriate context, of course, an unmarked overt nominal in a transitive infinitival would most readily be associated with the object relation, as in (152b) above, for instance.

The admonitive ending combines readily with pure nominals, as in the following sentences exemplifying the use of autonomous complementized nominals to represent situations circumvented or avoided through successful realization of an action depicted by the verb:

(154) (a) Kurdukurdu ka-lu muku-yuka-mi-rni ngapa-kujaku.
 children PRES-333 all-enter-NPST-HITHER water-ADMON
 'The children are all coming in out of the rain (i.e. to avoid the rain).'

(b) Warlu kapi-rna-ju yarrpi-rni pirriya-kujaku.
 fire FUT-1-1 kindle-NPST cold-ADMON
 'I am going to build myself a fire against (to avoid, ward off) the cold.'

(c) Wurnturu-jarri-ya warlu-kujaku.
 far-INCH-IMP fire-ADMON
 'Move away from the fire (to avoid getting burnt).'

It would appear that the admonitive ending is bipartite, like the prioritivive and desiderative purposives, for example (see sec. 2.3), with an initial portion consisting of an element /-ku/. And this would make sense if the admonitive is in fact related to the purposive, as suggested by the locution 'negative purposive' which I used in describing its meaning. But if this association is correct, it is not altogether perspicuous. The second portion of the ending, /-jaku/, offers no assistance in this matter since it is unknown outside this combination. There is phonological evidence both for and against bipartite structure for the ending. When combined with an infinitive, the admonitive complementizer receives a secondary

stress on the penultimate syllable (e.g. [nyánjakujàku] 'in order not to see, be seen'; [wántinjàkujàku] 'in order not to fall') which is precisely what would be expected if the ending were to be analyzed /-ku-jaku/ — i.e. with the subsequence /-jaku/ constituting a separable element. (Compare the stressing on the more obviously bipartite endings exhibiting the parallel syllabic structure: the prioritive [-kungàrnti], the desiderative [-kupùrda], the proximate reflexive [-rlajìnta ~ -ngkajìnta], etc.) But when combined with a nominal, the admonitive ending receives antepenultimate secondary stress (e.g. [wárnakùjaku] 'in order to avoid the snake', [pírriyakùjaku] 'in order to avoid the cold'); this is the stressing expected on an unanalyzable trisyllabic ending (cf. /-wardingki/ [-wàrdingki] 'inhabitant of ...'; /-ngawurrpa/ [-ngàwurrpa] 'denizen of ...'; /-puraji/ [-pùraji] 'your (relation)'; etc.).

Semantically, also, there is room for doubt about a genuine synchronic connection between the admonitive and the purposive. While the admonitive construction is used readily in situations to which the negative purposive interpretation is entirely appropriate, there is another sense associated with it — this is the meaning, in fact, which is responsible for the adoption of the term 'admonitive' (cf. O'Grady 1964). The admonitive, widespread among Australian languages, is used to sound a warning, as in the utterances of (155) below, in which the admonitive construction (whether nominal-based or infinitive-based) is used independently, unaccompanied by a main clause:

- (155) (a) Warna-kujaku
 snake-ADMON
 'Beware of the snake!'
- (b) Maliki-kijaku
 dog-ADMON
 'Beware of the dog!'

(c) Wanti-nja-kujaku.

fall-INF-ADMON

'Beware of falling!'

'Careful, lest you fall!'

'Careful, lest it fall!'

It is, of course, not difficult to see the connection between the admonitive sense and the negative purposive sense. The admonitive expression, in this warning usage, corresponds to a potential calamity which could be avoided by taking appropriate evasive action — e.g. action such as that which is expressed overtly in the imperative main clause of (154c) above. The reality of this connection does not, however, answer the question as to whether there is also a connection, in the synchronic grammar of Warlpiri, between the admonitive complementizer and the purposive complementizer discussed in section 2.3.

A nominal-based admonitive expression may be used in concert with an infinitival one to produce a split admonitive construction, analogous to split purposive and tense-relative complements. The nominal in the split complement is not restricted to a particular grammatical relation with respect to the infinitive verb. In (156a) below, the complementized nominal bears the subject relation to the infinitive, while in (156b) it bears the object relation:

(156) (a) Ngarrka-ngku ka-nyanu pirriya-kujaku yarrpi-rni warlu, karlpi-nja-kujaku.

man-ERG PRES-r cold-ADMON kindle-NPST fire,
chill-INF-ADMON

'The man is building himself a fire against the cold,
so that it won't chill-hurt him.'

(b) Yapa-kujaku jirri-marda-ka maliki yalumpu, yarlki-rninja-kujaku.

people-ADMON restraining-hold-IMP dog that,
bite-INF-ADMON

'Hold that dog away from the people, so it won't
bite them.'

An argument of the infinitive which is not overtly represented by a nominal — e.g. as a part of the infinitival clause itself or as a complementized nominal — can be understood as co-referential with an argument of the main verb; and this is the normal interpretation where possible. Thus, for example, the missing object of the

infinitive verb in (156a) is normally understood as being co-referential with the main-clause subject, and the missing subject of the infinitive in (156b) is most readily understood as co-referential with the main-clause object.

At least one verb in Warlpiri can be said to select the admonitive as an alternative case marking on one of its arguments. The verb /lani-jarri-mi/ 'ABS fear, be afraid' may optionally appear with an argument designating the source of fear; that argument is typically in the dative, but the admonitive is an acceptable alternative. In this usage, the admonitive conforms to the behavior expected of a semantic case in that it is not construed with, or registered in, the auxiliary. Hence the formal contrast between the dative and the admonitive below, with registration by /-rla/ in the former but not in the latter:

- (157) (a) Kurdu ka-rla lani-jarri-mi warna-ku.
child PRES-rla afraid-INCH-NPST snake-DAT
- (b) Kurdu ka lani-jarri-mi warna-kujaku.
child PRES afraid-INCH-NPST snake-ADMON
'The child is afraid of the snake.'

3. CONCLUDING REMARKS

The foregoing sections are intended as an introduction to certain basic aspects of Warlpiri verbal clauses. Much is left out of this account, partly because it is not yet understood and partly because it is covered elsewhere. To get a fuller picture of Warlpiri grammar, the reader is encouraged to consult other papers and essays. The structure of the auxiliary and the system of AUX-VERB agreement can be found in Hale 1973 and Nash 1980. An introduction to the adjoined subordinate clause, which shoulders a large portion of the expressive burden corresponding to that shouldered by the embedded finite clause in English, etc., is to be found in Hale 1976. Discussions of phonology are to be found in Jagst 1975 and Nash 1980, and detailed comments on Warlpiri morphology are given in Nash 1980. Brief comments on the negative can be found in various ones of the above-mentioned works. While much remains to be done, the above works, together with the present paper, will serve to give the reader some idea of most areas of Warlpiri grammar.

FOOTNOTES

1. I am pleased to dedicate this paper to the memory of Lothar Jagst. Although I was never able to meet Lothar personally, I feel that I knew him well, not only from his writings and through correspondence, but most of all through Warlpiri people who knew him and had great affection for him.

Work on this paper has been supported in a variety of ways. It was written at MIT where I have been supported in part by a grant from NIMH (Grant Number 5 P01 MH1 3390-13) and in part by a grant from NSF (BNS-7913950). I was also granted some funds by the project entitled Language Typology and Linguistic Field Work, directed by Timothy Shopen and others, and administered by the Center for Applied Linguistics, which enabled me to check Warlpiri data with Warlpiri-speaking language workers at Yuendumu (Yurntumu). I am especially grateful to George Jampijinpa Robertson who went through the first draft of this manuscript and pointed out many errors and places where individual speakers differ in acceptability judgments. I regret that I have not been able to submit subsections 2.4-6 to his criticism, and the reader should be warned that those portions may contain acceptability judgments not agreed to by all speakers of Warlpiri. I am also extremely grateful to Mary Napaljarri Laughren, linguist at Yuendumu, whose Warlpiri surpasses that of any other non-Warlpiri, for the enormous amount of Warlpiri she has taught me and for the many excellent insights she has led me to understand concerning Warlpiri grammar and semantics. David Jungarrayi Nash and Jane Nangala Simpson have likewise brought me to an understanding of aspects of Warlpiri grammar which would have otherwise escaped my attention; I thank them for that and for their support in our general efforts to understand Warlpiri grammar. I am also extremely grateful to David Jakamarra Odling-Smee and my classificatory brother Robin Japanangka Granites for spending six weeks here in the winter of 1975-76 doing a detailed, albeit hasty, survey of Warlpiri syntax with me. The results of this survey figure largely in this paper. A number of linguists have made valuable comments on early versions of this paper, for which I am very grateful — these include Timothy Shopen, Edith Moravcsik, Dwight Bolinger, Bernard Comrie, Talmy Givón, and Paul Schachter. Finally, I am indebted to an extent beyond my capabilities to express in words to Sam Japangardi Johnson and the late Mick Jupurrula Connell, who were my principal teachers while I was learning Warlpiri, and to all other Warlpiri speakers who have helped me. I hope that their efforts to strengthen and perpetuate their rich linguistic and cultural heritage will be crowned

with the success that they deserve. We are all enriched by this most important resource of Australia.

None of the people mentioned in this footnote are to be held responsible for errors which I have made.

2. Such sentences as these, while strictly speaking grammatical and in fact observed in discourse, sound naked and rather unacceptable in isolation. They can be improved in a variety of ways — including, for example, the addition of the enclitic /-ju/, often used stylistically (adding a rhythmic extra syllable) but also to mark the 'topic' of discourse (in the sense of 'old information'). Thus, for example: /Ngajuju mata./ 'I am tired'; /Nyuntuju wati./ 'You are a man'.
3. Although it has been recorded in natural speech, some Warlpiri speakers reject double registration in sentences of the type represented by (49). It is quite possible that this usage is in fact ungrammatical.
4. Many speakers flatly reject extensions of /-ngurlu/ by grammatical cases, and therefore they reject sentence (91b) as ungrammatical. All speakers, however, will permit such extensions of relative expressions formed with the alternant /-jangka/.
5. Although I am quite certain that I recorded this sentence (from natural speech, on tape) correctly, it is considered to be stylistically unacceptable without the enclitic /-ju/ (see note 2 above) on the word /ngula/: thus ... ngulaju pina.
6. The form /jinjinyi-ma-nu/ in (117d) is short for /jinyijinyi-ma-nu/.
7. This may be incorrect, since some speakers have rejected this sentence. Further research is needed here. It may turn out that purposives are structures of obligatory control after all, or that a more sensitive subdivision of what I have here called 'purposives' must be recognized, some being structures of obligatory control, others not. For speakers who reject (119), the intent of the infinitival can be expressed with the 'corresponding' finite, adjoined clause in /yungu-/: thus, /..., yungu kurdu jarda ngunami./ '... , in order that the child sleep'. See Hale 1976 for a discussion of adjoined subordinate clauses.

8. Sentence (125c) has an alternant with /wirlinyi-kirra/ rather than the jussive /wirlinyi-ki/; and it may well be, for some speakers at least, that the simple jussive is ungrammatical here.

REFERENCES

- CHOMSKY, N. and H. LASNIK. 1977. 'Filters and Control'. *Linguistic Inquiry* 8(3)
- COMRIE, Bernard. 1978. 'Ergativity'. In W. Lehman, ed., *Syntactic Typology*. Austin: University of Texas Press
- DIXON, R. M. W., ed. 1976. *Grammatical Categories in Australian Languages*. Canberra: Australian Institute of Aboriginal Studies (New Jersey: Humanities Press)
- _____. 1980. *The Languages of Australia*. Cambridge: Cambridge University Press
- GRANITES, R. Japanangka. 1976. Short Essays in Warlpiri and English. MIT ms
- GRIMES, Joseph. 1967. *Huichol Syntax*. The Hague: Mouton
- GRUBER, J. 1965. Studies in Lexical Relations. Dissertation, Massachusetts Institute of Technology
- HALE, K. 1969. 'Papago /č+m/'. *International Journal of American Linguistics* 35(2):203-12
- _____. 1973. 'Person Marking in Walbiri'. In A. Anderson and P. Kiparsky, eds., *A Festschrift for Morris Halle*. New York: Holt, Rinehart and Winston
- _____. 1976. 'The Adjoined Relative Clause in Australia'. In Dixon 1976
- _____. 1979. On the Position of Walbiri in a Typology of the Base. MIT ms. (to be distributed by the Indiana University Linguistics Club)
- _____. 1981. Remarks on the Grammar of Part-Whole Relations in Warlpiri. MIT ms
- JACKENDOFF, R. 1972. *Semantic Interpretation in Generative Grammar*. Cambridge, Mass.: MIT Press
- _____. 1976. 'Toward an Explanatory Semantic Representation'. *Linguistic Inquiry* 7(1): 89-150

- JACOBSEN, W. H. 1967. 'Switch-reference in Hokan-Coahuiltecan'.
In D. Hymes and W. Bittle, eds., *Studies in Southwestern Ethnolinguistics*. The Hague: Mouton
- JAGST, L. C. 1975. 'Ngarlpa (Warlpiri) Phonology'. *Papers in Australian Linguistics No. 8*. Pacific Linguistics Series A, No. 39, pp. 21-56
- JEANNE, LaVerne Masayesva. 1978. Aspects of Hopi Grammar. Dissertation, Massachusetts Institute of Technology
- LASNIK, H. 1976. 'Remarks on Co-reference'. *Linguistic Analysis* 2:1-22
- LAUGHREN, M. 1978. 'Directional Terminology in Warlpiri, a Central Australian Language'. *Working Papers in Language and Linguistics* 8:1-16. Tasmanian College of Advanced Education, Launceston
- MUNRO, P. 1980. *Studies in Switch-Reference*. UCLA Papers in Syntax No. 8
- NASH, D. 1980. Topics in Warlpiri Grammar. Dissertation, Massachusetts Institute of Technology
- O'GRADY, G. N. 1964. *Nyangumata Grammar*. Oceania Linguistic Monographs No. 9
- STREHLOW, T. G. H. 1944. *Aranda Phonetics and Grammar*. Oceania Monographs No. 7
- VOEGELIN, C. F. and F. M. VOEGELIN. 1975. 'Hopi /-qa/'. *International Journal of American Linguistics* 41:381-98



WORK PAPERS of SIL - AAB

Series A

- Volume 1: *Five Papers in Australian Phonologies*, ed. J. Hudson
vii + 204 pp. October 1977 \$5.85
(Alyawarra phonology; A tentative description of the phonemes of the Ngalkbun language [including a small word list]; Notes on rhythmic patterning in Iwaidja; What are contrastive syllables? The Wik-Munkan picture; A phonological analysis of Fitzroy Crossing Children's Pidgin.)
- Volume 2: *Papers on Iwaidja Phonology and Grammar*, N. Pym
xiii + 253 pp. April 1979 \$6.25
(Two papers on phonology, five on grammar. First extensive description of Iwaidja. Phonologically interesting [5 stop series, but 4 laterals] as well as grammatically [a prefixing language with no noun classes and no case marking].)
- Volume 3: *Four Grammatical Sketches: From Phrase to Paragraph*,
ed. C. Kilham, vii + 128 pp. September 1979 \$4.35
(Notes on paragraph division in Tiwi; The sentence: boundaries and basic types in Ngaanyatjarra narratives; Clause types in Gugu-Yalanji; The Walmatjari noun phrase.)
- Volume 4: *A Distinctive Features Approach to Djinang Phonology and Verb Morphology*, B. Waters
ix + 159 pp. December 1979 \$4.80
- Volume 5: *Australian Phonologies: Collected Papers*, ed. B. Waters
xiii + 269 pp. December 1981 \$6.50
(Syllable length and stress in Nunggubuyu; Burarra, Kala Lagaw Ya [Saibai Dialect], Anindilyakwa, Murinbata phonologies: Burarra orthography; high level phonology in Walmatjari; use of the symbol ny in Australian Aboriginal orthographies.)
- Volume 6: *Papers in Warlpiri Grammar: In Memory of Lothar Jagst*,
ed. S. Swartz, June 1982 \$7.50
(L. Jagst, A tentative description of Ngardilpa [Warlpiri] verbs; D. Nash, Warlpiri verb roots and preverbs; K. Hale, Essential features of Warlpiri clauses; S. Swartz, Syntactic structure of Warlpiri clauses; M. Laughren, A preliminary description of propositional particles in Warlpiri.)

Series B

- Volume 1: *The Walmatjari: An Introduction to the Language and Culture* (2nd, slightly revised printing), J. Hudson,
E. Richards, P. Siddon, P. Skipper *et al.*
vii + 109 pp. May 1978 \$4.75
- Volume 2: *Papers in Literacy and Bilingual Education*,
ed. E. Richards, vii + 147 pp. November 1978 \$4.50
(Northern Territory bilingual education [with a preview of a selection of programmes in six other countries]; Teaching aids for Tiwi; Transition from Australian

Aboriginal languages to English: as it applies to children in bilingual schools; A literacy programme for maximum compatibility with teaching methods used in Australian schools.)

- Volume 3: *An Australian Creole in the Northern Territory: A Description of Ngukurr-Bamyili Dialects (Part 1)*, J. R. Sandefur, vii + 185 pp. February 1979 \$5.20
(Historical background and introduction to pidgins and creoles; phonology, orthography and grammar. Most extensive description of 'Roper Creole' published.)
- Volume 4: *Beginnings of a Ngukurr-Bamyili Creole Dictionary*, J. R. and J. L. Sandefur, v + 136 pp. February 1979 \$4.50
(Creole to English: approx. 2725 entries.)
- Volume 5: *An Introduction to Conversational Kriol*, J. R. and J. L. Sandefur, xix + 74 pp. - 6 sound cassettes (360 minutes) February 1981 \$24.00
(Manual with 30 lessons, each containing conversation, vocabulary, drills, grammar notes; stories by different Kriol speakers; tips on language learning; six 60 minute cassettes using Kriol speakers and keyed to manual.)
- Volume 6: *Literacy in an Aboriginal Context*, ed. S. Hargrave ix + 133 pp. April 1981 \$4.80
(Cultural considerations in vernacular literacy programmes for traditionally oriented adult Aborigines; Characteristics of Aboriginal cognitive abilities: Implications for literacy and research programmes; A suggested strategy for an Alywarra literacy programme from a community development viewpoint; Vernacular literacy for Warlpiri adults; Developing a literature for Kriol.)
- Volume 7: *Kuku-Yalanji Dictionary*, comps. H. and R. Hershberger vii + 294 pp. April 1982 \$7.25
(three sections: vernacular to English (approx. 2500 vernacular entries); English to vernacular; introduction to the grammar of Kuku-Yalanji, written in non-technical style.)
- Volume 8: *Language and Culture*, ed. S. Hargrave forthcoming

Prices quoted include surface postage within Australia and are subject to change without prior notice. Discounts are available on quantity orders; enquire for details:

Bookseller
Summer Institute of Linguistics
Australian Aborigines Branch
PO Berrimah
Darwin NT 5788
Australia

Also available: *Bibliography of the Summer Institute of Linguistics, Australian Aborigines Branch*, up to August 1981. Compiled by Else Jagst \$1.50