

Chapter 4

Aspects of verbal semantics

4.1 Introduction

This chapter begins with the question: how are the verbal semantic primes proposed by the Natural Semantic Metalanguage approach (Goddard and Wierzbicka 2002), i.e. putatively simple meanings such as WANT, DO, HAPPEN, SAY, KNOW, SEE, HEAR, and MOVE, expressed in Bunuba? The question has an obvious theoretical interest in a language like Bunuba in which verbal constructions are typically complex, because semantic primes are, by definition, semantically simple and indivisible. It would seem to follow that certain coverb+auxiliary combinations, namely those which express semantic primes, must be regarded as single units from a semantic point of view. It also turns out that the exercise focuses attention in a sharp way on an analytical question of great interest in itself, namely, the polysemy—or, to coin a phrase, the hyperpolysemy—of MA as a simple verb. I will be arguing in this chapter that simple verb MA is no less than five-ways polysemous, and providing formal as well as semantic arguments to back up this conclusion.

The remainder of the chapter examines the semantics and classificatory functions of the Bunuba auxiliary roots. Rumsey (2000:77) deals with this topic only very briefly, stating: “The semantic features I have specified for these roots appropriately characterise *most* of their uses, but there are many apparent exceptions, especially regarding distinctions more delicate than the basic one between telic and atelic. I have not yet been able to push the analysis of those distinctions as far as McGregor has done for Gooniyandi, but it is clear that the data are similar in many respects”. In the bulk of this chapter I attempt to push the semantic analysis further.

Schultze-Berndt (2000) and McGregor (1990, 2002a) describe coverb and auxiliary collocation as a largely semantic system of verb classification. Schultze-Berndt compares it to nominal classification (Harvey and Reid 1997): “these verbs [i.e., auxiliaries] have a similar function, in the domain of verbs, to nominal classifiers in the domain of nominals: They form a closed class, are obligatory in certain constructions (as it happens, in every finite clause), and serve to group all verbal expressions into a limited number of classes” (Schultze-Berndt

2000:212). McGregor (2002a:29ff) considers three factors of importance to systems of verb classification: (i) vectoral configuration; (ii) aksionsart, i.e., telicity, dynamicity, etc.; and (iii) valency.¹

Although they differ in other ways, Schultze-Berndt and McGregor both adopt aspects of a Functional Grammatical theoretical approach to verb classification. My approach, by contrast, will be guided by the Natural Semantic Metalanguage (NSM) method of semantic description (Wierzbicka 1996; Goddard and Wierzbicka 2002). The main differences in perspective can be summarised as follows: (i) As just stated, on NSM assumptions it is necessary to recognise a small number of coverb+auxiliary combinations as semantically unitary. Given the analysability of many other combinations, it follows that a uniform account of the Bunuba verb classification is impossible. (ii) When it comes to identifying semantic content, NSM style analyses tend to be less abstract, i.e. more “concrete”, than other approaches, because of the constraint that they must be expressible by way of paraphrase in terms of ordinary simple meanings. Rather than positing highly abstract general meanings, an NSM-inspired approach will tend to identify multiple subclasses sharing common components, related in a network or “family resemblance” fashion. As far as I know, this is the first application, albeit an exploratory and provisional one, of the NSM perspective to verb classification in Australian languages.

4.2 Semantic primes in Bunuba

4.2.1 Exponents of verbal primes: overview

The verbal semantic primes and their Bunuba counterparts are listed in Table 4-1. The full set and their Bunuba counterparts are listed in Appendix 2.

Table 4-1: Proposed Bunuba verbal semantic primes

Mental predicates:	THINK/THINK ABOUT	MA <i>linga</i> +RA2
	KNOW	<i>binarri</i> (adverb) ~ <i>binarriya</i> +MA2
	WANT	<i>dawungga</i> +MA2
	FEEL	MA
	SEE	<i>mila</i> +RA2
	HEAR	<i>winyi</i> +RA2
Speech:	SAY	MA
Actions, events and movement:	DO	MA
	HAPPEN	MA
	MOVE	<i>ngulangga</i> +RA
Existence and possession:	THERE IS	<i>baga</i> +RA
	HAVE	<i>gurrija</i> +RA2
Life and death:	LIVE	<i>yatha</i> +RA
	DIE	<i>duluga</i> +WU

There are three notable points. First, of the 15 verbal primes, 10 are expressed by fixed coverb+auxiliary combinations. The view taken here is that in combinations like *duwungga*+MA2 WANT, *mila*+RA2 SEE, and *baga*+RA THERE IS, as in the following “canonical contexts” for semantic primes, the roots MA2, RA2 and RA do not convey any specifiable meanings. Alternatively, one could say that in these particular coverb+auxiliary combinations it is impossible to “divide up” the meaning expressed, apportioning part of it to the coverb and part to the auxiliary (because the assumption is that semantic primes are unitary, indivisible meanings).

- 4-1 *Dawungga* *lima* *wad* *bungay* *jobjawu*.
dawungga *li-ma* *wad* *wu-ŋgi-ra-y* *job-yawu*
want 1sgA>3sgO-MA2 go FUT-1sgS-RA-excl shop-ALL
I want to go to the shop. (NSM)
- 4-2 *Nginjagama* *ngurru* *mila'la*.
nginjaga-ma *ngurru* *mila-li-ra*
what-/I over.there see-1sgA>3sgO-RA2
I see something over there. (NSM)
- 4-3 *Baga'ra* *galagalanggarri* *gawiy*.
baga-ø-ra RED-galanggarri *gawiy*
there.is-3sgS-RA different.different fish
There are lots of different (kinds of) fish. (NSM)

Second, although the auxiliaries RA, RA2, MA2 and WU are in a strict sense meaningless in the combinations listed in Table 4-1, it does not follow that they are meaningless in other coverb+auxiliary combinations. On the contrary, I will argue later in this chapter that these very auxiliaries do have specifiable meanings, in many cases, in semantically complex combinations, and that they serve a verb classification function.

Third, the MA auxiliary is different because it has been identified as an exponent of no less than 5 semantic primes—DO, SAY, THINK, HAPPEN, and FEEL. In §4.2.2 I will argue on formal and semantic grounds that simple verb MA is indeed five-ways ambiguous² (actually, MA also has a sixth, semantically complex meaning linked with SAY).

Many of the Bunuba exponents of semantic primes are polysemous in ways which are paralleled in many other languages (cf. Goddard and Wierzbicka 1994, 2002). Summary information is given in Table 4-2. The table also shows the meanings expressed by the coverbs when they combine with various other auxiliaries (this will be pursued further later in the chapter).

Table 4-2: Polysemous exponents of verbal primes in Bunuba

prime exponent	prime meaning	other meaning(s)	other coverb+auxiliary combinations
<i>binarri</i> [adverb]	KNOW	–	<i>binarriya</i> + MA2 ‘show’ <i>binarriya</i> + RA2 ‘teach’
<i>dawungga</i> + MA2	WANT	‘like’	
<i>mila</i> + RA2	SEE	–	<i>mila</i> + RA ‘look around’
<i>ngulangga</i> + RA	MOVE	–	<i>ngulangga</i> + MA <i>ngulangga</i> + MA2 <i>ngulangga</i> + NGARRI
<i>baga</i> + RA	THERE IS	‘lie.down’ ‘stay’ ‘sleep’	
<i>gurrijga</i> + RA2	HAVE	‘hold onto’	
<i>yatha</i> + RA	LIVE	‘sit’ ‘stay’	

Some brief notes about these identifications and associated polysemies are in order. Unusually for Bunuba, the exponent of semantic prime of KNOW is identified not as a coverb, but as the adverb *binarri*. It is obviously related to the coverb *binarriya*, however, and this coverb combines with either MA2 or RA2, with the meanings ‘show’ and ‘teach’, respectively. Obviously both these meanings involve KNOW.

In identifying the semantic primes THERE IS and LIVE, informants gave me the posture expressions *baga*+RA and *yatha*+RA, respectively. In narrative texts these combinations commonly appear with the meanings ‘lie’ and ‘sit’, respectively, but their relative infrequency in their semantically prime senses is not relevant to their status as exponents of semantic primes. The sole criterion is their claim to indefinability, with the concomitant promise that other, non-prime meanings in the language will be analysable in terms of the primes. By implication, therefore, the non-prime senses of *baga* (‘lie down’, ‘stay’, ‘sleep’) should be able to be further broken down or explicated, whereas the ‘there is’ sense is indefinable. Likewise with *yatha*+RA, I assume that all but the ‘live’ sense are complex and can be further broken down into less complex components. The polysemy of these Bunuba two posture expressions is not an uncommon feature of other Australian languages. For example, semantic prime THERE IS is expressed by two different posture verbs in the geographically contiguous languages of Pitjantjatjara/Yankunytjatjara (P/Y) and Arrernte: by *ngaranyi* ‘stand’ in P/Y and *aneme* ‘sit’ in Arrernte (Goddard and Harkins 2002).

Likewise, polysemy between the senses ‘want’ and ‘like’ is common in Australian languages, and in languages of the world (cf. Goddard 1991; Goddard and Wierzbicka 1994). The premise here is that ‘like’ is a more complex sense and that it would require other semantic primes to explicate its definition, whereas the ‘want’ sense is indefinable. The same applies to HAVE and ‘hold onto’. A polysemy comparable to that of Bunuba *gurrijga*+RA2 is found in

languages such as Yankunytjatjara and Arrernte in Australia (Goddard 1996, Henderson and Dodson 1994).

The exponent of SEE is the textually frequent combination *mila*+RA2, with the transitive auxiliary RA2. It is notable that by switching to the intransitive auxiliary RA the meaning becomes ‘look.around’. It might be tempting on this basis to assume that coverb *mila* expresses “pure” SEE, which is manifested as either transitive or intransitive depending on the auxiliary. This argument does not go through, however; firstly, because the assumptions of the NSM approach require that every prime be expounded by a full lexical item (thus, a coverb alone will not suffice), and secondly because *mila*+RA2 “works” unproblematically in explications as the equivalent of SEE. In fact, it will be needed for the explication of *mila*+RA ‘look.around’.

4.2.2 *Hyperpolysemy of simple verb MA*

It is argued here that MA conveys the following semantically primitive senses: SAY; DO; THINK; HAPPEN; and FEEL. That is, no less than 5 of the proposed semantic primes are expressed (at least partially) using a single lexical form—surely an extraordinary situation and one demanding close scrutiny. Furthermore, the SAY sense has an additional specialised polysemic meaning glossed as ‘call.up’.

Certain sentences, such as in 4-4 below, are five-ways ambiguous. Usually, however, aspects of the constructional or textual context provide cues for disambiguation. For example, in 4-5 MA can only mean ‘say’, in 4-6 it can only mean THINK, and in 4-7 it can only mean FEEL.

- 4-4 *Ngaanyima miy?*
 ngaanyi-ma ø-ma-iy
 I/I.PRO=I/I 3sgS-MA-PAST
 What did he (or she) say/do//think/feel’ or ‘What happened?’
- 4-5 “*miyhayawu wad bungay.*” *miyngarribiyirrantha.*
 miyha-yawu wad bu-ngi-ra-y ø-ma-iy-ngarri-biyirrantha
 meat-ALL go FUT-1sgS-RA-excl 3sgS-MA:SAY-PAST-HAB-3dl.OBL
 He went away, “I’m going for meat” he said to them. (B02.8)
- 4-6 *Jalungurruyarra limiy mithura niy.*
 jalungurru=yarra li-ma-iy mithuri ø-ni-y
 good=DUB 1sgS-MA:THINK-PAST bad/off 3sgS-NI-PAST
 I thought that it might be good but it’s actually gone off. (NSM)
- 4-7 *Yiningga lima.*
 yiningga li-ma
 just.like.that 1sgS-MA:FEEL
 I feel just the same. (NSM)

SAY/DO/THINK polysemy is common in many non-Pama-Nyungan languages. Table 4-3 lists some languages in which this polysemy occurs, the canonical form of the morpheme, and

whether it is conveyed through a simple verb construction or a complex verb construction. All the languages listed in this table are in a geographical bloc, from the Kimberley region in Western Australia to the Daly region in the Northern Territory. It is perhaps possible to view SAY/DO/THINK polysemy as an areal feature.

Table 4-3: SAY/DO/THINK polysemy in some Australian languages

Language and source	Verb form	Meanings	Verb type
Gooniyandi (McGregor 1990:558)	<i>miga</i>	say; do; tell; think	complex
Ungarinyin (Rumsey 1982a:157-66)	<i>-ma-</i>	say; do	simple
Nyikina (Stokes 1996:179)	<i>-I-</i>	say; do	simple
Gunin/Kwini (McGregor 1993:44)	<i>-MA</i>	say; do	simple
Wunambal (Carr 2000:139)	<i>=MA</i>	say; think	simple
Kija (Kofod 1996:89)	<i>-INI</i>	say; do	simple
Jaminjung (Schultze-Berndt 2000:349)	<i>-yu(nggu)</i>	say; do	simple
Ngan'gityemerri (Reid 1990, 2000:335)	<i>ngiN</i>	say; do; think	simple
Emmi (Ford 1998:226)	<i>me</i>	say; do; feel	simple/complex ³

The view taken here is that MA exhibits genuine language-internal polysemy; that is, it is not the case that the meaning of MA is vague or general, with the apparent differences being induced by the linguistic context. My argument is similar to that of Goddard (1994) in relation to Pitjantjatjara *kulini*, as expanded by Evans and Wilkins (2000).

For the Australian language Pitjantjatjara, Bain (1979:126) similarly claims a lack of distinction between perception and cognition senses of a basic verb: 'there is no way to differentiate the concepts of thinking, listening and heeding in Pitjantjatjara. The same verb *kulini* does duty for all'. In this case, however, there is clear evidence that we are dealing with distinct senses. In response to Bain's claim about Pitjantjatjara, Goddard (1994:237) pointed out that the three senses of *kulini* have different syntactic frames: 'Only the THINK sense can take a "quasi-quotational" clausal complement...', 'only the "hear, listen" sense can take a nonfinite circumstantial complement', and 'only the "heed" sense can take a locative case complement'. (Evans and Wilkins 2000:563)

In other words I will argue that the five different semantically primitive meanings can be separated from one another using various formal and semantic tests. These tests or criteria, which are discussed in detail in subsequent sections are: (a) restrictions on person/number and animacy of subject NP; (b) differential availability of semantic roles for an NP added by means of OBLique pronominal suffix, e.g. only SAY can take an OBLique addressee argument, only DO can take an OBLique instrument argument; (c) the existence of lexical alternatives, either allollexes, e.g. *linga+RA* 'think.about', or lexically specific, i.e. disambiguated expressions, e.g. MA *guda* [stomach] = FEEL. By taking this full suite of criteria into account, a distinctive profile can be compiled for each semantically primitive sense (see §4.2.8).

4.2.3 MA: HAPPEN

Like all Bunuba verbs, MA takes pronominal prefixes which cross-reference its core arguments. The HAPPEN sense of MA is distinguished by a very striking, albeit semantically natural, distributional restriction—namely, that its subject can only be cross-referenced as 3sgS or 3nsgS, and must be inanimate. Though a sentence like 4-4 above is five-ways ambiguous, one like 4-9, with 1sg subject, is only four-ways ambiguous. The HAPPEN sense is excluded once the subject is no longer 3sg. That is, the inability to switch to a non 3rd person subject is a diagnostic of a distinct sense of MA, namely, HAPPEN.

4-8 *Thurrandaywa miy.*
 thurranda-yuwa ø-ma-iy
 two-LOC 3sgS-MA-PAST
 He or she said/did/thought/felt (it) twice.
 It happened twice. (NSM:21)

4-9 *Thurrandaywa limiy.*
 thurranda-yuwa li-ma-iy
 two-LOC 1sg-MA-PAST
 I said/did/thought/felt (it) twice.
 *I happened (it) twice. (NSM)

To add an “undergoer” to HAPPEN, the OBL suffix is used.

4-10 *Ngindaji miyngarragi.*
 ngindaji ø-ma-iy-ngarragi
 this 3sgS-MA-PAST-1sg.OBL
 This happened to me. (NSM)

A second characteristic property of HAPPEN is severe restrictions on the kinds of NP which can appear as overt subject. As one would expect, they must be indefinite/interrogative inanimates, i.e. expressions with meanings like ‘something’, ‘what’, ‘some things’, ‘many things’, etc. It is just impossible to get an ordinary NP, especially an animate NP, as subject of HAPPEN, e.g. to say anything like ‘the man happened’. So while it is quite alright to use the inanimate indefinite *nginjaga* ‘something’ as the subject of MA:HAPPEN, the animate indefinite *ngunda* ‘someone’ cannot co-occur with MA:HAPPEN.

A third characteristic of MA:HAPPEN is that it can co-occur with the adverb *yiningga* ‘like.this’ to form expressions like ‘it happened like this’.

4-11 *Yiningga miy jirali.*
 yiningga ø-ma-iy jirali
 like.this 3sgS-MA-PAST long.ago
 It happened like this a long time ago. (NSM)

4.2.4 MA:SAY vs. MA:DO

SAY is in many ways the most obvious sense of MA, because the most frequent use of the MA simple verb construction to frame quoted or reported speech in narrative texts. Clearly in this context only the SAY sense is coherent, so no ambiguity arises.

4-12 “*Yatha wunggurrantha.*” *burrmiybiyirrantha.*
 yatha wu-nggurr-ra-ntha wurr-ma-iy-biyirrantha
 stay FUT-2nsgS.NONPAST-RA 3nsgS-MA-PAST-3dl.OBL
 “You two can stay,” they said (*did, *thought, *felt, *happened) to them. (MJ4;1/97;3.8)

4-13 “*Yaningi jalungurru muway*” *miy.*
 yaningi jalungurru muway ø-ma-iy
 today good place 3sgS-MA:SAY-PAST
 S/he said: “good morning” (BO2;1/97.4-5)

4-14 *Yaninja “wau!” wurrmiynhingi.*
 yaninja wau wurr-ma-iy-nhingi
 alright whoa 3nsgS-MA-PAST-3sg.OBL
 Alright, “whoa!” they said (*did, *thought, *felt, *happened) to him.
 (BO/MJ1;2/98;7.207)

Similarly, where MA occurs with the lexical item *thangani* ‘words’ as its object, or with a single word or phrase as its object, as in the following examples, SAY is the only possible interpretation. These are not quasi-quotational constructions, but the principle is the same.

4-15 *Gilima yuwana thangani...*
 (g)iy-li-ma yuwana thangani
 IRR-1sgS-MA one word
 If I say (*do, *think, *feel, *happen) one word... (NSM:51)

4-16 ‘*Wali*’ *gurrma nyirra ‘yaninja’ giyirra.*
 wali gi-wurr-ma nyirra yaninja gi-iyirr-ma
 alright PRES-3nsgS-MA DEM alright PRES-1R.S.NONPAST-MA
 They say (*do, *think, *feel, *happen) ‘wali’ and we say this (word) ‘yaninja’.
 (NSM:52)

It could be argued that the interpretation is “forced” by the quotational context itself, i.e. by the fact that one can only SAY words to someone else, not think them or do them, etc. In particular, it could be argued (cf. Rumsey 1990) that there is no differentiation in Bunuba between SAY and DO. This could seem natural on a view of speaking as a kind of social action in which one, as it were, “does words”. It is therefore extremely significant that the SAY sense of MA is associated with several distinctive formal properties which distinguish it from DO (and from the other senses), including the following:

- when an additional argument is introduced by way of the OBLique pronominal suffix, the semantic roles available to this argument differ between MA:SAY and MA:DO
- the oblique argument are also subject to differing animacy constraints

To appreciate the argument it is necessary to recognise that we expect, on independent grounds, that semantic primes SAY and DO have inherently different valency options (Goddard and Wierzbicka 2002). In addition to its basic frame ‘someone says something’, SAY is expected to allow optional valencies of ‘addressee’ and ‘topic’. Similarly, in addition to its basic frame ‘someone does something’, DO is expected to allow additional valencies of ‘patient’, ‘instrument’ and ‘comitative’. These possibilities can be represented schematically as below. Unless otherwise indicated an NP variable like X, Y or Z can be either a person (someone) or a thing (something), but notice that an addressee NP or a comitative NP has to be a person (someone), and that an instrument NP has to be a thing (something).

Valency options for SAY:

someone says something
 someone says something to person-Y [addressee]
 someone says something about X [topic]

Valency options for DO:

someone does something
 someone does something to X [patient]
 someone does something (to X) with thing-Y [instrument]
 someone does something (to X) with person-Z [comitative]

Recall from §3.15 that a Bunuba verb can take an OBLique pronominal suffix to introduce an additional non-core NP argument. The suffix cross-references the person/number of this additional argument, but the semantic role of the NP can vary widely. It can be an addressee, an instrument, a comitative, a beneficiary, etc. In other words, the role of the OBLique pronominal suffix is purely syntactic, i.e. to add a further argument without specifying its semantic role.

Now to the key fact: when an OBLique pronominal suffix is attached to MA in a simple verb construction, only some of these potential semantic roles are available—depending on the sense identity of the verb. With each sense, certain semantic roles are permitted and others are excluded. The main possibilities are set out in Table 4-4. Notice in the last line of the Table that one possible role for MA:DO is the purposive (including beneficiary role), but this can be ignored for present purposes. Also, I will concentrate for the moment only on the contrast between MA:SAY and MA:DO.

Table 4-4: Differential availability of semantic roles of an OBLique NP for four different senses of MA

	DO	SAY	THINK	FEEL
patient (to X)	yes	no	no	no
instrument (with X)	yes	no	no	no
addressee (to X)	no	yes	no	no
topic (about X)	no	yes	no	yes
comitative (with X)	yes	?yes	no	?yes
purpose (for X)	yes	no	no	?yes

Therefore, when an oblique pronominal suffix is attached to the MA simple verb construction, we have a test which can distinguish the senses from one another. With the SAY sense, an oblique suffix can cross-reference an NP in the addressee role or in the topic role (i.e. ‘say to –’ or ‘say something about –’). With the DO sense, it can cross-reference a patient or an instrument NP (i.e. ‘do something to –’ or ‘do something with –’). The converse assignments, e.g. addressee with DO, patient with SAY, are impossible.

4-17 *Miyhingi*.

∅-ma-iy-nhingi
3sgS-MA-PAST-3sg.OBL

MA:SAY she said something to X [addressee]
she said about X [topic]
*she said something to X [patient]
*she said with X [instrument]

MA:DO she did something to X [patient]
she did something with X [instrument]
*she did something about X [topic]
*she did something to X [addressee]

If MA expressed a single undifferentiated meaning, it would be difficult to account for this added specificity, given that it does not originate with the OBLique morphology itself. Instead, the semantic interpretations of the role of the added syntactic argument have to come from the semantics of MA itself.

The configuration of possible semantic roles associated with the OBLique suffix furnishes a set of criteria for distinguishing the senses from one another. The MA:SAY sense, for example, is the only one which can have the pronominal suffix cross-reference an addressee (‘say to X’). It may be objected that, obviously, the addressee option only makes sense with a SAY interpretation—but this is just the point: the existence of the addressee option actually implies the existence of SAY as a lexical meaning in Bunuba. Likewise, the existence of the

instrument option actually implies the existence of DO as a lexical meaning in Bunuba.

This is a good time to observe that each of these semantic roles is subject to a further distinctive, semantically-motivated constraint; namely, that an addressee must be animate (a person) while an instrument must be inanimate (a thing). The other valency options, such as patient and topic, in contrast, can be either animate or inanimate. Hence, when an interrogative/indefinite pronoun appears in the addressee role, it can only be *ngunda* ‘someone/who’, whereas in the instrument role, it can only be *nginjaga* ‘something/what’ (cf. §2.6.3.3). The topic and patient roles, on the other hand, can accept either *i/i* pronoun. Again, this pattern of restrictions would be difficult to explain if MA had a single meaning, undifferentiated between SAY and DO.

The attentive reader may have noticed an apparent anomaly in Table 4-4—the absence of a “topic” option with MA:THINK. Surely semantic prime THINK necessarily allows the option of saying things such as ‘I was thinking about my mother’. We will come to the solution of this apparent anomaly shortly, when we consider the evidence for THINK as a further discrete sense of MA. Before that, however, it is convenient to note an additional polysemic extension based on the SAY sense.

MA as ‘call.up’: naming places

As an extension of the SAY sense, MA has a specialised sense glossed here, using local Aboriginal English, as ‘call.up’. This refers to the naming (‘calling up’) of place names and names for tracts of country. It occurs in an extremely limited syntactic frame, most commonly, in narrative texts when a Dreamtime figure is going through the land and naming places.

The following extract from a text shows MA as a simple verb construction used in the ‘call.up’ sense. There is little possibility of ambiguity between this and the other senses. Furthermore, MA:call.up has syntactic peculiarity which sets it aside from all other senses; it can only take the 3sg form *-nhingi* of the OBLique suffix, unlike other senses which permit all person/number combinations of the OBLique suffix.

4-18 *Yaninja nyirrajinhingi dalijsa ray*
 yaninja nyirraji-nhingi daliya-wa ø-ra-y
 well DEM-ABL name-ITER 3sgO<3sgA-RA2-PAST
 Well from then he named that place

muway ngindaji: Ganbalamanganya miynhingi,
 muway ngindaji ganbalamanganya ø-ma-iy-nhingi
 place this [place.name] 3sgS-MA:SAY:call.up-PAST-3sg.OBL
 he called up this place *Ganbalamanganya*,

Wurrgunyu miynhingi;
 wurrgunyu ø-ma-iy-nhingi
 [place.name] 3sgS-MA:SAY:call.up-PAST-3sg.OBL
 he called up *Wurrgunyu*;

Gilinymanja *miynhingi*;
 gilinymanja ø-ma-iy-nhingi
 [place.name] 3sgS-MA:SAY:call.up-PAST-3sg.OBL
 he called up *Gilinymanja*;

daliya *ma* *muway* *ngindaji*
 daliya ø-ma muway ngindaji
 name 3sgO<3sgA-MA2 place this

“*Wuluga winarriyntha*” *miy.*
 wuluga wirr<n<ø-ngarri-y-ntha ø-ma-iy
 swallow 3nsgO<INV<3sgA.PAST-NGARRI-PAST-dl 3sgS-MA:SAY:call.up-PAST
 he named this place, he called up *He swallowed the two up.* (MJ5.36-40)

4.2.5 MA:THINK

As mentioned above, the reader may have wondered why THINK is not listed in Table 4-4 as allowing a “topic” (thinking about) option. Nevertheless, it is not possible to employ an OBLIQUE pronominal suffix to add an NP in fulfillment of this semantic role; no oblique suffix is possible at all with MA:THINK. From the point of view of sense differentiation, this is obviously a clear diagnostic of a difference between the SAY and THINK senses of MA, but it raises the question of how the expected topic option for THINK can be expressed. The answer comes in the form of a distinct lexical item *linga+RA2* ‘think.about’.

That is, while to say in Bunuba that one, for example, ‘thinks’ certain things, one uses MA, but to specify that one is thinking about something or someone in particular the formally transitive verb *linga+RA2* is used, with the topic NP cross-referenced as the second argument in the pronominal prefix. Compare 4-19a and 4-19b. Example 4-20 is another example of *linga+RA2*.

4-19 a. *Limiy* *wad* *bungayarra.*
 l-i-ma-iy wad wu-ngi-ra-y-yarra
 1sgS-ins-MA-PAST go FUT-1sgS-RA-PAST-excl
 I thought: I might go. (NSM)

b. *Linga* *layi* *wad* *bungayarra.*
linga li-ra-yi wad wu-ngi-ra-y=yarra
 think.about 1sgA>3sgO-RA2-PAST go FUT-1sgS-RA-excl=DUB
 I thought about going. (NSM.8)

4-20 *Ngindaji* *jiraliyarra* *linga* *la.*
 ngindaji jirali=yarra linga li-ra
 DEM before=DUB think.about 1sgA>3sgO-RA2
 I thought about this for a long time. (NSM.25)

From the point of view of the NSM model, it is clear that MA:THINK and *linga+RA2* ‘think about’ are in an allolexical relationship, that is, they must be regarded as alternative exponents of a single semantic prime. Allolexy refers to the situation where the same prime is expressed by variant forms, either allomorphs or allolexes, which may be conditioned by

syntactic context (Wierzbicka 1996:26, cf. Goddard 1997). The main arguments in support of this conclusion are (i) that aside from the syntactic difference, no specifiable semantic difference can be identified between them (paralleling ‘think’ and ‘think about’ in English, in this respect), and (ii) that any sentence with *linga*+RA2 always implies a related sentence with MA:THINK, i.e. if one ‘thinks about Y’ then one necessarily ‘thinks’.

The following examples further show the difference between these two forms. Once a second argument is added through the oblique pronominal suffix, the THINK sense of MA can no longer be conveyed; in example 4-21, MA can only be interpreted as SAY, not as THINK. To convey the sense ‘think.about’, the formally transitive allolex *linga*+RA2 is needed, as in example 4-22.

4-21 *Ngalja limiyhingi.*
ngalja li-ma-iy-nhingi
 frog 1sgS-MA-PAST-3sg.OBL
 “Frogs”, I said to him.
 *I thought about frogs. (BO.2001)

4-22 *Ngalja linga layi.*
ngalja linga li-ra-yi
 frog think.about 1sgA>3sgO-RA2-PAST
 I thought about frogs. (BO.2001)

The neighbouring language Gooniyandi has a similar situation. The Gooniyandi coverb *miga-* has polysemous lexical content: ‘say, tell’, ‘do’, and ‘think’. To say ‘think about’ in Gooniyandi, the coverb *lingi-* is used, cognate with Bunuba *linga*. The transitivity alternation is the same in both (closely related) languages: in Gooniyandi you ‘think’ with *miga-*, but you ‘think about’ with *lingi-*.

4.2.6 MA: FEEL

Although I do not have nearly as much data on uses of MA to express semantic prime FEEL, I am fairly confident that the FEEL sense exists independently of the others. In a naturally occurring example like the following, FEEL seems to be the only appropriate interpretation. The speaker was explaining that she was feeling no good on account of both homesickness and illness.

4-23 *Ngayi jalungurru gulumiya.*
ngayi jalungurru guw-li-ma-iy(a)
 not good IRR-1sgS-MA-PRES
 I don’t feel good. (BO 2/98:p.27)

In elicitation, other grammatical frames with MA:FEEL were obtained as follows. These are consistent with NSM hypotheses about the grammatical potentials of semantic prime FEEL.

- 4-24 *Yiningga lima.*
 yiningga li-ma
 like.this 1sgS-MA
 I feel like this. (NSM)
- 4-25 *Ngaanyima gilima.*
 ngaanyi-ma gi-li-ma
 I/I.PRO-I/I PRES-1sgS-MA
 I feel something. (EKnight 2/98:p.27)

At the moment, however, perhaps the best evidence for the existence of FEEL as a separate meaning of MA is the evidence from the modifying nominal specifier construction, to which I now turn.

4.2.7 *Modifying nominal specifier*

An interesting way to test whether two putative meanings are truly distinct in a language is to see whether the two senses can occur contrastively in a single sentence. In elicitation I attempted to translate the sentence (a) below into Bunuba. My reasoning was that if MA simply had a single meaning, undifferentiated between THINK and SAY, this would not be possible. The Bunuba sentence would be anomalous, as indicated by (b).

- (a) I know what you said but what are you thinking?
 (b) I know what you *MA*ed but what are you *MA*ing?

I was surprised instead to be given the sentence presented as example 4-26. Notice that an expression combining *gun.gulu* ‘head’ and MA has been used to render the meaning THINK.

- 4-26 *Ngayini binarri nganggu thangani*
 ngayini binarri nganggu thangani
 1sg.PRO know 2sg.OBL mouth/words
- nganggu gun.gulu nginjaga ginjima?*
 nganggu gun.gulu nginjaga gi-nj-i-ma
 2sg.OBL head I/I.PRO PRES-2sgS.NONFUT-ins-MA
 I know your mouth/words but what is your head thinking? (BO.2000)

On further investigation it emerged that, in similar fashion, the nominals *thangani* ‘mouth’ and *guda* ‘stomach’ can be combined with MA to unambiguously distinguish THINK, SAY, and FEEL, respectively.

- MA+‘head’ = THINK
 MA+‘mouth’ = SAY
 MA+‘stomach’ = FEEL

That is, although the sentence *Ngaanyima miy?* could mean either ‘What did she say?’, ‘What did she think?’ or ‘What did she feel?’, if these modifying nouns are added only a single interpretation is possible in each case. The construction MA + ‘nominal’ creates a non-ambiguous construction in which the senses SAY; THINK; and FEEL can be differentiated.

- | | | | |
|------|---|---|--|
| 4-27 | <i>Ngaanyima</i>
<u>ngaany</u> i=ma
I/I.PRO=I/I | <i>miy</i>
ø-ma-iy
3sgS-MA:SAY-PAST | <i>thangani?
<u>thangan</u>i
mouth</i> |
| | | | What did s/he say? |
| | | | |
| 4-28 | <i>Ngaanyima</i>
<u>ngaany</u> i=ma
I/I.PRO=I/I | <i>miy</i>
ø-ma-iy
3sgS-MA:THINK-PAST | <i>gun.gulu</i> ?
<u>gun.gulu</u>
head |
| | | | What did s/he think? |
| | | | |
| 4-29 | <i>Ngaanyima</i>
<u>ngaany</u> i=ma
I/I.PRO=I/I | <i>miy</i>
ø-ma-iy
3sgS-MA:FEEL-PAST | <i>guda</i> ?
<u>guda</u>
stomach |
| | | | What did s/he feel? |

Regarding the ‘MA+stomach’ combination, it is important to note that this is not confined to reference to one’s stomach, in the literal sense, or even to bodily sensations. That is, it does not mean ‘feel something in the stomach’ or even ‘feel something in the body’, but rather FEEL in a nonlocalised and undifferentiated sense which can be applied to emotional reactions, for example, as well as to sensations. Similarly, I believe that the ‘MA+mouth’ is not confined to reference to the mouth, in the literal sense, but can be used about, for example, saying something by means of gestures. More research on this is required.

It is true that this ‘modifying nominal’ construction was found through elicitation, and that it seems not to occur in natural texts (presumably because hearers are commonly able to disambiguate the senses of MA through context). Nonetheless I am certain that the construction is a valid one, which may be employed to explicitly disambiguate the senses when and as necessary.

4.2.8 *Distinctive profiles based on syntactic/semantic criteria*

Based on the criteria discussed above, a *Distinctive Profile* of each of the six senses of MA can be constructed. Although no single criterion distinguishes all of the senses from one another, a distinctive profile of each sense can be formulated through the combination of all of the criteria.

Profile of MA:HAPPEN

- Takes only 3sgS/3nsgS core pronominal prefixes i.e., ‘something happens’ or ‘some things happen’
- S must be inanimate; oblique pronominal suffix referents can be animate or inanimate
- Semantic roles of oblique pronominal suffixes cross-referencing: undergoer (to X) and purpose (for X)
- Possibly takes *yiningga* ‘just.like.that’ as an adverbial modifier

Profile of MA:SAY

- Takes the full complement of core person/number pronominal prefixes, but S must be animate
- Can frame reported speech
- Semantic roles of oblique pronominal suffixes can cross-reference addressee (to X) or topic (about X)
- Takes the full complement of person/number oblique pronominal suffixes, referents can be animate or inanimate
- Takes *thangani* ‘mouth’ as a ‘modifier’ specifying the verb as SAY

Profile of MA:DO

- Takes the full complement of core person/number pronominal prefixes; S can be animate or inanimate
- Semantic roles of oblique pronominal suffixes cross-referencing: patient (to X), instrument (with X), and accompaniment (with X)
- Takes the full complement of person/number oblique pronominal suffixes; referents can be animate or inanimate.

Profile of MA:THINK

- Takes the full complement of core person/number pronominal prefixes; S must be animate
- Oblique pronominal cross-referencing is not available with MA:THINK; transitive allolex *linga*+RA2 is used instead for topic role
- Topic O of allolex *linga*+RA2 can be animate or inanimate
- Takes *gun.gulu* ‘head’ as a ‘modifier’ specifying the verb as THINK

Profile of MA:FEEL

- Takes the full complement of person/number oblique pronominal suffixes; S must be animate
- Takes *guda* ‘stomach’ as a ‘modifier’ specifying the verb as FEEL

4.3 Semantics of the auxiliary roots

Compared with languages as such as Ngan'gityemerri (Reid 1990), Ungarinyin (Rumsey 1982a), and Wunambal (Carr 2000), the semantic content of the auxiliaries in Bunuba is more difficult to analyse, partly because in these other languages the simple verb construction is a more commonly occurring verbal structure than in Bunuba. In simple verb constructions, the semantic content of the auxiliary is clearer because there is no coverb conveying the majority of the lexical information. Also, these languages have a larger number of auxiliaries which can occur in simple verb constructions than does Bunuba, in which only one auxiliary MA is at all common in a simple verb construction. (Gooniyandi, Bunuba's only close relative, goes even further in this regard: it does not have a simple verb construction at all (McGregor 1990, 2002a).) In complex verbs the semantic information conveyed by the auxiliary is more opaque since most of the lexical work is being carried out by the coverb.

As described in §3.3.3, every coverb collocates with at least one auxiliary, many coverbs collocate with two, and some collocate with three, four, or even five auxiliaries. That is, the auxiliaries do not necessarily have sole collocation rights to any single coverb but provide speakers with the opportunity to manipulate the meaning through the choice of different coverb-auxiliary combinations. The fact that a given coverb can collocate with particular auxiliaries, but not with others, provides evidence for the highly grammaticised nature of the verbal system in Bunuba (along the same lines as described by McGregor for Gooniyandi (2002a:152)).

Synchronically, coverb-auxiliary collocations are fairly rigidly set in Bunuba as a highly grammaticised system would suggest. Therefore the combinations of coverb and auxiliary are less amenable to innovation by speakers, as is reportedly possible in a less grammaticised system such as Marrithiyel (Green 1989:325), where coverb-auxiliary manipulation is a way of displaying linguistic eloquence. However, the collocation of coverb and auxiliary does present a system of verb classification and, although not all coverb-auxiliary collocations have been exhaustively documented, the system can be analysed and the data shown to adhere to a classificatory system. This section presents an analysis of the verb classification system of Bunuba and describes the role of the auxiliaries in this system.

Auxiliary roots as classifiers

The auxiliary roots in Bunuba are all largely monomorphemic, their forms are recoverable at the surface level under certain phonological conditions, and they have meaning (§3.5.1). This last point is a requirement set out by Allan (1977:285) in his definition of a true noun classifier. Similarly, to be considered true verbal classifiers, the Bunuba auxiliary roots must have meanings. But how do we know that the auxiliary roots actually have meaning, and are not just semantically empty morphological elements? According to Allan, noun classifiers can be identified as semantically full morphemes through the following means:

One is to use native-speaker intuition...; a second is to use a foreign observer's intuition about the composition of noun classes revealed by classifiers; the third is to introduce new words and objects to a number of native speakers and see what classifiers they use with them. Any of these methods will reveal that, for the most part, classifiers do have meaning. (Allan 1977:290)

This is also the case for determining the semantic content of the auxiliary roots in Bunuba: using native-speaker intuitions; using a foreign observer's intuition; and offering new, or previously undocumented, coverbs to the native speakers and seeing what auxiliary roots may co-occur with it. However, the most compelling evidence for the classifying role of the auxiliary roots in Bunuba is their ability to collocate with various coverbs, thus changing the meanings of the resultant verbs. If the auxiliary roots were semantically empty, there would be no resultant change in meaning. However, this is not the case. There are sometimes quite subtle changes in meaning and at other times more obvious changes, but there is always a change in meaning showing that the auxiliary roots in Bunuba are semantically "active" and that they perform a classifying role of coverbs, similar to the role that noun classifiers perform in the classifying of nouns in other languages.⁴

Before an analysis of the semantic content of each auxiliary root is undertaken, a few examples will be helpful. In these examples, the only difference between the first and the second example is the auxiliary. The coverb and person/number referencing remains the same. The English glosses aim to distinguish one example from the other:

	RA2:		YHA:
4-30	<i>Bu lira.</i> bu li-ra blow 1sgA>3sgO-RA2 I smoked it. (BO.2001)		<i>Bu liyha.</i> bu li-yha blow 1sgA>3sgO-YHA I blew it up (e.g., a balloon). (BO.2001)
	MA:		NI:
4-31	<i>Dalja limiy.</i> dalja li-ma-y grow.up 1sgS-MA-PAST I grew up. (BO1;1/97.2)		<i>Dalja nginy.</i> dalja <u>ngi</u> -ni-y grow.up 1sgS-NI-PAST I became grown up. (Rumsey 2000)

A more detailed example follows, with coverbs which are each able to combine with three different auxiliary roots. The coverb *gulmurru* can occur with RA2; NGARRI; and YHA. The coverb *duringga* can also occur with RA; NGARRI; and WU2. All three examples of *gulmurru* can be glossed as 'vomit', while all three examples of *duringga* can be glossed as 'fart'. Yet, the following examples show that the lexical content of the coverb is not specific enough: a more specific kind of vomiting or farting is conveyed depending on the collocation of coverb and auxiliary root.

4-32	<i>gulmurru</i> +RA2 <i>gulmurru</i> +NGARRI <i>gulmurru</i> +YHA	vomit vomit something up projectile vomit
4-33	<i>duringga</i> +RA <i>duringga</i> +NGARRI <i>duringga</i> +WU2	fart fart loudly fart (away pain of a bellyache)

Clearly, the auxiliary roots are not simply semantically inert grammatical props. Various other examples will be given throughout this chapter, and for reference, the more frequently attested instances are collated in Appendix 3.

Overview of the semantics of auxiliary roots

In the following sections, the semantic range of each auxiliary will be described in turn. The overall picture is summarised in Table 4-5. This shows for each auxiliary, (i) one or more “core” categories, which represent the most salient or central semantic category for that auxiliary, and (ii) two, three or more semantic sub-categories for that auxiliary, some more productive than others; these are spelt out in fairly specific terms (though not right down to the level of semantic primes). The table also shows the configuration of semantic-grammatical features (transitivity, telicity, and, in some cases, vectoral configuration) used by Rumsey (2000:7) to classify the auxiliaries. The two modes of description are not, of course, unrelated. For example, the feature ‘transitive’ is associated with a “patient” argument in semantic description, and the feature ‘atelic’ is associated with the presence of a semantic component FOR SOME TIME. Some motion-related auxiliaries (NI, WU) can also be attributed “vectoral” features with semantic components.

These semantic subcategories are an attempt at categorising the motivations for coverb+auxiliary root collocations. For example, why does the coverb *bara* combine with NI; why does *wad* collocate with RA? My goal is to provide a coherent analysis of the clear and concrete senses conveyed through such collocations. Although not providing a great deal of predictability, this analysis goes some way to describing the way Bunuba speakers divide up the world according to their use of verbs.

Table 4-5: Summary of semantics of the auxiliary roots
[semantically prime uses of auxiliaries are excluded]

Auxiliary and core categories	Subcategories
RA [intransitive, atelic] DO SOMETHING WITH (PART OF THE BODY) FOR SOME TIME	<ul style="list-style-type: none"> • POSTURE ('x sits') • SELF-DIRECTED MOTION ('x goes', 'x flies') • BODILY ACTIONS ('x eats') • VOCALISATION OVER TIME ('x sings') • BODILY/PHYSICAL CONDITIONS • LOCATION • COGNITION/EMOTION ('x fears') • VERBS OF SELF-DESTRUCTION
RA2 [intransitive, telic] DO SOMETHING TO Y (WITH PART OF THE BODY) FOR SOME TIME	<ul style="list-style-type: none"> • BODILY AFFECT VERBS ('x bites y') • PHYSICAL AFFECT/MANIPULATION OVER TIME • INDUCED ONGOING MOTION
MA [intransitive, telic] (i) SAY SOMETHING (ii) DO SOMETHING (WITH PART OF THE BODY)	<ul style="list-style-type: none"> • SAYING: ('x speaks') • BODILY MOVEMENT ('x runs') • BODILY ACTIONS: ('x sneezes') • emotion/motivation ('x feels sorry')
MA2 [transitive, telic] (i) SAY SOMETHING TO Y (ii) DO SOMETHING TO Y (WITH PART OF THE BODY)	<ul style="list-style-type: none"> • TRANSITIVE SPEECH VERBS • PHYSICAL AFFECT/MANIPULATION • THINK-RELATED VERBS • KNOW-RELATED VERBS
NI [intransitive, telic; endpoint focus] (i) BECOME (ii) MOTION TOWARDS	
YHA [transitive, telic] (i) MAKE INTO Y (causative) (ii) TRANSFER (giving/taking) (iii) INDUCED CHANGE OF LOCATION	
WU [intransitive, telic; starting point focus] MOTION FROM	
WU2 [transitive, telic] (i) BAD EFFECT (ii) SEPARATE/COMBINE	
NGARRI [transitive, telic] BRINGS Y INTO/OUT OF VIEW	
NA [reflexive/reciprocal, telic] SAY TO EACH OTHER/ONESELF	

4.4 Auxiliaries RA and RA2

Both RA and RA2 are atelic, and this aspectual component is indicated through the component FOR SOME TIME. On this feature they contrast fairly systematically with MA and MA2, which lack this specification.

4.4.1 RA

The core category for RA can be characterised as DO SOMETHING (WITH PART OF THE BODY) FOR SOME TIME. There are several subcategories, as shown below with characteristic examples. Under (a) are four sub-types of the core category, which all involve bodily actions sustained over time. Under (b) is a further set of subcategories which are semantically connected with the body, but in a looser fashion: essentially physical location, condition, and sensation. The third item, under (c), is an exception from a semantic point of view.

4-34	a.	POSTURE SELF-DIRECTED MOTION BODILY ACTIONS VOCALISATION	yatha+RA 'sit' wad+RA 'go', mulurrug+RA 'wander.around' wulug(a)+RA 'drink' waya+RA 'call.out'
	b.	LOCATION BODILY/PHYSICAL STATE BODILY SENSATIONS	yatha+RA 'be.somewhere' milu+RA 'be.alive' nga(g)+RA 'burn', wab+RA 'smell (to me)'
	c.	COGNITION	wangan+RA 'not.know'

Posture. Coverbs which designate bodily postures such as 'sitting', 'lying' and 'standing' all take RA. These are probably the most frequently occurring RA-classified coverbs in Bunuba texts. Some examples follow:

4-35	<i>Thandawa</i>	<i>ray</i>	<i>muway</i>	<i>baga</i>	<i>ay.</i>
	thandawa	ø-ra-y	muway	baga	ø-ra-y
	sit.cross.legged	3sgS-RA-PAST	camp	lie.down/sleep	3sgS-RA-PAST
	He sat cross legged and slept. (RM1.54)				

4-36	<i>Rawurra</i>	<i>rayelyuwa</i>	<i>dadga</i>	<i>iyirrantha,</i>
	rawurra	rayel-yuwa	dadga	iyirr-ra-ntha
	up/on.top	rail-LOC	hang.on	1R.S-RA-dl
	We two hung on up top on the rail, (BO 1;1/97.15-6)			

Self-directed motion. Some examples which fall under this subcategory include the coverb *wad* 'go' (general translocational motion), *warara* 'walk.around', *balbal* 'fly', and *mulurrug* 'wander.around'.

4-37	<i>Wad</i>	<i>jay.</i>
	wad	ø-ra-y
	go	3sgS-RA-PAST
	S/he went.	

- 4-38 *Thawunumiya warara ray.*
 thawunu=miya warara ø-ra-y
 ants=ONLY walk.around 3sgS-RA-PAST
 Only the ants walked around. (B01.35)

There is also some RA-classified ‘self-directed motion’ coverbs which refer to the emerging or exiting of the subject. They focus on the movement of the subject, and there is no clear internal end point to the process (hence the collocation with this intransitive, atelic auxiliary).

- 4-39 *Ngindayuwajangi birayga wurraynyangarribiyirangi,*
 nginda-yuwa=jangi birayga wurr-ra-y-nya-ngarri-biyirangi
 DEM-LOC=SEM arrive 3nsgS-RA-PAST-SUB-HAB-3pl.OBL
 It was like this that they came right up to them... (NR4.23-4)

- 4-40 *Ban.ga ray ngirrginyi.*
 ban.ga ø-ra-y ngirrginyi
 go.back 3sgS-RA-PAST hungry
 He came back hungry. (JnM1.3-4)

Bodily actions. RA classifies coverbs relating to bodily actions and functions where duration is included within the meaning. Otherwise verbs of this type collocate with MA; for example; *ngajirra*+MA ‘sneeze’, *gunythurr(ga)*+RA ‘cough continuously’.

- 4-41 *Ngirrginyiyarra ngag biyirragi ngurruyuwa lanygu.*
 ngirrginyi=yarra nga(g) wu-iyirr-ra-g(v) ngurruyuwa lanygu
 hungry=DUB eat FUT-1R.S.NONPAST-RA-pl there daytime
 We might be hungry and we all might eat there at dinnertime. (MJ2;1/97.14)

Vocalisation over time. RA classifies a number of coverbs relating to a process of vocalisation which carries on over some time. Some examples follow:⁵

- 4-42 *Waya wurraynthanhi jarraangarringga.*
 waya wurr-ra-y-ntha-nhi jarraangarringga
 call.out 3nsgS-RA-PAST-dl-3sgOBL other.side
 They kept calling out to him from the other side. (B02.93)

- 4-43 *Jirigi yalalanburranggarri yiliwuniyuwa.*
 jirigi yala-yalan wurr-ra-g(v)-ngarri yiliwuni-yuwa
 bird RED-sing 3nsgS-RA-pl-HAB flower.GG-LOC
 The birds are all singing out amongst the flowers. (NR/MJ1;1/97;2.30)

Bodily/physical conditions. There are also existential coverbs referring to the status of being alive, being in bad health, or being dead, which are again classified by RA.

- 4-44 *milu+RA be.alive*
gulba+RA be.ill
baga+RA sleep/be (tends to be low animates)
garwayla+RA be.dead

- 4-45 *Milu ra jiraliga gurama yatha ra.*
 milu ø-ra jiraliga gurama yatha ø-ra
 be.alive 3sgS-RA long.time people sit/stay 3sgS-RA
 The people are alive for a long time. (NSM)

Verbs of self-destruction. A few verbs of ‘self-destruction’ are classified by RA, such as *dungga*+RA ‘burst’ and *duwarrga*+RA ‘be broken’. It seems that the atelicity of RA plays a role here. If something bursts or gets broken, the result is one of irrevocability. Even though these coverbs are punctual, the collocation of ‘burst’ and RA indicates that the result is one which continues on indefinitely. The coverbs *dungga* and *duwarrga* are normally bivalent, and so normally occur with transitive auxiliary roots. However, with RA they apparently express a kind of anticausative meaning. The following examples show the transitive decreasing strategy of this anticausative-like construction and how the collocation of a coverb with different auxiliaries affects the meaning of the verb.

- | | |
|--|---|
| <p>4-46 YHA:
 <i>Duwarrga liyha</i>
 <i>duwarrga li-yha</i>
 break 1sgA>3sgO-YHA
 I broke it. (Rumsey 2000:144)</p> | <p>RA:
 <i>Duwarrga ray.</i>
 <i>duwarrga ø-ra-y</i>
 break 3sgS-RA-PAST
 It had broken. (BO2.53-4)</p> |
| <p>4-47 MA2:
 <i>Dungga ma.</i>
 <i>dungga ø-ma</i>
 pierce/destroy 3sgO<3sgA-MA2
 He pierced it. (BO1.43)</p> | <p>RA:
 <i>Dungga ray.</i>
 <i>dungga ø-ra-y</i>
 destroy/burst 3sgS-RA-PAST
 It burst. (Rumsey 2000:144)</p> |

Location. In Bunuba, as in many other Australian languages, there is no separate verb ‘to be’ (Dixon 1980). However, Australian languages, and many other languages of the world, often convey the “be of location” (i.e. to be somewhere) through posture verbs such as ‘sit’ or ‘lie’. This is the case in Bunuba, where *yatha*+RA expresses both the meanings ‘sit’ and ‘be (somewhere)’, especially with higher animates.

- 4-48 *Yaningi yatha wurragi Birrirai Grajing.*
yaningi yatha wurr-ra-g(v) fitzroy crossing
 today be 3nsgS-RA-pl place.name
 Today they are in Fitzroy Crossing.

Cognition/emotion. Processes of cognition requiring only a core S involve the collocation of a cognitive coverb and RA, e.g. *mila*+RA ‘look.around’, *yura*+RA ‘fear’.

- 4-49 *Mila ra bandamiya.*
 mila ø-ra banda=miya
 look.around 3sgS-RA dirt=ONLY
 He looked around but there was only dirt. (MJ5.31)

- 4-50 *Malngarriguda yura yayngarri.*
 malngarri-guda yura ø-ra-y-ngarri
 european-COM2 fear 3sgS-RA-PAST-HAB
 He was frightened of that white fella. (BO/MJ2;2/98;7.16)

Other. There is a portmanteau *wangang* ‘don’t.know’ which takes auxiliary RA. If the meaning expressed was a pure compound of semantic primes NOT and KNOW, this would appear rather curious; but it is possible that the true meaning is more complex, and involves a cognitive element (for example, like the English expression ‘search me’).

- 4-51 *Wangang gingira.*
 wangang (g)i-ngi-ra
 don’t.know PRES-1sgS-RA
 I don’t know. (elicited)

4.4.2 RA2

RA2 is the transitive equivalent of the RA auxiliary root and is also atelic. The core category can be characterised as DO SOMETHING TO Y (WITH PART OF THE BODY) FOR SOME TIME. Although there is some effect upon the O, the main semantic focus is the action of the subject (if the negative impact on the patient is in focus, then WU2 is used; see §4.8). Posture verbs and bodily function verbs do not collocate with RA2, since these types of processes are classified by RA and do not have transitive counterparts.

Core bodily action verbs classified by RA2 are *nganja* ‘bite’ and *nganhingga* ‘lick’. Notably both involve the mouth.

- 4-52 *Nganhing birrangarri,* *nganhing birrangarri*
 nganhing wirr-ra-ngarri nganhing wirr-ra-ngarri
 lick 3nsgA>3sgO-RA2-HAB lick 3nsgA>3sgO-RA2-HAB
- mayi nyirraji bugaingga.*
 mayi nyirraji buga-ingga
 tucker DEM child-ERG
 They licked it, the kids licked the tucker. (NR1.15)

Physical affect/manipulation over time. For example:

- 4-53 *Baga yiyirrayngarri* *nginjagamangana*
 baga yiyirr-ra-y-ngarri nginjaga=ma=ngana
 lie.down 1R.S.PAST-RA-PAST-HAB I/I.PRO=I/I=LINK
- gawiyngana wirama wirrangarri.*
 gawiy=ngana wirama wirr-ra-ngarri
 fish=LINK forage/gather 3nsgA>3sgO-RA2-HAB
 We’d lie down and they’d gather fish or anything. (NR3.36)

Induced ongoing motion. RA2 also classifies coverbs where the effect on the O is ongoing induced motion. There are also a few coverbs classified by RA2 where the O is set in motion, such as *thubajga* ‘push’, *garra* ‘throw’, and *widjal* ‘jerk’.

4-54 *Wuruga winag jibirri warrambaingga.*
 wuruga wirr<n<ø-ra-g(v) jibirri warramba-ingga
 take.away 3nsgO<INV<3sgA.PAST-RA2-pl downstream flood.water-ERG
 The flood water took them away downstream. (B01.44-5)

4-55 *Guju malwaja gurama gurradga wunagi malwajaingga.*
 guju malwaja gurama gurrad(ga) wurr<n<ø-ra-g(v) malwaja-ingga
 bone mud man jump 3nsgA<INV<3sgA-ra-g(v) mud-ERG
 Using bones and mud we’d make it (the toy horse) buck people. (JmM1.10)

Other. In the following example, one would perhaps expect MA2, since the verb is a transitive speech verb. Perhaps RA2 is used because in the context it would have been necessary to take some time in order to tell all the school kids.

4-56 *Gulgid buga, matha lunag nyirrayani, nyirrayani na.*
 gulgid buga matha lun-ra-g(v) nyirra-yani nyirra-yani na
 school.kid child tell 1sgA>3nsgO-RA2-pl DEM-PL DEM-PL now
 I’m telling all the school kids all this, all this now. (BO2;1/97.50-1)

4.5 Auxiliary MA and MA2

4.5.1 MA: (i) SAY (ii) DO SOMETHING WITH PART OF THE BODY

This intransitive auxiliary classifies coverbs in two broad categories: (i) speech, (ii) bodily movements. There are also a small number of emotional and motivational predicates. Since the pronominal prefix cross-references the S only, reference to any other participant requires the addition of an OBLIQUE pronominal suffix to the auxiliary root (§3.15).

SAY-related. 4-57 lists some of the speech verbs classified by auxiliary MA. Examples follow. Presumably the logic behind it is that simple verb MA is an exponent of the semantic prime SAY.

4-57: *wula+MA* speak
ngandirra+MA swear
waya+MA call.out

4-58 *Waya wurrmiynthangarri biyirriway,*
 waya wurr-ma-iy-ntha-ngarri biyirri-way
 call.out 3nsgS-MA-PAST-dl-HAB 3nsg.PRO-PAIR

“bugayani ban.ga wunggurragali!”
 buga-yani ban.ga wu-nggurr-ra-g(v)-ali
 child-DL come.back FUT-2nsgS-RA-pl-PROX
 They both called out to all their kids, “you all come back this way!” (NR6.14)

- 4-59 *Galgala miy.*
 galgala ø-ma-iy
 laugh 3sgS-MA-PAST
 S/he laughed. (Rumsey 2000:126, ex. 263)

Many of these speech-related coverbs also collocate with RA, if the semantic component FOR SOME TIME is implicated.

Bodily movement. The following list shows verbs which involve the actor doing something by moving a part of his or her body, such as the feet and/or legs, the fingers or the mouth. Notice that the “movement” coverbs classified by MA, such as ‘crawl’ and ‘run’, are manner-oriented; they do not focus on the ‘change of location’ of the actor (which is more consistently done with auxiliaries NI and WU).

- 4-60 *girarra+MA* ‘crawl’
girrgara+MA ‘run’
thuwan+MA ‘kick’
warirr(a)+MA ‘scratch.oneself’
yarral+MA ‘make.noise (specifically with mouth)’
jambala+MA ‘chew’
ban+MA ‘hammer’
- 4-61 *Girrgara wunmiyntha ngamba.*
 girrgara wurr-ma-iy-ntha ngamba
 run(away) 3nsgS-MA-PAST-dl husband&wife
 The husband and wife ran away. (MJ1;2/98;12.146)
- 4-62 *Bilinyi wadba wurrmangarri*
 bilinyi wadba wurr-ma-ngarri
 skin get 3nsgA>3sgO-MA2-HAB
- jambal-jambala wurrminygarri yaninja.*
 jambala-jambala wurr-ma-iy-ngarri yaninja
 RED-chew 3nsgS-MA-PAST-HAB alright
 They’d get the skin and they’d chew and chew, alright. (NR1;1/97;2.75-6)
- 4-63 *Warirra limiy.*
 warirra li-ma-iy
 scratch 1sg-MA-PAST
 I scratched (myself). (BO.2001)

Movement of particular parts of one’s body is also involved in the following set of MA-classified verbs. Though they are not always done deliberately, they are all subject to a degree of conscious control, and are therefore plausibly construed as actions, i.e. as something which the subject DOES. Examples follow (belching and farting are also covered by MA).

- 4-64 *nara+MA* ‘urinate’
yingaraga+MA ‘hiccup’
dinjirra+MA ‘sneeze’
nyimbirra+MA ‘wink’
ngajirra+MA ‘sneeze’

- 4-65 “Waaa”, *ngajirra miy*, na.
 waaa *ngajirra* \emptyset -ma-iy na
 [sneeze] sneeze 3sgS-MA-PAST then
 “Waaa”, he sneezed, then. (CR2.15)

Emotion/motivation. A small number of emotional/motivational predicates collocate with MA, perhaps because one of the meanings of simple MA is THINK.

- 4-66 *mayiga*+MA ‘feel.sorry’
gamanba+MA ‘search.for’⁶
yura+MA ‘fear’
burrga+MA ‘get.tired’

Other. An unexplained example is *manyirr*+MA ‘to win’. Another anomaly is *bunbun.ga*+MA ‘boil’.

- 4-67 *Manyirr miynhi* *Lunggurayingga.*
 manyirr \emptyset -ma-iy-nhi *lunggura-ingga*
 win 3sgS-MA-PAST-3sg.OBL bluetongue-ERG
 Bluetongue won (the fist fight) with him. (BO4;1/97;6.16-7)

As mentioned, a number of coverbs can collocate either with MA or with RA, most commonly based on the feature of telicity. For example:

- 4-68 *balbala*+MA ‘flee’
balbal+RA ‘fly’
- 4-69 *ngajirr*+MA ‘sneeze’
ngajirr+RA ‘sneeze continuously’

4.5.2 MA2: (i) X SAYS SOMETHING TO Y (ii) X DOES SOMETHING TO Y (WITH PART OF THE BODY) (iii) THINK-related verbs and KNOW-related verbs

The main difference between MA and MA2 is that the latter is transitive, requiring A and O pronominal prefixes. With most combinations with MA2, the effect on the O participant is a non-violent, non-invasive, non-destructive effect such as ‘speak.to’, ‘touch’, or ‘make’. It is true that some coverbs such as ‘pierce’ also collocate with MA2, but it seems that such examples are focusing on the process of using the body to do such things; that is, focus is on the agent or ‘doer’, rather than on the result of the action upon another participant (or a patient). If the effect on the O is in focus auxiliary WU2 is used, since WU2 classifies coverbs in which the O is more completely and adversely affected (see §4.8).

For the most part, MA2 conveys similar semantic content to MA, except for the sub-category bodily function, presumably because Bunuba verbs for bodily functions tend to be intransitive (and thus to collocate with intransitive MA or RA). Cognate objects such as someone ‘pooing a poo’ or ‘farting a fart’ seem not to occur in Bunuba.

Transitive speech verbs (SAY-related verbs). MA2 tends to classify coverbs which relate to speech.

4-70 *Ngayaga winmagingarri* *nhaa.*
ngayaga *wirr<n<ø-ma-g(v)-ngarri* *nhaa*
 ask(for) 3nsgO<INV<3sgA.PAST-MA2-pl-HAB *sugarbag*
 He would ask them (for) *sugarbag*. (B01.10)

4-71 *Daliya ma* *muway ngindaji:*
daliya *ø-ma* *muway* *ngindaji*
 name 3sgO<3sgA-MA2 place DEM

“*Wuluga winarriyntha*”.
wuluga *wirr<n<ø-ngarri-y-ntha*
 swallow 3nsgO<INV<3sgA.PAST-NGARRI-PAST-dl
 He named this place: “(where) He swallowed the two up”. (MJ5.40)

Physical affect/manipulation. Many of the verbs classified by MA2 relate to processes where the body is manipulating something or affecting something else. MA2 tends to classify coverbs where there is focus on the role of the A, rather than on the effect of the action on the O.

4-72 *biyga+MA2* ‘brand (cattle)’
wadba+MA2 ‘get’
malay(a)+MA2 ‘knead’
thudga+MA2 ‘pull.up’
midga+MA2 ‘tie.up’

4-73 *Tharrayingga nganja nginma.*
tharra-ingga nganja ngi<n<ø-ma
 dog-ERG bite 1sgO<INV<3sgA.PAST-MA2
 The dog bit me. (MJ9.4)

4-74 *Mayi manja lima.*
mayi manja li-ma
 damper make 1sgA>3sgO-MA2
 I’m making the damper. (MO1;1/97;2.27)

Even if there is an effect on an O, the focus is on the A. Example 4-75 below with *lirrba+MA2* ‘tear up’, provides some evidence for this A-focus. If a coverb were to be used in reference to tearing a person’s limbs off (for example), with correspondingly more O-focus, then auxiliary WU2 would be employed:

4-75 *Wanyjirri lirrba manhingi* *ngangga yha.*
wanyjirri lirrba ø-ma-nhingi *ngangga ø-yha*
 kangaroo tear.up 3sgO<3sgA-MA2-3sg.OBL give 3sgO<3sgA-YHA
 He tore up the kangaroo and gave it to him. (MJ7.9-10)

THINK-related verbs and KNOW-related verbs. Since intransitive MA is the Bunuba exponent of THINK, one would expect transitive MA2 to be the auxiliary for any transitive

verbs closely based on THINK. At present the only example I am aware of is *mindija*+MA2 ‘believe’. As mentioned in section §4.1, the primary Bunuba exponent of semantic prime KNOW is the adverb *binarri*. The related coverb *binarriya* is found, together with MA2 in the combination *binarriya*+MA2 ‘show’.

4.6 Auxiliaries NI and WU

4.6.1 NI: (i) BECOME (ii) MOTION TOWARDS

From a semantic point of view, there are two NIs: (i) BECOME, and (ii) MOVE TOWARDS.

Become. In this sense, NI has an “inchoative” derivational function. Many coverbs when co-occurring with NI can be glossed as BECOME. The formal criterion for NI to perform this role is that a nominal (particularly of the ‘adjectival’ type), or an adverb, occur in coverb position. In this function intransitive NI contrasts with transitive YHA ‘make into’ (see §4.7).

4-76 *Gilandirra wuninya* maidbi *yininggajangi* *mayi*.
 gilandirri wu- \emptyset -ni-nya maidbi *yiningga=jangi* mayi
 big FUT-2sgS.FUT-NI-SUB maybe just.like.that=SEM damper
 When you grow up, maybe you can cook damper like that. (MO1;1/97;2.43b)

4-77 *Niy garrga wirrunugu* *mulu ganday*
 niy garrga wirr-wu-n(v)-g(v) *mulu ganday*
 3sg.PRO leave 3nsgA>3sgO-WU2-PAST-pl eye bad

ngada niy *mulu na*.
ngadi \emptyset -ni-y *mulu na*
 blind 3sgS-NI-PAST eye then
 They left him and his bad eyes became completely blind then. (CR2.9)

Motion towards. This can be compared to the semantic description of WU: MOVE FROM Y (see §4.6.2). Coverbs which collocate with NI in this sense refer to movement towards something or someone, whereas coverbs collocating with WU refer to movement away from something or someone. The focus of the NI auxiliary is on reaching a point, whereas the focus of the WU auxiliary root is on the starting point (§4.6.2; cf, McGregor 1990:561ff for a similar analysis of the equivalent auxiliaries in Gooniyandi)⁷. The motion classified by NI is either horizontal or vertical, as for WU; there seem to be no examples of circular motion classified by NI. Some examples follow:

4-78 *wurrba*+NI ‘sit.down’
babarag+NI ‘climb.up’
giyga+NI ‘get.up’
gurraga+NI ‘cross.over’
winyin.ga+NI ‘escape’

As outlined above, NI classifies coverbs that describe processes of motion of the subject, where the motion is construed in terms of the subject reaching an endpoint. For example, to

'climb' a tree is classified by NI where the getting up into the tree can be viewed as the 'end point'. If someone 'escapes' or 'emerges', the end point is to be focused on, not the starting point. Examples from narrative texts follow:

- 4-79 *Thuthurrga niynyngarri rawurranali*
 thuthurrga ø-ni-y-nya-ngarri rawurra-nali
 come.down 3sgS-ROOT-PAST-SUB-HAB up/on.top-DIR

ngarragi ngawungu.
ngarragi ngawungu
 1sg.OBL father

When my father came down from up there. (CR4.26-7)

- 4-80 *Bara ninyali mila arra.*
 bara ø-ni-nya-ali mila arr-ra
 climb.up 3sgS-NI-SUB-PROXsee 1U.A>3sgO.NONPAST-RA2
 When he comes up, we see him (the moon). (MJ6.14-5)

- 4-81 *Garra wudiyngarri garuwayuwa.*
 garra wurr-ni-y-ngarri garuwa-yuwa
 throw 3nsgS-NI-PAST-HAB water-LOC
 They would throw (it) into the water. (NR1;1/97;2.18)

- 4-82 *Ngiyirriway gurraga yiyidiyngarri.*
 ngiyirri-way gurraga yiyirr-ni-y-ngarri
 1R.PRO-PAIR CROSS.OVER 1R.S-NI-PAST-HAB
 We both crossed over. (B02.97)

4.6.2 WU: MOTION FROM

The intransitive auxiliary WU occurs with a rather small number of coverbs. It seems relatively homogenous in its semantics, relating primarily to the motion of the subject. As with other intransitive auxiliaries, oblique pronominal suffixes can attach to the auxiliary but they will always be peripheral arguments. The motion referred to by WU may be along the vertical plane, the horizontal plane, or circular. Some examples follow:

- 4-83 *nyanungga+WU* 'dive.down'
thatharra+WU 'stand.up'
 4-84 *mulula+WU* 'sneak.away'
wathayga+WU 'go.in/enter (from outside)'
dumbul+WU 'come.around/go.around'
gunaga+WU 'turn.around/turn.over'

WU classifies coverbs that refer to the subject's position from the point of view of a starting point. It therefore contrasts precisely with NI 'motion towards'.

Coverbs such as *wathayga* 'go.in', *yirra* 'move.backwards' and *wariyga* 'start.out/start.going' are also classified by WU. Again, this is in contrast with NI, which also classifies horizontal motion except with a different focus of goal orientation as opposed to source.

4-85 *Laba luwaniy baliyamirarriyuwa.*
 laba li-wu-aniy baliyamirarri-yuwa
 board 1sgS-WU-PAST motorcar-LOC
 I boarded the motor car [leaving the point from which I started]. (BO;97)

4-86 *Lingga rangarri winthali*
 lingga \emptyset -ra-ngarri winthali
 wait 3sgO<3sgA-RA2-HAB fire

yandurrga waniynyangarri winthali.
 yandurrga \emptyset -wu-aniy-nya-ngarri winthali
 burn.down 3sgS-WU-PAST-SUB-HAB fire
 He'd wait for when the fire had burned down to coal.⁸ (CR4.54)

4-87 *Nyirramiywa warijga wirrwaniyi*
 nyirrami-yuwa wariyga wirr-wu-aniy-g(v)
 another-LOC start.out.for 3sgS-WU-PAST-pl

nhaayawu nyanangarri.
 nhaa-yawu nyanangarri
 sugarbag-ALL many
 The group started out for another place for lots of sugarbag. (B01.30)

Coverbs referring to circular motion of the subject and which focus on the starting point are classified by WU. Some of these types of coverbs include the following:

4-88 *dumbul+WU* 'come.around/go.around'
gunaga+WU 'go.around (e.g. a bend in the road)/turn.around/turn.over'
waga+WU 'go.around'

4.7 Auxiliary YHA

There are three senses conveyed by the transitive auxiliary YHA. The first is the transitive (causative) counterpart of the NI 'become' sense, which behaves more in a derivational manner than as a verbal classifier. That is, almost any nominal of the adjectival kind, some nouns, and some adverbs may co-occur with YHA conveying the sense 'x makes into y'.

4-89 *Garuwangarriingga ngulyba yangarri birrgi, yaninja.*
 garuwa-ngarri-ingga ngulyba \emptyset -yha-ngarri birrgi yaninja
 water-COM1-INSTR soft 3sgO<3sgA-YHA-HAB charcoal o.k/alright
 The water would make the charcoal soft, alright. (NR5.29)

4-90 *Gaygayga mangarri gulimabga yangarrag*
 gay-gayga \emptyset -ma-ngarri gulimabga \emptyset -yha-ngarragi
 RED-cut 3sgO<3sgA-MA2-HAB cool 3sgO<3sgA-YHA-1sgOBL

ngirrilya ya winthali.
 ngirrilya \emptyset -yha winthali
 cool 3sgO<3sgA-YHA fire
 He'd cut it into small pieces, he'd cool it down for me, he would make it cool (from) the fire. (CR4.71)⁹

Verbs of transfer. The common verb *ngangga*+YHA ‘give/take’ is the best example of this category.

- 4-91 *Ban.ga ray ngangga yhangarri.*
ban.ga ø-ra-y ngangga ø-yha-ngarri
 go.back 3sgS-RA-PAST give 3sgO<3sgA-YHA-HAB
 He’d go back and give (meat). (JnM1.6)

Induced change of location. A may change the location of the O, which accounts for it collocating with coverbs such as *wurrga* ‘put’, *minangga*+YHA ‘pick.up’, *thirrbaga* ‘grab’. The YHA auxiliary also classifies coverbs such as the following:

- 4-92 *wurrga*+YHA ‘put.in.place’
burrba+YHA ‘bolt (sliding a bolt across)’
luwa+YHA ‘drove (e.g., cattle)’

- 4-93 *Tharradga wudangarri bawuj.*
darradga wurr-yha-ngarri bawuj
 stand.up 3sgO<3nsgA-YHA-HAB post

Lainama yha malngarriingga.
lainama ø-yha malngarri-ingga
 line.up 3sgO<3sgA-YHA European-ERG

They made the posts stand up (one by one). The white fellow lined it (the fence) up. (BO 1;1/97.48-9)

- 4-94 *Wurrga yhabiyirranggi,*
wurrga ø-yha-biyirranggi
 put 3sgO<3sgA-YHA-3pl.OBL
 He put it in the coals for them. (MJ9.28-9)

Other. Possibly the combination *barrga*+YHA ‘stoke (a fire)’ could be due to the fact that stoking a fire involves moving parts of it. The verb *mirin.ga*+YHA ‘know/recognise’ is a mystery, however.

4.8 Auxiliary WU2: (i) bad effect (ii) separate/combine

There are two distinct senses which can be conveyed through the collocation of WU2 with certain coverbs.

Bad effect. The first sense of WU indicates that the O participant is seriously and adversely affected. Examples follow:

- 4-95 *nyaga*+WU2 ‘spear/stab’
dangayga+WU2 ‘kill’
ginyirriga+WU2 ‘betray’
warrba+WU2 ‘flog’
wirraya+WU2 ‘denigrate’

The semantic effect of auxiliary WU2 can best be seen in paired examples like the following:

- 4-96 *nara*+MA 'urinate'
nara+WU2 'piss.on'
- 4-97 *wula*+RA2 'talk.to'
wula+WU2 'denigrate'
- 4-98 *lirrba*+MA2 'tear.up'
lirrba+WU2 'be.angered.by'

Other examples of the O participant being affected in a violent, invasive or destructive way follow, taken from narrative texts:

- 4-99 *Gurarra wurruningarri mayi.*
gurarra wurr-wu-n(v)-ngarri mayi
 spoil 3nsgA>3sgO-WU2-PAST-HAB flour
 They spoiled the flour (by using it as ochre). (MJ9.17-8)

- 4-100 *Duwumbu diyga wirrariyntha*
duwumbu diyga wirr-ngarri-y-ntha
 owl find 3nsgA>3sgO-NGARRI-PAST-dl

dangayga wurrininta.
dangayga wurr-wu-n(v)-ntha
 hit.kill 3nsgA>3sgO-WU2-PAST-dl
 They found an owl and they killed it. (MJ5.14-5)

Some coverbs, such as *wa(wa)* 'singe', can be alternatively classified by WU2 or by YHA: *wa(wa)*+WU2 focuses on the effect of the singeing of the carcass, whereas *wa(wa)*+YHA focuses on the process of placing the carcass on the fire (cf. §4.7).

Separate/combine. WU2 also classifies coverbs which refer to the separation of an O from an A, or conversely, their combination. Examples follow:

- 4-101 *yurgula*+WU2 'pass.by' SEPARATE
thirridga+WU2 'winnow' SEPARATE
bada+WU2 'take.away' SEPARATE
- wurinyarrawu*+WU2 'stir' COMBINE
dimin.ga+WU2 'gather' COMBINE

- 4-102 *Gayga arrma thirridga arru*
gayga arr-ma thirridga arr-wu
 cut 1U.A>3sgO.NONPAST-MA2 peel 1U.A>3sgO.NONPAST-WU2

dalawurrungarriingga.
dalawurru-ngarri-ingga
 axe-COM1-INSTR
 We cut it (lily plant) and peeled it with an axe. (MJ4)

- 4-103 *Walanggala* *wurrunintha* *nyirrayuwa.*
 walanggala wurr-wu-n(v)-ntha nyirra-yuwa
 forget 3nsgA>3sgO-WU2-PAST-dl DEM-LOC
 They forgot about him (i.e. abandoned him) there. (MJ7.20)
- 4-104 *Ngarranyiway* *wariyga* *waniy* *winthali*
 ngarranyi-way wariyga ø-wu-aniy winthali
 mother-PAIR start.out.for 3sgS-WU-PAST firewood
- dimindimin.ga* *wunu* *barrgabarrga* *ya.*
 dimindimin.ga ø-wu-n(v) barrga-barrga ø-yha
 RED-gather 3sgO<3sgA-WU2-PAST RED-stoke 3sgO<3sgA-YHA
 The mother went out and piled together some firewood and made a fire. (RM1.50)
- 4-105 *Malaya* *wulunu* *mayi.*
 malaya wu-li-wu-n(v) mayi
 combine FUT-1sgA>3sgO-WU2-excl damper
 I'll combine the damper dough (combining the flour and water). (MO1;1/97;2.22)

When the same coverb collocates with different auxiliary roots, the semantic content of the auxiliary root changes the meaning of the verb. The following examples are subtle but the principle is the same. In 4-106 *thirridga* collocates with RA2 because the focus is on the activity of the women; in 4-107 with WU2, the focus is on the separating effect on the grain.

- 4-106 *Thirrid* *birrangarri* *wiyiingga.*
 thirrid(ga) wirr-ra-ngarri wiyi-ingga
 winnow 3nsgA>3sgO-RA2-HAB woman-ERG
 The women would winnow and winnow and winnow it (focusing on the A). (NR1.6)
- 4-107 *Thirridga* *wirrunungarri.*
 thirridga wirr-wu-n(v)-ngarri
 winnow 3nsgA>3sgO-WU2-PAST-HAB
 They'd winnow it (separating the husks from the grain). (NR1.5)

A note on the difference between WU and WU2

Although WU and WU2 are phonemically the same, they are semantically quite different. It is possible to distinguish these auxiliary roots since they take different pronominal prefixes and also different T/M marking. There are only two examples in the data available to me where the same coverb occurs with both the WU and WU2.

- 4-108 a) *wariyga+WU* 'start.going/start.out'
 b) *wariyga+WU2* 'leave/start.out.for'
- 4-109 a) *mulala+WU* 'sneak.away'
 b) *mulala+WU2* 'sneak.away.from'

When *wariyga* or *mulala* collocate with WU the semantic effect is contained within the subject which is consistent with it being intransitive. With transitive WU2, the semantics of SEPARATE enters the picture: *wariyga+WU2* 'x leaves y'; and *mulala+WU2* 'x sneaks away from Y'.

4.9 Auxiliary NGARRI: bring Y into/out of view

The number of coverbs which can co-occur with NGARRI is small. Approximately 30 have been documented to date, compare with approximately 70 for RA and 60 for MA2. Because of this, it is relatively simple to ascertain the semantic content of NGARRI. Coverbs collocate with NGARRI on the basis of something being brought into or out of “view”, in the sense of being evident to the senses. That is, into or out of sight, hearing or smell (yet not touch and taste). Some examples of the classifying role of NGARRI follow:

4-110	<i>ban.ga</i> +NGARRI	‘bring/take.back’
	<i>thuruga</i> +NGARRI	‘cover’
	<i>winyin.ga</i> +NGARRI	‘hide’
	<i>duringga</i> +NGARRI	‘fart’
	<i>gulmurr(u)</i> +NGARRI	‘vomit.up’

As discussed above, when ‘vomit’ and ‘fart’ are classified by NGARRI the process being described is one where something is brought into view. The context of the use of *gulmurr(u)*+NGARRI is where two boys are vomited back up by the Rainbow Serpent, and hence are now back into view and back into the story (example 4-106). Alternatively, a fart is brought into view of the hearing (or perhaps smell) of the people around.¹⁰

4-111	<i>Wuluga</i>	<i>winarriyntha</i>	<i>thurranda,</i>
	wuluga	wirr-<n<ϕ-ngarri-y-ntha	thurranda
	swallow	3nsgO.Past<INV<3sgA-NGARRI-PAST-pl	two

<i>Ganbalamanganya.</i>	<i>Wad</i>	<i>binantha</i>
ganbalamanganya	wad	wirr-n-ϕ-ra-ntha
[place.name]	take	3nsgO<INV<3sgA-RA2-dl

<i>gulmurru</i>	<i>wunarriyntha,</i>
gulmurr(u)	wurr-<n-ϕ-ngarri-y-ntha
vomit	3nsgO<INV<3sgA-NGARRI-PAST-dl

<i>thawunuyuwa</i>	<i>wurrga</i>	<i>windantha.</i>
thawunu-yuwa	wurrga	wirr-<n<ϕ-yha-ntha
ants-LOC	put	3nsgO<INV<3sgA-YHA-dl

He swallowed those two, at Lily Hole. He took them and vomited them up, putting them among the ants. (MJ5.23-6)

4.10 A note on reflexive/reciprocal auxiliary NA

NA is a reflexive/reciprocal (R/R) alternative to the MA simple verb construction. From a formal point of view, NA is an auxiliary unlike any other, because it only ever occurs in a simple verb construction. Its frequency is extremely low and it appears to be archaic. Two examples of this construction occurred in narratives while a small number of examples were obtained by elicitation.

On current data it appears that NA only functions as the reflexive/reciprocal counterpart for MA in the sense of SAY. Though I am not completely sure about this, if true it would provide another argument for the polysemy of MA:SAY vs MA:DO, since there is no such reflexive/reciprocal counterpart for DO. There is not a lot more that can be said about this auxiliary since its occurrence in the data is so rare. Two naturally occurring examples follow:

4-112 *Nyirramiyawa wariyga waniy dubela*
 nyirramiya-yuwa wariyga ø-wu-aniy dubela
 yesterday-LOC start.out 3sgS-WU-PAST two.fellows

“Ba!” *binaynintha.*

ba wurr-na-y-ni-ntha

go! 3nsgS-NA-R/R-PAST-dl

Next time he went off the two said to each other “let’s go!”. (B02.61)

4-113 “*Wug ira nyirraji ngambiya gurama!*”,
 wu(g) gi-ø-ra nyirraji ngambiya gurama
 cook ins-3sgO<3sgA-RA2 that indeed! man

birrmiyntha

binaynintha

wurr-ma-iy-ntha wurr-na-y-ni-ntha

3nsgS-MA-PAST-dl 3nsgS-NA-R/R-PAST-dl

“That’s the man that’s cooked it!” they said, they said to each other. (B02.73-74)

Some elicited examples follow:

4-114 *Binaynigi.*
 wurr-na-y-ni-g(v)
 3nsgS-NA-R/R-PAST-pl
 They said (?did) to each other. (BOetc.1999)

4-115 *Jiyinaynigi.*
 yiyirr-na-y-ni-g(v)
 1R.S-NA-R/R-PAST-pl
 We said (?did) to each other. (BOetc.1999)

4.11 Concluding remarks

In conclusion, this Chapter provides a preliminary analysis of the semantics of the auxiliary roots in Bunuba, based on the data available to date. There are obviously a number of coverb-auxiliary root collocations which have not been examined, not necessarily because they do not exist, but because they have yet to be documented. The analysis in this chapter is also primarily based on narrative data, with a smaller amount of data obtained from elicitation. There is no doubt that a number of further aspects of Bunuba verbal semantics will be discovered when wider range of text types and data gathering methods can be used. It is also true that I have not systematically 'trawled' through the data to identify where there may be obvious omissions of coverb-auxiliary collocations from the available data. This approach

may yield substantial avenues for follow-up that I have not been able to achieve due to time limits and the scope of this work.

What this chapter does provide is the beginnings of an approach to the description of the semantics of verbs by speakers of Bunuba. This approach can be seen as a viable means to better understand and to better describe the system available to speakers of Bunuba through their language. Although I have taken the analyses of the semantic system of Bunuba verbs further than previous researchers this is not to say that all has been achieved. I have established a set of categories for each auxiliary root, and for the more frequently employed auxiliaries of RA, RA2, MA and MA2, a number of subcategories as well (§4.3, Table 4-5). In the future, a systematic documentation of coverb-auxiliary collocations where there are obvious gaps in the data may perhaps yield even more subcategories than I have presented in this work.

Overall, this chapter provides a description of the semantic motivations behind the use of auxiliaries in Bunuba and perhaps provides a unique approach to such a system.

1 In this work I refer to the coverb as having valency, whereas the auxiliary has transitivity. The result is that the overall verb complex allows for one or two core participants but that manipulation of person/number relations can be achieved through the matching or mismatching of these components. This interpretation differs from that of McGregor; where he uses valency, it is to be interpreted as transitivity in the description of Bunuba here.

2 Rumsey (1994) mentions the polysemous nature of MA as a simple verb construction, but he does not discuss the polysemy of MA since his article is in reference to only one of the functions of MA, and that is as MA:SAY in framing reported speech. Rumsey (1990) also discusses the role of this type of construction in a language nearby to Bunuba, Ungarinyin. The Ungarinyin cognate form *-ma-* performs similar functions to its Bunuba counterpart. Rumsey notes that MA (in both Bunuba and Ungarinyin) may convey different meanings such as ‘think’, ‘want’, ‘get ready to’. These glosses are different manifestations of the description I provide for the polysemy of MA as a simple verb construction in Bunuba.

3 It is not clear from Ford’s description whether the senses of ‘do’ and ‘feel’ performed by the *me* auxiliary are equivalent to the senses I describe for Bunuba, but Ford’s glosses suggest this is the case.

4 Bunuba does not have noun classifiers, but can be called a ‘classifier language’ in the sense of a ‘predicate classifier’ language as defined by Allan (1977:286) in that Bunuba is a language which classifies verbs; cf. the discussion of verbal classification in Australian languages by McGregor (2002a). The description of verb classification by Aikhenvald (2000) is not relevant to the discussion here because in her model, verb classification seems to be an extension of noun classification.

5 The bold-marked item in example 5-12 indicates that this is a Gun.gunma substitute form. Chapter 5 discusses Gun.gunma in detail.

6 The gloss ‘look.for’ is appropriate only when the coverb collocates with MA and when an oblique pronominal suffix is included in the auxiliary.

7 Compare this with McGregor’s description of cognate roots in Gooniyandi: where +ANI can best be seen as the Gooniyandi equivalent of WU in Bunuba and the Gooniyandi form +BINDI is the closest equivalent of NI.

In the case of processes involving motion, +ANI typically indicates the direction of motion as downwards from a point... These processes may be regarded as accomplished once the point of origin is left... +BINDI processes of motion, on the other hand, are typically directed upwards to a point... +BINDI processes are accomplished once the endpoint has been reached... But both +ANI and +BINDI may refer to horizontal motion, and here +ANI normally refers to leaving, or setting off from a point -... whereas +BINDI refers to reaching or achieving a point. (McGregor 1990:561-2)

8 This verb complex refers to the burning down of a large fire to a bed of coals.

9 Note that in the final example, the coverb *gulimab* is a borrowed form from English/Kriol which can co-occur with YHA. The speaker has substituted a Kriol form for the Bunuba form in the first line but in the second uses the Bunuba form, *ngirrilya*.

10 The *duringga*+NGARRI was elicited by me during a field trip. I was informed that it was a loud fart that everyone would hear and so it would be classified by NGARRI. *Duringga* can collocate with other auxiliary roots, but with these auxiliary roots are performing different classifying roles which are dependent on the semantics of the root involved.