

## Chapter 4: Verbal prefixes

### 4.1 The verb: overview

The verb is morphologically the most complex word class in Enindhilyakwa. Being a polysynthetic language, a single verb can express what may take a whole sentence in a language like English. Because of its internal complexity, much of what is accomplished by the syntax in other languages is carried out within the verb - expression of arguments, causativisation, reflexivisation, and subordination.

The discussion of verbal morphology will therefore run over several chapters. The complex templatic structure of the verbal word, where affix order is stipulated in the form of arbitrary position classes, is presented in Table 4.1.<sup>1</sup> The verbal template has a finite number of slots with a fixed order, and no embedding possibilities. The current chapter is concerned with the morphology preceding the verb stem, apart from incorporated nominals in slot [(-1)], which are dealt with in Chapter 7. Verb stems [0] are the topic of Chapter 5. Chapter 6 investigates the tense/aspect suffixes in slot [+3] and the *-ma* ~ *-mvrra* suffix in slot [(+4)]. Case is the topic of Chapter 8, which also explores the subordinating function of case suffixes on the verb in slot [(+5)]. Optional elements in the template are indicated in parentheses; plus and minus signs before the slot number give the direction with respect to the verb stem. Slots marked \* may be reduplicated.

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<sup>1</sup> A template is a flat structure where affixes are ordered with “no apparent connection to syntactic, semantic or even phonological representation” (Inkelas 1993: 560, cited in Nordlinger 2010). Templatic systems have traditionally been assumed in the Australian context, especially for the head-marking polysynthetic languages of the north, but often without discussion (Nordlinger 2010). Nordlinger (2010) reviews an account by Rice (2000) of affix ordering in the Athapaskan languages, which are also traditionally viewed as ordered along a fixed template. Rice argues against these traditional templatic analyses and proposes that affix orderings are based on syntactic and semantic scope instead, such as ‘subject > object’, and ‘definite > indefinite’. These scope-based principles belong to Universal Grammar, according to Rice.

This means, as Nordlinger (2010) points out, that templatic organisation can no longer be simply assumed for a given language, but must be empirically justified. Nordlinger does this for Murrinh-Patha. She concludes that templatic morphological systems “must remain part of the universal repertoire for language structure” (2010: 323). I will not embark on a detailed justification for a templatic system in Enindhilyakwa here, but some important observations can be made. Simpson & Withgott (1986) list a number of properties of template morphology, which include the presence of zero morphemes, the violation of the ‘Adjacency’ constraint, and the possibility of encoding more than one argument. Enindhilyakwa has zero morphs, for instance the absence of an object marker in transitive prefix combinations encodes a NEUT class noun object (see Table 4.3). The Adjacency constraint, which blocks discontinuous dependencies, is violated in Enindhilyakwa when the Quantifier prefix refers to a first order object morpheme (section 4.4): these morphemes are then not adjacent because the subject morpheme intervenes. And the encoding of more than one argument is very common, as subject and object are both marked on the verb. Furthermore, as Nordlinger (2010) also observes for Murrinh-Patha, a single affix can appear in different positions in the verbal template without its position having a semantic effect. This is the case for the subject and object prefixes, the relative placement of which is governed by person, number and animacy factors (section 4.2.3). Based on these observations, I conclude that, like the verbal morphology of Murrinh-Patha (Nordlinger 2010) and the pronominal clitic clusters in Warlpiri and Warumungu (Simpson & Withgott 1986), amongst others, the verbal morphology of Enindhilyakwa is templatic: word structure is governed by “morphotactic constraints for which there is no *synchronic* extra-morphological explanation” (Hyman 2003: 245, cited in Nordlinger 2010; italics mine). However, the ordering of the affixes may well have a diachronic explanation, as Nordlinger (2010) suggests.

|      |         |        |            |             |                     |      |      |            |                |                     |      |
|------|---------|--------|------------|-------------|---------------------|------|------|------------|----------------|---------------------|------|
| -6   | -5      | -4     | (-3)*      | (-2)        | (-1)                | 0*   | (+1) | (+2)       | +3             | (+4)                | (+5) |
| Mood | Subject | Object | Quantifier | Benefactive | Body part / generic | Stem | CAUS | REFL, RECP | Tense + aspect | <i>-ma ~ -mvvra</i> | Case |

Table 4.1: Enindhilyakwa verbal template

The only obligatory slots in this template are the pronominal prefixes in slots [-6] to [-4], the stem in [0] and the tense/aspect inflectional suffixes in [+3]. Note that the stem itself may be morphologically complex, and historically include a compounded nominal (e.g., *-lyang+barrka-* [head+move] ‘to sweep’), to be discussed in Chapter 5. Although they are given separate positions in the template, the valency-changing causative suffix in (+1) and reflexive and reciprocal suffixes in (+2) contribute to the formation of the verb stem. They are therefore also included in Chapter 5.

#### 4.1.1 Main features of each slot

I will begin with summarising the main features of each slot of the verbal template, and point to the sections in which they are discussed.

The obligatory PRONOMINAL PREFIXES zone, in slots [-6] to [-4], contains up to two prefixes that represent the arguments of the verb, plus an indication of mood, as part of a complex paradigm. The pronominal prefixes include first and second person prefixes, gender prefixes representing third person humans, and noun class markers representing non-humans. Transitive prefix complexes with human referents may be portmanteau forms, which is why the three slots are merged as a fusion zone in Table 4.1. There are, however, cases where internal segmentation can be made according to the ordering set out in the Table, in particular when non-human referents are involved. For example, the irrealis mood marker *k-* may precede a third person human subject prefix, which in turn may precede a noun class object prefix: an example is *kv-nv-ma-* [IRR-3m-VEG] ‘he...it(IRR)’.

The default order is for subject prefixes to precede object prefixes. This order can be reversed according to person, number and animacy values, such that roughly: 1, 12, 2 > human 3a > human 3 > non-human. Hence first and second person outrank third person, regardless of which is the subject (e.g. *kvrra-b-* [2a.O-3a.S] ‘they...you(pl)’); augmented number outranks minimal (e.g. *narrv-nga-* [3a.O-3f.S] ‘she...you(pl)’); and human outranks non-human (e.g. *yinga-m-* [3f.O-VEG.S] ‘it(VEG)...her’). In keeping with traditional terminology, the entire prefix is called ‘direct’ if the subject is higher-ranking than the object, ‘inverse’ when the object outranks the subject, and

‘equipollent’ if the two are of equal ranking (e.g. Heath 1978a for Ngandi; Heath 1984 for Wubuy; Evans 2003a for BGW). Equipollent prefixes include second person acting on first person or the reverse, inanimate acting on inanimate, and so on. As is typologically common (Heath 1991), combinations of 1<sup>st</sup> and 2<sup>nd</sup> person are formally deviant (see also Evans, Brown & Corbett 2001 on Dalabon): in Enindhilyakwa they never have separate exponence for both participants, and some 1<sup>st</sup> and 2<sup>nd</sup> person combinations use intransitive first person inclusive morphology.

A further layer of morphological complexity not shown in Table 4.1 involves the breakdown of subject and object morphemes into person and number elements: for instance, the element *rr-* in the above examples can be identified as an augmented number marker. The morphological analysis of the transitive prefixes is most meaningfully carried out with respect to the whole paradigm, and will be taken up in section 4.2.2.

The QUANTIFIER slot [(-3)] contains the quantifiers *mvrnda-* and *wurra-* ‘many’, which also occur on nominals, as outlined in section 3.4.3. Examples of these quantifiers on verbs will be given in section 4.4.

The BENEFACTIVE slot [(-2)] contains just one option: the benefactive applicative *mvn-*, which introduces an argument to the verb. Compare *n-akarrngv-na akungwa* ‘he is getting water’, with the prefix *n-* [3m/NEUT], and *ngvnv-mvn-akarrngv-na akungwa* ‘he is getting water for me’, with the prefix *ngv-n-* [1.O-3m.S]. See section 4.5.

The BODY PART / GENERIC slot [(-1)] is filled by a nominal root drawn from a set of about 80 forms, presented in Appendix N. These roots are either body parts or generics that classify an external specific noun. The same nominal roots can be incorporated into adjectives. Incorporation of body part and generic nominals is discussed in Chapter 7.

As is typical of the Gunwinyguan languages (Alpher, Evans & Harvey 2003), the STEM slot [0] may be simple or complex. Simple stems consist of a verb root to which the inflection for tense and aspect may be added directly (e.g. *-kwa-* ‘give’, *-lhvka-* ‘go’). Complex verb stems, on the other hand, are synchronically frozen combinations of an uninflecting element followed by an element that takes the inflections (e.g. *-yeng+bi-* ‘speak’, consisting of the nominal root *yeng-* ‘voice’ and the inflecting element *+bi-* ‘?’). Verb stems can furthermore be formed by the productive inchoative and factitive denominalising suffixes. Stem structures are the topic of Chapter 5.

The CAUSATIVE slot [(+1)] contains the causative suffix *-ji-*, which derives transitive verbs from intransitive verbs. For example, *-jungwa-ji-* ‘to kill’ is derived from *-jungwV-* ‘to die’. Derivational suffixes are addressed in Chapter 5.

The REFLEXIVE / RECIPROCAL slot [(+2)] contains the reflexive suffix *-jungwV-* and the reciprocal suffix *-yi-* (section 5.4.1.2). These suffixes derive intransitive verbs from transitive verbs, such as *-jungwa-ja-jungwV-* [die-CAUS-REFL] ‘kill oneself’ and *-jungwa-jee-yi-* [die-CAUS-RECP] ‘kill each other’. The reciprocal also has a reading of a collective action by subjects, which allows it to occur on intransitives, as in *yirrv-ngambee-yi-na* [1a-bathe-RECP-P2] ‘we all bathed’.

The obligatory TENSE+ASPECT slot [+3] contains the tense and aspect inflections, which combine with the pronominal prefixes to express various modal meanings. There are six main conjugational classes, organised around the verb root or the inflecting element of the complex verb stem. The tense/aspect suffixes distinguish past or non-past tense, together with neutral aspect or a subtype of perfective aspect. They are the topic of Chapter 6.

The very common but elusive *-MA ~ -MVRRA* suffix in slot [(+4)] occurs independently of tense and aspect, and is analysed in section 6.7 as a ‘first person focalisation marker’.

The CASE slot [(+5)] contains complementising case suffixes that create adverbial subordinate clauses (so-called T-complementisers). The T-complementiser case suffixes on verbs are the same suffixes that occur on nominals. Case is the topic of Chapter 8.

Finally, the very productive nominalising prefix *k-* derives non-finite verbs from a verb root. An example is *yingv-ngayindhe-na dh-adhv-kv-lhvka* [3f-want-NP2 3f-f-NSR-go] ‘she wants to go’. Deverbalised nouns take nominal rather than verbal prefixation (compare the verbal prefix *ying-* ‘3f’ in the above example with the nominal prefix *dh-* ‘3f’ on the nominalised verb). Therefore, they are not included in the template in Table 4.1 and are discussed in Chapter 3 (section 3.4.6).

The following sections first discuss the pronominal prefixes on the verb in section 4.2, which makes up the bulk of this chapter, starting with the intransitive paradigms (section 4.2.1), followed by the transitive paradigms (section 4.2.2). The person/number/animacy hierarchy that determines the relative order of the subject and object prefixes is investigated in section 4.2.3. Section 4.3 addresses the debate in the literature concerning the status of the pronominal affixes in polysynthetic languages: do these constitute the ‘real’ arguments of the verb, with the external nominals being adjuncts, or do they merely *agree* with the nominal arguments? I will argue that there are problems with viewing the external nominals as adjuncts (section 4.3.1), and also with regarding the prefixes as pronouns that are the sole exponents of the verb’s arguments (section 4.3.2). Section 4.4 discusses the quantifier prefix that follows the argument prefixes, and section 4.5 the benefactive applicative prefix. Section 4.6 finishes this chapter with a summary.

## 4.2 Pronominal prefixes [-6] - [-4]

The term ‘pronominal prefix’ designates the class of prefixes that is used to represent the arguments of a verb on the verb. They may be intransitive (representing the subject only) or transitive (representing subject and object). Pronominal prefixes on verbs are formally distinct from prefixes on nominals, with the exception of first and second person pronominal prefixes on adjectives and nouns with human reference. These are identical to those on intransitive verbs (see Table 3.3). There are some formal resemblances between the intransitive pronominal prefixes on verbs and gender and noun class prefixes on nominals, but these are far from exact.

There are four distinct intransitive and four distinct transitive series of prefixes: (i) realis, (ii) irrealis, (iii) imperative, and (iv) hortative. As is characteristic of the non-Pama-Nyungan languages (Verstraete 2005), the prefixes are combined with the tense/aspect suffixes to mark a variety of modal meanings (see Chapter 6). The Enindhilyakwa system of eight series of (positive polarity) prefixes is unusually high: many non-Pama-Nyungan languages have a basic realis-irrealis distinction in the prefixes, but they do not differentiate between imperative or hortative mood (e.g. Wubuy, Mangarayi, Warray) (Verstraete 2005). Some Gunwinyguan languages do not distinguish mood in the prefixes at all (e.g. Bininj Gun-Wok, Ngalakgan, Ngandi), but employ suffixes instead (these languages thus diverge from the typical non-Pama-Nyungan pattern).

In the negated non-past the prefixes are replaced by *a-* or *ng-* in Enindhilyakwa, so all person-number distinctions are neutralised. Negative polarity always involves the NEGATOR particle *nara*. The negated past, by contrast, takes irrealis prefixation: compare negated past *nara kv-ma-nga* [NEG IRR.1/NEUT-take-P2] ‘I did not take it’<sup>2</sup> with negated non-past *nara a-mv-ma* [NEG NEG-take-NP3] ‘[X] is not taking [Y]; [X] will not take [Y]; don’t take [Y]!’. Some further illustrations of the various prefix series are: transitive imperative *wu-mi-ya* [IMP.2/NEUT-take-NP1] ‘take it(NEUT)!’; and transitive hortative *angv-me-na* [HORT.3f/NEUT-take-NP2] ‘let her take it(NEUT)’. (The NP1, NP2, et cetera, labels represent both tense and aspect - see section 6.3.) Recall from Chapter 2 that vowels other than *a* and *e* between a prefix and a stem, as well as between prefixes, are analysed as epenthetic vowels. Furthermore note that the convention ‘*x/y*’ is used in the glosses to represent ‘*x* (subject) acting on *y* (object)’ for portmanteau pronominal prefixes. For segmentable prefixes ‘*x-y*’ in the glosses denotes ‘*x* (subject) acting on *y* (object)’. And for segmentable reverse order combinations subject and object are indicated in the glosses: ‘*x.O-y.S*’ means ‘*y* (subject) acting on *x* (object)’, where *y* is lower on the person/animacy hierarchy than *x* and appears in second order.

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<sup>2</sup> Irrealis prefixes plus past tense suffixes are probably also used to convey negated deontic mood, so that this example could also mean ‘I should not have taken it’. See section 6.6 for details.

The pronominal prefix paradigms have been described in the previous work of Heath (n.d.), Reid, Stokes & Waddy (1983), Leeding (1989), and Waddy (n.d.-a). In the following two sections I will first present an overview of the paradigms based on this earlier work, supplemented by my own research. I will then turn to some topics that have not been addressed before, including a more careful look at the internal structure of the prefixes, and the factors that determine the relative ordering of the subject and object prefixes.

#### 4.2.1 Intransitive paradigms

Table 4.2 presents the four intransitive pronominal prefix series in Enindhilyakwa: realis, irrealis, imperative and hortative (adjusted from Leeding 1989; Reid, Stokes & Waddy 1983; Waddy n.d.-a). The realis and irrealis prefixes encode 24 different person and number categories, with some neutralisations (e.g. the MASC noun class prefix *n-* on verbs is formally identical to the 3m prefix. This neutralisation does not occur on free pronouns [Table 3.2] or other nominals [Table 3.3]).

|                  | REALIS                              | IRREALIS                            | IMPERATIVE         | HORTATIVE           |
|------------------|-------------------------------------|-------------------------------------|--------------------|---------------------|
| <b>1</b>         | <i>(nv)ng-</i>                      | <i>k-</i>                           |                    | = REALIS            |
| <b>1a</b>        | <i>yirr-</i>                        | <i>yik-</i>                         |                    |                     |
| <b>1fdu</b>      | <i>yirrvng-</i>                     | <i>yikvng-</i>                      |                    |                     |
| <b>1mdu</b>      | <i>yin-</i>                         | <i>yikvn-</i>                       |                    |                     |
| <b>1tri</b>      | <i>yirrvbvk-</i>                    | <i>yikvbvk-</i>                     |                    |                     |
| <b>12</b>        | <i>y-</i>                           | <i>yak-</i>                         |                    |                     |
| <b>12a</b>       | <i>ngarr-</i>                       | <i>ak-</i>                          |                    |                     |
| <b>12tri</b>     | <i>ngarrvbvk-</i>                   | <i>akvbvk-</i>                      |                    |                     |
| <b>2</b>         | <i>nvngk-</i>                       | <i>k-</i>                           | <i>Ø- ~ w-</i>     |                     |
| <b>2a</b>        | <i>kvrr-</i>                        | <i>yik-</i>                         | <i>w(urr)-</i>     |                     |
| <b>2fdu</b>      | <i>kvrrvng-</i>                     | <i>yikvng-</i>                      | <i>wu(rrv)ng-</i>  |                     |
| <b>2mdu</b>      | <i>kvn-</i>                         | <i>yikvn-</i>                       | <i>wun-</i>        |                     |
| <b>2tri</b>      | <i>kvrrvbvk-</i>                    | <i>yikvbvk-</i>                     | <i>wu(rrv)bvk-</i> |                     |
| <b>3m / MASC</b> | <i>n-</i>                           | <i>kvn- ~ ken-</i>                  |                    | <i>en-</i>          |
| <b>3f / FEM</b>  | <i>ying-</i>                        | <i>kvng-</i>                        |                    | <i>ang-</i>         |
| <b>3a / COLL</b> | <i>na- ~ nuw-</i>                   | <i>ka- ~ kuw-</i>                   |                    | <i>ab(vrr)-</i>     |
| <b>3fdu</b>      | <i>narrvng-</i>                     | <i>karrvng-</i>                     |                    | <i>abvrrvng-</i>    |
| <b>3mdu</b>      | <i>nen-</i>                         | <i>ken-</i>                         |                    | <i>abv(r)n-</i>     |
| <b>3tri</b>      | <i>na(rrv)bvk-</i>                  | <i>ka(rrv)bvk-</i>                  |                    | <i>a(bvrrv)bvk-</i> |
| <b>VEG</b>       | <i>nvm-</i>                         | <i>kvm-</i>                         |                    | <i>am-</i>          |
| <b>NEUT</b>      | <i>na- / __ C ~<br/>nuw- / __ V</i> | <i>ka- / __ C ~<br/>kuw- / __ V</i> |                    | <i>ak-</i>          |

Table 4.2: Intransitive prefix series

The pronominal prefixes are glossed with labels such as ‘1’ (1<sup>st</sup> person exclusive minimal, i.e. ‘I’), ‘12’ (1<sup>st</sup> inclusive minimal, i.e. ‘you and I’), ‘12a’ (1<sup>st</sup> inclusive augmented, i.e. ‘us all, including you’), 3fdu (‘3<sup>rd</sup> feminine dual’, i.e. ‘they two females’), and so on (see list of abbreviations on

page xviii of this thesis). As for the free pronouns (section 3.2.2), dual forms apart from first inclusive are built by adding a gender morpheme to the augmented form.<sup>3</sup> Note that minimal number is unmarked in the glosses. Realis mood is also unmarked, whereas irrealis, imperative and hortative moods are glossed IRR, IMP and HORT, respectively. The non-human noun classes have the labels proposed in section 3.4.1 (which differ from the labels in the previous work): MASCULINE, FEMININE, COLLECTIVE, VEGETABLE and NEUTER.

Disregarding the imperative and hortative sets for the moment, the following morphemes can be identified:

- (1) MOOD: realis  $\emptyset$ -, irrealis *k*-  
 PERSON: realis: 1<sup>st</sup> exclusive (*nv*)*ng*- (minimal), *y*- (non-minimal)  
           1<sup>st</sup> inclusive *y*- (minimal), *nga*- (non-minimal)  
           2<sup>nd</sup> *nvngk*- (minimal), *k*- (non-minimal)  
           3<sup>rd</sup>  $\emptyset$ - (minimal), *na*- (non-minimal)  
           irrealis: opaque (if transparent, then similar to realis forms)  
 NUMBER: minimal  $\emptyset$ -, augmented *rr*-  
 GENDER: feminine *ng*-, masculine *n*-

Realis prefixes may be constructed by concatenating these morphemes in the order given in (2a). The morphological composition of the irrealis prefixes is often opaque, apart from the presence of the irrealis marker *k*-. In the more transparent forms, the irrealis marker appears to replace the augmented number marker, and thus follow person and precede gender, as in (2b).

- (2) a. Realis: person-number-gender (e.g. *yi-rrv-ng*- [1non.min-a-f] ‘1fdu’)  
 b. Irrealis: person-irrealis-gender (e.g. *yi-kv-ng*- [1non.min-IRR-f] ‘1fdu(IRR)’)

In third person irrealis forms, by contrast, the irrealis marker occurs prefix-initially and the augmented number marker is preserved. An example is *karrv-ng*- [IRR.3a-f] ‘IRR.3fdu’ (cf. *narrv-ng*- [3a-f] ‘3fdu’). Furthermore, there is complete syncretism between irrealis first person exclusive and second person forms. For instance, *yik*- denotes ‘1a(IRR)’ and ‘2a(IRR)’. Syncretism involving first and second person subject forms also occurs in the transitive irrealis prefixes, but not in the realis prefixes.

There is no third person minimal marker. However, pronominal prefixes representing third person are not  $\emptyset$ - (which they are in many Gunwinyguan languages), but they are represented by a masculine or feminine gender morpheme for humans, or a noun class prefix for non-humans. Thus, Enindhilyakwa shows verb agreement for every person and noun class, which, among the Gunwinyguan languages, is a feature that is shared only with Wubuy and Ngandi. The masculine and feminine gender prefixes that represent the human categories will be glossed ‘3m’ and ‘3f’,

<sup>3</sup> Dual number in Wubuy is also constructed by adding a gender morpheme to the augmented form (Heath 1984).

respectively, including a person marker. This is done for clarity, and to distinguish the use of these prefixes denoting the subject or object, from their use as a gender prefix in dual number morphemes. The 3f category may contain an historical accretion /ji/: *yi.ng-* ‘she’, which is not present in the irrealis form: *kv-ng-* [IRR-f] ‘she(IRR)’, nor in 3f object forms (e.g. *narrv-nga-* [3a-3f] ‘they...her’). Gender is further specified for all non-minimal dual forms, but not specified for any other category. Number is only specified for humans.

The markers of the non-human noun classes consist of a single morpheme. The animate MASC, FEM and COLL noun classes are represented by the same gender prefix as 3m, 3f and 3a, respectively: *n-* ‘3m, MASC’; *ying-* ‘3f, FEM’; *na-* ‘3a, COLL’.<sup>4</sup> The same human genders and noun classes show syncretism in Wubuy. Another neutralisation that occurs in the intransitive paradigm is that the NEUT class prefix is formally identical to the ‘3a, COLL’ prefix (in both the realis and irrealis). This neutralisation is most likely due to extension of ‘3a, COLL’ to also include NEUT class (this does not happen in Wubuy). The VEG class prefix is *nvm-*, which, like the ‘3f, FEM’ prefix, also appears to contain an historical accretion, in this case /nə/: *nv.m-*. This accretion is not present in the irrealis form *kvm-*, or in transitive prefix complexes (e.g. *yingv-ma-* [3f-VEG] ‘she...it’). Only the VEG pronominal prefix shows some similarities with the corresponding noun class prefix on nominals *m-* ~ *ma-*. The pronominal prefixes representing the other noun classes are formally distinct from those on nominals. Table 3.3 in Chapter 3 compares the prefixes used on nominals and on intransitive verbs.

Some augmented forms do not contain the prefix *rr-*, such as the ‘mdu’ form *nen-*. In Leeding’s (1989) account the absence of the *rr-* segment is due to haplology: *\*na-rrv-n-* [3a-a-m] > *na-n-* [nɛn] ‘3mdu’.<sup>5</sup> Haplology does not occur for the ‘fdu’ forms: *na-rrv-ng-* [3a-a-f] ‘3fdu’. I propose a different explanation, which involves the contraction of *rr* and *n*, creating *rn*, an archaic rule described in Appendix I. This was followed by loss of retroflexion, a process frequently accompanied by vowel fronting in Enindhilyakwa (section 2.5.8): *\*na-rrv-n-* > *\*na-rn-* > *ne-n-*. This apical shift accompanied by the vocalic shift is not uncommon in Enindhilyakwa, and can also be observed synchronically, such as with tense/aspect suffixes (e.g. *-lhyke-na* ~ *-lhyka-rna* ‘go-P2’).

The ‘augmented’ morpheme *rr-* is also absent in the ‘3a’ prefix *na-*. However, it does show up in other combinations of ‘3a’, such as ‘3fdu’ *na-rrv-ng-* [3a-a-f], and in many transitive

<sup>4</sup> This syncretism also occurs on nominals: *dh-* is used as a marker of both 3f and FEM, and *wurr-* for 3a and COLL. The 3m and MASC forms are an exception: the nominal prefix for 3m is *n-* (the same as the intransitive prefix on verbs), but the MASC class marker is *y-* (see Table 3.3). The first and second person intransitive pronominal prefixes are identical to those on nominals.

<sup>5</sup> She explains the phonetic [ɛ] quality of the vowel as due to vowel harmony, triggered by an [i] in the following syllable: *na-ni-* > *ne-ni-*. Even though I agree that Enindhilyakwa has vowel harmony, or more precisely, i-umlaut (rule P-5 in Chapter 2), I do not think it is relevant here, because there is no [i] vowel present on the surface that could have triggered raising of *a* to *e*.

combinations, such as *narrv-ma-* [3a-VEG]. The most plausible explanation is that the intransitive ‘3a’ prefix *na-* has lost its ‘augmented’ morpheme *rr-* when not followed by a (dual) gender morpheme.

The following examples illustrate the use of dual and trial number.

- (3) a. *wun-alh-akina Nikba akwa Nijarra nenu-ngurrkwe-nv-ma akwalya*  
 3mdu-du-that 3m.pheasant and 3m.seagull 3mdu-hunt-P2-*ma* NEUT.fish  
 ‘Pheasant and Seagull were hunting for fish.’ (VL1 p.391)
- b. *yirrv-bvku-ngurrkwe-na mvnhvnga*  
 1a-tri-hunt-P2 VEG.burrawang  
 ‘we three hunted for burrawang’ (VL1 p.500)

Trial number is rare, and augmented number is frequently used instead (Leeding 1989: 388).

#### • Imperative

The imperative prefix series is formally similar to the nominal prefix *wurr-* ‘3a, COLL’. Dual forms are built from the *wurr-* prefix by addition of the two gender prefixes, and trial forms by the addition of trial number *bvk-*. Some intransitive imperative examples are listed below.

- (4) a. *wurrv-lhvka-ja warnv-mvrra*<sup>6</sup>  
 IMP.2a-go-NP2 3a.this-INSTR  
 ‘you all go with them!’ (VL1 p.414)
- b. *wu-bvk-ambilya*  
 IMP.2a-tri-stay.NP2  
 ‘you three stay [here]!’ (VL1 p.415)
- c. *Engkirra-ja ayakwa ena nungkuwa-wa nvngi-yengbi-na-ma.*  
 IMP.2.hear-NP2 NEUT.word NEUT.this 2.PRO-ALL 1-speak-NP2-*ma*  
 ‘Listen to these words I am speaking to you.’ (‘Mother’s advice’ j3)

One formal difference between the nominal ‘3a, COLL’ prefix and the imperative series is that the latter have shortened allomorphs, such as *w-* instead of *wurr-* in (4b), which the former lack. Another difference is that the second person minimal prefix form has a zero allomorph, as in *engkirra-ja* in (4c). Imperatives are the only verbal forms in the language that can have zero pronominal prefixes. The prefixes of all other verb forms are realised by phonologically overt material.

#### • Hortative

The intransitive hortative series is formally identical to transitive inverse order subjects (see Table 4.3 below). For example, the intransitive NEUT class hortative prefix *ak-* in (5a) is the same as the transitive NEUT class second order subject (as in *ying-ak-* [3f.O-NEUT.S] ‘it...her’). And the ‘3m’

<sup>6</sup> Recall from section 3.2.3 that demonstratives are very frequently used as anaphoric pronouns in Enindhilyakwa.

hortative prefix *en-* in (5b) is identical to ‘3m’ as the inverse order subject (as in *yirr-en-* [1a.O-3m.S] ‘he...us’). Some intransitive hortative examples are given in (5).

- (5) a. *ak-ambilya nungkwa-lhangwa-manja mangma akwa madha.*  
 HORT.NEUT-stay.NP2 2.PRO-POSS-LOC VEG.mind and VEG.ear  
 ‘let them [my words(NEUT)] stay in your mind and ears’ (‘Mother’s advice’ j42-3)
- b. *env-lhvka-ja ena-ja abv-nv-ngarre-na*  
 HORT.3m-go-NP2 3m.PRO-CofR HORT.3m-3a-visit-NP2  
 ‘let him go and let him visit them’ (VL1 p.418)
- c. *abv(r)nv-yakeeyi-na ena-ja*  
 HORT.3mdu-marry.NP2 3m.PRO-CofR  
 ‘let the two of them marry’ (VL1 p.419)

One formal difference between the hortative prefixes and inverse order subject forms is that the dual and trial forms for humans can be built for the hortative prefixes, such as *abv-rrv-ng-* [HORT.3a-a-f] ‘3fdu(HORT)’, whereas second order subjects are neutralised for number. As an inverse order subject, the 3a form is *ab-*, which cannot be further specified for number.

First person intransitive hortatives (e.g. ‘let me...’) take realis prefixation:

- (6) *ngarrv-lhvka-ja yirri-yama arakba yirrv-mvrndakv-lhvka*  
 12a-go-NP2 1a-say.P2 compl.act 1a-many-go.P1  
 “‘Let’s go”, we said, and we all went.’ (VL1 p.495)

In sum, the morphological structure of the intransitive realis, imperative and hortative series is quite transparent, consisting of identifiable person-number-gender morphemes, in that order. Number and gender are only specified for non-minimal, first and second person humans. Third person minimal humans are represented by a gender prefix only. Non-human markers have either syncretised with a human marker (e.g. *ying-* represents ‘3f’ and ‘FEM’), or they are similar to a noun class marker (i.e. VEG *nv.m-*, with the possible historical accretion /nə/). The imperative series is built from nominal ‘3a’ prefixes. One departure from this pattern is the minimal form, which has a zero allomorph (the only  $\emptyset$ - intransitive prefix in the language). The hortative series is built from inverse order subject forms, to which number and gender morphemes can be added to create dual and trial. The irrealis series is more opaque, apart from an apparent irrealis marker *k-*.

#### 4.2.2 Transitive paradigms

As in many non-Pama-Nyungan languages, the transitive argument prefixes form complex paradigms with neutralisations, syncretisms, and irregularities for combinations involving first person acting on second or the reverse, and other equipollent prefixes. The full paradigms of the transitive realis and irrealis prefix systems are given in Appendices J and K, respectively. I will focus in this chapter on the individual subject and object morphemes that combine to make up the transitive paradigms.

#### 4.2.2.1 Transitive realis

When not equipollent or involving first or second person minimal objects, the transitive realis prefixes are fairly compositional. The first order forms (i.e. those that rank highest in the person/number/animacy hierarchy) are formally very similar to each other, whether they represent the subject or the object. They are also very similar to the intransitive subject prefixes. Table 4.3 lists the transitive first and second order subject and object forms, together with the intransitive prefixes for comparison. The complete transitive realis paradigm can be found in Appendix J.

| REALIS   | Intr. subject  | Transitive Subject    |                       | Object                |                       |
|----------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|
|          |                | 1 <sup>st</sup> order | 2 <sup>nd</sup> order | 1 <sup>st</sup> order | 2 <sup>nd</sup> order |
| 1        | <i>(nv)ng-</i> | <i>(nv)ng-</i>        |                       | <i>ng-</i>            |                       |
| 1a       | <i>yirr-</i>   | <i>yirr-</i>          |                       | <i>yirr-</i>          |                       |
| 12       | <i>y-</i>      | <i>y-</i>             |                       | <i>yarr-</i>          |                       |
| 12a      | <i>ngarr-</i>  | <i>ngarr-</i>         |                       | <i>ngarr-</i>         |                       |
| 2        | <i>nvngk-</i>  | <i>nvngk-</i>         |                       | <i>ng-</i>            |                       |
| 2a       | <i>kvrr-</i>   | <i>kvrr-</i>          |                       | <i>kvrr-</i>          |                       |
| 3f, FEM  | <i>ying-</i>   | <i>ying-</i>          | <i>ang-</i>           | <i>ying-</i>          | <i>nga-</i>           |
| 3m, MASC | <i>n-</i>      | <i>n-</i>             | <i>en-</i>            | <i>nen-</i>           | <i>n- ~ en-</i>       |
| 3a, COLL | <i>na-</i>     | <i>narr-</i>          | <i>ab-</i>            | <i>narr-</i>          | <i>(a)rra-</i>        |
| VEG      | <i>nvm-</i>    |                       | <i>am-</i>            |                       | <i>ma-</i>            |
| NEUT     | <i>na-</i>     |                       | <i>ak-</i>            |                       | <i>∅-</i>             |

Table 4.3: Intransitive and transitive (non-equipollent) realis morphemes

This table should be read as follows: ‘1<sup>st</sup> order subject’ refers to the direct order of subject outranking the object. When the object outranks the subject in the person/number/animacy hierarchy, it comes in first order (i.e., it precedes the subject prefix). The empty cells for the first and second person categories indicate that these never appear in second order: first and second person humans are highest in the person/number/animacy hierarchy and thus are never outranked, whether they are subject or object. The inanimate VEG and NEUT classes, on the other hand, are lowest in the hierarchy and consequently never appear as first order.

Most non-equipollent prefix combinations can be pieced together from the forms in this table: for example, the combination 2a/3f is expressed by the first order ‘2a’ prefix *kvrr-* plus the second order ‘3f’ prefix *nga-*: *kvrr-nga-* [kəɾəŋa] ‘you...her’ (second person outranks third person). For the reverse combination 3f/2a, we get the first order 2a object *kvrr-* plus second order 3f subject *ang-*, which yields *kvrr-ang* [kəɾaŋ].

As can be seen from the table, the first order transitive subject forms are identical to the intransitive subject forms. The only exception is the ‘3a, COLL’ prefix: this is *na-* when intransitive but *narr-* as a first order transitive subject. The NEUT class object exponent is *∅-*. This is the only zero exponent in the transitive realis paradigm. Consequently, transitive prefixes with a NEUT class

object are identical to intransitive prefixes, with the exception of ‘3a, COLL’ subjects (intransitive *na-*, but with NEUT class object *narr-*). (In Wubuy, the transitive paradigm with a NEUT class object is identical to the intransitive paradigm; see Heath 1984.)

In a number of Gunwinyguan languages, including Wubuy, Ngandi, Ngalakgan and BGW, an ‘Inverse’ (Inv) morpheme is inserted between the object and the subject marker when the object outranks the subject. This is most often a nasal consonant (but in Ngandi it is *-ku-*). For example, while 1/3m is expressed morphemically as 1-3m (e.g. Wubuy *nga-nu-*, Ngandi *nga-nu-*), 3m/1 is expressed as 1-Inv-3m (Wubuy *nga-[N]-ni-*<sup>7</sup>, Ngandi *nga-ku-ni-*) (Heath 1997). Enindhilyakwa does not have any obvious morpheme that marks inverse orders. Instead, the language displays minor allomorphic specialisations in the inverse prefixes. For example, the direct 1/3m combination is *(nv)ng-en-* [1-3m], whereas the inverse combination 3m/1 is *ngv-n-* [1.O-3m.S]. Heath (n.d., 1997) proposes that, even though no consistent inverse morpheme can be identified in Enindhilyakwa, the inverse complexes in this language can be derived from a Wubuy-like proto-system, involving an unspecified nasal inverse morpheme *-N-*. Space and time limitations prevent me from discussing this important proposal here, but it is summarised in Appendix L.

The prefixes that are not composable of the forms in Table 4.3 above include equipollent prefixes, where the subject and the object are in the same hierarchical class (e.g. combinations of 1<sup>st</sup> and 2<sup>nd</sup> person). The irregular prefix forms are presented in Table 4.4.

| S \ O       | 1            | 1a           | 12 | 12a | 2                                | 2a                               | 3f,<br>FEM    | 3m,<br>MASC                       | 3a,<br>COLL                       | VEG                       | NEUT |
|-------------|--------------|--------------|----|-----|----------------------------------|----------------------------------|---------------|-----------------------------------|-----------------------------------|---------------------------|------|
| 1           |              |              |    |     | <i>yirra-</i>                    | <i>ngarra-</i>                   |               |                                   |                                   |                           |      |
| 1a          |              |              |    |     | <i>ngarra-</i><br><i>~yirra-</i> | <i>ngarra-</i><br><i>~yirra-</i> |               | <i>yin-</i>                       | <i>yirra-</i>                     |                           |      |
| 12          |              |              |    |     |                                  |                                  | <i>yanga-</i> |                                   |                                   |                           |      |
| 12a         |              |              |    |     |                                  |                                  |               | <i>ngen-</i>                      | <i>ngarra-</i>                    |                           |      |
| 2           | <i>y-</i>    | <i>yirr-</i> |    |     |                                  |                                  |               |                                   |                                   |                           |      |
| 2a          | <i>yirr-</i> | <i>yirr-</i> |    |     |                                  |                                  |               |                                   | <i>kvrra-</i>                     |                           |      |
| 3f,<br>FEM  | <i>ng-</i>   |              |    |     | <i>ng-</i>                       |                                  | <i>nanga-</i> |                                   | <i>narrv-</i><br><i>nga-</i>      |                           |      |
| 3m,<br>MASC | <i>ngvn-</i> |              |    |     | <i>ngvn-</i>                     |                                  |               | <i>(nen-)</i><br><i>~ n-</i>      | <i>(narren-)</i><br><i>~ nen-</i> |                           |      |
| 3a,<br>COLL | <i>b-</i>    |              |    |     | <i>b-</i>                        |                                  |               | <i>(narren-)</i><br><i>~ nen-</i> | <i>narra-</i>                     |                           |      |
| VEG         |              |              |    |     |                                  |                                  |               |                                   |                                   | <i>na- /</i> <u>  </u> C  |      |
| NEUT        | <i>k-</i>    |              |    |     | <i>k-</i>                        |                                  |               |                                   |                                   | <i>nuw- /</i> <u>  </u> V |      |

Table 4.4: Irregular transitive realis prefixes

<sup>7</sup> The Wubuy Inverse morpheme is *-N-*, an underspecified nasal consonant, which happens to be deleted in the 3m/1 prefix (as indicated by the square brackets).

This table should be read as follows: the shaded cells denote semantically impossible combinations (e.g. first person acting on first person is expressed by a reflexive verb, which is morphologically intransitive). The empty cells represent prefixes that can be pieced together from the morphemes in Table 4.3, while the filled cells are irregular prefixes that are not composed of these morphemes. When one variant of a prefix is given in parentheses, this is a composable (regular) form.

The irregular prefixes can be subdivided into three categories: (i) equipollent, (ii) 1<sup>st</sup> and 2<sup>nd</sup> minimal objects, (iii) some forms with human 3<sup>rd</sup> person objects. The (i) and (ii) categories do not have separate exponence for both participants, whereas the forms in (iii) may be phonologically shortened forms. The equipollent combinations of second person acting on first are represented by intransitive prefixes: the ‘2/1’ prefix *y-* is the same as the intransitive ‘12’ (1 inclusive minimal) prefix. The prefix *yirr-* that represents other second person acting on first combinations, is identical to the intransitive ‘1a’ (1 augmented) prefix. The combinations of first person acting on second use transitive prefixes involving a third person augmented object. The ‘1/2’ prefix *yirra-* (which also represents one allomorph of the combinations ‘1a/2’ and ‘1a/2a’), is identical to the combination ‘1a/3a’. The prefix *ngarra-*, which represents ‘1/2a’ (and one allomorph of ‘1a/2’ and ‘1a/2a’), is identical to the combination ‘12a/3a’. The equipollent prefixes involving VEG and NEUT participants are expressed by intransitive NEUT prefixes: *na-* before consonants and *nuw-* before vowels.

The equipollent combinations involving 3 human forms do seem to have separate exponence for both participants, but the combinations are phonologically altered. For example, the 3m/3f prefix *nanga-* diverges slightly from the expected form *nv-nga-*. The equipollent prefix 3a/3a *narra-* can be seen as a shortened version of the regular form *narrarra-* (Leeding 1989). Other forms involving 3<sup>rd</sup> person humans are syncretised: the prefix 3f/3f, for example, is not the expected *yingv-nga-*, but homophonous with 3m/3f *nanga-*.

Finally, there is complete syncretism of forms with 1<sup>st</sup> and 2<sup>nd</sup> person minimal objects. These combinations often do not have exponence for both participants: for example, 3f/1 is expressed as *ng-* [1.O]. The 3m/1 and 3m/2 combinations do have exponence for both participants, but with some phonological change: the form is *ngv-n-* [1.O-3m.S], rather than *ng-en-*. And others are portmanteaux forms, such as NEUT/2 as *k-*.<sup>8</sup>

Other neutralisations not shown in this section, but that can be seen in the full paradigm in Appendix J are: neutralisation of gender for all object forms, except the third person human

<sup>8</sup> Several Gunwinyguan languages, such as Ngalakgan and Ngandi, employ *ku-* as a NEUT noun class pronominal prefix, as do many other non-Pama-Nyungan languages outside Gunwinyguan, making it likely that this is an archaic feature (Evans 2003a: 416, fn10). The Wubuy NEUT pronominal prefix *wu-* ~ *ku-* also reflects *\*ku-*. Diachronically, then, this irregular form in Enindhilyakwa may be a residue of an old NEUT class prefix. See Appendix L.

minimal (recall that these are represented by a gender morpheme only). Person and number are neutralised for all second order forms, whether they are subject or object. An exception is ‘3a, COLL’, which is represented as the number morpheme (*a*)*rra-* as a second order object in some combinations (e.g. *nvng-arra-* [1-3a] ‘I...them’). The second order ‘3a, COLL’ subject form *ab-* is idiosyncratic and occurs in no other prefix combination. A formally similar prefix is however very common in non-Pama-Nyungan (nPN) languages for the third person non-minimal form. Harvey (2003b) reconstructs *\*bV-* ‘3 non-minimal’ for proto-nPN.

#### 4.2.2.2 Transitive irrealis

In the irrealis series the first order subject and first order object forms are very similar to each other, and to intransitive subjects. Second order subjects and objects are identical to those in the realis series, except for the absence of the ‘3a, COLL’ allomorph (*a*)*rra-*. Table 4.5 lists the transitive first and second order subject and object forms, together with the intransitive prefixes for comparison. The full transitive irrealis paradigm is presented in Appendix K.

| IRREALIS | Intr. subject | Transitive Subject    |                       | Object                |                       |
|----------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
|          |               | 1 <sup>st</sup> order | 2 <sup>nd</sup> order | 1 <sup>st</sup> order | 2 <sup>nd</sup> order |
| 1        | <i>k-</i>     | <i>k-</i>             |                       | <i>k-</i>             |                       |
| 1a       | <i>yik-</i>   | <i>yik-</i>           |                       | <i>yik-</i>           |                       |
| 12       | <i>yak-</i>   | <i>yak-</i>           |                       | <i>yak-</i>           |                       |
| 12a      | <i>ak-</i>    | <i>ak-</i>            |                       | <i>ak-</i>            |                       |
| 2        | <i>k-</i>     | <i>k-</i>             |                       | <i>k-</i>             |                       |
| 2a       | <i>yik-</i>   | <i>yik-</i>           |                       | <i>yik-</i>           |                       |
| 3f, FEM  | <i>kvng-</i>  | <i>kvng-</i>          | <i>ang-</i>           | <i>kvng-</i>          | <i>nga-</i>           |
| 3m, MASC | <i>kvn-</i>   | <i>kvn-</i>           | <i>en-</i>            | <i>ken-</i>           | <i>n- ~ en-</i>       |
| 3a, COLL | <i>ka-</i>    | <i>karr-</i>          | <i>ab-</i>            | <i>karr-</i>          | <i>a-</i>             |
| VEG      | <i>kvm-</i>   |                       | <i>am-</i>            |                       | <i>ma-</i>            |
| NEUT     | <i>ka-</i>    |                       | <i>ak-</i>            |                       | <i>Ø-</i>             |

Table 4.5: Intransitive and transitive irrealis morphemes

This table should be read in the same way as Table 4.3: ‘1<sup>st</sup> order subject’ refers to the direct order of subject outranking object. First and second person never come in second order, as indicated by the empty cells. The inanimate VEG and NEUT classes never appear as first order forms.

Most irrealis prefix combinations can be pieced together from the forms in this table: for example, the combination 2a/3f is expressed by the first order 2a subject prefix *yik-* plus the second order 3f object form *nga-*: *yik-nga-* [jikəŋa]. For the reverse combination 3f/2a, we get the first order object prefix *yik-* plus the second order 3f subject prefix *ang-*: *yik-ang-* [jikan].

The irrealis paradigm displays both more syncretism and more regularity than the realis paradigm. There is complete syncretism between 1 and 2 subject forms (e.g. *kv-ma-* is IRR.1/VEG and IRR.2/VEG), as well as between 1a and 2a subject forms (e.g. *yikv-ma-* is IRR.1a/VEG and

IRR.2a/VEG). There is also complete syncretism between 1 and 2 object forms (e.g. *k-am-* is IRR.VEG/1 and IRR.VEG/2), as well as between 1a and 2a object forms (e.g. *yik-am-* is IRR.VEG/1a and IRR.VEG/2a). In the realis paradigm only 1 and 2 object forms were syncretised.

Whereas in the realis paradigm the combinations with 1<sup>st</sup> and 2<sup>nd</sup> person objects were irregular forms, in the irrealis paradigm they are composable of the forms in Table 4.5: for example, 3a/1 is regular *k-ab-* [1.O-3a.S], and 3f/2 is *k-ang-* [2.O-3f.S]. Other equipollent prefixes involving 3<sup>rd</sup> person humans are also regular, such as 3f/3m, which is *kvngv-n-* [3f-3m] (with epenthetic schwa between the two prefixes). The combination 3m/3f is also regular *kvnv-nga-* [3m-3f].

As for the realis series, the first order transitive irrealis subject forms are identical to the intransitive subject forms, with the exception of the ‘3a, COLL’ prefix: intransitive subject *ka-* but first order transitive subject *karr-*. Again, the NEUT class object exponent is  $\emptyset$ -, and the transitive prefixes with a NEUT class object are identical to intransitive prefixes (with the exception of ‘3a, COLL’ subjects).

The prefixes that are not composable of the forms in Table 4.5 above are presented in Table 4.6.

| S \ O       | 1           | 1a | 12 | 12a | 2                                       | 2a | 3f,<br>FEM | 3m,<br>MASC | 3a, COLL                          | VEG                         | NEUT |
|-------------|-------------|----|----|-----|---|----|------------|-------------|-----------------------------------|-----------------------------|------|
| 1           |             |    |    |     | <i>yiba-</i> ~<br><i>yika-</i>          |    |            |             |                                   |                             |      |
| 1a          |             |    |    |     | <i>ka-</i> ~ <i>yika</i> ~ <i>yiba-</i> |    |            |             |                                   |                             |      |
| 12          |             |    |    |     |   |    |            |             |                                   |                             |      |
| 12a         |             |    |    |     |   |    |            |             |                                   |                             |      |
| 2           | <i>yik-</i> |    |    |     |   |    |            |             |                                   |                             |      |
| 2a          |             |    |    |     |   |    |            |             |                                   |                             |      |
| 3f,<br>FEM  |             |    |    |     |   |    |            |             | <i>karrvnga-</i>                  |                             |      |
| 3m,<br>MASC |             |    |    |     |   |    |            | <i>ken-</i> | ( <i>karren-</i> )<br><i>ken-</i> |                             |      |
| 3a,<br>COLL |             |    |    |     |   |    |            |             |                                   |                             |      |
| VEG         |             |    |    |     |   |    |            |             |                                   | <i>ka-</i> / <u>    </u> C  |      |
| NEUT        |             |    |    |     |   |    |            |             |                                   | <i>kuw-</i> / <u>    </u> V |      |

Table 4.6: Irregular transitive irrealis prefixes

The empty cells represent the prefixes that can be pieced together from the forms given in Table 4.5. The irregular prefixes can be subdivided into two categories: (i) equipollent, and (ii) some forms with 3a object. The number of irregular forms is substantially lower in the irrealis paradigm than in the realis paradigm.

### 4.2.2.3 Transitive imperative

The morphological structure of transitive imperative prefixes is almost fully compositional: the transitive subject forms are identical to those of the intransitive imperative, and the object forms are identical to realis and irrealis second order object forms. Table 4.7 presents the paradigms (adjusted from Leeding 1989).

| S \ O | 1, 1a    | 3m / MASC           | 3f / FEM               | 3a / COLL     | VEG                   | NEUT                      |
|-------|----------|---------------------|------------------------|---------------|-----------------------|---------------------------|
| 2     | = REALIS | <i>n-</i>           | <i>nga-</i>            | <i>wurr-</i>  | <i>ma-</i>            | $\emptyset$ - ~ <i>w-</i> |
| 2a    |          | <i>wun-</i>         | <i>wurrvnga-</i>       | <i>wurra-</i> | <i>wurrvma-</i>       | <i>wurr-</i>              |
| 2fdu  |          | <i>wungvn-</i>      |                        |               | <i>wu(rrv)ngvma-</i>  | <i>wu(rrv)ng-</i>         |
| 2mdu  |          | <i>wun-</i>         | <i>wunvnga-</i>        |               | <i>wunvma-</i>        | <i>wun-</i>               |
| 2tri  |          | <i>wu(rrv)bvkv-</i> | <i>wu(rrv)bvkvnga-</i> |               | <i>wu(rrv)bvkvma-</i> | <i>wu(rrv)bvkv-</i>       |

Table 4.7: Transitive imperative paradigm

The only irregularity involves 2<sup>nd</sup> person subjects, which mostly have a zero exponent (e.g. 2/3m is *n-* [3m.O]). Since the NEUT object exponent is also zero, this can result in a zero 2/NEUT transitive prefix (the only phonologically null transitive prefix in the language). The combination 2/3a is also irregular and is identical to the intransitive 2a imperative prefix. Some examples of transitive imperatives are:

- (7) a. *Wurrv-nga-rrvngkv-na dh-aka dhadhvkuwarrkuwarrka dh-abarda.*  
 IMP.2a-FEM-see-NP2 FEM-that FEM.spider FEM-dangerous  
 ‘Look at that dangerous spider!’ (VL1 p.410)
- b. *Wu-mi-ya bangkilya akwa ridhi-ya ena eeka.*  
 IMP.2/NEUT-take-NP1 axe(NEUT) and IMP.2/NEUT.chop-NP1 NEUT.this NEUT.tree  
 ‘Take the axe and chop down the tree!’ (VL1 p.413)
- c. *ma-lhvngajirra-ka m-akina merra*  
 IMP.2/VEG-long-CAUS.NP1 VEG-this VEG.rope  
 ‘stretch the rope!’ (anin4\_mm\_au\_002)

Imperatives with first person objects take realis prefixation (Leeding 1989). Furthermore, the negated non-past form also covers the negated imperative, as illustrated in (8).

- (8) *Nara a-lyang-barrv-ma nvng-ena arvngka-manja vmba yu-wardi-ya*  
 NEG NEGNP-head-hit-NP3 1-that NEUT.head-LOC but 2/1-hit-NP1  
*mambangbvr-ra-manja.*  
 VEG.tailbone-LOC  
 ‘Don’t hit me on the head but hit me on my tailbone!’ (‘Seagull and Pheasant’ u51-2)

The first verb *a-lyang-barrv-ma* is in the negated non-past, which is interpreted here as a negated imperative; the second verb *yu-wardi-ya* is a realis form that is interpreted as a positive imperative.

#### 4.2.2.4 Transitive hortative

The structure of the transitive hortative series is almost fully compositional (apart from a few neutralisations): the subject morphemes are identical to the intransitive hortative subject forms, and the object morphemes are identical to (realis and irrealis) second order object forms. Table 4.8 presents the paradigm (adjusted from Leeding 1989).

|           | 1, 12,<br>1a,12a | 2 | 3m / MASC                 | 3f / FEM                    | 3a / COLL        | VEG                        | NEUT              |
|-----------|------------------|---|---------------------------|-----------------------------|------------------|----------------------------|-------------------|
| 1         | -                |   | = REALIS                  |                             |                  |                            |                   |
| 3m / MASC | = IRREALIS       |   | <i>en-</i>                | <i>envnga-</i>              | <i>abvn-</i>     | <i>envma-</i>              | <i>en-</i>        |
| 3f / FEM  |                  |   | <i>angvn-</i>             |                             | <i>abvrrvng-</i> | <i>angvma-</i>             | <i>ang-</i>       |
| VEG       |                  |   | <i>enam-</i>              | <i>angam-</i>               | <i>abvrram-</i>  | <i>angak-</i>              |                   |
| NEUT      |                  |   | <i>enak-</i>              | <i>angak-</i>               | <i>abvrrak-</i>  |                            |                   |
| 3a / COLL |                  |   | <i>abvn-</i>              | <i>abvrrvnga-</i>           | <i>abvrra-</i>   | <i>abvrrvma-</i>           | <i>abvrr-</i>     |
| 3fdu      |                  |   | <i>abvrrv-<br/>ngvn-</i>  | <i>abvrvnga-</i>            |                  | <i>abvrrv-<br/>ngvma-</i>  | <i>abvrrvng-</i>  |
| 3mdu      |                  |   | <i>abvrvn-</i>            |                             |                  | <i>abvrvma-</i>            | <i>abvn-</i>      |
| 3tri      |                  |   | <i>abvrrv-<br/>bukun-</i> | <i>abvrrv-<br/>bukunga-</i> |                  | <i>abvrrv-<br/>bukuma-</i> | <i>abvrrvbuk-</i> |

Table 4.8: Transitive hortative paradigm

To illustrate the compositionality of these combinations: NEUT/3m is expressed as *en-ak-* [3m.O-NEUT.S], and 3a/3f *abvrrv-nga-* [3a-3f]. The forms with ‘3a’ and ‘3mdu’ subjects are shortened, which Leeding attributes to haplology: e.g. the 3a/3m form *abv-n-* [3a-3m] is derived from *abvrrv-n-* through haplology. The equipollent combinations with the inanimate noun classes is irregular and homophonous with NEUT/3f (Leeding 1989: 418). Some transitive hortative examples are:

- (9) a. *abvrrv-nga-mamvrvkaji-na ngalha-ja*  
 HORT.3a-3f-help-NP2      3f.PRO-COFR  
 ‘let them help her’ (VL1 p.418)
- b. *angv-nv-ngaji-na enuwa-manja*  
 HORT.3f-3m-hit-NP2      3m.PRO-LOC  
 ‘let her hit him’ (VL1 p. 418)

Transitive hortatives with first or second person objects take irrealis prefixation (Leeding 1989), as illustrated in (10). Hortatives with a first person minimal subject and a third person object, on the other hand, take realis prefixation, as shown in (11).

- (10) *Ngayamba-lhangwa yiba-lyang-barri-ya-lhangwa arvngka-manja.*  
 1.?-ABL      IRR.1/2-head-hit-NP1-ABL      NEUT.head-LOC  
 ‘In my turn, let me hit you on the head.’ (‘Seagull and Pheasant’ u49)  
 (Or: ‘In my turn, I will hit you on the head’)

- (11) a. *Ngv-nga-makv-na-ma Judie mvnhvnga kvngu-ngurrkwa-ja-mv-lhangwa.*  
 1-3f-tell-NP2-ma J. VEG.burrawang IRR.3f-collect-NP2-ma-ABL  
 ‘Let me tell Judie about collecting burrawang.’ (‘Burrawang’ o1)  
 (Or: ‘I am telling Judie about collecting burrawang.’)
- b. “*Arakba ngarrv-lhvka-ja-ma ngarna, ngarrv-lhvka-ja-ma ngarrv-m-arddhvrre-na-ma*  
 now 12a-go-NP2-ma 12a.that 12a-go-NP2-ma 12a-VEG-spear-NP2-ma  
*makarda m-akina*”, *ne-yama wurr-akina.*  
 VEG.sea VEG-that 3a-say.PST 3a-that  
 “‘Let’s go, let’s go and let’s spear the sea”, they said.’ (‘Chasm Island’ 2-5)  
 (Or: ‘We are going, we are going and we are spearing the sea.’)

A hortative reading and a future reading, as in (10), are semantically and pragmatically very close, so it is conceivable that these meanings are expressed by the same forms. However, a hortative reading, which expresses an event that has not yet been realised, is harder to reconcile with a present tense reading, as in the examples in (11). Context has to determine which reading is intended in this case.

#### 4.2.3 Person-number-animacy hierarchy

All previous researchers observed that the order of the subject and object prefixes is governed by person, number and animacy factors (a hierarchical ordering of bound pronominals is common in Australia [e.g. Blake 1987]). First and second person are highest on the hierarchy, augmented number outranks minimal number, and the non-human noun classes are at the bottom of the hierarchy. The following (a) examples illustrate the direct order of subjects preceding objects, while (b) exemplify inverse orders when the object outranks the subject.

- (12) a. *nvng-env-rrvngka*  
 1-3m-see.PST  
 ‘I saw him’
- b. *ngv-nv-rrvngka*  
 1.O-3m.S-see.PST  
 ‘he saw me’
- (13) a. *narr-env-rrvngka*  
 3a-3m-see.PST  
 ‘they saw him’
- b. *wurrv-ba warnvmamalya narr-env-rrvngka?*  
 3a-any 3a.people 3a.O-3m.S-see.PST  
 ‘did he see any people?’ (VL1 p.347)
- (14) a. *yingv-ma-rrvngkv-nv-ma mangiyuwanga*  
 3f-VEG-see-P2-ma VEG.shark  
 ‘she was looking at the shark’ (VL1 p.379)
- b. *yinga-mv-rrvngv-nv-ma mangiyuwanga*  
 3f.O-VEG.S-see-P2-ma VEG.shark  
 ‘the shark was looking at her’ (VL1 p.379)

These examples show the minor allomorphic variation that occurs in some inverse complexes, such as *yingvma-* ‘3f/VEG’ vs. *yingam-* ‘VEG/3f’ in (14). Other combinations are ambiguous, such as *narren-* in (13), which can represent direct ‘3a/3m’ as well as inverse ‘3m/3a’.

The hierarchy was stated above as follows: 1, 2 > human 3a > human 3 > non-human. However, the situation becomes a bit muddled when nouns belonging to the ‘animate’ FEM, MASC and COLL classes are involved. These classes are represented by the same prefixes as human 3f, 3m and 3a, respectively. The question is, what happens when a non-human ‘animate’ acts on a human, for instance when a snake(MASC) bites a girl(3f): does human outrank non-human, or does the MASC subject precede the 3f object (as the 3m morpheme would)?

There does not appear to be a straightforward answer to this question: the previous authors posit different prefix combinations for such cases, the data show a range of options, and speakers themselves are unsure which combination to use. When I tried to elicit ‘the snake(MASC) bit the girl(3f)’ my informant first produced the structure in (15a), but then said “hang on...” and changed it to (15b).

- (15) a. *yingarna yingv-n-anga-ma dh-adhiyara-manja*  
 MASC.snake 3f.O-MASC.S-bite.PST-*ma* 3f-girl-LOC  
 b. *na-ng-anga-ma dh-adhiyara-manja*  
 MASC-3f-bite.PST-*ma* 3f-girl-LOC (anin4\_mm\_au\_002)

Eventually she decided, after discussing it with another speaker, that (15a) was the best option, with the human object outranking the non-human subject. Yet in Leeding’s (1989) and Waddy’s (n.d.) material, MASC/3f is expressed as *nanga-*, as in (15b), with the non-human subject occurring as first order. To make things more complicated, according to Heath the MASC/3f prefix is *yingak-*, showing neutralisation with the NEUT/3f form.

This confusion does not occur when the subject is FEM class: in all accounts this occurs as a *first* order subject when combined with a human object. My informants also did not hesitate about this:

- (16) a. *dhingarrbiya yingv-n-anga-ma n-enungkwarba(-manja)*  
 FEM.crocodile FEM-3m-bite.PST-*ma* 3m-man(-LOC)  
 ‘the crocodile bit the boy’ (anin4\_mm\_au\_002)  
 b. *yingv-nv-dhadhv-ma*  
 FEM-3m-poke.P1-*ma*  
 ‘the cockatoo [*dhuwedhvrra*(FEM)] poked the boy’ (anin4\_mm\_au\_002)

To summarise so far, MASC subjects may or may not precede human minimal objects, whereas FEM subjects always seem to precede human minimal objects.

Nominals belonging to the COLL class, which take the same argument prefix as human 3a, seem to always outrank third person minimal morphemes, whether these are humans, as in (17a), or non-humans (17b).

- (17) a. *narrv-nga-rrvngka wurruweba dh-akina*  
 COLL.O-3f.S-see.PST COLL.parrot 3f-that  
 ‘she saw the parrot’ (LL Book 5 p.15)
- b. *wurr-akina wurru-wilyaba-manja narrv-nga-mvrndak-ararika-ma dh-akina*  
 COLL-that COLL-one-LOC COLL.O-FEM.S-all-coil.around.PST-*ma* FEM-that  
 ‘it [snake(FEM)] was coiled all around one [dog(COLL)]’ (‘Snake and Dogs’)

A more accurate version of the hierarchy is therefore as follows:

- (18) 1, 2 > 3a, COLL > 3, FEM (MASC) > VEG, NEUT (MASC)

The ambivalent behaviour of MASC nouns is also observed by Heath (n.d.), who lines up MASC sometimes with 3m, and sometimes with the inanimate classes.

When both arguments of the verb belong to the ‘inanimate’ VEG or NEUT classes the prefix is neutralised to *na-* (realis) or *ka-* (irrealis), which is the same prefix as the intransitive ‘3a, COLL’ and NEUT classes.

- (19) a. *arrvrra na-warri-ji-na-ma dhymbala lain-manja*  
 NEUT.wind NEUT/VEG-move-CAUS-NP2-*ma* clothes(VEG) line-LOC  
 ‘the wind made the clothes move on the line’ (anin4\_mm\_002)
- b. *ka-ngaji-na-ma*  
 INAN/INAN-kill-NP2-*ma*  
 ‘the fish(NEUT) will kill the shark(VEG)’ or ‘the shark(VEG) will kill the fish(NEUT)’  
 (VL1 p.383)

As mentioned above, the transitive hortative combination with NEUT and VEG participants has syncretised with the hortative NEUT/3f form according to Leeding (1989). However, there are no data available to test this claim.

### 4.3 The morphosyntactic status of argument prefixes

A defining characteristic of polysynthetic languages is the presence of affixes on the verb that encode information about some or all arguments of the verb. There has been extensive debate in the literature on whether these argument-marking affixes constitute the ‘real’ arguments of the clause, with external NPs functioning as adjuncts, or whether they merely *agree* with the external nominal arguments (see Nordlinger 1998 for a comprehensive overview of this debate). The ‘pronominal argument’ model (e.g. Jelinek 1984; M. Baker 1991, 1996) claims that the bound pronominals are the true exponents of the verb’s arguments, with any free nominals being co-referential adjuncts. According to this model, the intriguing and well-known properties of non-

configurational languages as first identified by Hale (1983) - free word order, null anaphora and discontinuous NPs - are derived from a single source: the presence of bound pronominal anaphors. Due to their obligatory nature, the pronominals fill the argument positions of the verb, and the external nominals can be freely omitted ('null anaphora'). The analysis of free nominals as adjuncts can account for their free order and discontinuity, as adjuncts are known to have freer ordering possibilities than arguments, and they are iterable (Nordlinger 1998: 34-5). This way, non-configurational languages can be assimilated to the configurational model, which is desirable because of its theoretic economy and explanatory elegance.

However, subsequent work has shown that the pronominal argument approach is not the right analysis for some Australian languages (Simpson 1991; Austin & Bresnan 1996; Nordlinger 1998; Evans 2002; B. Baker 2002). First of all, the non-configurational properties are in fact independent of each other, so they cannot be traced back to a single source. For example, Austin & Bresnan (1996), citing Pensalfini (1992), note there is no correlation between discontinuous NPs and free word order. Kayardild, for example, has very free word order but does not normally allow discontinuous NPs (Nordlinger 1998, citing Evans 1995). In addition, Austin & Bresnan (1996: 259ff) show that bound pronouns are an *areal* feature in Australia: languages that realise the pronominal indices as prefixes are restricted to the far north, whereas languages that realise them as suffixes constitute two major blocks in the south-east and central-west. Many languages do not have bound pronouns at all, but do show non-configurational properties. The presence of bound pronominals is therefore independent of other syntactic or morphological characteristics.

In addition, there is extensive empirical evidence against the analysis of overt nominals as adjuncts, and of bound pronominals only acting as arguments (see Nordlinger 1998 for an overview). This evidence includes: (i) some subcategorised arguments are never registered on the verb, which in the 'pronominal argument' model would result in them not being represented anywhere; (ii) verbal prefixes provide person and number information, but they remain non-committal about reference and definiteness. Therefore, in order to obtain a full referring expression, external material needs to be more tightly integrated than treating it as an adjunct (Evans 2002). Both features are examined in the following two sections, which lean heavily on Evans' (2002) and B. Baker's (2002) reasoning against treating verbal prefixes in Bininj Gun-Wok and Ngalakgan as the sole exponents of the verb's arguments.

#### **4.3.1 Unregistered arguments**

Pronominal prefixes on the verb in Enindhilyakwa register up to two arguments of the verb. Consequently, for verbs with more than two arguments, one fails to be represented and can only occur as a free nominal. Some morphologically intransitive verbs subcategorise for two arguments,

but register only one of these, while the other argument appears as a free nominal. Such verbs include semi-transitive verbs, cognate object verbs and others that are treated as not fully transitive in the grammar.

The above cases are discussed here in turn, beginning with examples of ditransitive verbs.

- (20) a. ...*akena narra-mu-kwa-ma ekbarra.*  
 but 3a.O-VEG.S-give.PST-*ma* NEUT.headache  
 ‘...but it [*mayukwarra* ‘VEG.mauve convolvulus’] gave them a headache.’ (GED p.57)
- b. *ngayuwa ngv-nu-wilyakaju-wa doctor nganyangwa yinungurnda*  
 1.PRO 1-3m-show-P2 " 1.PRO.POSS MASC.scar  
 ‘I showed the doctor my scar’ (anin4\_dl\_au\_003)
- c. *yirre-nv-maka-mvrra ena alhawudhawarra akina*  
 1a.O-3m.S-tell.PST-*ma* NEUT.this NEUT.story NEUT.that  
 ‘he told us this story’ (‘Snake and Dogs’)

In these examples the theme argument fails to be registered on the verb, as the object slot is filled by the recipient argument.

Similarly, when the benefactive applicative introduces an argument to the verb, the new argument is represented by the object prefix on the verb; the former direct object now occurs as a free nominal (see also section 4.5 below).

- (21) a. *nv-ma-mukulharri-ju-wa merra*  
 3m-VEG-flow-CAUS-P2 VEG.blood  
 ‘he shed his blood’
- b. *kvrr-enu-mvvnv-mukulharri-ju-wa merra*  
 2a.O-3m.S-BENE-flow-CAUS-P2 VEG.blood  
 ‘he shed his blood for you’ (Ansec2)

The direct object argument is registered on the verb in (21a), but not in (21b), as the object slot is now occupied by the introduced beneficiary argument.

Semi-transitive verbs such as intentional verbs provide further examples of unregistered arguments. The subcategorised object is not cross-referenced on the verb but expressed as an overt nominal in ALL case, as in (22a). The example in (22b) shows that this nominal can become a real, registered, argument of the verb by means of the BENE applicative. The free nominal then is no longer marked with ALL case. The use of ALL case on subcategorised arguments of the verb is investigated further in sections 8.2 and 8.6.

- (22) a. *ying-andheeyv-ma m-akinu-wa menungkwa*  
 FEM-look.for.P2-*ma* VEG-that-ALL VEG.spear  
 ‘they (*dhukururrkwa* ‘FEM.brolga’) looked for those spears’ (‘Brolga’ q77)
- b. *yingv-ma-mvn-andheeyv-ma ma-mvrndak-ibina menungkwa*  
 FEM-VEG-BENE-look.for.P2-*ma* VEG-many-that VEG.spear  
 ‘they (*dhukururrkwa* ‘FEM.brolga’) looked for those spears’ (‘Brolga’ q69)

Cognate object verbs constitute another case of unregistered arguments. These verbs are morphologically intransitive, but take an external (cognate) direct object nominal. Examples include ‘eat’, ‘drink’, ‘vomit’, ‘sleep’, ‘argue’, ‘sing’, ‘speak’, ‘dig’. Some are illustrated below.

- (23) a. *Wurru-kwalha warnvmamalya nuw-alyvbarv-nv-ma yi-nv-m-adhangkwa.*  
 3a-some 3a.people 3a-eat-P2-*ma* MASC-m-INALP-meat  
 ‘Some people used to eat the meat [of *yelyuwarra* ‘MASC.sugar glider’].’ (GED p.64)
- b. *ne-beki-nv-ma m-akina ma-m-alyirra*  
 3a-drink-P2-*ma* VEG-that VEG-INALP-liquid  
 ‘they drank the liquid (of *marrvngmvrnv-mvrna* ‘VEG.quinine bush’)’ (GED p.7)
- c. *n-errekbi-na-ma n-akina erra*  
 3m-vomit-NP2-*ma* 3m-that NEUT.vomit  
 ‘He is vomiting.’ (anin2\_em\_au\_002)
- d. *nv-mungkulha-ma marrvnga*  
 3m-sleep.NP2-*ma* VEG.sleep  
 ‘He is sleeping.’ (anin2\_em\_au\_002)

Austin (1982) describes cognate object verbs for dependent-marking Australian languages and notes that their complements have the morphosyntactic properties of a transitive object (i.e. marked with absolutive case), whereas their subject is case-marked like an intransitive subject (i.e. also with absolutive case). This pattern is comparable to Enindhilyakwa, where the subject argument is represented on the verb as an intransitive subject, while the external cognate object is treated as a regular argument of the verb, as it is caseless. Austin claims that these facts can be accounted for by the transitivity continuum proposed by Hopper & Thompson (1980), where transitivity depends on a set of components, such as individuation, definiteness, affectedness, and so on. Non-individuated objects are inanimate, mass, and abstract, amongst others, and they are low on the transitivity scale. Cognate objects are low in individuation, and they are rather indistinct from their own background. Therefore, we might expect that clauses containing them are not fully transitive (Austin 1982: 46), which in Enindhilyakwa translates into cognate objects not being represented on the verb.

There are some other verbs that take intransitive prefixation, even though their subcategorised objects may be highly individuated on Hopper & Thompson’s (1980) scale. These verbs include ‘hear’ and ‘like’, whose objects can be human, singular, and referential, but which nonetheless are always morphologically intransitive.

- (24) a. *ngayuwa nvng-engkirra-ja-ma nungkuwa*  
 1.PRO 1-hear-NP2-*ma* 2.PRO  
 ‘I hear you’ (anin4\_dl\_au\_003)
- b. *nvngi-lyelyingmi-na-ma enuwa*  
 1-like-NP2-*ma* 3m.PRO  
 ‘I like him’ (anin1\_em\_au\_002)

In these cases, however, the object of the verb is unaffected by the action of the verb, which may be why it scores low on Hopper & Thompson's transitivity scale. The lack of affectedness of the object may explain why the clause is not fully transitive.

As the above examples show, it is possible for subcategorised arguments of the verb to not be registered on the verb.<sup>9</sup> If the overt nominals were adjuncts, as is required by the pronominal argument model, there would be nothing to fulfil their argument function: it cannot be the external nominal, as this is an adjunct, and the prefix slot is filled either by a different argument (in the case of ditransitive verbs), or it is non-existent (in the case of morphologically intransitive verbs with overt object nominals). Thus, at least in the above cases, the overt nominals themselves must be fulfilling the argument function (see Simpson 1991 and Nordlinger 1998 for similar arguments in Warlpiri and Wambaya, respectively).

#### 4.3.2 Interaction of argument prefixes with definiteness

The previous section investigated the consequences of the hypothesis that external nominals are adjuncts - as assumed in the pronominal argument model - and concluded that this does not hold true for Enindhilyakwa. Evans (2002) explores the consequences of the requirement that the bound pronominal affixes represent the arguments of the verb, for Bininj Gun-Wok. He demonstrates that object prefixes in Bininj Gun-Wok can be used in different ways from pronouns in languages like English, in that they can be used in non-referential contexts: they may have generic, indefinite and unspecified readings. Evans (2002) claims that they are therefore better analysed as agreement markers. However, in the absence of an external nominal, verbal prefixes can act as the exponents of the verb's arguments.<sup>10</sup>

<sup>9</sup> There is another construction of an overt argument that fails to appear on the verb, which is the 'external possession' construction, to be discussed in section 7.10.1. Here, the possessor of a body part is registered on the verb, while the body part may occur external to the verb, as in *nvng-arrkujeeyi-na alhakba* [1-hurt-NP NEUT.leg] 'my leg hurts'. However, this is a different situation all together, because here the verb only subcategorises for one argument. This means that the body part is not an unregistered object. I will argue that the possessor and the body part - the 'whole' and the 'part' - together constitute the subject argument.

<sup>10</sup> Baker (2002) argues for a three-way division in the morpho-syntactic and referential behaviour of pronominal prefixes in Ngalakgan. The first and second person argument prefixes are obligatory, always referential and do not co-occur with co-referential free pronouns. These argument prefixes are therefore analysed as pronominal anaphors, constituting the arguments of the verb. The third person plural prefix, on the other hand, although also obligatory, can be used in non-referential contexts (i.e. have generic, indefinite and unspecified readings). In other words, the 3pl prefix behaves like an agreement marker. The inanimate noun classes in Ngalakgan are different again, Baker argues, because these are optional and they can *disagree* with the co-referential nominal argument, as illustrated in (i). Therefore, they are neither bound pronouns nor agreement markers.

(i) *mu-jukgul*                      *ju-gu-mehme?*  
 VEG-A.holosericea    2sg.S-NEUT-get.PP  
 '[Oh, it was] an acacia one [spear] that you got?'                      (Baker 2002: 69, ex. [28c])

In this example, the external noun is VEG class, whereas the verb is marked for a NEUT class object. Baker proposes that the NEUT prefix on the verb is used to indicate that *mu-jukgul* 'Acacia holosericea' is to be construed as a type of *spear shaft* that is being spoken about, rather than a type of *tree* (2002: 71). The verb thus takes the argument prefix that is most appropriate to the domain of inedible plants and the implements derived from them: NEUT class. The

Enindhilyakwa pronominal prefixes are insensitive to discourse factors such as definiteness, specificity, and so on. Verbs are highly inflexible, in that their prefixes either encode one argument (the subject), or two (subject, object) (this strict division between morphologically transitive and intransitive verbs is common in Australian languages, e.g. Dixon 1980; but see Austin 1982). Morphologically intransitive verbs include semi-transitive verbs and cognate object verbs discussed in the previous section, and others, which take an external object argument that is not represented on the verb. This section shows that, as a result of their obligatory nature, the pronominal prefixes are unaffected by the definiteness, specificity, et cetera of the nominal they register. They are equally easily used in non-referential contexts as with highly referential free pronouns and demonstratives. This is as much true for prefixes indexing humans as for those indexing non-humans or inanimates. This means that they cannot be analysed as pronominal anaphors that are the only exponents of the arguments of the verb.

• **Generic readings of argument prefixes**

All argument prefixes can index generic arguments, whether non-human animates (25a), inanimates (25b), or humans (26).

- (25) a. *y-akina yinikabvrra nuw-arrangbv-na-ma ngalha-lhangwa yi-nv-m+amuwa*  
 MASC-that MASC.scrub.fowl 3a-lay-NP2-*ma* MASC.PRO-POSS MASC-m-INALP+round  
 ‘Scrub fowls lay their eggs [in their usual place].’ (GED p.221)
- b. *mema mvrungkurra nvmv-lhungkuwarrvngv-na-ma mvrungwena-manja*  
 VEG.this VEG.round.yam VEG-grow-NP2-*ma* VEG.jungle-LOC  
 ‘Round yams grow in the jungle.’ (GED p.60)

- (26) *Wurr-ibina wurri-yukwayuwa ka-wakvdhv-na-manja akv-dhakov-na-ma*  
 3a-that 3a-small IRR.3a-be.silly-NP2-LOC IRR.12a/NEUT-cook-NP2-*ma*  
*amarda angura-manja akwa aka-milye-na-ma ngarrv-rnd-arrvngba*  
 NEUT.leaves NEUT.fire-LOC and IRR.12a/3a-hold-NP2-*ma* 12a-mother-3a.KIN  
*ak-abilyuwendhvkv-na-ma arvngka akinu-wa angwarra kajungwa*  
 IRR.12a/3a-tip.over-NP2-*ma* NEUT.head NEUT.that-ALL NEUT.smoke so.that  
*karrakv-mvnu-wurre-ni-yadha akina abuwakvdha.*  
 IRR.NEUT/3a-BENE-leave-NP2-PURP NEUT.that NEUT.madness  
 ‘If children are being silly, we mothers burn the leaves [of *marra* ‘VEG.wattle’] on a fire and hold them head down in the smoke so that the madness will leave them.’ (GED p.13)

Personal pronouns in English and other European languages do not allow such generic readings, as Evans (2002: 27) points out. For example, the third person plural pronoun in *she scolds them* does not permit a generic interpretation (instead a bare plural must be used: *she scolds people*).

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argument prefix on the verb is used here to ‘fix’ or ‘delimit’ the construal of the external noun - similar to the function of generics in other Australian languages. Baker proposes the term ‘bound pronominal generic’ for these prefixes.

Enindhilyakwa differs from Ngalakgan in this respect: pronominal prefixes are obligatory, whether they cross-reference humans or inanimates. And all argument prefixes agree with their co-referent external noun. There are no instances in the data of disagreement of the Ngalakgan-type. Thus, Enindhilyakwa lacks ‘bound pronominal generics’.

• **Indefinite readings**

Intensional verbs, such as ‘look for’ and ‘want’, can take indefinite objects, as noted by Baker (2002) and the references therein. The Enindhilyakwa verb ‘want’ happens to be morphologically transitive and thus may index indefinite arguments, as in (27a,b). Whether the object is indefinite or definite makes no difference to it being cross-referenced on the verb. In (27c), for instance, the object is definite and specific.

- (27) a. *narrv-ngayindhu-ma damba*  
 3a/NEUT-want.NP1-*ma* damper(NEUT)  
 ‘they want flour’ (anin1\_em\_au\_002)
- b. *angkabvrra nvngka-rra-ngayindhv-mvrra*  
 who 2-3a-want.NP1-*ma*  
 ‘who do you want?’ (VL1 p.475)
- c. *akwa y-akina yikarba nvnge-nv-ngayindhv-ma*  
 and MASC-that MASC.woomera 1-MASC-want.NP1-*ma*  
 ‘and I want that woomera [that you have stolen]’ (‘Lionel’ i35)

Other intensional verbs may be morphologically intransitive. An example is ‘look for’ in (22a) above and the following:

- (28) *ngayuwa nvng-andhiya-ma nganyangwa dhv-mamawura*  
 1.PRO 1-look.for.NP2-*ma* 1.PRO.POSS FEM-VEG.sun  
 ‘I am looking for my watch’ (anin4\_dl\_au\_003)

The direct object argument is definite and specific, yet it fails to be marked on the verb, as this is morphologically intransitive. This example also shows that ALL case on the unregistered object of intensional verbs is not obligatory.

The direct objects of verbs other than intensional verbs can also be indefinite. But they are nonetheless represented on the verb when this is inherently transitive. An example is ‘see’:

- (29) a. *nvnga-rra-rrvngka-ma wurrv-balanda*  
 1-3a-see-PST-*ma* 3a-white.person  
 ‘I saw white people’ (‘A Trip South’ a4)
- b. *wurr-iba warnv-mamalya narra-rrvngka?*  
 3a-any? 3a.m-people 3m/3a-see.PST  
 ‘did he see any people?’ (= [13b])

The use of argument prefixes in indefinitely quantified conditions contrasts with the use of pronouns in languages like English, as observed by Evans (2002) and Baker (2002). For example, the equivalent of (30b), using an anaphoric pronoun in English, sounds ungrammatical: \**Did he see them, any people?*

• **Co-occurrence with free pronouns and demonstratives**

Baker (2002) analyses independent pronouns in Ngalakgan as adjuncts. They are highly marked pragmatically, and they cannot co-occur in the same intonational phrase (IP) with a verb inflected for co-referential first or second person argument prefixes (2002: 60). This is one of the reasons that he analyses these prefixes as bound pronominals in Ngalakgan, which constitute the arguments of the verb.

Free pronouns are not very common in Enindhilyakwa texts, but they are very frequently produced in elicitation sessions, especially sentence-initially and with first person reference. Demonstratives with human reference, on the other hand, are very common in texts and also in elicited sentences. Recall from section 3.2.3 that demonstratives are often used with first and second person reference, as in (30).

- (30) *Ngakurruwa ngarnv-mamalya ngarna ngarr-engkirrika-ja-ma a-wurru-wurrariya-wa.*  
 12a.PRO      12a.m-Aborigine    12a.this    12a-think-NP2-*ma*      NEUT-RDP-bad-ALL  
 ‘We Aborigines think about trouble [and keep out of it].’      (‘Mixed marriages’ e86)

From this example alone it is not clear whether the pronoun *ngakurruwa* and/or the demonstrative *ngarna* are part of the same IP as the verb (I suspect there will be a pause between *ngakurruwa ngarnvmamalya* ‘us Aborigines’ and *ngarna ngarrengkirrikajama...* ‘we think about...’). In elicited sentences, however, I have found that pronouns and demonstratives can both occur in the same IP as the verb, as in (31a) and (31b), respectively.

- (31) a. *ngayuwa nvng-angkarrv-na angalyu-wa*  
 1.PRO      1-run-NP2      NEUT.house-ALL  
 ‘I am running to the house’      (anin2\_pw\_au\_005)
- b. *nvng-ena nvng-angkarrv-na angalyu-wa*  
 1-this      1-run-P2      NEUT.house-ALL  
 ‘I was running to the house’      (anin2\_pw\_au\_005)

Given their high frequency, I choose to treat the demonstratives as arguments. This is less clear for less common independent pronouns, but as they *can* occur in the same IP as the verb, I will assume that they constitute arguments as well.

To summarise this section, we have seen that the pronominal prefixes - regardless of their animacy, person and number values - can occur in various non-referential contexts. This indicates that these prefixes are not always only anaphoric pronouns, as these are not expected to be compatible with such readings. We have furthermore seen that the pronominal prefixes can co-occur with demonstratives (which are used like anaphoric pronouns in Enindhilyakwa), and probably also with free independent pronouns. Finally, there are problems with analysing free

nouns as adjuncts, as this would result in arguments of the verb that are not indexed on the verb, to remain unrepresented.

Therefore, I concur with Evans (2002) that argument-indexing prefixes function as agreement markers, rather than as anaphoric pronouns, in the presence of external co-referential material. When there is no external material, the prefixes can represent the arguments of the verb. Evans (2002) proposes that verbs in polysynthetic languages occupy an intermediate status, in terms of specification of argument properties: “the verb plus its argument affixes is semantically more specified than a verb in a non-polysynthetic language (e.g. English), but less specified than an English verb plus the relevant free personal pronouns” (p.46). The semantics of a form like *nvngarrarrrvngka-ma* in (29a), therefore, lies somewhere between ‘saw something’ and ‘I saw them’: when external material is present, such as a pronoun or a noun, this contributes the relevant information. In the absence of external material, this job is done by the prefixes.<sup>11</sup>

#### 4.4 Quantifier [(-3)]

There are two different quantifier prefixes, *mvrnda-* and *wurra-*, which optionally emphasise multiplicity of intransitive subjects or transitive objects (see Leeding 1989). The usual translation is ‘all’ or sometimes ‘all over’. The following examples illustrate intransitive subjects (32), transitive objects (33) and reduplication of the prefix to intensify the number in (34).

- (32) a. *Yirru-wurrakv-dhvrrvrndv-nga adhalyvma-wa.*  
 1a-all-descend-P1 NEUT.river-ALL  
 ‘We all went down to the river.’ (‘Awurukwa’ w47)
- b. *yirrv-mvrndakv-rvkbijangee-yi-na*  
 1a-all-jump-RECP-P2  
 ‘we all jumped off ...’ (VL1 p.467)
- (33) a. *yika-ku-wurrakv-ngaji-na*  
 IRR.2a.O-NEUT.S-all-kill-NP2  
 ‘it (the fish) will kill you all’ (VL1 p.426)
- b. *wurr-akina wurru-wilyaba-manja narrv-nga-mvrndak-ararika-ma dh-akina*  
 COLL-that COLL-one-LOC COLL.O-FEM.S-all-coil.around.PST-*ma* FEM-that  
 ‘it (*dhvngarna* ‘FEM.snake’) was coiled all around one (*wurruwarda* ‘COLL.dog’)’  
 (= [17b])
- (34) *na-mvrndakv-mvrndakv-mvreeya-ngee=ka*  
 3a-RDP-all-be.hungry-P2=EMPH  
 ‘they were all very hungry’ (VL1 p.427)

<sup>11</sup> This analysis would require a formalism that can unify information contributed by the argument prefix, with information contributed by external nominals. Lexical Functional Grammar (LFG) (Bresnan 1982; Kaplan & Bresnan 1982) is such a formalism, where the same information can come from a number of sources at once, and grammatical relations can be determined both by the syntax and by the morphology. The idea that the argument prefixes function as agreement markers in the presence of external co-referential nominals, but as anaphoric pronouns in the absence of external material, is captured in LFG by having the verb *optionally* provide information about its arguments (e.g. Simpson 1991). This information is only invoked when there are no external nominals present to contribute the required material to fill the argument positions of the verb.

In (33a) the quantifier *wurrak-* modifies the object argument, but the prefix is not adjacent to the object prefix. Such discontinuous dependencies were listed in fn1 above as one of the characteristics of a flat template morphology.

The same quantifier prefixes occur on nominals (section 3.4.3). BGW has a quantifier prefix *mirnde-* ‘many (spread out)’ (Evans 2003a: 322), cognate with *mvrnda-*. In Wubuy we find the “Multiple” prefix *warra-* ‘all’ (Heath 1984: 383), cognate to Enindhilyakwa *wurra-*. Exploring the semantics and functions of the two quantifiers in Enindhilyakwa is an interesting topic for further research.

Leeding (1989: 422-4) describes an additional ‘dual’ number prefix *lhvrrak-*, which occurs in the same slot and follows the same absolutive pattern as the above quantifier prefixes.

- (35) a. *nvmv-lhvrrakv-lhvka-ja-ma*  
 VEG-du-go-NP2-*ma*  
 ‘two [VEG.shark] are going’ (VL1 p.423)
- b. *yikvngv-lhvrrakv-ngaji-na-ma*  
 IRR.2fdu/NEUT-du-hit-NP2-*ma*  
 ‘you two women can kill the two [fish(NEUT)]’ (VL1 p.424)

This number prefix does not occur in my data, however, and it is not listed in the dictionary. It thus may have gone out of use, or it is restricted to the Umbakumba dialect, where Velma Leeding did most of her work (see Map 1.2).

#### 4.5 Benefactive applicative [(-2)]

The prefix *mvn-* is an applicative that adds an object argument to the verb, which is a beneficiary or a maleficiary, that is, a person affected positively or negatively by the action denoted by the verb. As discussed in section 4.3.1, when the benefactive applicative introduces an argument to a transitive verb, the new object argument is registered on the verb in the object prefix slot; the object argument that formerly appeared in this slot now appears as a free noun (see e.g. [38], [39], [41]). Some beneficiary examples are as follows.

- (36) *yirra-bv-mvn-akarrnga-rnv-ma awuruku-wa*  
 1a.O-3a.S-BENE-fetch.water-P2-*ma* NEUT.billabong-ALL  
 ‘they fetched water for us from the billabong’<sup>12</sup> (‘Awurukwa’ w26)
- (37) *narrv-nga-mvn-abvrangka-ma wurr-abv-bvrr-adha=dha*  
 3a.O-3f.S-BENE-look.for.PST-*ma* 3a-RDP-offspring-3fsg.KIN=TRM  
 ‘she was looking for [food] for her babies’ (‘Bujikeda’ y105)

<sup>12</sup> With verbs of fetching, ALL case may be translated as ‘from’ (Stokes 1982: 109), as in this example. However, a more accurate translation could be ‘they went to the billabong to fetch water’, which reflects the allative meaning.

- (38) *Akina awilyaba ngaya ngarra-mvn-ngayindhe-na-ma.*  
 NEUT.that NEUT.one 1.PRO 1/2-BENE-want-NP2-*ma*  
 ‘That’s all I want for you.’ (‘Mother’s advice’ j34)

The following examples illustrate an introduced maleficiary, which is most common with verbs that have a reading of removal or destruction.

- (39) *mena=baba nenv-mvn-angmadhv-mvrrv=baba env-lhangwa dh-adhiy-enikba*  
 because=REAS 3m/3m-BENE-steal.P1-*ma*=REAS 3m.PRO-POSS 3f-wife-3m.KIN  
 ‘[Bat hated Rainbow] because he stole his wife [from him]’ (VL1 p.90)

- (40) *ngarre-nv-mvn-abvrda-ngv-ma!*  
 12a.O-3m.S-BENE-roast-P2-*ma*  
 ‘he roasted our [children]!’ (‘Nubardubarda’ s90)

- (41) *Arakbawiya narra-mvvn-ma-ngv-ma wurrv-mvrrv-mvrrkbalya-lhangwa*  
 long.time.ago 3a/3a-BENE-take-P2-*ma* 3a-RDP-newborn.baby-POSS  
*wurr-angarv-ngariya engengkuwa.*  
 3a-RDP-young NEUT.spirit  
 ‘A long time ago they took the spirits of newborn babies.’ (GED p.82)

As Evans (2003a: 428) points out for BGW, some instances of the benefactive applicative allow a translation in which the beneficiary/maleficiary is expressed as the possessor of the object (this is sometimes called ‘possessor raising’). This is the case in Enindhilyakwa also, as in the maleficiary examples in (39) - (41) above and the following beneficiary examples.

- (42) *yirr-aja ngarra-mvn-errikbi-na-ma mirrijina akinv-manja amamarra*  
 1a-CofR 1a/2-BENE-throw-NP2-*ma* medicine(NEUT) NEUT.that-LOC NEUT.sore  
 ‘we’ll put medicine on that sore for you; we’ll put medicine on your sore’ (VL1 p.481)

- (43) *narra-mvvn-ngarrku-ruwurrkv-na madha*  
 3a/3a-BENE-ear-make.crooked-NP2 VEG.ear  
 ‘they distract them’ (Lit: ‘they make their ears crooked’) (JW n.d.-c)

However, the use of the benefactive is not grammatically required in such circumstances, as can be seen in the ‘possessor raising’ examples in section 7.10.1.

The applicative can also be used without actually adding an argument to the verb. This seems to happen when the benefit or detriment to the owner is being stressed:

- (44) *aka-mvvn-memvrr-baji-na-ma memvrrma wurri-yukwayuwa-manja*  
 IRR.3a/3a-BENE-neck-hit-NP2-*ma* VEG.neck 3a-children-LOC  
 ‘we hit our babies on the neck [so that they will have strong necks]’ (GED p.69)

- (45) *nvngk-env-mvvn-ngajee=ka angurnda-manja!*  
 2/3m-BENE-hit.P1=EMPH NEUT.ankle-LOC  
 ‘you’ve hit him on the ankle!’ (‘Children’ h9)

Evans (2003a) observes that with verbs of controlled perception the benefactive introduces an argument denoting a goal. This is true for intentional verbs in Enindhilyakwa, as in (22b) and (46):

- (46) *ngv-lhvka-ja-ma nvng-ena ngv-nga-mvn-abvrangkv-na-ma*  
 HORT.1-go-NP2-*ma* 1-this HORT.1-3f-BENE-look.for-NP2-*ma*  
 ‘let me go and look for her’ (‘Search’ z6-7)

The perception verbs in these examples are normally intransitive. Finally, the introduced argument can also be inanimate, as in (47). When this is the case it denotes a goal or purpose.

- (47) *ngalha-lhangwu-wa akina nv-ma-mvn-ambilya-mvrru-wa...*  
 NEUT.PRO-POSS-ALL NEUT.that 3m-VEG.-BENE-stay.NP2-*ma*-ALL  
 ‘[if we don’t take the money] to [the bank account] that he keeps for the truck(VEG)...’  
 (‘Vehicle hire’ k32)

The benefactive prefix *mvn-* is similar in form and function to the BGW benefactive prefix *marne-*. The /ə/ vowel in Enindhilyakwa (represented by *v*) could be indicative of an old retroflex, as was suggested in section 2.6.6. Some speakers of Mayali use the variant form *mene-* (Evans 2003a: 427), which also occurs without a retroflex.

Alpher, Evans & Harvey (2003) use the form of the benefactive applicative found in the Gunwinyguan languages to arbitrarily name two subgroups of this family: the ‘*marne*’ and the ‘*bak*’ subgroup. Wubuy and Ngandi are two of the languages that belong to the latter subgroup (Ngandi benefactive: *bak-*, Wubuy benefactive: *(wa)aG-*, where *G* is an archiphoneme). BGW and Dalabon, amongst others, belong to the ‘*marne*’ subgroup (BGW benefactive: *marne-*, Dalabon benefactive: *marnv-*). An important hypothesis advanced in Chapter 9 is that Enindhilyakwa is genetically related to Ngandi and, especially, Wubuy. If this hypothesis is correct and Enindhilyakwa indeed belongs to the ‘*bak*’ subgroup, this would require renaming this subgroup.

#### 4.6 Summary

This chapter described the typologically unusual high number of eight distinct prefix series in Enindhilyakwa, which distinguishes intransitive and transitive series of four types of mood: realis, irrealis, imperative and hortative. The transitive paradigms were shown to be composable from the corresponding intransitive paradigms, where the relative order of the transitive subject and object prefixes is determined by a person/number/animacy hierarchy: the higher-ranking participant precedes the lower-ranking one. Equipollent prefixes where the subject and the object rank equally high, are frequently irregular forms. Combinations of first and second person never have separate exponence for both participants.

The intransitive realis, imperative and hortative series are fairly transparently composed of identifiable person, number and gender morphemes (in that order). The intransitive irrealis series,

on the other hand, is much more opaque, apart from the presence of an irrealis marker. The transitive realis paradigm, although fairly compositional, shows many irregularities for equipollent prefixes (especially those involving 1<sup>st</sup> and 2<sup>nd</sup> person participants) and those involving 3<sup>rd</sup> person human objects. The irrealis shows both more syncretism and more regularity than the realis paradigm. The imperative and hortative series are almost fully compositional, consisting of morphemes that are used in other contexts. Given that comparable series are absent in other non-Pama-Nyungan languages, this suggests that these series are relatively recent innovations.

The question whether the argument-indexing prefixes constitute the pronominal arguments of the verb, or are agreement markers, was addressed for Enindhilyakwa. It was shown that, due to the existence of arguments of the verb that are not registered on the verb, together with the fact that the argument prefixes can also be used in a variety of non-referential contexts, the verbal prefixes cannot be the sole exponents of the verb's arguments. Instead, the prefixes are polysemous between full-pronoun and agreement-marker interpretations, as has been argued for a number of other languages (e.g. Bresnan & Mchombo 1987 for Chicheŵa; Simpson 1991 for Warlpiri; Evans 2002 for BGW).