

CHAPTER 23

INFLECTION IN NEN

NICHOLAS EVANS

23.1 INTRODUCTION

NEN (Ethnologue Code NQN), also known as Nen Ym or Nen Zi,¹ is a language of the Morehead-Maró Family of Southern New Guinea. This family, with around a dozen members, straddles the two nations of Papua New Guinea and Indonesia, in a low-lying area bounded to the north and east by the Fly River, to the south by the Torres Strait which separates New Guinea from Australia, and to the west by the Maró river. No language of the Morehead-Maró family yet possesses more than a sketchy description,² and this chapter, confined as it is to an early stage of research,³ must be regarded as provisional in the data and analyses it presents.

Nen is spoken in just one village, Bimadbn,⁴ where the whole population of around 300 people speak it as the primary language of communication, although most people additionally speak one or more of the neighbouring languages (most commonly the related Nambu or the unrelated Idi), English, and Motu, the erstwhile lingua franca of the region.

¹ Language names in the region are based on their word for ‘what’—*nen* in Nen Zi, *idi* in Idi, *nambu* in Nambu—plus an optional extra word such as *zi* ‘word, language’ or *ym* ‘is’. In metalinguistic contexts the phrasal term Nen Zi thus disambiguates from the word for ‘what’—cf. *bm nen nowabte?* ‘you speak what? / you speak Nen’ vs *bm Nen Zi nowabte* ‘you speak Nen’.

² The best materials so far are Boevé and Boevé (2003) on Aramma and Sarsa (2001) on Wara, sections of Martin (2001) on tense in Nambu, along with brief older material in Boelaars (1950). ethnographic sources for the region are Ayres (1983) and Williams (1936).

³ Data presented here was gathered by the author over four fieldtrips, totalling weeks, in 2008–11.

⁴ As in many Papuan languages (see Blevins and Pawley 2010 on Kalam) the nuclei of many syllables in Nen are filled by non-phonemic epenthetic vowels, not written in the orthography: thus Bimadbn /bimadbn/ is phonetically [ˈbima, dəbən], and a word like *wngm* in (1), phonemically /wŋm/ is phonetically [wəŋgəm]. See Appendix 1 for the orthography and phoneme system of the language.

23.1.1 General Typological Characteristics

Typologically, Nen is a predominantly SOV language, with case roles shown by suffixing, an ergative/absolute system of case marking, no grammatical gender, and a system of grammatical number that makes two, three, or four number distinctions depending on the subsystem involved and the degree to which the different subsystems can be unified. Non-finite constructions, generally formed by suffixing a case marker to an infinitive form, are widely employed, for example to represent purpose or result clauses, or for the complements of phasal verbs like ‘begin to’ or ‘finish’. Sentences (1a) and (1b) give initial examples showing most of these characteristics.

(1) a. Ynd yergb-at one-s-t w-ng-m
 1ABS river-ALL fish.with.net-INF-ALL 1SG.U.α-away-
 ‘I’m going to the river to net fish.’

b. Yndbem kkp-an nne y-s te
 1NSG.ERG garden-LOC yam(ABS) plant-INF already
 y-sne-nd-m
 3SG.U.α-begin-P.PFV:ND-1NSG.A
 ‘We (more than two) have already begun planting yams in the garden.’

A complex verbal morphology involves prefixes for ‘undergoer’ (objects, indirect objects, and stative subjects) and suffixes for ‘actor’ (subjects of transitives and dynamic intransitives), each interwoven with a complex TAM system. One of the interesting analytic issues for Nen, which we will discuss in Section 23.1.3.5, is whether the prefix and suffix systems should be analysed independently (as glossed in these initial examples), or treated as a single ‘circumfixal paradigm’.⁵ A set of preverbal particles, exemplified by *te* ‘already’ in (1b), also play an important part in specifying

⁵ Thus two glossing possibilities for *ysnndm* in (2) are:

- (i) y-sne-nd-m
 3SG.U.α-begin-PST.PFV:ND-1NSG.A

glossing prefixes and suffixes independently (and segmenting them as far as possible), or

- (ii) y\sne/ndm
 1PL.A>3SG.U.PST.PF\begin/

using the notation $a\backslash V/b$ to indicate ‘circumfix a...b around stem V’, and, in the gloss line, putting the post-unification inflectional values before the ‘\’ symbol, then the gloss of the stem.

As the chapter unfolds I will move back and forth between both conventions, as appropriate. It is clear that each has its own value for different purposes:  for showing the input to processes of inflectional unification, (b) for showing the interface between an inflected word and its syntactic environment, as well as for enabling the reader to deduce the glossed value of the word. I return to this point in more detail in Section 23.1.3.5.

Ditransitive	Case marking Verbal indexing	Dative U-: IO	Ergative -A: A
Transitive	Case marking Verbal indexing	Absolutive U-: O	Ergative -A: A
Intransitive	Case marking Verbal indexing	Stative: Absolutive U-: S _{stat}	Dynamic: Absolutive -A: S _{dyn}

FIG. 23.1 Role splits and mergers: case-marking and verbal indexing. U- and -A represent the undergoer prefix and actor suffix respectively; syntactic roles are represented by A, S_{stat}, S_{dyn}, O, and IO. In addition to the roles shown here, in ditransitives there is an O, marked with the absolutive case, which is not indexed on the verb.

tense values—for example *ynd wngm* ‘I’m going’ can be modulated in tense by various particles to give *ynd bā wngm* ‘I will go’ or *ynd tba wngm* ‘I went just now’.

With regard to argument-coding, the inflectional system follows an absolutive–ergative split in case marking, and an unusual type of actor–undergoer split with regard to agreement (Figure 23.1). (The term ‘undergoer’ is not entirely satisfactory, but is used here for want of a better term).

Verbal indexing in one-place predicates splits along the lines of stative vs. dynamic predicates. Statives include ‘be’ and its directional derivatives ‘come’ (lit. ‘be hither’) and ‘go’ (‘be thither’; (1)), plus around  ty ‘posals’ (Section 23.2.5)—predicates for indicating static position or posture that range from ‘be sitting’ and ‘be lying’ to more unusual predicates like ‘be the end of something’, ‘be wedged’, or ‘be immersed’. Dynamic one-place predicates, whether controlled (‘talk’ (2a)) or not (‘fall’ (2b)), are expressed by morphologically middle verbs, employing a person-invariant⁶ middle prefix and a person/number sensitive actor suffix.

- (2) a. *Ynd n-owab-ta-n* b. *Ynd n-uwi-nd-n*
 1ABS M.α-talk-IMPV:ND-1SG.A 1ABS M.α-fall-PST.PFV:ND-1SG.A
 ‘I am talking.’ ‘I fell over.’

Verbs possess a developed system of ‘diathetic prefixes’, lying between the root and the undergoer/TAM prefix, which code various valency alternations such as reflexive/reciprocal, autobenefactive or benefactive—cf. the pairs *wakaes* ‘see’ ~ *awakaes* ‘see each other / oneself’, *nps* ‘cut’ ~ *uñps* ‘cut for oneself’, *bens* ‘feed’, *wabens* ‘feed, fatten up (e.g. a pig) for (some future recipient)’. Since these are arguably derivational rather than inflectional they will not be discussed in this chapter—see Evans (2015) for details.

⁶ ‘Person-invariant’ is a slight oversimplification, but holds for the vast majority of cases. The exception is the special ‘large plural’ construction with middle verbs: here the middle prefix codes the person and number of the subject, while the suffix is fixed at 3sg. I give examples of this in Footnote 16 .

23.1.2 Phonology and Morphophonemics

For the phoneme inventory and orthography of Nen see Appendix ote that like some other Papuan languages (most famously Kalam—Biggs 1963; Pawley 1966; Blevins and Pawley 2010), many syllables lack phonemically specified vowels, although brief epenthetic vowel phones (typically schwa) may be present. There is a certain number of morphophonemic alternations in the language, for example between *-n* and *-an* for the locative case. There are also certain alternations at the boundary between verb roots and their affixes. Thus the imperfective non-dual suffix, basically *-ta*, interacts with stem-finals to produce various effects (*r-ta* > *na*, *ng-ta* > *nda*, etc.)—cf. *owabs* ‘to talk’, √*owab*, 1SG basic imperfective *nowabtan* ‘I talk’; *esrs* ‘to descend’, √*esr*, 1SG basic imperfective *nesnan* ‘I descend’; *awasengs* ‘to wait’, √*awaseng*, 1SG basic imperfective *nawasendan* ‘I wait’. But since my focus in this article is on the overall architecture of the inflectional system rather than an exhaustive account of every form, my treatment ignores such morphophonemic changes except where necessary to understand a particular form.

23.1.3 Cross-paradigm Unification and the Nen Inflectional System

Nen is notable for the extent to which inflectional values can only be determined after unification of multiple structural positions, both within and across words. This section lays out some general architectural principles that follow from this, as well as the analytic problems they pose. First I examine the unification of person and number information between free absolutive pronouns and verbal affix positions (Section 23.1.3.1). Then I look at three other important ways that unification effects appear in Nen in the interactions between number encoded on the thematic and that encoded by argument-coding affixes (Section 23.1.3.2), in the unification of prefix and suffix series to specify TAM (Section 23.1.3.3), and in interactions between undergoer prefixes and actor suffixes for some person/number combinations (Section 23.1.3.4).

23.1.3.1 *Number-neutral free pronouns meet person-syncretized verb inflections*

Absolutive free pronouns distinguish person but not number—*ynd* ‘1st person’, *bm* ‘2nd person’, *bä* ‘3rd person’. By contrast, the verbal agreement system distinguishes number but in many cases conflates second and third persons—*nowabte* ‘2|3SG:talk:PR’, *nowabtat* ‘2|3PL:talk:PR’.⁷ Once free pronouns are combined with

⁷ Indeed, these glosses themselves already result from the unification of finer-grained information inside the verb, since the final *-t* here is really ‘2|3NSG.A’ and the *-ta-* is the non-dual imperfective thematic, so that the ‘2|3PL’ reading for *-tat* is derived by the *-ta-* knocking out the dual cardinality from the broader ational range of the final *-t*.

Table 23.1 Unification of underspecified pronoun and agreement information to give precise person/number specification. Note syncretism of second and third person verb forms for all numbers

	Free pronoun	talk (IMPV:DU) <i>nowabta</i>	talk (IMPV:ND) <i>nowab</i>	talk (IMPV:DU) <i>nowabta</i>
1	<i>ynd</i>	<i>ynd nowabtan</i> 'I talk'	<i>ynd nowabm</i> 'we two talk'	<i>ynd nowabtam</i> 'we ((3(+)) talk'
2	<i>bm</i>	<i>bm nowabte</i> 'you (sg) talk'	<i>bm nowabt</i> 'you two talk'	<i>bm nowabtat</i> 'you (3(+)) talk'
3	<i>bä</i>	<i>bä nowabte</i> '(s)he talks'	<i>bä nowabt</i> 'they two talk'	<i>bä nowabtat</i> 'they (3(+)) talk'

inflected verbs, however, there is a completely disambiguated set of person/number combinations, as shown by the partial paradigm in Table 23.1. Free pronouns are basically obligatory, although they sometimes get dropped in running discourse. (Note: here *owab* is the dual imperfective, while *owabta* is the non-dual imperfective; as can be seen, in the imperfective duals the bare stem is used, while non-duals suffix *ta*; *ta+e > te*).

23.1.3.2 *Argument-indexing Affixes and Verb Thematics / Suppletive Stems*

Within the verb, a basic three-way⁸ number system is obtained by crossing a singular vs. non-singular contrast on argument-indexing affixes (whether prefixal or suffixal) with a dual vs. non-dual contrast. This latter is coded variously (according to the lexeme) in the 'thematic' (which lies between the root and the final actor suffix and codes aspect/tense/mood plus dual vs. non-dual), the stative suffix (for *owab* forms), or by stem suppletion (e.g. *m* 'be (non-dual)' vs. *ren* 'be (dual)'). Holding person constant at first person (1SG.A *-n* vs. 1NSG.A *-m*, 1SG.U *w-* vs. 1NSG.U *yn-*), Table 23.2 illustrates this for the subjects of the prefixing verb *m / ren* 'be' and for the middle verb *owabs* 'speak'.

23.1.3.3 *Integration of prefixal and suffixal information in the TAM system*

One locale for coding TAM information is in the three series of undergoer prefixes (Table 23.3). As can be seen, the γ series is simply derived by voicing its β -series counterparts, whereas the relation of the β -series to the α -series is less regular,

⁸ An additional fourth value—splitting the plural into basic vs. universal plural or paucal vs. plural—is available for some verbal subclasses, although encoded in a less consistent and exhaustive way—see Sections 23.2.3.1, 23.2.3.2.

Table 23.2a Unification of affixal singular vs. non-singular agreement values with dual vs. non-dual suppletive root of 'be' to give a three-valued basic number system

	U prefix	Stem/thematic patterning	Inflected form
SG	<i>w-</i>	<i>m</i>	<i>w-m</i>
PL	<i>yn-</i>		<i>yn-m</i>
DU		<i>ren</i>	<i>yn-ren</i>

Table 23.2b Unification of affixal singular vs. non-singular agreement values with dual vs. non-dual thematic forms of 'talk' to give a three-valued basic number system

	U prefix	Stem/thematic patterning	Inflected form
SG	<i>-n</i>	<i>nowabta</i>	<i>nowabtan</i>
PL	<i>-m</i>		<i>nowabtam</i>
DU		<i>nowab</i>	<i>nowabm</i>

Table 23.3 The three series of undergoer prefixes (major allomorphs)

Prefix	Series		
	α	β	γ
1SG	<i>w-</i>	<i>q-</i>	<i>ḡ-</i>
2SG	<i>n-</i>	<i>kn-</i>	<i>gn-</i>
3SG	<i>y-</i>	<i>t-</i>	<i>d-</i>
1NSG	<i>yn-</i>	<i>tn-</i>	<i>dn-</i>
2 3NSG	<i>ya-/yä-</i>	<i>ta-/tä-</i>	<i>da-/dä-</i>
Middle	<i>n-</i>	<i>k-</i>	<i>g-</i>

though in broad terms it contains voiceless stop-initial forms corresponding to initial semi-vowels or nasals in the α -series.

Why not give more precise semantic labels to the three series, rather than abstract Greek-letter labels? Because, taken alone, it is usually impossible to give a unified semantic value to each series (Table 23.4).

For example, the α -series (such as 3SG.U *y-*) has non-past values when combined with imperfective suffixes (*yanetan* 'I eat it'), but past values when combined with neutral and perfective suffixes. Conversely, the γ -series has past values when combined with imperfective suffixes but future values when combined with perfective suffixes.

Table 23.4 Combinations of prefix and suffix series and their meanings

	Suffix series		Prefix series	
	α		β	γ
Imperfective	Imperative Basic	Future imperative Present, future, or today past	Immediate imperative Recent past	Mediated imperative
Neutral	Past			Remote past
	Primordial Preterite	Primordial Preterite		Hope
	Irrealis	Customary/habitual past		Unrealized action
Perfective	Imperative Future		Immediate imperative	Perfective future
	Current	Accomplished past action	Unexpected past action	

The β -series consistently marks immediate imperatives with either aspect; but jected imperatives' (giving commands to be implemented later) take the α -series. In the indicative, the β -series marks recent past with imperfective suffixes (e.g. *tanetan* 'I ate it (yesterday)') but unexpected past action with perfective suffixes.

For these reasons, it is not meaningful to assign a direct TAM gloss to the under-goer series. Rather, it makes more sense to 'pass up' an abstract feature value (α , β , γ) into a circumfixal paradigm where prefixes and suffixes are combined. Upon combination with a TAM suffix, the feature value can then be cashed in to supply a specific semantic value.

23.1.3.4 Interaction of prefix and suffix slots in coding argument number: the dual

The other place where the prefixal and suffixal paradigms interact is in the coding of combinations where both arguments are non-singular and at least one is dual. Recall that the normal situation is for the person and number of the undergoer to be coded by prefix, and the person and number of the actor to be coded by suffix: Table 23.5 illustrates how this 'factorized' situation works for a subset of combinations of the verb *wakaes* 'see' in the β -series, in its 'basic imperfective' form (eschewing duals for the moment). The table also has a blank area for the 1>1 combinations, since these would be encoded by a reflexive/reciprocal construction with an RR diathetic prefix, a person-invariant middle prefix, and a plural actor suffix, for example *k-a-waka-ta-m* [M. α -RR-see-IMPV:ND-1NSG.A] 'we saw ourselves/each other'. These data are quite representative of transitive verb paradigms in that the exponents for actor and undergoer can be independently isolated in the suffixal and prefixal paradigms respectively.

Table 23.5 Independent coding of actor and undergoer person/number when no dual arguments are involved

(w) ^a <i>aka-ta</i> 'see-ND:I'	1SG.A - <i>n</i>	1NSG.A - <i>m</i>	3SG.A -#e ^b	3PL - <i>t</i>
1SG <i>q-</i>			<i>qakate</i> '(S)he saw me'	<i>qakatat</i> 'They saw me'
1NSG <i>tn-</i>			<i>tnakate</i> '(S)he sees us'	<i>tnakatat</i> 'They saw us'
3SG <i>t-</i>	<i>takatan</i> 'I saw him/her/it'	<i>takatam</i> 'we saw him/her/it'	<i>takate</i> '(S)he saw him/her/it'	<i>takatat</i> 'They saw him/her'
3PL <i>ta-</i>	<i>tawakatan</i> 'I saw them'	<i>tawakatam</i> 'I saw them'	<i>tawakate</i> '(S)he saw them'	<i>tawakatat</i> 'They saw them'

^aAs discussed above, many transitive verbs have an initial *w-* which drops before most undergoer prefixes but surfaces when preceded by the 2|3NSG.U prefix or the RR prefix, and in infinitives.

^bUsing the symbol # to denote 'with loss of preceding vowel'.

Once duals enter the picture, things get more complicated. As mentioned above, all verbs distinguish dual from non-dual forms; for ambifixing verbs this is encoded on a post-root 'thematic' which combines information about dual vs. non-dual and TAM (see Section 23.2.4.1). For the verb *wakaes* 'see', adding the imperfective thematic gives non-dual *wakata* (as in Table 23.5) and dual *wakaew*. The dual stem is used whenever one or both arguments is dual, except for combinations involving a dual actor on a plural first or second person undergoer—for these combinations, there is no encoding of dual cardinality even on the regular thematic slot, so that a form like *yawakata-m* [2|3NSG-see-ND:IMPV-1NSG.A] can mean both 'we (3 or more) saw you (3 or more)' (the expected reading), and 'we two saw you (3 or more)', a morphologically unexpected reading which fails to register the dual in the normal way.

If there is a dual thematic and the undergoer is singular, things remain straightforward. The appropriate non-singular actor suffix is used, and the dual cardinality is applied to the non-singular, actor argument: *t-akae-w-m* [3SG.U.α -see-DU:IMPV-1NSG.A] 'we two saw him/her', *takaewt* [3SG.U-see-DU:IMPV-2|3NSG.A] 'you two/they two saw him/her'. If there is a first person singular actor suffix and a non-singular undergoer prefix, the dual cardinality applies to the undergoer argument: *tawakaewn* [2|3NSG.U-see-DU:IMPV-1SG.A] 'I saw the two of you/them'.

But after that the quarantining of undergoer person/number values in the prefix, and of actor values in the suffix, is no longer tenable, since we encounter special 'interactive' affixes that encode information about both actor and undergoer, in both the prefix and the suffix series. These are a particular type of portmanteau, d in both prefixes and suffixes, that against the main lines of the system encode information about both actor and undergoer in the same morphological slot.

Thus the suffix *-ng*⁹ is used for any combination of a singular second or third person actor acting upon a dual undergoer, in the imperfective aspect: *tn-akae-w-ng* [1NSG.U.β-see-IMPV:DU-2|3SG.A>DU.U] ‘you (sg) / (s)he saw us two’, *yaw-akae-w-ng* [2|3NSG.U.α-see-IMPV:DU-2|3SG.A>DU.U] ‘(s)he saw you two/them two; you (sg) saw them two’. The prefix *ko-* is used for any combination of first or third dual actor upon a third dual undergoer, the prefix *kongo-* for any combination of first or third dual actor upon a third plural undergoer, and the prefix *nngo-* for any combination of a second dual actor upon a third plural undergoer; the difference between first and third person actors is disambiguated by the actor suffix. Thus *kowakaewt* means ‘they two saw them two’, *kowakaewm* means ‘we two saw them two’, *kongowakaewt* means ‘they two saw them (more than two)’, *kongowakaewm* means ‘ two saw them (more than two)’ and *nngowakaewt* means ‘you two saw them (more than two)’.¹⁰

Were it not for duals, the determination of actor and undergoer values through verbal morphology could be farmed out to different specialist paradigmatic subcontractors, as it were: undergoers to the prefix paradigm, actors to the suffix paradigm. But once we consider duals, we need to integrate information from both prefixes and suffixes, since there are interactional prefixes (*ko-*, *kongo-*, *nngo-*) and interactional suffixes (*-ng*) each including information about both actor and undergoer. For values that include duals, that is, it makes sense to conceive of a ‘circumfixal’ paradigm, at least as an end-product, although we can still make the separate-prefix-and-suffix solution work by ‘carrying up’ partially specified values as we did with the α, β, and γ prefix series.

23.1.3.5 Circumfixal interactions, glossing, and analysis

The facts outlined above impact on glossing practices in presenting Nen data, which in their turn reflect different theoretical approaches to morphology distinguished by whether or not they assign any role to something like a classical ‘morpheme’ or instead adopt a paradigm-based approach (cf. Blevins, this volume) where featural information is mapped onto form in a less segment-based and more distributed fashion. Even if one takes a paradigm-based approach, there is still a choice between setting up separate prefixal and suffixal paradigms in Nen, as opposed to integrating them into a single ‘circumfixal paradigm’ in which feature value combinations are spelled out across a complex super-paradigm that integrates material from both the prefixal and suffixal subparadigms.

If we either identify something like traditional morphemes, or deal with just the prefixal or suffixal subparadigms individually, we will end up with many glosses that are either semantically opaque (such as ‘α’ or ‘β’ for series of verb prefixes), or underspecified (e.g.  SG.A>~2|3DU for *-ng*), or disconnected from the argument they refer to

⁹ This has an equivalent form  with perfective TAM values.

¹⁰ The attentive reader will note that the forms of these interactive prefixes mix consonants normally found in the alpha prefix series (*n-*) and the beta series (*k-*). Data so far indicates that the formal difference between the two series is neutralized just for these prefixes.

Table 23.6 Two glossing systems illustrated for the inflected verb *dnawapapte* ‘(s)he taught us (PL) a long time ago’

Word	Fully dissected gloss	Integrated gloss
dnawapapte	dn-awapap-t-e 1NSG.U.γ-teach-IMPV:ND-3SG.A	dn\awapap/te 3SG.A>1PL.U.IMPV.REM/teach
‘(s)he taught us (pl) a long time ago’		

(e.g. DU, on a thematic—does this connect with actor or undergoer?), or exhibit multiple exponence (e.g. repetition of the information that the aspect is imperfect on both the thematic, and on the suffix, in the case of *-w-ng*).

The alternative is to use a glossing system that assigns values based on an integrated ‘circumfixal paradigm’: this makes glossing more compact, since it exhibits the products of unification, and avoids semantically opaque values for the tense prefixes. But it has the disadvantage that we cannot see the contribution of every formative to the process of morphological composition. Particularly in parsing (i.e. in analysis rather than synthesis) it is helpful to have a systematic way of identifying the contribution of all formatives to the full set of inflectional feature values. Table 23.6 compares these two glossing systems for the word *dnawapapte* (see footnote 5 for her example).  the rest of this chapter I will adopt now the one, now the other solution depending on the purpose at hand.¹¹

23.2 OVERVIEW OF THE INFLECTIONAL SYSTEM

We now pass to an overview of the inflectional categories of each major Nen word class. Pronouns and nouns inflect for number and case; verbs inflect for person and number of up to two arguments, for tense/aspect/mood, and for direction. Infinitives take case inflections to indicate interclausal relations.

23.2.1 Pronouns

Pronouns inflect for number and case. A typological anomaly, mentioned in Section 23.1.3.1, is that number is not distinguished in the least marked case, namely the absolutive (so that absolutive pronouns only distinguish person but not number), but in all other cases a singular vs. non-singular number contrast is encoded. First and second

¹¹ In connection with this example, note that the ‘remote imperfective’ is not distinguished by suffixal material in the third person singular (since the imperfective thematic form non-dual *-taw-*, as in 1sg *-tawn*, is reduced to *-t-* when combining with the the 3SG.A suffix *-e*, giving *-te* which is identical with the other non-dual imperfective forms). In all cases, however, the ‘remote imperfective’ semantics can be recovered from the use of the γ -prefix series. In this sense the integrated gloss gives a more accurate picture of how both prefixal and suffixal elements are integrated to give the full inflectional semantics.

singular pronouns do not formally distinguish the ergative from the absolutive, but all other forms do. Pronouns also have a special ‘reflexive/reciprocal form’ (RR): this can function either as a reflexive/reciprocal possessive, or as a reflexive/reciprocal anaphor in object function. The inflectional paradigm for pronouns is given in Table 23.7.

As can be seen, *-be* is a regular non-singular formative, added right after the initial element. Most case forms outside the absolutive and ergative are built on an oblique form (*ta*, *tbe*, etc.) in a fairly predictable way. For example, the DAT1 forms add *-gta* to the corresponding oblique, and GEN forms add *-nde*.

The exceptions to the above pattern of formation are the comitative and perlativ forms: the comitative is built on the ergative, and the perlativ on the absolutive.

Only the third person has distinct stems for the absolutive and ergative: *bä* and *ymam* respectively. A further curiosity of Nen, evident from the last column of Table 23.7 is that the third person ergative forms *ymam/ymabem* are identical with the ergative interrogative pronoun *ymam/ymabem* meaning ‘who’ as well as in the comitative which is built on it, even though other case forms are distinct, being built on the root *ebe*.

23.2.2 Nouns

The inflectional system for nouns is similar to that for pronouns, except for the lack of RR forms. In general, case suffixes for the nominal forms are identical to those on pronominals, except for the oblique, which uses a suffix *-w/t* not found in the pronoun paradigm. As with the pronouns, number is not generally distinguished in the absolutive¹² but for human nouns at least it is distinguished in the marked cases. The following table gives forms for one human noun (*är* ‘man’), which distinguishes number as well as case, and one non-human uncountable (*nu* ‘water’), which does not distinguish number.¹³

As can be seen, the formal marking of number in the nominal paradigm is not entirely straightforward. Recall that in the pronoun paradigm *-be* is a regular marker of non-singular. Here the association of the suffix *-be* can either be with non-singulars generally (as with the DAT2) or more specifically with the plural (ergative *ärbem*) or the paucal/plural (GEN *ärbende*), in other cases it specifically marks dual as opposed to higher numbers (OBL du *ärbet*, OBL paucal/plural *ärt*).

Before leaving the inflectional possibilities of nouns, two important subclasses of nouns must be briefly mentioned.

The first of these is the class of locational postpositions, which share the morphological possibilities of nouns (and can sometimes be used as independent nouns as well, for example *banban* ‘shadow, shade’ (as a noun), ‘underneath’ (as a locational

¹² Just a couple of nouns have reduplicated plural forms, e.g. *toge* ‘child’ vs. *togetoge* ‘children’, although the reduplicated forms are confined to groups of four or five or more.

¹³ Uncountables are also unable to combine with quantifiers like *terbär* ‘many’ (**terbär nu* ‘many water’)—instead, they must use the adjective *kitong* ‘big’, e.g. *nu kitong* ‘big water, lots of water’.

Table 23.7 Pronominal case × number paradigm

	1SG	1NSG	2SG	2NSG	3SG	3NSG	who (SG) ^a
ABS	ynd	ynd	bm	bm	bä	bä	ebe
ERG	ynd	yndberm	bm	bmberm	ymam	ymam	ymam
GEN	tande	tbende	bende	bbende	ybende	ybende	ende
OBL	ta	tbe	be	bbe	ya	ybe	endai
DAT1	tagta	tbegta	begta	bbegta	yagta	ybegta	endeta
DAT2	tapap	tbepap	bepap	bbepap	yapap	ybepap	endepap
LOC	tapapn	tabepapn	bepapn	bbepapn	yapapn	ybepapn	endepapn
ALL	tpapt	tbepapt	bepapt	bbepapt	yapapt	ybepapt	endepapt
COM	yndba	yndba	bmba	bmmba	ymaba	ymabeba	ymaba
PER	yndma	yndma	bmma	bmmba	bäma	bäma	?
ABL	tapapngama	tbepapngama	bepapngama	bbepapngama	yapapngama	ybepapngama	endepapngama
SOU	tapapmne	tbepapmne	bepapmne	bbepapmne	yapapmne	ybepapmne	endemne
RR	tanzo(s)	tberzos	benzo(s)	bbenzos	yanzos	ybenzos	

^a There are also case-inflected non-singular forms of 'who', as with nouns—cf. *endepap* 'to whom (SG)', *endebepap* 'to whom (two to four people)', *endepapt* 'to whom (many)'.

Table 23.8 Case × number paradigm for the countable noun *är* 'man' and the mass noun *nu* 'water'

	<i>är</i> 'man' singular	dual	paucal	plural	<i>nu</i> 'water' singular
ABS	<i>är</i>	<i>är</i>	<i>är</i>	<i>är</i>	<i>nu</i>
ERG	<i>äräm</i>	<i>ärm</i>	<i>ärm</i>	<i>ärbem / ärm</i>	<i>nuwäm</i>
GEN	<i>ärände</i>	<i>äräbende</i> (~ <i>ärbende</i>)	<i>ärbende</i>	<i>ärbende</i>	<i>nuwände</i>
OBL	<i>ärei</i>	<i>ärbet</i>	<i>ärt</i>	<i>ärt</i>	—
DAT1	<i>äreita</i>	<i>äräbet</i>	<i>ärbet</i>	<i>ärkeita / ärbegta</i>	<i>nuweita</i> (BEN) / <i>nugta</i> (PURP)
DAT2	<i>äreipap</i>	<i>ärbepap</i>	<i>ärbepap</i>	<i>ärbepapt</i>	—
LOC	<i>ärän / äreipapn</i>	<i>ärän /</i> <i>äräbepapn /</i> <i>ärbepapn</i>	<i>ärbepapn</i>	<i>ärbepapn</i>	<i>nuwan</i>
ALL	<i>äreipapt</i>	<i>äräbepapt</i>	<i>ärbepapt</i>	<i>ärbepapt</i>	<i>nuwat</i>
COM	<i>ärba</i>	<i>ärbeba</i> (<i>ärba</i>)	<i>ärbeba</i>	<i>ärbeba</i>	<i>nuba</i>
PERL					<i>nuwama</i>
ABL	<i>ärngama</i>	<i>ärngama</i>	<i>ärngama</i>	<i>ärngama</i>	<i>nungama</i>
SOU	<i>ärmne</i>	<i>ärmne</i>	<i>ärmne</i>	<i>ärmne</i>	<i>numne</i>

postposition). These can be added, after the genitive form of pronouns and either the genitive or the absolutive of nouns, to give more precise locational specification. They can then be inflected themselves for an appropriate local case, for example *tande/mnḡ banban-an* 'under me/the house [static location]', *tande/mnḡ banban-at* '[moving to] under me/the house'.

The second is the class of kinship nouns. Unlike other nouns, these allow the possibility of prefixation, for the person and number of the possessor. Sometimes these are transparently formed from the corresponding oblique pronoun—cf. *nngn* 'younger sibling', *yande* 'his/her', *yanngn* 'his/her younger sibling', *tampre* 'in-law', *yampre* 'his in-law'. But others have suppletive roots for the kinship term in the possessive form: *ana* 'mother' but *yadma* 'his/her mother', *dede* 'father' but *yarbe* 'his/her father'.

23.2.3 Verbs

Verbs are the most complex part of Nen in their inflectional morphology. In their morphological structure, verbs divide into 'prefixing' and 'ambifixing' classes.¹⁴ The former show person/number agreement by prefix only; the latter by both prefix (for undergoer) and suffix (for actor). We exemplify these one at a time, beginning with

¹⁴ The labelling contrast, though convenient, oversimplifies somewhat, since some suffixation also exists in 'prefixing' verbs, as we shall see. Prefixing verbs, however, never show person by suffixation.

ambifixing verbs, since these illustrate the full set of inflectional features of which prefixing verbs use only a subset.

23.2.3.1 *Ambifixing verbs*

These make up the vast majority of the Nen verb lexicon, including

- (a) transitive verbs, which index the object by the U-prefix and the subject by the A-prefix,
- (b) ditransitives, which index the indirect object (always in the oblique or dative case) by the U-prefix and the subject by the A-prefix, and
- (c) the very large class of ‘middle verbs’, which index the subject by the A-prefix and fills the U-slot with a person/number invariant¹⁵ ‘middle’ prefix. ‘Middle verbs’ include various forms of derived verbs (such as reflexive/reciprocals and decausatives) in addition to nearly all one-place dynamic verbs, whether their subject is agentive (e.g. ‘work’) or patientive (e.g. ‘fall’).

Ambifixing verbs, unlike prefixing verbs, have infinitives, formed by adding the suffix *-s* to the stem—cf. *nowabtam* [M:α-talk-ND:IMPV-1NSG.A] ‘we (three or more) talk’, *owabs* ‘to talk’. Where there is variation in the form of the stem in inflected forms, it is the dual whose stem is identical to the infinitive stem: cf. *aebyängs* ‘to fly’, *naebnde* ‘(s)he/it is flying’, *naebyängt* ‘they 2 are flying’.

There is a very strong correlation between membership of classes (a)–(c) above, based on valency, and the phonology of the stem-initial. Middle verbs are V-initial, transitives are C-initial, and ditransitives begin with a (*w*)*a*- prefixed to a transitive stem. In many cases these phonological profiles result from the use of different diathetic prefixes—for example the Reflexive/reciprocal prefix *a*- or the autobenefactive *o*-, both of which derive middle stems, will obviously at the same time produce vowel-initial derived stems. But in many other cases the stem is simplex, for example *trärs* ‘send in reply’, *aebyängs* ‘fly’, so it is better to make the more general characterization of the middle class at the beginning of this paragraph, and then point out that the diathetic prefixes produce derived stems conforming to it.

Infinitives may take a range of case and other suffixes, for example *owab-s-t* ‘in order to talk’ [talk-INF-ALL], *wakae-s-pner* ‘[see-INF-PRIV] without seeing’ (see Section 23.2.6 for more details).

¹⁵ Saying that middles always have a person/number invariant prefix is a slight oversimplification. A large/exhaustive plural value for a middle verb can be expressed by replacing the invariant middle prefix with a person/number sensitive U-prefix (singular *w*- etc. for first person, singular *n*- for second person, non-singular *yaw*- for third persons, to give just the α-series forms) and employing a third person singular A suffix. This is accompanied by a special formulation of the subject pronoun, e.g. replacing *ynd* ‘1st person’ with *ibe gbes* ‘1NSG.OBL all’. Compare, for example, *amni b-nd-a* [bird M.α-fly-PST.PFV.ND-3SG.A] ‘a bird flew’, *amni n-aeb-yäng-t* [bird M.α-fly-PST.PFV.DU-2/3NSG.A] ‘two birds flew’, *amni n-aeb-nd-at* [bird M.α-fly-PST.PFV.ND-2/3NSG.A], all with person/number invariant *n*-prefix, as opposed to *amni yaw-aeb-nd-a* [bird 2/3NSG.U.α-fly-PST.PFV.DU-3SG.A] ‘all the birds flew’.

Inflectional prefixes			Stem		Suffix	
				Root	Thematic	Desinence
U (pers/num) + TAM	(Directional)	ected Imperative)	(Diathetic prefix)*		AT+num ^d	A(pers/num)+TAM

FIG. 23.2 Morphological structure of finite ambivalent verbs

*A limited number of double occurrences are possible in this slot—most importantly the transitivity/causativizing prefix *w-* can be preceded by the benefactive prefix (*w*)*a-*.

Finite forms of ambifixing verbs have the morphological structure shown in Figure 23.2. As already noted, the number contrast in the U and A affixes is organized on a singular vs. non-singular basis, while that in the thematic is organized on a dual vs. non-dual system, and AT represents aspect/tense. Many stems are morphologically complex, containing diathetic prefixes as mentioned in Section 23.1.3.4 (for details see Evans *incoming a*); these diathetic prefixes are retained in the infinitive—cf. *wakaes* ‘to see’, *awakaes* ‘to see each other/oneself’. Some sample verbs illustrating these possibilities follow.

- (3) a. d-ne-taw-n
3SG.U.γ-eat-REM.IMPV.ND-1SG.A
‘I’ve eaten it a long while before.’
- b. t-aka-ta-ng
3SG.U.β-see-IMPV:ND-IMP.2PL.A
‘(You pl.) look at him/her!’
- c. k-a-waka-ta-ng
M.β-RR-see-IMPV:ND-IMP.2PL.A
‘Look at (this picture of) yourselves!’
- d. n-n-arab-ta-n
M.α-TOW-ascend-IMPV.ND-1SG.A
‘I’ve come up.’
- e. n-n-and-owab-ta-
M.α-TOW-PROJ.IMP:2PL.A-talk-IMPV.ND-2SG.A.IMP
‘You (many/all) keep talking to me (i.e. hither)!’

The prefixal parts of ambifixing verbs (already given in Table 23.3) largely behave like those of prefixing verbs, except for the availability of the middle prefix, the interactive prefixes (Section 23.1.3.4), and the fact that they index objects rather than (stative) subjects. But the suffixing part, to which we now turn, behaves quite differently.

23.2.4 The Verbal Suffix System

The central organizing principle of Nen suffixal morphology is aspect. The nine TAM values expressible through the suffix system are organized into an imperfective set (three members), a perfective set (also three members), and a neutral set containing

three categories which stand outside the basic contrast.¹⁶ Tense contrasts are skewed across the aspect sets. For the imperfective set, there is a contrast between (a) the ‘present’, which takes in any time from the beginning of today, and is signalled by the basic imperfective plus α -series prefixes, (b) the ‘yesterday past’, denoting events which occurred yesterday or the day before, and is signalled by the basic imperfective plus β -series prefixes, (c) the remote past, signalled by a special remote imperfective suffix series plus γ -series prefixes.

For the perfective set, there is a simple contrast between the past (associated with α -series prefixes) and the future (associated with γ -series prefixes). More precise tense specification can be achieved by the addition of preverbal particles, such as *bä* ‘future’, *tba* ‘just a moment ago’, or *prende* ‘a long time before’. Leaving aside the irrealis, which is defined by mood rather than tense or aspect, in the neutral set there are only past-tense forms. The preterite depicts events in the distant past without any internal dissection of the event, and the ‘primordial’ indicates events which occurred for the first time—either founding events (in the sense that this was the first time they occurred), or actions carried out by their agent for the first time, or as the first in a sequence.

Returning to the aspect contrast, note that the commonest meaning associated with the perfective vs. imperfective contrast is inception/ingression vs. continuation, so the aspectual contrast is primarily focused on the initial rather than the terminal event boundary.¹⁷ Keeping the actor singular, (4a,b) illustrate the contrast for imperatives, (5a,b) for future statements,¹⁸ and (6a,b) for recent pasts (in this case yesterday; more recent pasts, such as earlier today, would use the same suffix but the α -prefix series).

- (4) a. Bm ombte nu t-z-Ø
 2 hot water 3SG.U. β -COOK-PFV.ND.IMP.2SG.A
 ‘Boil the hot water!’ (put it over the fire, boil it from the start)
- b. Bm ombte nu t-z-ya-Ø
 2 hot water 3SG.U. β -COOK-IMPV.ND.IMP.2SG.A
 ‘Boil the hot water! (it’s already over the fire; heat it up more)
- (5) a. \tilde{E} , bā d-z-Ø
 yes FUT 3SG.U. γ -COOK-PF.ASS.1SG.A
 ‘Yes, I’ll boil it.’ (from scratch)

¹⁶ However, the two neutral categories are not equally neutral, since the primordial category is available with prefixing verbs (otherwise limited to imperfectives), whereas the preterite is not.

¹⁷ The terms ‘ingressive’ vs. ‘continuative’ aspect might be more immediately revealing of the prototypical semantics, but I use the more general terms because in some cases there are other semantic effects (e.g. completion vs. non-completion, individual vs. repeated act, singular vs. multiple objects of ditransitive verbs) which cannot be assimilated to the ingressive vs. continuative dimension.

¹⁸ (5a) illustrates an interesting Nen Zi category, the assentive, specialized for first-person assent to commands (i.e. Yes, I’ll do it): these combine the imperative suffix (generally zero) with the γ -series prefix. See Evans (2012) for more discussion of this category.

- b. Ē, bā y-z-ya-n
 yes FUT 3SG.U.α-COOK-IMPV.ND-1SG.A
 ‘Yes, I’ll boil it.’ (it’s already over the fire)
- (6) a. Ynd kae ombte nu y-z-nd-n
 1 ± 1day hot water 3SG.U.α-COOK-P.PFV.ND-1NSG.A
 ‘I boiled the hot water yesterday (from scratch).’
- b. Ynd kae ombte nu t-z-ya-n
 1 ± 1day hot water 3SG.U.β-COOK-IMPV.ND-1SG.A
 ‘I boiled the hot water yesterday (it was already over the fire).’

Table 23.9 summarizes the semantics of each of the ten suffixal TAM categories.

In terms of the availability of suffixal inflection, each Nen ambifixing verb can be assigned to one of the following four groups:¹⁹

- (a) biaspectual, e.g. *zeyas* ‘boil, cook’, *wzers* ‘burn (tr.)’, *esrs* ‘descend’, *elaws* ‘enter’, *amnzs* ‘sit down’, *anġs* ‘return’, *awañms* ‘cover oneself’, *arams* ‘give’, *arers* ‘dig into’, *dres* ‘tear’, *ys* ‘plant’. These can take the full set of TAM inflections.
- (b) perfective-oriented, e.g. *see, notice, find, become aware of*, *wbāts* ‘meet, run into’, *opaps* ‘begin, start’, *sn(e)s* ‘start’, *aebÿāngs* ‘fly’, *ebs* ‘finish’, *anġs* ‘stop (v.t.)’, *wñġis* ‘stand something up, place in a standing position’. These take only perfective and neutral TAM inflections.
- (c) imperfective-oriented, e.g. *wakaes* ‘see, look at’, *eres* ‘hear, listen’, *umbers* ‘bathe’, *nne* ‘eat’. These take only imperfective and neutral TAM inflections.
- (d) transaspectual, e.g. *owabs* ‘talk’, whose basic form is confined to imperfective and neutral inflections, but which can be coerced into taking perfective-series inflections, which are added to the non-dual imperfective thematic²⁰ rather than directly to the stem; so coerced, *owabs* then means ‘speak’.

The three-way partition of TAM categories, on the basis of semantic contrasts and compatibility with verbs from aspectually restricted classes, is further confirmed by formal features of the suffixal system, as we shall see in the next section.

¹⁹ The organization into aspect classes is found in a number of other languages of New Guinea, such as Marind (Drabbe 1955: 31) and Mian (Fedden 2011: 245–58).

²⁰ The non-dual thematic, in this circumstance, is used whether the following suffixal material is dual or not—in this sense it serves as an aspect-derivational suffix and sheds its non-dual semantics. Examples: *nowabtawe* ‘he spoke’ (-*we* ‘PRET:3SG.A’); *nowabtanzt* ‘they two spoke’ (-*anzt* ‘PRET:3DUA’), *nowabtawend* ‘they (three or more) spoke’ (-*wend* ‘PRET:3PLA’).

Table 23.9 TAM suffix categories and their basic semantics

Supercategory	Category	Basic semantics	Associated prefixes	
Perfective	Imperative	Command to start doing X now (β) or later (α)	β, α	
		Mediated command (transmitted to a third party)	γ	
	 Future	Action will begin later	γ	
Imperfective	Current	Action recently occurred (focus on ingression)	α	
	Imperative	Command to do X (β) or to continue doing X for a prolonged period (α)	β, α	
		Basic	Action carried out at some point after the recent past	α (from the beginning of today onwards) β (yesterday past—i.e. in last couple of days but before today)
		Remote	Action carried out a long time ago, often prolonged or repeated	γ
	Neutral	Preterite	Simple occurrence of action, normally a long time ago	α
Primordial		Action carried out for the first time, a considerable time ago	α	
Irrealis		Hypothetical or habitually repeated past actions	α	
	Self-imperative (moral exhortation 'I should [and aren't!])	γ		

23.2.4.1 *The formal organization of verbal suffixes: thematics and desinences*

Following the verb root, finite ambifixing verbs in Nen take a suffix, itself canonically separable into two parts ('thematic' plus 'desinence'), although there is considerable fusion between these. In the special case of transaspectual derivation, verbs take two thematics: the 'basic' one for their verb membership class, plus one suitable for the aspect they are inflected for: *nowabtanda* 'he spoke' is analysable as *n-owab-ta-nd-a* [M: α -speak-ND:IMPV-ND:P.PFV-3SG.A:P.PFV], with the perfective non-dual *-nd-* following the imperfective non-dual thematic *-ta*.

Table 23.10 Partial suffix paradigm for *nāms* 'shoot, transfix' in the basic imperfective. Yesterday past (β -series); 3SG.U form

	Dual actor	Plural actor	Singular actor
1st person actor	tnamm	tnamtam	tnamtan
3rd person actor	tnamt	tnamtat	tnamte

Table 23.11 Partial suffix paradigm for  'see, catch sight of' in the perfective indicative; 3SG undergoer ('we two saw it', etc.)

	Dual actor	Plural actor	Singular actor
1st person actor, past	y-inḡ-a-m	y-inḡ-nd-m	y-inḡ-nd-n
1st person actor, future	d-inḡ-a-m	d-inḡ-ng-m	d-inḡ-ng-n
3rd person, past	y-inḡ-a-nd	y-inḡ-nd-t	y-inḡ-nd-a
3rd person, future	d-inḡ-a-nd	d-inḡ-ng-∅	d-inḡ-ng-a

Taken together, the thematic and the desinence signal TAM (nine categories), 'duality', that is dual vs. non-dual (of some verbal argument, either actor or undergoer [Section 23.1.3.4]), and actor person/number. The following examples, organized into paradigm fragments, clearly show the independence of the thematic and desinence positions.

First, consider the imperfective-oriented verb *nāms* 'to shoot, transfix', taken here in its third singular undergoer form and basic imperfective aspect, yesterday past ('yesterday or in the preceding few days'), so that the prefix + stem gives *tnam*. The segmentability of thematics \emptyset (dual) and *-ta* (non-dual) from the actor-marking suffixes *-n*, *-m*, etc. is quite clear.

Second consider the perfective-taking verb  'to see, catch sight of' (Table 23.11). With third singular undergoer, this has perfective past *yinḡ-* and perfective future *dinḡ-*. Comparing the dual and non-dual columns, we see the higher-order syncretism of the two perfective indicative tense values in the dual thematic (*-a*) but their separate coding in the non-dual (past thematic *-nd*, future thematic *-ng*); the different prefix series ensure the syncretism in the thematic is discriminated in the fully inflected word.

From contrasts like this, we can readily excerpt suffixes such as the following. Some of the actor desinences (e.g. 1SG.A *-n* and 1NSG *-m*) are invariant across all TAM values, while others are specific to just one aspect (e.g. *-e* for 3SG.A, just in imperfectives, corresponding to *-a* for 3SG.A in perfectives) or even to more particular values. Likewise for the thematic suffixes: \emptyset is used for the dual across all imperfectives, *-a-* for all dual perfectives, *-ta-* for all non-dual perfectives, but *-nd-* just for the 'current perfective non-dual' and *-ng-* just for the future perfective non-dual.

Table 23.12 *waprs* 'to make', illustrating the following thematics: imperfective non-dual *-ta*, imperfective dual \emptyset , perfective dual *-a*, future perfective non-dual *-ng*, past perfective non-dual *-nd*.

	Imperfective		Perfective	
	Present	Remote	Future	Past
1PLA>3SG.U	yaprtam	daprtawm	daprngm	yaprndm
1DUA>3SG.U	yaprm	daprm	dapram	yapram
1SGA>2 3PL.U	yawaprtan	dawaprtawn	dawaprngn	yawaprndn
1SGA>2 3DU.U	yawaprn	dawaprn	dawapran	yawapran
3SGA>PL.U	yawapрте	dawapрте	dawaprngа	yawaprndа
3SGA>DU.U	yawaprng	dawaprng	dawaprae	yawaprae

Thematics: dual imperfective \emptyset -, non-dual imperfective *-ta*-
 dual perfective *-a*-, non-dual present *-nd*-,
 Desinences: 1SG.A *-n*, 1NSG.A *-m*, 3PL & 3IMPV.NSG *-t*, 3IMPV.SG *-e*,
 3PFV.SG *-a*, 3PFV.DU *-nd*

So far all examples with the dual have been triggered by the number of the actor (or both actor and undergoer in the case of the middle verb *ungis*). However, as we saw in Section 23.1.3.4, dual thematics can also encode dual number for the undergoer. This is illustrated by Table 23.12, which shows the situation with

- 1SG actors, which employ the normal 1SG.A suffix *-n*, and
- 2|3 SG actors, which with dual undergoers employ the 'interactive' actor suffix *-ng* (imperfective) or *-e* (perfective). Note that the thematic contrast between non-dual and dual-thematics is first illustrated by varying actor number while holding the undergoer constant at 3SG. Then the same thematic alternations are illustrated for combinations with singular actors, but varying the undergoer between plural and dual.

Similar patterns are illustrated in Table 23.13 with the imperfective-only verb *näms* 'to shoot, transfix', and the perfective-only verb *ngis* 'see, catch sight of'.

23.2.4.2 Full set of suffix forms

We will now look more specifically at the integrated set of suffix forms found in the thematic and desinential slots, commenting as we go on a number of syncretisms that reveal the overall lines of the system.

Table 23.13 Dual and non-dual forms of the verbs *nāms* 'to transfix, shoot' and *s* 'see, catch sight of'

	Imperfective <i>nāms</i> 'shoot, transfix'		Perfective <i>s</i> 'see, catch sight of'	
	Present	Remote	Future	Past
1PL.A>3SG.O	ynamtam	dnamtawm	dinḡngm	yinḡndm
1DU.A>3SG.O	ynammm	dnammm	dinḡam	yinḡam
1SG.A>2 3PL.O	yānamtan	dānamtawn	diwinḡngn	yiwīnḡndn
1SG.A>2 3DU.O	yānāmn	dānāmn	diwinḡan	yiwīnḡan
3SG.A>PL.O	yānamte	dānamte	diwinḡnga	yiwīnḡnda
3SG.A>DU.O	yānāmng	dānāmng	diwinḡgae	yiwīnḡgae

Table 23.14 Canonical forms of thematics across all TAM categories

	Imperfective			Neutral			Perfective		
	IMP	Basic	REM	PRI	PRE	IRR	IMP	FUT	PST
ND	ta	ta	taw	tama	we	nganz	∅	ng	nd
DU	e	∅	∅	anz	anz	anz	a	a	a

23.2.4.2.1 *Thematics*

Table 23.14 sets out the canonical forms of thematics across all TAM categories; Table 23.15 gives inflected forms for the verb *waprs* 'to make', exemplifying each desinential TAM category with one relevant A>U value, namely 2PL.A>3SG.U for the non-dual and 2DU.A>3SG.U for the dual. Second person values are chosen because they are the only person available in direct imperatives. As can be seen, thematics exhibit a dual vs. non-dual contrast for all TAM categories.

In general, thematics do not allow further decomposition, but in a few cases they have internal structure, adding a 'thematic augment' to the basic thematic. This is the case with the augmentation of basic non-dual imperfective *-ta* to *-taw* in the non-dual imperfective remote, and to *-tama* with the non-dual primordial. It could also be argued to be the case with the two neutral dual forms *-anz*, which could be treated as non-imperfective dual *-a* plus neutral dual *-nz*, although these could equally well be treated as unanalysable forms, that is, neutral dual *-anz*.

The distribution of forms across aspect × number classes shows significant though not perfect regularity. Correlating perfectly with the aspect × number classes are: perfective dual *-a*, neutral dual *-anz*. Correlating fairly well with the aspect × number classes are: imperfective non-dual *-ta* (but this needs augment *-w* in the remote past

Table 23.15 Illustration of thematics across all TAM categories, using the verb *waprs* 'to make'

	Imperfective		Neutral		Perfective				
	IMP	BASIC	REM	PRI	PRE	IRR	IMP	FUT	PST
ND	taprtang	yaprtat	daprtawt	yaprtamand			taprng	daprng	yaprndt
DU	tapreng	yaprt	daprt	yapranzt	yaprwend pranzt	prnganzt pranzt	taprand	deprand	yaprand

Table 23.16 Canonical forms of desinences across all TAM categories

	Imperfective			Neutral			Perfective		
	IMP	Basic	REM	PRI	PRE	IRR	IMP	FUT	
1SG		n	n	n	n	n		n	n
1NSG		m	m	m	m	m		m	m
2SG	∅	#e	<⊗e	nga	∅	∅	∅		∅
3SG		#e	<⊗e	nga	∅	∅		a	a
2 3PL	ng	t	t	nd	nd	t	ng	∅	t
2 3DU	ng	t	t	t	t	t	nd	nd	nd
2 3>DU	e	ng	ng	ng	ng	ng	e	e	e

imperfective, and once augments are removed strays into the neutral, i.e. primordial *-tama*), and imperfective dual \emptyset (but this does not extend to imperatives).

In addition, in the non-dual there are a number of forms with more specific aspectual values, that is, preterite *-we* in the neutral, and all three specific TAM values in the perfective, namely imperative \emptyset , future *-ng*, and *ent -nd*.

23.2.4.2.2 Desinences

Table 23.16 sets out the full set of desinences across all TAM categories and Actor values for person/number. Note that # means ‘displacing previous vowel’, and <⊗ means ‘displacing previous Vw sequence’. The interactional suffix (2|3>DU) is of course only available with transitive verbs; the others with both transitive and middle verbs.

These desinences are quite stable across verbs and vary little, except for the effects of vowel-harmony on some forms of the preterite (giving e.g. *wi* instead of *wi* for the 3SG.A preterite after stems ending in *-i*). Similar observations can be made to those pointed out for the thematics:

- the first person actor suffixes are constant across all TAM values;
- where actor suffixes exhibit differences according to TAM, this aligns rather well with the aspectual categories, e.g. 2|3DU *-t* in neutral and imperfective (except imperative), vs. *-nd* in the perfective; 2|3>DU *-ng* in the imperfective and neutral but *-e* in the perfective, 3SG *#e* or <⊗e in the imperfective and neutral but *#a* in the perfective, neutralization of 2|3PL and 2|3DU in the imperfective but not the neutral or perfective.

There are a few cases where syncretisms running along an intersecting row and column create glossing ambiguities if thematics and desinences are glossed separately. Consider the suffix *-nd*. This is found for all neutral, non-irrealis, 2|3PL actors (suggesting a gloss NEU.~IRR.2|3DU.A), but also in all perfective 2|3DU actors (suggesting the gloss

PFV.2I3NSG.A). Either gloss is in principle appropriate, but in practice the choice is disambiguated by the preceding thematic, which always makes it clear whether the aspect is neutral or perfective, and hence whether the actor is dual or plural. Once again, the glossing problem disappears if we gloss the suffix cumulatively, rather than breaking it down into thematic and desinential elements.

23.2.4.3 *Projected imperatives*

In addition to basic imperatives—commands to carry out an action here and now, which are restricted to second person subjects—Nen has a category of *projected imperatives*, which issue commands to carry out an action at some subsequent time, typically after the speaker has departed the scene. *Projected imperatives* can have second or third person subjects, being interpreted as jussives in this latter circumstance, and additionally exhibit a contrast between a basic and an iterated form meaning ‘keep doing X over and over again, later on’. Unlike direct imperatives, which are confined to actions, *projected imperatives* can also issue commands over future states (e.g. ‘be careful’, ‘stay up high’)—this will be illustrated in Section 23.2.5 on prefixing verbs.²¹

Projected imperatives draw on three formal elements: the α -prefix series, a variant of the imperative desinence, and a special prefix (i.e. unique to *projected imperatives*) between the undergoer-prefix position and the stem. Examples (7) and (8) illustrate, with a middle and a transitive verb respectively.

(7) Kores n-ang-a-waka-ta-Ø!
 careful 3M. α .IMP.SG-RR-see-IMP-2SG|PL.A
 ‘Look out for yourself!’ (lit. Keep looking at yourself carefully)

(8) Samba_wén gbres y-and-ze-ya-Ø!
 cassava all 3U α .IMP.NSG.A-COOK-IMP-2SG|PL.A
 ‘You (pl.) cook all the cassavas!’ (i.e. keep cooking them till they’re all done)

Number works differently in *projected imperatives* from all other Nen verbal constructions. First, the *projected imperative* prefix itself indicates the number of the agent—the only place in Nen where agent features are systematically indexed on the prefix—in the form of a contrast between singular *ang-* (7) and non-singular *and-* (8). (Alternatively, this could be analysed as *projected imperative a-*—which is shared with prefixing verbs—plus agent number *ng-* (singular) vs. *nd-* non-singular.). Secondly, the number system of the imperative suffix works differently: the zero form of the suffix can have either singular or regular plural readings (as opposed to only singular in normal imperatives), while the suffix *-ng*, which has a normal plural reading

²¹ The first time I heard *projected imperatives* is revealing. The then village headman, the late Aramang Wlila, who used to give instructions for the coming day by megaphone early every morning, told the village *ndandowabtang!* ‘keep talking to him (i.e. to the author, in Nen) over and over again (to help him learn it)’! (This is an iterated form, discussed further in this section).

Table 23.17 Projected imperative forms for *owabs* ‘talk’: ‘talk (later on)!’, etc.

owabs ‘talk’	SG	DU	PL	PL+
2	nangowabta	nandowabe	nandowabta	nandowabtang
3	nangowabta	nandowabe	nandowabta	nandowabtang



FIG. 23.3 Morphological template for prefixing verbs. U = undergoer (here: subject of a ‘stative’).

in regular imperatives, has a large-plural reading in jected imperatives (speakers suggest that this would be appropriate in giving a command to a football team, or to a whole assembled village). jected forms for the verb *owabs* ‘talk’ are illustrated in Table 23.17.

The basic jected imperative forms feed a process of iterative reduplication by which $aNC > NCaNC-$, that is *ang-* > *ngang-* and *and-* > *andand-*. These are used to mean ‘keep doing X, over and over again’. Compare the basic jected imperatives *wangaramta!* ‘(you SG) give me many things (later on)!’ and *wandaramtang!* ‘you (many) give me many things (later on)’ with their iterative forms *wngangaramta!* ‘you SG. give me many things later on, over and over again’ and *wndandaramtang!* ‘you (many) give me many things later on, over and over again’.

23.2.5 Prefixing Verbs

Prefixing verb template shown in Figure 23.3. In the following examples, the roots are boldened, and α, β, γ denote the TAM-sensitive prefix variants as already discussed. These examples also illustrate the workings of the three-way directional contrast (*n-* ‘towards’, *ng-* ‘away’, with absence being neutral). Note that the directional contrast is also available with ambifixing verbs but is simpler to illustrate here.

- (9) a. W-**ng-m**
1SG.U. α -AWA-**ng-m**
‘I am going’
- b. Q-n-m
1SG.U. β -TOW-be
‘I came (recent past)’
- c. K-n-m!
2SG.U. β -TOW-be
‘Come!’
- (10) a. w-**aki-ngr**
1SG.U. α -be.standing- STAT:ND
‘I am standing’
- b. yn-**aki-aran**
1SG.U. α -be.standing- STAT:DU
‘we (two) are standing’

Table 23.18 The special combinatoric procedure for four-way number system of posals

Number	Pronominal prefix	Stative suffix	Ex. with <i>tromngr</i> 'be erected'
Singular	<i>sg</i>	non-dual <i>-ngr</i>	<i>ytromngr</i>
Dual	<i>nsg</i>	dual <i>-aran</i>	<i>ytromaran</i>
Paucal/small Plural	<i>nsg</i>	non-dual <i>-ngr</i>	<i>yätromngr</i>
Large/exhaustive plural	<i>sg</i>	dual <i>-aran</i>	<i>ytromaran</i>

Prefixing verbs form a small, closed class of around 30, comprising:

- the verb *-m* (non-dual) / *-ren* (dual) 'be' and its directional derivatives *-n-m* / *-n-ren* 'come' (lit. 'be thither') and *-ng-m* / *-ng-ren* 'go' (lit. 'be thither');
- the verb for 'walk', which also exhibits a dual vs. non-dual suppletion: dual *wen*, singular and first person plural *-tan*, second/third person plural *-utan*;
- a group of over twenty-five 'posals' (positional/posturals) with meanings like 'be sitting', 'be immersed', 'be wedged', 'be the end of something'.

Posals have a number of special properties, most importantly

- a special stative suffix pair (dual *-aran*, non-dual *-ngr*), not available for other verbs, as illustrated in (10a,b);
- fully productive participation in a three-way series with corresponding transitive verbs (e.g. posal *éserngr* 'be immersed', transitive *wésers* 'immerse', middle *éasers* 'become immersed');
- a distinct way of constructing a four-way number contrast that combines singular pronominal prefixes with dual stems/stative suffixes to give a '(large) plural' reading (Table 23.18; examples (11a–d)).

(11a) *Mn̄g* *y-trom-ngr*
 house(ABS) 3SG.U.α-be.erected-STAT:ND
 'A house is standing.'

(11b) *Mn̄g* *yä-trom-aran*
 house(ABS) 3NSG.U.α-be.erected-STAT:DU
 'Two houses are standing.'

(11c) *Mn̄g* *yä-trom-ngr*
 house(ABS) 3NSG.U.α-be.erected-STAT:ND
 'Three or more house(s) are standing.' (paucal)

Table 23.19 Tense contrasts in four prefixing verbs

	<i>-m</i> 'be'	<i>-akingr</i> 'be.standing:ND'	<i>-tan</i> 'walk:SG'	<i>-wen</i> 'walk:DU'
Present	<i>w-m</i> 'I am'	<i>w-akingr</i> 'I am standing'	<i>w-tan</i> 'I walk'	<i>yn-wen</i> 'we two walk'
Recent past	<i>q-m</i> 'I was'	<i>q-akingr</i> 'I was standing'	<i>q-tan</i> 'I walked'	<i>tn-wen</i> 'we two walked'
Remote past	<i>ḡ-nzron</i> 'I was (long ago)'	<i>ḡ-akingron</i> 'I was standing (long ago)'	<i>ḡ-ta<w>n</i> 'I walked (long ago)'	<i>dn-wen</i> 'we two walked (long ago)'

- (11d) Mn̄g y-trom-aran
house(ABS) 3SG.U.α-be.erected-STAT:DU
'All the houses are standing.' (exhaustive / large plural)

All prefixing verbs, as a class, share a number of further characteristics, most importantly:

- (a) unlike ambifixing verbs, they lack infinitives;
(b) although capable of expressing some tense contrasts through a combination of prefix series and (limited) verbal suffixation, infixation, or suppletion, this is limited to TAM values from the 'imperfective set' (see Section 23.2.4) plus the aspectually-neutral primordial. This likely reflects the fact that all prefixing forms denote states, and are hence aspectually incompatible with the state-transitions (generally ingressive) associated with the perfective. The only exceptions to this are the verbs for 'walk', 'come', and 'go', the latter being the 'towards' and 'away' forms of 'be'.

Sample three-way tense contrasts for the first person singular of the verbs *-m* 'be:ND', *-tan* 'walk:SG', and *-akingr* 'be.standing:ND', and the first person dual of *wen* 'walk:DU' are given in Table 23.19.

Although the discussion so far has focused on the distinct properties of prefixing verbs, they nonetheless share a number of characteristics with ambifixing verbs. Leaving aside elements introduced either by the dynamic aspectual possibilities of ambifixing verbs, and by the greater valency possibilities found in transitive, ditransitive, or middle constructions, their prefixes essentially behave identically to those found with ambitransitives, making it possible to give a close to completely unified account of prefixing morphology across all verbs. Thus the U-prefixes have the same forms for the same person/number combinations, the TAM interpretations of the three series are identical, both prefixing and ambifixing verbs employ the directional

Table 23.20 Objected imperative paradigms for *m/ren* 'be' and *aki* 'stand'

'be'	SG	DU	PL	large.PL
2	nam	yawaren	yawam	yawamn
3	yam	yawaren	yawam	yawamn
'be standing'				
2	nangakingr	yongakiaran	yongakingr	yongakingr
3	yangakingr	yongakiaran	yongakingr	yangakiaran

series in the same way, and both make identical use of the objected imperative' slot (Section 23.2.4.3).

In fact, for most prefixing verbs the only imperatives available are objected imperatives. This has to do with the fact that almost all prefixing verbs denote states, and that direct imperatives cannot be used in Nen to command the continuation of a state. The only prefixing verbs which permit direct imperatives are the verbs 'walk', 'come', and 'go' (shown by the choice of the β -series of the undergoer prefixes, as in example (9c)). On the other hand, it is perfectly fine to issue commands regarding future states using the objected imperative, as illustrated in (12a–c).

- (12) a. Bm n-n-ang-aki-ngr!
 2ABS 2SG.U. α -TOW OBJ.IMP.SG.A-be.standing- STAT:ND
 'You keep standing to this side!'
- b. Yao n-ang-sne-ngr!
 NEG 2SG.U. α OBJ.IMP.SG.A-be.attached-STAT:ND
 'Don't remain attached!' (i.e. break up your illicit relationship)
- c. Bm mai yong-aki-aran!
 2ABS still 2|3SG|PL.U OBJ.IMP. α -stand- STAT:DU
 'You (DU) keep standing!'

As with ambivalent verbs, objected imperatives with prefixing verbs have their own paradigms, and again they distinguish a plain and a large plural. Sample objected imperative verbs for 'be' and 'be.standing' are given in Table 23.20. Note that 'be' (and its derivatives 'come' and 'go', not shown here) simply prefix *a-* to the root, whereas the others use a more complex method which includes information about person and number).

23.2.6 Non-finite Constructions

Nen makes extensive use of non-finite constructions which employ the infinitive form of verbs, in some contexts suffixed with a case suffix or one of a couple of other

subordinating suffixes found just on infinitives, such as *-ae* ‘simultaneous same-subject action’ and *-ige* ‘prior or completed action’. The existence of infinitives is a boon to lexicographers—and presumably to child language-learners—allowing us to strip away the luxuriant complexity of ambitransitive verbs and obtain a form which is only one suffix away from representing the bare stem. Infinitives can be used on their own as a sort of impatient command to jolt action which it is presumed all are already contemplating, for example *yls* [go:INF], something like ‘(come on then, time) to go’.

As mentioned in Section 23.2.5, only ambifixing verbs have infinitives (although a nonce form *yls* is available to serve as an infinitive equivalent for the prefixing verbs ‘come’ and ‘go’), and they are formed pretty regularly by adding *-s* to the stem. Interestingly, where there are significant formal differences between dual and non-dual finite forms (or suppletions in the extreme case), it is the dual which is generally closer to the infinitive. For example, ‘carry’ has the suppletive stems *renz* (DU) and *ane* (ND), but the infinitive is *renzas*; likewise *amzs* ‘sit down’ has the dual stem *amz*, increased by *n*-infixation to *am<n>z* in the non-dual.

Infinitives include diathetic prefixes, such as the reflexive/reciprocal, or the causative prefix distinguishing, for example, *armbs* ‘to ascend’ from *warmbs* ‘to take/bring up’, but no other categories found on finite verbs. For a few ambitransitive verbs the infinitive is irregular or replaced by an appropriate noun. Thus ‘eat’, whose stem is *ane* and for which we would expect the infinitive **wanes* (transitive) or **anes* (intransitive), lacks either of the predicted forms and instead uses the form *nne*, identical in form to the noun *nne* ‘food’ (example (13b)).

One use of non-finite constructions is lexical nominalization. Infinitives, with or without suffixation, are used to form expressions like *wabae-s yam* [think.about-INF practice] ‘love for others, caring and sharing’ or *wib-s-pna* [complete-INF-PRIV] ‘incomplete’. They also serve as input to agent nominalizations, formed by adding *-er* to the infinitive, for example *wawaps-er är* [teach-INF-AG.NMLZR person] ‘teacher’.

But even more common is the use of non-finite constructions in a variety of clause-linkage types. These include complements, particularly of phasal predicates like *opaps* ‘begin’ (13a) and *ibs* ‘finish’ (14), with prior suffix *-ig* (making normal case use), adverbial clauses of purpose (1a), relative clauses (15), and adverbial clauses expressing simultaneity—through the locative case (16), typically when different subjects are involved, or through a special suffix *-ae* (without any reported case function) where there is unity of participants and simultaneous action (17).

(13) a. Ynd ls-as-t y\ a-pam/dn
 1ABS warm-INF-ALL 1SG>3SC PFV/TR-begin
 ‘I am beginning to warm it.’ [L4]

b. Ynd nne-t n\ opap/ndn
 1ABS NF-ALL 1SG.P.PFV\begin
 ‘I’m beginning to eat.’

- (14) Ynd nne y-s-ige y\ib/ndn.
 1ERG yam(ABS) plant-INF-PRIOR 1SG>3SG PFV\finish
 ynd mn̄g-t debe kn\an̄g/tan.
 1ERG home-ALL and.then 1SG.A.TOW.YPST.IMPV /return
 ‘I finished planting yams, and then I came home.’
- (15) ynd ni-s-mne gwenzär_kp y\in̄g/ndn.
 knife hide-INF-SOU money(ABS) 1SG>3SG.P.PFV find
 ‘I found some hidden money’ (money that was hidden).
- (16) Ynd nne y-s-n,
 1ERG yam plant-INF-LOC
 tande buder-m w\in̄g/nda
 1SG.GEN friend-ERG 3SG>1SG.P.PFV\find
 ‘While I was planting yams, my friend found me.’
- (17) Ungi-s-ae zizi aba n\owab/tat.
 stand-INF-SS talk REC.PST 3PL.A:IPF\talk
 ‘They are standing around having a yarn.’

An interesting feature of infinitives with phasal auxiliaries in verbs is that it is not just the person and number features of the actor which get registered on the phasal auxiliary instead of the infinitivized main verb, but also those of the undergoer (18a–c). Phasal auxiliaries must match the valency of the base verb, and in addition to middle (13b); stem *opap*) and transitive form (18a,b); stem (*w*)*apap*) there is also a ditransitive form (18c) (*w*)*awapap*, derived from the transitive form by prefixing the benefactive diathetic prefix (*w*)*a-* to the stem and undergoer of the main verb.²² (Note that this phasal auxiliary—or more precisely, this triplet of valency-sensitive phasal auxiliaries—can mean ‘be about to’, ‘begin to’, or ‘try to’).

- (18) a. Zän-äm bm zär-s-t n\apap/nda.
 dog-ERG 2ABS bite-INF-ALL 3SG>2SG.P.PFV\try
 ‘The dog is trying to bite you.’
- b. Zän-äm bä yta zär-s-t y\apap/nda.
 dog-ERG 3ABS in.vain bite-INF-ALL 3SG>3SG.P.PFV/try
 ‘The dog is trying to bite him.’ (N4:125)

²² Normally the phasal and infinitive are syntactically adjacent, suggesting a treatment where they form a single merged unit, accounting for the passing of double agreement to the phasal. However, contiguity of infinitive and phasal is not required for grammaticality: ‘I am trying [yapapndn] to cut [kapst] black palm [katro]’ can be expressed as *Ynd katro kapst yapapndn*, *Ynd kapst katro yapapndn*, or *Ynd katro yapapndn kapst*, showing that there is neither an ordering nor an adjacency requirement between the two words.

c. Ahā bae ynd begta tande yéþ
 here.you.are [name]1ERG 2SG.DAT1 1SG.POSS bag(ABS)

räm-s-t n-ng-a-wa-pap-nd-n.
 give-INF-ALL 2SG.U.α-AWA-BEN-TR-begin-P.PFV:ND-1SG.A
 ‘Here, Gbae, I’m about to give you my bag.’

23.3 CONCLUDING REMARKS

Nen inflection exhibits many unusual and paradoxical characteristics. The division into prefixing and ambifixing verbs sets up a major split in the morphological possibilities of these two classes of verbs. And despite its complex finite verbal morphology, it also possesses frequently-used non-finite constructions that strip verbs back to very simple forms. While the case system is consistently ergative, the agreement system is unusual: although in some ways it resembles an ‘active’ or split-S system, the semantic base for the split is not agentivity or control but dynamicity vs. stativity. Likewise, the organization of verbs into aspect classes and the basic category opposition between two aspectual series, are both familiar enough, but the primary semantics of the aspectual opposition—ingressive vs. non-ingressive—is more unusual.

In many parts of the grammar Ne strates the possibility of distributing partial information across multiple elements—whether different words (e.g. pronoun and verb), or different parts of the same word. In the latter case, the distribution may be distal, that is, distributed between prefixes and suffixes, or proximal, distributed between adjoining thematics and desinences within the suffix zone. Only when all these elements are unified do se reveal a paradigm of fully unambiguous forms. There is a prevailing tension between the possibility of analysing subsystems of inflection independently—which can be done if one is prepared to pay the cost of semantic underspecification or abstraction—and of integrating them in a way that maps each feature value combination in a precise way across the relevant coding sites in a grand circumfixal paradigm. Whether the latter strategy is more appropriate for production and the other for parsing is an interesting question—as is the question of whether and how far speakers and learners represent these subsystems independently.

Many aspects of formal patterning within these paradigms are also typologically unusual. The central role of the dual vs. non-dual opposition in the number system is perhaps the most striking, particularly given the many clues for dual being formally unmarked, such as zero realization in the imperfective thematic paradigm, and the greater formal resemblance of infinitives to dual than to non-dual stems. But so is the greater elaboration of number categories in marked cases than in unmarked ones—that is, the lack of distinct number marking on absolute nouns and pronouns—although in this case one can propose a functional explanation in the form

of disambiguation of number-unspecified absolutive pronouns through specification within the verbal agreement system.

A complex part of Nen grammar that there is insufficient space to tackle here in a dedicated way is the elaboration of a four-way number contrast, with the fourth value (large or universal plurals) cobbled together by different means in different grammatical systems: combining singular prefixes and dual suffixes with plurals, using special prefix forms (probably grammaticalized from ‘away’) with object imperatives, replacing the person/number-invariant middle prefix with an h-singular prefix in middles, and re-tasking the singular vs. plural imperative suffix system in projected imperatives so that it becomes a plural vs. large plural contrast (backed up by a singular vs. non-singular contrast in the projected imperative prefix itself). A common thread through many of these methods is the doubling back of singular agreement-affix values to give a large or universal plural value when combined with these other constructional means.

Another interesting type of syncretism concerns the collapse of the three-way person system to a two-way opposition in terms of agreement patterning. The commonest pattern is to collapse second and third person (amply exemplified here in both prefix and suffix systems). But there are also cases where first and third person are grouped together against second (as in the interactive prefixes *ko-* and *kongo-*, respectively 1|3DU>3DU and 1|3DU>3PL), and where first and second are grouped against third: recall that dual morphology is unexpectedly eschewed just where there is a first or second person undergoer acted upon by a dual actor (Section 23.1.3.4).

As we come to know more about the Morehead languages, we will be better positioned to understand what currently appear to be puzzling anomalies. For example, there is a close entanglement of the unusual dual vs. non-dual number contrast on thematic and the basic aspectual contrast. Could this have evolved from a system that was primarily aspectual, with number readings coming in later by coercion from aspectual meanings like semelfactive, iterative, resumptive, etc. (e.g. ‘continue doing an already-started action’ > ‘do action again’ > ‘do twice’ > ‘duactional’ > ‘dual’)?²³ Likewise, what is the historical reason for the strangely limited number of prefixing verbs—can we reconstruct a series of steps that saw the gradual extension of middle morphology from reflexive/reciprocals proper, via reflexiva tantum, on through the reinterpretation of the relevant marking to dynamic, then leading to the gradual whittling away of prefixing verbs to all but a core of statives? Intensive work is currently underway on a number of languages of the family, and we hope to be able to furnish answers to questions like these in the next few years, as we obtain comprehensive descriptions of at least some of the languages of this fascinating language family.

²³ See Krifka (1992) for some interesting remarks on the relationship between number and aspect.

APPENDIX 1

ORTHOGRAPHY SUMMARY (GRAPHEMES IN <>)

Consonants						
	Bilabial	Alveolar / dental	Palatal	Velar	Labial-velar	Glottal
Voiceless stop	p <p>	t̥ <t>		k <k>	k̠p̠ ^w <q>	
Voiced stop	b 	d <d>		g <g>	g̠b̠ ^w <g̃>	
Prenasalized stop	mb <mb>	nd <nd>	ndʒ <nz>	ŋg <ng>	ŋg̠b̠ ^w <nḡ>	
Nasal	m <m>	n <n>	ɲ <ñ>			
Voiced fricative			z ~ dʒ <z>			
Voiceless fricative		s <s>				h <h>
Lateral		l <l>				
Trill		r <r>				
Semi-vowel			j <y>		w <w>	

Vowels				
	Front		Back	
	Non-short	Short	(Short)	Non-short
High	i (i)	ɪ (é)		u (u)
Mid	e (e)		ɤ (á)	o (o)
Low	æ ~ ɛ (ä)			a (a)

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