7 *Animacy, class and gender in Burmeso*

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1 Tom Dutton and the northern Mamberamo?

As far as I have been able to determine, Tom Dutton has never, in his long and distinguished career as a linguist in the New Guinea region, been to, contemplated going to, or even in any particular way thought about, the northern Mamberamo area. It wasn't his area; Bert Voorhoeve summarised and speculated on what (little) was known about the area of the former Dutch colony in the west in the survey volumes of the 1970s, based on Dutch surveys of twenty years before, and no-one troubled the river for the next twenty years. The only direct connection, tenuous at that, that I can dredge up between Tom and the northern Mamberamo is that when Bill Foley suggested that I go and look at the area for him, Tom was one of the first to hear about the plan, and was enthusiastic about the idea; and that he retired while I was actually doing just that. It's a tenuous connection, but it'll have to do.

Between Tom and myself, I can claim that when I was merely contemplating a higher degree in linguistics it was Tom Dutton who made time to chat with me, explain how things worked a bit, and put my mind at ease on several issues. In that respect, I might never have trudged and paddled over the Mamberamo were it not for his helpfulness. So I guess there's a more substantial connection between Tom Dutton and the northern Mamberamo after all. Certainly there's one between Tom Dutton and the northern Mamberamo fieldworker.

2 Burmeso

Burmeso is an isolate spoken along the eastern banks of the middle and lower Mamberamo river area of northern Irian Jaya. It is spoken by about 300 people in the village of Burmeso, and in surrounding hunting and sago grounds as far as five days' walk away. It has also been referred to as Taurap (e.g. Voorhoeve 1975a), a name most probably derived from the word for language, *tauraf*. The name *Burmeso* (used in Silzer & Heikkinen 1991) is a name by which they call themselves that is both in current use by the government and other ethnic groups in the region, and acceptable to native speakers, and so is used here. The only

earlier material on the language is found in Voorhoeve (1975b), a summary and startlingly accurate (given the paucity of materials available to him) analysis of earlier lexical materials. Voorhoeve classified Burmeso as a language isolate in northern Irian Jaya, not having any discernible relatives on the basis of the lexical materials. This classification cannot challenged today, even given the improved understanding of the linguistic situation in northern Irian Jaya that has emerged in recent years, and a knowledge of some aspects of the structure of Burmeso and other languages in Northern Irian.

2.1 Verbal agreement

A transitive verb in Burmeso agrees with its object, as seen in (1)a and (2). Some (but not all) intransitive verbs use these same agreement prefixes for their intransitive subject, and that use is exemplified in (1)b (the shape of the agreement marker in (1)b is *n-*, not the perhaps expected *g-*, because *owori* belongs to the class of verbs that take the second set of prefixes; see Table 3 for the correspondences, and compare with (10)a and (12)a; because of this distribution, we may state that the prefixes are absolutive agreement prefixes; there is no ergative agreement position on the verb. The word order in the clause is SOV, with some case marking that is not relevant to the discussion here. The prefixes that carry this agreement will be glossed simply as 'AGR' in this section,[1] until the full range and variation in the occurrence of their use have been demonstrated.[2] Notice the variation in the verbal prefix in (1) and (2) as we vary the number of the object noun (number is always marked on nouns in Burmeso).

(1)a.   *Da tamo   j-ihi-maru.*
        1SG man.SG AGR-see-TPAST
        'I saw a man.'

  b.   *Da ifor-ni   n-owori-ko.*
        1SG canoe-LOC AGR-paddle-YPAST
        'I paddled in the canoe.'

(2)   *Da dit   s-ihi-maru.*
        1SG men.PL AGR-see-TPAST
        'I saw some men.'

Furthermore, this agreement contains information about the type of object seen, in terms of its nominal classification:

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[1]   The following abbreviations are used in this paper:
      AGR = agreement; ANIM = animate; DU = dual; F = feminine; INAM = inanimate; LOC = locative; M = masculine; N = neuter; OBJ = object; PL = plural; POSS = possessive; PRO = pronoun; RC = relative clause; RPAST = remote past; SG = singular; TPAST = today's past; SiC = sibling's child (niece or nephew); YPAST = yesterday's past.

[2]   The Burmeso examples are presented in an orthography halfway between the practical orthography and the underlying phonemic system. Most notably /j/ has been written before [i], in which position it is not pronounced (and so not represented orthographically; (1) is written *Da tamo ihimaru*). Underlyingly voiced stops are frequently pronounced without voicing in word-final position, and a final *b* alternates with [m] in this position. The division between the root and the plural morpheme in nouns has not been indicated, nor has word-final lowering of high vowels (/i/ → [e], /u/ → [o]).

(3)   *Da nawak   g-ihi-maru.*
      1SG woman.SG AGR-see-TPAST
      'I saw a woman.'

Despite distinguishing (so far) a male, female, and (male) plural category, we may note that there are points at which the system collapses potential distinctions; 'I saw some women' uses the same verbal agreement form as does (2), *Da nudo sihimaru*, revealing the *s-* to be a prefix that neutralises the distinction between the male and female classes. For the animate world, we have a system as follows:

Table 1: Animate agreement prefixes in Burmeso

	Singular	Plural
male	*j-*	*s-*
female	*g-*	*s-*

Examining non-humans, we find that while many animate nouns (mammals, most birds) are treated as male for the purposes of agreement, very few are treated as female. Furthermore, there are nouns with agreement patterns that are not characterisable as belonging to either of the patterns described above. Examine the following representative examples:

(4)a.   *Da sibo   j-ihi-maru.*
        1SG pig.SG AGR-see-TPAST
        'I saw a pig.'

   b.   *Da sirudo s-ihi-maru.*
        1SG pig.PL AGR-see-TPAST
        'I saw some pigs.'

(5)a.   *Da timar   g-ihi-maru.*
        1SG bat.SG AGR-see-TPAST
        'I saw a bat.'

   b.   *Da timnarid s-ihi-maru.*
        1SG bat.PL   AGR-see-TPAST
        'I saw some bats.'

(6)a.   *Da kwehia g-ihi-maru.*
        1SG frog.SG AGR-see-TPAST
        'I saw a frog.'

   b.   *Da kwehorudo j-ihi-maru.*
        1SG frog.PL   AGR-see-TPAST
        'I saw some frogs.'

(7)a.   *Da suabo   j-ihi-maru.*
        1SG rain.SG   AGR-see-TPAST
        'I saw some rain.'

   b.   *Da suado j-ihi-maru.*
        1SG rain.PL AGR-see-TPAST
        'I saw some rains.'

(8)a.   *Da mibo   j-ihi-maru.*
        1SG banana.SG AGR-see-TPAST
        'I saw a banana.'

  b.   *Da mirar   g-ihi-maru.*
        1SG banana.PL AGR-see-TPAST
        'I saw some bananas.'

(9)a.   *Da wif   g-ihi-maru.*
        1SG coconut.SG AGR-see-TPAST
        'I saw a coconut.'

  b.   *Da wifemow   g-ihi-maru.*
        1SG coconut.PL AGR-see-TPAST
        'I saw some coconuts.'

The full system of agreement between verb and class of noun occurring as object as demonstrated in the examples above can be summarised in Table 2. This is the system of verbal prefixing found in a large number of verbs, and there are (counting the singular/plural alternations) six different prefixal sets, even though there are only three actual prefixal forms.

Table 2: Noun class agreement prefixes: set I

Informal description		Class	Singular	Plural
Male		I	*j-*	*s-*
Female	Animate	II	*g-*	*s-*
Miscellaneous	Non-animate	III	*g-*	*j-*
Mass nouns		IV	*j-*	*j-*
banana, sago tree		V	*j-*	*g-*
arrows, coconuts		VI	*g-*	*g-*

With these classes, we would call *tamo* in (1) and *sibo* in (4) class I, *nawak* in (3) and *timar* in (5) class II, and *kwehia*, *suabo*, *mibo* and *wif* in (6)–(9) as classes III–VI respectively. It is interesting to note that the pronouns do not all appear in one class; the plural pronouns *day* 1DU, *boro* 1PL and *bito* 2PL (illustrated in example (10)c below) are animate and plural, but cannot be characterised as belonging to class I or class II since the agreement prefixes for the plural of both these classes is *s-*. The singular pronouns are also animate, with *da(wo)* 1SG being class II, and *ba(wo)* 2SG being class I, as seen in (10)a and (10)b, in which the pronominal recipient of the giving is indexed as the object of the verb with *g-* or *j-*, depending on whether it is first person or second person.

(10)a.   *Tamo   da wif   g-i-ru.*
         man.SG 1SG coconut.SG II.SG-give-TPAST
         'The man gave me a coconut.'

  b.   *Tamo   ba wif   j-o-ru.*
         man.SG 2SG coconut.SG I.SG-give-TPAST
         'The man gave you a coconut.'

   c.   *Tamo   day / boro / bito wif   s-i-ru.*
        man.SG 1DU / 1PL / 2PL   coconut.SG ANIM.PL-give-TPAST
        'The man gave us / you lot a coconut.'

Equally interesting is the fact that six classes are distinguished, in the singular and plural, with only three prefixes; it is hard to give glosses for these prefixes that reflect their distribution. The animate plural prefix *t-* is the only constrained prefix, but we can see from Table 2 that the glosses for *j-* are all of I.SG, V.SG, III.PL and IV (SG or PL); the remaining prefix *g-* has a similar range of meaning. In this respect it is notable that the class agreement prefixes are not pronominal; the example given in (10)a is not a pedantic repetition of the object both on the verb and with an NP: the sentence **Tamo wif giru* without the free pronoun is not an acceptable sentence, even given a context for the first person singular as a discourse topic.

In addition to this set of agreement prefixes, other verbs follow the same pattern, but use a different set of prefixes; there are no obvious semantic correlations for verbs which take the different sets of prefixes, and both sets of verbs are of approximately equal size. This will be only partly exemplified here:

(11)a. *Jamo   tamo   b-akwa-ru.*
         dog.SG man.SG I.SG-bite-TPAST
         'The dog bit a man.'

    b. *Jamo   dit   t-akwa-ru*
         dog.SG man.PL ANIM.PL-bite-TPAST
         'The dog bit some men.'

(12)a. *Jamo   nawak   n-akwa-ru.*
         dog.SG woman.SG II.SG-bite-TPAST
         'The dog bit a woman.'

    b. *Jamo   nudo   t-akwa-ru.*
         dog.SG woman.PL ANIM.PL-bite-TPAST
         'The dog bit some women.'

Each of this set of prefixes matches a prefix from the first set, with *b-* (or zero) corresponding to *j-*, *n-* corresponding to *g-*, and *t-* matching *s-*; there does not seem to be any recognisable semantic factor that decides whether a verb takes the *j-/g-/s-* prefixes or the *b-/n-/t-* set. The system can be seen in Table 3:[3]

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3   This set is slightly more complicated. There is also a 1SG prefix *d-*, yielding forms such as *Jamo da dakwaru* 'The dog bit me' (though still not **Jamo dakwaru*, without a free pronoun), and the class marker *b-*, especially when used to agree with a singular nominal, is absent for some verbs (in which case the absence of an overt agreement marker is the only indication of the class). Historically it appears likely that *s-* and *t-* share a common origin (there is allophony between these consonants elsewhere in Burmeso), and that *n-* and *g-* are derived from a **ŋ* (there is no *ŋ* in the contemporary language, though there is some scanty areal evidence to suggest that an earlier *ŋ* and *ŋw* have become *h* and *hw*). These complications are not relevant to the exposition following.

Table 3: Class agreement prefixes: set II

Class	Singular	Plural
I	b-	t-
II	n-	t-
III	n-	b-
IV	b-	b-
V	b-	n-
VI	n-	n-

We have now seen the possibilities for agreement with verbs. Some indications of the kinds of nouns that are found in the various classes will now be given, split into the categories of body parts, living creatures, tools, plants, and nature. These nominal categories are not reflected in the language itself, but are useful for making a comparison of the kinds of nominals of different broad semantic types that are found in each of the classes. Classes I, II and III account for nearly 90% of all nominals, almost half of those belonging to class I, and class III making up most of the remainder. Of the remaining three classes, class IV is by far the largest.

Table 4: The distribution of lexical items into noun classes

Class	Body parts	Humans	Non-human	Tools	Plants	Nature
I	wound neck	male humans 2SG PRO	(most birds, animals, etc.)	machete eating equipment	tree, bamboo pandanus betel, lime	sea rock
II	nose ear eye	female humans 1SG PRO	black cockatoo small bat	knife house string sago canoe	–	–
III	(most body parts)	female child	(insects) (lizards) cassowary	canoe bow axe bench upper sago trough	papaya rattan (all tubers)	wind mountain, lake rainbow lightning fire star
IV	head flesh faeces finger elbow	–	–	–	–	sun cloud (= sky) rain sand mud
V	–	–	–	–	banana sago tree	–
VI	–	–	–	(all arrows)	coconut rice	–

It is clear that class I is the general animate class, class II is the female class, and class III the general residual class; classes IV–VI are smaller classes, with very few members, in a narrow semantic range (class IV consists of just some body parts and mass nouns; class V contains (two) plants only, and class VI consists of only coconuts, rice (a recent and rare newcomer to the region), and the various arrow types).

The inanimate members of class I clearly reflect the male orientation of this class; the only 'body part' in this class is a wound, the result (typically) of war, a male domain; the sea, a male trading domain, is also class I, as are machetes and the implements (bowls, plates, forks, sago chopsticks) associated with eating.

In addition to human females, class II contains the tools associated with them, and two flying creatures that are associated with evil intentions, the black cockatoo (*kakatua raja* in Indonesian) and a small bat that flies at dusk. Interestingly, the sensory organs of perception, *amtik* 'nose' *ara* 'ear' and *janar* 'eye', are included in this class as well.

Class IV is the 'mass noun' class; the typical exponents are the mass concepts of flesh and faeces, removable parts of the body which are then not countable, as well as sand and the element of the daytime sky. Head seems out of place here, unless it is considered uncountable by virtue of the treatment of heads taken in warfare, which are massed in a skull house in such a manner as to be not readily countable. The sun, too, might strike an Indo-European reader as an odd member of this 'mass' class, but amongst the Burmeso the sun is not thought to be one entity, and since these different suns cannot be distinguished, they are effectively a mass noun-set; the word also means 'day', a more countable concept. Classes V and VI have been recorded only with the members listed; and class III is in effect the sum of those things that have not been classified into one of the other classes, the 'other', underspecified, category. Interestingly, human female children are counted in this class, not in the class that contains other female kin terms (in contrast to male children, who are in class I along with all other male kin terms).

In addition to these agreement paradigms there are some verbs that do not take these prefixes, but which appear with suppletive forms showing the number of the absolutive argument. Furthermore, in many verbs the tense suffixes are inflected for the number of the absolutive argument. Although the use of the class agreement prefixes does not extend to these verbs, the class prefixes are found on a few nominals, showing agreement with an obligatory possessor.

2.2 Nominal agreement

Although it is not a regular feature of the language, a couple of nominals (denoting body parts) must appear with prefixes indicating the class of the possessor. Normal possession is always optional, and is indicated with possessive forms of the free pronouns (which in turn show correspondences with the second set of verbal prefixes). The forms of the possessive prefixes are shown in Table 5.

Table 5: Possessive marking

	Free pronoun	Possessive pronoun	Possessive prefix
1SG	*da*	*de, d-*	*g-*
2SG	*ba*	*be, b-*	*j-*
3SG	–	*e*	*j-*
1DU	*day*	*de, d-*	*s-*
1PL	*boro*	*te, t-*	*s-*
2PL	*bito*	*te, t-*	*s-*
3PL	–	*te, t-*	*s-*

The prefixal forms of the possessive pronouns are found on vowel-initial roots (perhaps significantly, the majority of body-part terms are vowel-initial; conversely, the overwhelming majority of non body-part terms are consonant-initial).

Examples of regular possession are given in (13)a and (13)b, showing that while the possessive pronoun alone is sufficient to indicate possession, it is more common to have a free pronoun as well, especially when the possessive pronoun is merely a prefix.

(13)a.   *(ba)   be   dayto*
       2SG   2SG.POSS father
       'your father'

    b.   **(day) d-anajamgado*
       1DU   1SG/DU.POSS-SiC.PL
       'our nieces and nephews'

Regardless of this, it is acceptable to talk of a *dayto* or an *anajam* (or most body parts, such as *agum* 'head', *ara* 'ear', or *awarur* 'mouth') without indicating possession, as in:

(14)   *Da aguro   j-akasu-d   j-ihwa.*
     1SG head.PL IV.SG/PL-many-M/F.PL IV.SG/PL-see.R.PAST
     'I saw many heads.'

In contrast, the body parts *-anar/-anuro* 'eye(s)' and *-ago/-agoro* 'leg(s)' must appear with a possessive prefix, in addition to a free pronominal, the free one in the case of *-anar*, or the possessive pronouns in the case of *-ago*:

(15)a.   *da g-anar*
       1SG II.SG-eye.SG
       'my eye'

    b.   *ba j-anar*
       2SG I.SG-eye.SG
       'your eye'

(16)a.   *de   g-ago*
       1SG.POSS   II.SG-leg.SG
       'my leg'

    b.   *be   j-ago*
       2SG.POSS   I.SG-leg.SG
       'your leg'

Perhaps the most interesting thing about this relic agreement pattern is that the agreement prefixes so clearly represent the class features of the possessor, not the body part itself; -*anar* 'eye' is class II, and *-ago* 'leg' is class III, so we would expect a *g-* on a singular noun if the prefixes were simply class prefixes for the nominal class of the lexical item, marked on that noun itself. As it is, there is no evidence that noun class was ever indexed on the nouns themselves. No other nominals have been noted that share this pattern of obligatory class agreement.

2.3 Adjectival agreement with noun

There is a separate class of adjectives in Burmeso, distinguished by the lack of obligatory tense marking when predicative; when an adjective is marked for tense, it assumes an inchoative reading, not a stative one. Different adjectives show degrees of agreement with the head noun, with three broad classes distinguishable (there are not any semantic correlates between the different types of adjectives):

1. No agreement at all
2. Agreement for number only (by suffix or modification)
3. Agreement for number and gender (by suffix)

Examples of the first of these categories can be seen in (17) and (18), with the adjectives *isana* 'near' and *gasara* 'new'.

(17)a.   *Konor   isana.*
         house.SG   near
         '(The) house is near.'

    b.   *Konodo   isana.*
         house.PL   near
         '(The) houses are near.'

(18)a.   *Konor   gasara.*
         house.SG   new.SG
         '(The) house is new.'

    b.   *Konodo   gosur.*
         house.PL   new.PL
         '(The) houses are new.'

The third group of adjectives agree with the noun in both number and gender. Noun genders are distinct from the noun class described in the previous section, though the affixes are formally similar. The verbal agreement is with noun class, but the adjectival agreement is with another, cross-cutting, category—noun gender. Examine examples (19)–(21):

(19)   *Da de   koya   bek-abo.*
        1SG 1SG.POSS grandfather.SG good-M.SG
        'My grandfather is well.'

(20)   *Da d-asia   bek-an.*
        1SG 1SG.POSS-grandmother.SG good-F.SG
        'My grandmother is well.'

(21)   *Da de   koysorad   bek-odo.*
        1SG 1SG.POSS grandson.PL good-ANIM.PL
        'My grandsons are well.'

The different morphological patterns that we have seen exemplified above can be summarised in Table 6. Again there is a strong break between the animate masculine and feminine genders on the one hand, and the neuter and inanimate genders on the other. It is equally worth noting that there are strong resemblances between the forms of the gender suffixes and the set II verbal class agreement prefixes; both sets use the consonants *b-*, *n-*

and an alveolar (*d* or *t*). Furthermore, the use of the *b* for the male animate singular and *n* for the female animate singular, the genders that most closely correlate with class I and class II, respectively, which use *b* and *n*, means that the same formal agreement affix is found as both prefix and suffix for many nouns; it most likely reflects a historical situation in which there was only a single set of nominal classifiers, which has since diverged into the noun class and noun gender systems that are found today.

The summary of gender suffixes is given in Table 6; in addition to these forms, there are some minority patterns, with various nouns not having distinct singular/plural forms, and some masculine inanimate nouns with *-ob* in the singular. These are limited in number, and furthermore show inter-speaker variation, and so have not been noted below (another form of variation in gender suffixes, one that is consistent across speakers, is discussed in §4). Note that, as with the marking of noun class, there is a neutralisation of the animate categories in the plural, the agreement suffix appearing as *-od(o)* regardless of the form of the singular agreement suffix for the noun in question. This is also the case for the inanimate genders, unlike the situation with noun class marking.

Table 6: Gender agreement suffixes

Gender	Singular	Plural
masculine	*-ab*	*-od(o)*
feminine	*-an*	*-od(o)*
neuter	*-ora*	*-or(o)*
masculine inanimate	*-ab*	*-or*
feminine inanimate	*-an*	*-or*
neuter animate	*-ora*	*-od*

As can be seen, there is a basic system with a three-way masculine–feminine–neuter distinction; by far the majority of nouns belong to these three genders (85%, of which masculine is the most prevalent, followed by neuter), but in addition we find three subsets of these genders. The masculine inanimate set consists of nouns that take masculine endings when singular, but the neuter endings when plural. Similarly, there is a feminine inanimate gender set that consists of just two lizard species. Finally there is the neuter animate gender, a group with a mixture of life-like properties (associated with animacy), but clearly not sentient: wounds, the sea, string shapes (which are a powerful source of magic in the region, and obviously associated with humans), and the lower part of a sago trough, where the sago accumulates (sago is associated with human origins in Burmeso myths). These take neuter endings when singular, but the animate ending when plural.

As mentioned earlier, the nominal gender system is not congruent with the noun class system; an indication of the categories distinguished by the gender system, arranged in the same format as Table 4 illustrating the memberships of the various noun classes, is given in Table 7.

Table 7: The distribution of lexical items into genders

Gender	Body parts	Humans	Non-human	Tools	Plants	Nature
M	head flesh faeces finger elbow	male humans 1SG PRO 2SG PRO	(most birds, animals, some lizards, etc.)	machete eating equipment axe	papaya	sun star cloud (= sky) rain sand mud
F	–	female humans	all birds of paradise	knife string house	–	–
N	nose ear eye (other body parts)	female child	black cockatoo (some insects) small lizards cassowary	canoe bow rope string	vegetables rattan	water wind fire rainbow lightning
M$_{inan}$	neck	–	–	bench upper sago trough	(all tubers) banana *papeda* * coconut sago tree	mountain lake
F$_{inan}$	–	–	(some small lizards)	–	–	–
N$_{anim}$	wound	–	–	lower sago trough string shapes	–	sea

* *papeda* is the soup made from processed sago starch.

As with the distribution of nouns into noun classes in Table 4, there are some interesting observations that we can make. The M and F genders are basically the animate genders, with most nouns classed as M, and only the female kin terms, and some material culture items associated with women, classified into the F gender (along with the various species of birds of paradise). The corresponding M and F inanimate genders include essentially food items associated with the different sexes – the cultivated food crops are M inanimate, and small lizards caught by women are F inanimate. Mountains and lakes are classified as M inanimate as well; this makes cultural sense in that they are at one level the domain of the Bauzi to the west, a powerful local group with which the Burmeso have highly antagonistic relations involving (masculine) warfare; and at another level they are the mountain ranges to the south of the Lakes Plains, a source of important origin myths involving warfare and male totem animals.

Perhaps more interesting still is a comparison of the distribution of lexical items across both noun class and nominal gender; this can be seen in Table 8 (the conflation of Tables 4 and 7):

Table 8: Class and gender compared

Class	M	F	N	M$_{inan}$	F$_{inan}$	N$_{anim}$
I	male humans (most birds, animals etc.) 2SG PRO	(birds of paradise) pigeons sago garden	sea	neck	–	sea wound
II	1SG PRO	female humans	nose ear eye	–	small goanna	string shapes sago rinser (lower)
III	axe papaya ground bird	–	(some small animals) bench	papaya rattan mountain lake (all tubers) upper sago trough female child	goanna	–
IV	head, flesh, faeces, finger, elbow, sun, cloud, rain, sand, mud	–	–	–	–	–
V	–	–	(arrows)	banana	–	–
VI	–	–	–	coconut	–	–

It is clear that there are strong tendencies in the assignment of class and gender categories; the masculine nouns, for instance, tend to cluster in class I, and the feminine nouns in class II. Given the formal similarities between the affixes used to mark these categories (*-ab* and *b-*, *-an* and *n-* respectively, as well as the animate plural affixes *-od* and *t-*), this probably indicates that in the not-too-distant past the categories of class and gender were a single category, with recent divergence for reasons unknown. In the contemporary language, however, we can see not only that the original system has now split into two classificatory systems, but that furthermore the masculine and feminine genders have started to split into animate and inanimate versions, giving in effect four neuter (roughly, not higher animate) classes in addition to the two animate classes that contain human beings. A sample list of nouns and their class/gender affiliations is given at the end of this article.

3 Complications: multiple marking

So far we have seen examples of verbs that show absolutive prefixes that agree with the noun class of the argument that they index, and adjectives that display suffixes indicting the gender of the argument which they index. In addition to these, we find a very small set of predicates (so far only three have been identified) that take both prefixes and suffixes, for noun class and gender, respectively. Additionally, we find a construction in which verbs take gender suffixes in addition to their own class prefixes, namely relative clause constructions. These two cases are described separately, though it is interesting to note that the morphosyntax in both cases is identical, the predicates displaying class prefixes and gender suffixes.

3.1 Mixed categories: one, all, white

There are three lexical items that mark both the noun class by prefix, and the gender by suffix. These are *-aysa-* 'one', *-akasu-* 'all, many' and *-asna-* 'white'. Since, obviously, 'one' cannot occur with plural subjects, and 'all, many' cannot occur with singular ones, the widest paradigm can be illustrated with 'white'. Examples with *-asna-* are given in example (22), showing the way in which the class prefixes and gender suffixes may co-vary, not being dependant on each other. The first three sets are all masculine gender, but vary across noun classes I, II and III; the last two examples are both class II, but illustrate feminine and neuter genders. Note that (22)a and f show no prefixes for noun class; see footnote 2 for a discussion of this.

(22)a.   *Ayab*   *-asna-b.*
           cockatoo.SG (I.SG)-white-M.SG
           '(The) cockatoo is white.'

      b.   *Ayod*   *t-asna-rur.*
           cockatoo.PL ANIM.PL-white-ANIM.PL
           '(The) cockatoos are white.'

      c.   *Da*   *n-asna-b.*
           1SG   II.SG-white-M.SG
           'I am white.'

      d.   *Boro* *t-asna-rud.*
           1PL   ANIM.PL-white-ANIM.PL
           'We are white.'

      e.   *Sunam* *n-asna-b.*
           axe.SG   III.SG-white-M.SG
           '(The) axe is white.'

      f.   *Sunur*   *-asna-rud.*
           axe.PL   (III.PL)-white-ANIM.PL
           '(The) axes are white.'

      g.   *Samtunar* *n-asna-n.*
           knife.SG   II.SG-white-F.SG
           '(The) knife is white.'

      h.   *Samtunarido* *t-asna-rud.*
           knife.PL   ANIM.PL-white-ANIM.PL
           '(The) knives are white.'

      i.   *Akeaway*   *n-asna-o.*
           cockatoo.sp.SG II.SG-white-N.SG
           '(The) cockatoo is white.'[4]

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4   An *akeaway* is not the typical sulphur-crested cockatoo, but the *kakatua raja*, which is normally black, so this is a very unlikely situation. Nevertheless, informants accept these as the correct way to describe a bizarrely albino *akeaway*.

j.   *Akeawaysamir   t-asna-rur.*
    cockatoo.sp.PL   ANIM.PL-white-N.PL
    '(The) cockatoos are white.'

These lexical items show the same morphosyntax whether used attributively or predicatively; it is of course hard (and possibly futile) to attempt to classify them as either adjectives or verbs, since they share the morphosyntax of both these classes.

3.2 Relative clauses: mixing functions, mixing marking

We have seen that predicative verbs agree with the absolutive noun for noun class and number, and that adjectives (both predicative and attributive) show gender agreement. When verbs are used attributively (that is, in a relative clause, which may modify the intransitive subject or the object of a clause), then the construction also requires gender agreement with the head noun in the NP. This agreement is found at the end of the verb, final in the relative clause (in the position where tense marking is located on a main-clause verb). Some examples of this can be seen in examples (23) and (24); note that in (23) the identity of the pigeon as the object of *jihi* is unambiguously indicated by the class III prefix, which could not refer to the class I noun *jamo*; but in (24) only the restriction on absolutive heads of relative clauses rules out the ungrammatical interpretation of (24) as 'I held the pig that had seen the dog.')

(23)   *Da*   [OBJ *kiwraf*   [RC *jamo j-ihi-b*]   *jik*]   *j-ena.*
    1SG   ground.pigeon.SG dog.SG   III.SG-see-M.SG that I.SG-hold
    'I held the pigeon that the dog had seen.'

(24)   *Da*   [OBJ *sibo* [RC *jamo j-ihi-b*]   *jik*][5] *j-ena.*
    1SG   pig.SG   dog.SG   I.SG-see-M.SG that I.SG-hold
    'I held the pig that the dog had seen.'

In these examples the verb in the relative clause shows a class agreement prefix for its object, as is normal for verbs, but additionally agrees with that argument for gender through the gender suffixes that follow the verb, by virtue of its appearing in a relative clause (the presence of a demonstrative is obligatory in the relative clause construction).

4 More complications: adjectival options and animacy

For many nouns there is only one choice for the adjectival gender agreement suffix, once the number of the noun is known. However, for certain other, inanimate, nouns, there is some alternation (unfortunately the pragmatic reason(s) behind this variation are not yet known). Consider the sentences in (25)a–(25)c, with *samo* 'machete', a noun with masculine gender. In (25)a the adjective shows the agreement for masculine gender that we would

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5   I am getting sidetracked here, I know, but it is interesting to consider the phonetic shape of this word. Given /jik/, we have competing phonetic realisations; either the final vowel lowers, and so the high-vowel environment in which /j/ disappears is not present, or the vowel does not lower, and the /j/ isn't realised before a high vowel. In fact both pronunciations are heard: [dʒek] and [ɪk] are both acceptable, and frequent.

expect; in (25)b, however, the agreement suffix is for *neuter* gender; and in (25)c we see the adjective appears with a neuter *plural* suffix.

(25)a.   *samo*   *bek-abo*
 machete.SG   good-M.SG
 'good machete'

   b.   *samo*   *bek-ora*
 machete.SG   good-N.SG
 'good machete'

   c.   *samo*   *bek-or*
 machete.SG   good-N.PL?
 'good machete'

This same variation is **not** found with a masculine noun that is human as well as being in one of the grammatically animate categories, such as *bwargo* 'brother in law'. Notice in example (26) that *bwargo*, and other nouns with real-world human reference, may not appear with adjectives displaying neuter-gender agreement.

(26)a.   *bwargo*   *bek-abo*
 brother.in.law.SG good-M.SG
 'good brother in law

   b.   * *bwargo*   *bek-ora*
 brother.in.law.SG good-N.SG

   c.   * *bwargo*   *bek-or*
 brother.in.law.SG good-N.PL?

We can account for this by assuming that in addition to the marking of gender, which has clear morphosyntactic correlations with animacy in that only the (animate) masculine and feminine genders take the plural with *-od(o)*, there is also a degree to which the real-life animacy, as well as the gender, of the lexical item is taken into account. The data in example (25) show that a noun which is specified for masculine gender may show alternations with neuter gender suffixes, but the additional data in (26) show that only an non-human item may display this variation. This information can be accounted for by assuming that the *-or* neuter suffixes, in addition to gender, also mark the referent as being specifically non-human. A masculine or feminine noun may thus appear with the neuter suffixes if and only if it is not a human one. On the other hand the *-ab* and *-an* suffixes do not specify their antecedent as being human; the very existence of such nouns as *samo* 'machete', which are classified as masculine by the gender system, shows this to be an unsustainable assumption. Rather, they are unspecified as to the human or non-human reference of their antecedent, showing that in addition to the neutralisations concerning the category animate/inanimate in the plural marking of both class and gender, there is also a more subtle reference to a category of human and non-human (nouns which are grammatically animate, real-world animate, but not human, may show this variation in adjectival agreement; a yabby, *suteraynabo* and masculine gender, may be modified by either *bekabo* or *bekor*).

Similarly we assume that the *-or* suffix does not explicitly mark the referent as being plural, but rather merely does not indicate a feature of singularity. This explains that, despite

the alternations in (25), a smaller set of alternations is possible with a plural noun, as seen in (27):

(27)a. *tuguraruro   bek-od*
        machete.PL   good-ANIM.PL
        'good machetes'

   b. **tuguraruro bek-ora*
        machete.PL   good-N.SG

   c. *tuguraruro   bek-or*
        machete.PL   good-N.PL
        'good machetes'

The ungrammaticality of example (27)b shows that, while *-or* does not specify plurality and so may occur with either singular or plural reference, the *-ora* suffix is compatible only with a singular referent. This all indicates the set of features encoded by the gender suffixes shown in Table 9.

Table 9: Features specified by the gender suffixes

	Singular	Feminine	Human
-ora	+		–
-oro	–		–
-or			–
-ab	+	–	
-od	–		
-an	+	+	

Unfortunately the respective sets of conditions are not yet known under which the more fully specified, and the less specified, agreement suffixes are used..

5 Conclusions

Languages with both noun classes and noun genders, as separate systems, are few and far between, reported, for instance, in Paumarí (Arawá family) of South America (Chapman and Derbyshire 1991), and not many other places. Burmeso is one such language, and it even has some lexical items that must mark both class and gender at the same time.

Interestingly, in attributive constructions we find that verbs, which are class markers, also acquire gender marking in the relative clause. This indicates a possible scenario for the evolution of separate gender and class systems in the language: we might posit an earlier single system of agreement, which was differentially realised as prefixal or suffixal depending on the *function* of the lexical item, not its word class. When predicative, the verb or adjective was prefixed, and when attributive, it was suffixed to indicate the end of the modifying phrase. With the discourse-driven appearance of the adjectives more often in attributive positions, and the more action-like verbs in predicative positions, the originally syntactic division between prefixal and suffixal positions became one that marked word classes.

We have also seen that the system of gender marking on adjectives behaves rather non-canonically. Generally the Morphological Blocking Principle (Andrews 1990) operates to ensure that, given morphological choices in a paradigm, the form with the most complete information is selected to represent a particular feature bundle. The alternations of gender agreement in Burmeso show that there is also room in linguistics for random behaviour, with less specified forms capable of being used in the place of more highly specified ones.

6 Appendix: list of nouns

The following is a representative list of Burmeso nominals, arranged alphabetically by English translation. Each entry comes with information about the noun class (I, II, III, IV, IV or VI) and gender (m(asculine), f(eminine), n(euter), m i(nanimate), f i(nanimate) and n a(nimate)). The two Burmeso words listed, separated by a slash, are the singular and plural respectively. As an example, we can see that the Burmeso word for arrow (generic) is *kasarar* (singular), or *kasam* (plural). The noun is class VI, thus taking *g-* as its verbal prefix for both singular and plural agreement, and is neuter gender, thus taking the suffixes *-ora* (singular) or *-or* (plural) on adjectives.

ant, IIIn, *katemar / katemido*

arm, IIIn, *amu / amgararuro*

arrow, VIn, *kasarar / kasam*

axe, IIIm, *sunam / sunur*

bamboo, Im, *wiyaham / wiyahamgado*

banana, Vmi, *mibo / mirar*

bat, large, Im, *sak / sakarit*

bat, small, IIf, *timar / timnarit*

bat, very small, Im, *enedo / enedkarit*

betel, Im, *haf / hafurut*

betel stalks, Im, *pakarinabo / pakarinot*

bird, Im, *tahabo / tohwodo*

bird of paradise sp., If, *tohnan / tohnod*

bird of paradise sp., If, *kehnama / kehnamasamir*

bird of paradise sp., If, *huak / huaksamir*

bird sp., Im, *kukay / kukaygado*

blood, IIIn, *sar / sarido*

bone, IIIn, *hiwraf / himaruro*

bow, IIIn, *sonoraf / sanaruro*

bowl, Im, *kami / kamit*

breast, Im, *mom / momut*

bush turkey, Im, *ehwaro / ehodo*

butterfly, IIIn, *kibero / kiberosamir*

canoe, IIIn, *ifor / ifemir*

cassava, IIImi, *tumanin / tumanisamir*

cassowary, IIIn, *ifarur / iferemiro*

chair, IIImi, *tesraw / tesraru*

chicken, Im, *kuker / kukergado*

child, female, IIIn, *fas / fassamir*

child, male, Im, *fati / kehmet*

chopsticks, Im, *sanuk / sanukat*

cloud, IVm, *mowik / mowiksamir*

cockatoo, Im, *ayab / ayot*

cockatoo, black, IIf, *haway / hawaysamir*

cockatoo sp., Im, *arahukap / arahukop*

cockatoo sp., IIn, *akeaway / akeawaysamir*

coconut, VImm, *wif / wifemow*

crab, Im, *suteram / suteramsamir*

crested pigeon, If, *marik / markarit*

cuscus, Im, *bahay / bahaygado*

cuscus, ground, Im, *kwasino / kwasirido*

dog, Im, *jamo / juwdo*

eagle, Im, *manar / manarkarit*

egg, IIIn, *kahup / kohuro*

elbow, IVm, *serab / serot*

eye, IIn, *janar / januro*

faeces, IVm, *jar / tafuro*
finger, IVm, *heko / henudo*
fingernail, IIIn, *homna / hememir*
fire, IIIn, *hor / horemir*
firefly, Im, *hikito / hikido*
flesh, IVm, *ato / afiro*
fly, Im, *fapre / fapuru*
frog, IIIn, *kwehia / kwehorudo*
gecko, IIIn, *biakuno / biakunosamir*
goanna, IIIfi, *fif / fifsamir*
goanna, green / yellow, Im, *fonabo / fonot*
goanna, small, IIfi, *har / hararir*
ground pigeon, IIIm, *kiwraf / kiwrafsamir*
hair, IIIn, *ihna / ihiro*
head, IVm, *agum / agurur*
heron, Im, *biweris / biwerisgado*
hornbill, Im, *sanab / sonot*
house, IIf, *konor / konodo*
knee, IIIn, *urab / uraruro*
knife, IIf, *samtunar / samtunarido*
lake, IIImi, *gorat / goratsamir*
leg, IIIn, *jago / jagoro*
lightning, IIIn, *nurorhakasur / nurorhakagur*
lime, Im, *numarinab / numarinor*
machete, Im, *samo / tuguraruro*
mat, IIIn, *wira / wirasamir*
me, IIm, *da(wo)*
medicine tree, Im, *jaseri / jaserigado*
millipede, Im, *afsawar / afsawarsamir*
mosquito, Im, *inaf / inuf*
mountain, IIImi, *hurab / himatasuraru*
neck, Imi, *ariko / arido*
nose, IIn, *amtik / amtiritsamir*
pandanus, Im, *joro / jorkarit*
papaya, IIIm, *jarekanam / jarekarit*
papaya tree, Im, *jareko / jarekarit*
person, man, Im, *tamo / dit* (*did*?) (all male kin terms follow this pattern)
pig, Im, *sibo / sirudo*
pigeon, Im, *hwano / hwaremo*

porch, Im, *kononuko / kononukido*
possum glider, Im, *kurakari / kurakarigado*
pot, Im, *hawiro / hawirido*
rain, IVm, *suabo / suodo*
rainbow, IIIn, *hurab / hurabsamir*
rattan, IIIn, *neyor / nejaruro*
sago garden, If, *mowraf / mowr*
sago porridge, IIImi, *mow / mowro*
sago rinser (lower), IIna, *isohu / isodo*
sago rinser (top), IIImi, *gow / gawaruro*
sago tree, Vmm, *timo / fihir*
sand, IVm, *hisiyo / hisirido*
sea, Ina, *makati / makatigado*
sister, elder, IIf, *awa / awaysamir*
snake, Im, *mim / mihorut*
spider, IIIn, *harif / harifsamir*
spoon, sago, Im, *fam / famot*
stomach, IIIn, *amjamo / amjamiro*
stone, Im, *ako / hiruro*
string, IIf, *suhnay / suhnarido*
string shapes, IIna, *suhnay / suhnayrido*
sun, IVm, *misiabo / misiado*
sweet potato, IIImi, *abito / abitor*
taro, IIImi, *tisafirab / tisafiror*
taro sp., IIImi, *firab / firor*
termite, IIIn, *faukno / fauknor*
tongue, IIn, *ara / arit(samir), arasamir*
tooth, IIIn, *arawar / araruro*
tree, Im, *haman / hememido*
vegetable sp., IIIn, *feohu / feoro*
vegetables, IIImi, *feo / feoro*
water, IIIn, *baw / bagaruro*
we, I/IIm/f, *boro*
wind, IIIn, *bin / birit*
woman, IIf, *nawak / nudo* (all female kinterms follow this pattern)
worm, Im, *komonio / komonido*
wound, Ina, *hurin / hwarit*
yabby, Im, *suteraynabo / suteraynyot*
you, Im, *ba(wo)*

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