Classifiers in Rongga

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This paper discusses the syntax and semantics of the numeral phrase (NumP) in Rongga, an Austronesian language from Flores island, Indonesia. Syntactically, a NumP consists of a numeral expression and a classifier. It is part of a noun phrase (NP)/determiner phrase (DP). While the NumP can come before or after the noun head, there is a restriction when it comes after the noun head. Semantically, the NumP expresses sortal and quantifying functions, which are determined by the classifiers. At the broadest level, sortal classifiers in Rongga encapsulate the natural classifications of living and nonliving entities, with living things being further subclassified into human, animal, and plant. Nonliving entities are classified in terms of their physical attributes and textures (round, long, flat, etc.). This paper also discusses how numerals and classifiers in Rongga are increasingly under pressure from, and replaced by, the national language, Indonesian.

1. Introduction

This paper presents a preliminary report on the syntax and semantics of classifiers in Rongga, an Austronesian language of a Central-Malayo Polynesian subgroup, spoken by around four thousand speakers on Flores island, Indonesia. The syntax of the classifier as part of the numeral phrase (NumP) within the determiner phrase (DP) will be first presented in §2. Then, discussion on their semantics in §3 outlines the sortal and mensural functions of the classifiers. Traditional and contemporary numerals are discussed in §4. Final notes are given in the last section, §5.

2. Syntax

Rongga is an isolating language. While lacking morphology, clausal word order variation is natural. It is typically SVO, but VOS is also allowed and natural. The nominal structure in Rongga is captured by the informal phrase structure rules in (1).

(1) a. DP + NP D
b. NP + (NumP) N (A) (POSS) (NumP) (marked POSS/A)
c. NumP + { xα = CLASS 'one'
               CLASS other Num} 'more than one'

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Rule (1a) says the determiner must come after the N(P), e.g. *manu ndau ‘the chicken’ vs. manu ndau.

Rule (1b) specifies that a noun phrase in Rongga can have a numeral construction, called NumP (consisting of a Num with its classifier). The NumP may appear in either of two positions, before or after the noun head. Thus, [manu [sa = eko]_{NumP}}_{NS} and [[sa = eko]_{NumP}}_{NS} manu]_{NS} are equally acceptable for ‘a chicken’. The following are further examples of prenominal NumPs.

(2) a. esa zhua mbo ito ndau
    CLASS two house small that
    ‘the two small houses’

    b. esa zhua mbo kau ndau
    CLASS two house you that
    ‘your two houses’

There is a restriction for a postnominal NumP in the presence of a simple adjunct/possessor. When a simple adjective/possessor is present, the NumP comes after the adjective/possessor, e.g. after ito ‘small’ (3a) or kau ‘you’ (4a). The NumP cannot intervene into this noun–adjective or noun–possessor sequence, as evidenced by the unacceptability of (3b) and (4b). In other words, a ‘bare’ adjective/possessor must follow the noun head immediately. (Further examples are given in (10).)

However, the NumP must precede an adjunct/possessive construction when the adjunct/possessive is expressed in ata/ko constructions. Thus, in contrast to the unacceptable sentences in (3b) and (4b), we have the acceptable (3c) and (4c) sentences.

(3) a. mbo [ito]_{A} [esa zhua]_{NumP} ndau
    house small CLASS two that
    ‘the two small houses’

    b.*mbo [esa zhua]_{NumP} [ito]_{A} ndau

    c. mbo [esa zhua]_{NumP} [ata ito]_{A} ndau
    house CLASS two REL small that
    ‘the two houses that are small’

(4) a. mbo [kau]_{poss} [esa zhua]_{NumP} ndau
    house you CLASS two that
    ‘your two houses’
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b. *mbo [esa zhua]_{NumP} [kau]_{POSS} ndau
   house CLASS two ko 2s that

   'your two houses'

The NumP can be outside its DP:

(5) Kau talo dhu piara [ana weta ndau [eko zhua]]!
you can't PART care child younger.sister that CLASS two

   'You can't give proper care for the two children of your sister!' (AH.0008)

(6) Manu ito ata bhara ndau mata eko zhua.
chicken small REL white that dead CLASS two

   'Two of the small white chickens are dead.'

Internally within the NumP, the rule in (1c) says a numeral can appear in two positions. The numeral sa = 'one'\(^3\) must precede the classifier, e.g. sa = eko 'one' (for animals; see §3.1), not *eko = sa. The other numerals, however, follow the classifier, e.g. eko zhua 'two', not *zhuva eko.

A NumP can in fact contain an adjunct, we`e or su, (both) meaning 'only'. These adverbs however have different structural positions with the NumP. We`e must come last whereas su must come first within the NumP, as shown in (7). For simplicity, adjuncts within the NumP are not shown in (1c).

(7) a. ne ana si\(\text{\'}h\)a sa=ngata we`e/*su
   with child 3p one=CLASS only

   'with their child being only one' (AAP.001)

b. ito ndau dheke pe sheta wewo fata kaju ndau, ngedho pe
   small that climb to up up log wood that see to

   lau wena tei ne`e kazhi ko pake ana no mbenu no
   to down see by 3s PART frog child more lot more

   fira, ko pake mezha kali su/*we`e eko zhua.
   lot PART frog big.frog also only CLASS two

   'The child climbed the wood and had a look behind it, and he saw lots of small frogs and two big ones.' (P.032)

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\(^3\) The numeral sa = comes from the numeral esa (§4.2). The classifier esa in casual speech is often shortened to become sa. It is unclear whether the numeral esa and the classifier esa historically come from the same source. Synchronously, they are homonyms.
While a NumP can show order flexibility, other units have rather a fixed order within the NP/DP. The possessor must come after the possessed, irrespective of its expressions, whether simple or phrasally marked by ko. Examples are given in (8) and (9). The same restriction holds for an adjunct, as exemplified in (10).

(8) a. lako kashi
dog 3s
‘his/her dog’

b. *kashi lako

(9) a. lako ko embu / Domi
dog PART grandparent name
‘the dog of the grandmother/grandfather /Domi’

b. *kashi lako

c. *kashi lako

(10) a. mbo zhi'a ndau
house good that
‘the good house’

b. *zhi'a mbo ndau

c. *mbo ndau zhi'a

If there is more than one adjunct within a DP, or there is an adjunct and a possessor, the first adjunct can be simple (e.g. ito ‘small’) but the second adjunct and the possessor typically appear in phrasal expression:

(11) a. [Mbo ito [ko ja'o] [ata zhi'a] ndau] sp mahal.
house small PART 1s REL good that expensive
‘My small house, which is good, is expensive.’

b. sa zhua [mbo ito [ko ja'o] [ata zhi'a] ndau] sp mahal
CLASS two house small PART 1s REL good that expensive
‘the two small houses of mine which are good are expensive’

c. [mbo ito sa zhua [ko ja'o] [ata zhi'a] ndau] sp mahal
house small CLASS two PART 1s REL good that expensive
‘the two small houses of mine which are good are expensive’

Quantifiers such as woso ‘many’ do not take classifiers. The position of the quantifier woso appears to be the same as the position of the NumP, i.e. it precedes the noun head:
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(12) a. **Manga woso manu.**
   exist many chicken
   'There are many chickens.'

b. *manga eko woso manu

c. *manga manu eko woso

A NumP may also modify a pronoun:

(13) **Sziza mori zhua mata.**
   3p CLASS two dead
   'They were both dead/both of them were dead.'

The numeral itself can be questioned and the question word comes in situ:

(14) a. **mbi'i piza bhanga?**
   CLASS how.many wood
   'how many pieces of wood?'

b. **li'e piza mbo?**
   CLASS how.many house
   'how many houses?'

3. Semantics of classifiers

Classifiers in Rongga have sortal and mensural/quantifying functions (cf. the classification in Lyons (1977:460–466)). A sortal classifier individuates things in terms of their kind, whereas a mensural classifier individuates things in terms of their quantity. A sortal classifier, however, is obligatory, and always appears with a numeral.

3.1. Sortal functions

At the broadest level, sortal classifiers in Rongga encapsulate the natural classifications of human, animal, and plant. The category of human gets different classifiers from that of animal, which in turn receives different classifiers from that of plant.2 The following are common sortal classifiers found in Rongga:

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2'God or spirits could be classified as human, taking mori. However, native speakers of Rongga are often uneasy about assigning mori to God or the spirits and say they are not things of which we know their number. The use of mori is certainly better than ana for God(s), e.g. samori Dewa 'a/the God' is often considered acceptable, but sangata Dewa 'the/a God' is not.
(15) a. Classifiers for living things
   i. human             mori, ata
   ii. animal           eko
   iii. plant           pu'u

   b. Classifiers for nonliving things: specific shape-, part- and property-based
   i. fruit-related (round(ish) and cube-like objects)        l'e
   ii. leaf-related (flat, finger-like shape)                wunu, kambi
   iii. log-related (round and long)                         toko
   iv. wood-related (flat, thick, and long, not easily bent) mbi'i
   v. wood-related (flat and thin, easily bent/folded)       nolo

   c. Not easily classified in (i) and (ii), typically for inanimate things: esa

Classified with living things in (15a) are those that can grow and die. Nonliving things are sorted in terms of their different attributes such as size and texture, as shown in (15b). Hence, a living standing tree is referred to using pu'u, while a dead tree lying on the ground is referred to using fata, not pu'u. Each classifier is now discussed and exemplified.

3.1.1. Classifiers living

Human: mori and ata

While mori and ata are used interchangeably for human beings, investigation of Rongga texts reveals that mori is used more often than ata. Ata is used as a classifier only when it appears with the numeral sa = (sangata) and in coordination with sangata. It is often the case that sangata or samori is used to mean 'someone' or 'the one', in which case it appears without its noun head.

(16) Manga sa = ng.ata         ta zhua.
     exist one = LIG(CLASS) or two

     'There exists one or two persons.'  (SP.008)

(17) Ndau zhili sa = mori         ya ke hm    ndau zhili
     that down one = CLASS yes to PART that down

     Pilipina ndau yang ke-enam.
     Pilipina that REL PREF-six

     'The one who is now in the Philippines is the sixth.'  (AMB.074)

It should be noted that mori and ata are also used as nonclassifiers. They are two distinct (lexical) items. Mori may mean 'God' (in combination with other words), e.g. Mori dhedhe 'God All the Mighty'. Ata means 'person', e.g. ata kodhefai literally 'female person'

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2 A nasal ligature (LIG) ng- is used when ata appears with sa =.
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as in (18), in which case it takes the classifier morti. In example (19), however, ata ‘person’ in ata meka ‘old person’ takes the classifier ata.

(18) Morti telu ata kodhefa ngasha kashi ...
CLASS three person female name 3s

'(There are) three females with their names (are)....' (AAG.0104)

(19) One nipi ko Nangge ndia manga sa=ng.ata ata
at dream PART name this exist one = LIG.CLASS person

meka ngaha ne kashi.
old speak with 3s

'In Nange's dream, there's an old person talking to her.' (LAL.0151)

Ata is also used as a relative pronoun corresponding to English who and which, as exemplified by (20). It should be noted that, as a relativiser, ata can appear with an inanimate noun, tana ‘land’.

(20) Ndau tana ata buka ne ja'o
that land REL open by 1s

'The land, which was cleared by me' (AAG.0077)

Animal: eko

The classifier eko is mainly used for animals. Eko literally means ‘tail’. This classifier is used for all animals whether or not they physically have tails.

(21) Jarra eko lima, saqi sa=eko kamba kami la’a indi.
horse CLASS five cow one = CLASS buffalo 1.p.e. go bring

'Five horses, one cow, and one buffalo, we went there bringing (this bride price).'</n

(AFS.070)

Eko is attested to be used for human beings when the speaker wants to express certain personal feelings towards the referent, e.g. emphasis, contrast, or cynicism.

(22) Sa=eko we'e ana ja'o ata kodehaki ndia mali la'a
one = CLASS only child 1s REL man this if go

wait kashi.
again 3s

'That boy is my only son, if he would go back there.' (AAG.0050)
Plant: pu‘u

This is used for single living standing trees, e.g. sapu‘u mok ‘a jackfruit tree’. For collective trees, a different classifier is used, e.g. libho, as in salibho kala ‘a piece of land with its forest/trees’. In fact, the collective classifier libho is not restricted to trees; it can be used for water, e.g. salibho wae ‘a pool of water’.

3.1.2. Classifiers for non-living things, specific: shape-, part-, and property-based

Fruit-related: li‘e, wole, kura, kise

Li‘e, literally ‘fruit’, is used for any fruit-like, cube-like, three-dimensional object. It is the most general shape-based classifier. It is used as a classifier not only for fruit but also for other things such as stones, houses, hats, and even motorbikes, e.g. sali‘e mbo ‘one house’, nggobhe li‘e zhua ‘two hats’, and sali‘e Honda (sa = esa Honda is also possible). Roundness appears to be the salient property of li‘e. Non-round ‘fruits’ such as snake beans do not take li‘e, but esa.

Kura is a collective classifier for coconuts and other palm fruits, meaning ‘a bunch of’, e.g. sakura nio ‘a bunch of coconuts’. The collective classifier for bananas, corn, and rice is wole, e.g. sawole muku ‘a bunch of bananas’. Depending on the kind of fruit, individual parts are referred to using different classifiers: li‘e (for coconut), e.g. sali‘e nio ‘one piece of coconut fruit’, or kise ‘grain’ for corn, e.g. sokise jawa ‘a grain of corn’.

Leaf-related: wunu, kambi, lombe

Wunu, literally ‘leaf’, is a general classifier for leaves, typically for those that have a ‘simple’ form such as a banana leaf and a mango leaf, e.g. sawunu pau ‘a piece of banana leaf’. This classifier can be used for windows, e.g. sawunu partonga ‘a (piece of) window’.

Kambi is used for fully grown finger-like leaves, e.g. papaya or palm leaves, wunu muku jawa kambi zhua ‘two pieces of papaya leaves’.

Lombe is a classifier to refer to a unit of young palm/coconut leaves that have not yet opened up, generally found on the top of the tree, e.g. lombe zhua moghi ‘two units of young palm leaves’.

Wood-related: toko, mbi‘i, po‘i, wengga, sari

Toko is used for non-flat (typically round, but possibly rectangular) relatively long and well-shaped objects (cf. fata below). Originally, it was for a long log of wood but it is now applicable to things like a pipe. Examples include sa = toko kaju ‘a piece of log’, peri toko zhua ‘two pieces of bamboo’.

Toko is also now a classifier applicable to sarong because the attribute ‘long and round’ is relevant, e.g. lu‘e sa = toko ‘one piece of sarong’.

Mbi‘i is for flat and thin, strong (i.e. not easily bent), long rectangular objects. It is originally used for a plank, cut from a long log (referred to by the classifier toko). For example, umbe mbi‘i zhua is ‘two pieces of wooden board’.

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Kise is also used as a classifier for teeth: sakise ngi‘i ‘a piece of a tooth’.
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A log classified as a toko can be divided into a po't or a wengga. If it is divided into two shorter round pieces of log, each of the two is referred to with the classifier po’t. If it is split into two halves along the length of the log, each of the halves then must be referred to with the classifier wengga. If a wengga is further split into two halves along the length, the quarter piece must be referred to with the classifier sari.

Wood not well shaped, e.g. fallen branches and trunks of trees, is referred to with the classifier fauna, not toko. For example, sefa nio is ‘a fallen coconut tree, possibly rotten and of no good shape’.

Wood-related: nolo vs. mbi’i

Recall that mbi’i signifies a long flat thing such as a plank of wood. Nolo also refers to this kind of shape but is typically used for flat things that have more flexibility, e.g. possibly bent or folded. Thus, sa = toko of bamboo (round and long) can be split into smaller long flexible pieces appropriately called sa = nolo, ready to be woven. Some speakers would accept sa = mbi’i for these pieces of bamboo shape.

A piece of a shirt is also referred to with nolo, not mbi’i, because it can be folded, e.g. sa = nolo/*sa = mbi’i lambu ‘a piece of a shirt’.

Collective plant classifier ili

Ili is a collective classifier for bamboo, sugar-cane and bananas, e.g. peri sa = ili ‘a group of bamboo trees’, muku sali ‘a group of banana trees’.

3.1.3. Not easily classified: esa

Esa is a sortal classifier best defined negatively: it is used for things other than human, animals, or trees so far described, and also nonliving things not easily classified in terms of their shapes or measurements (as described in §3.2 below). The classifier esa is used to refer to things that include the concrete such as ‘house’ (e.g. sa = esa mbo ‘one house’) and ‘clan’ (e.g. sa = esa suku ‘one clan’), and the abstract such as ‘way/idea’ (sa = esa lazha ‘one way/idea/solution’) and book titles (sa = esa judul ‘a title’).

(23)  Sa = esa lazha ata pikir ne ja’o,
      one = CLASS wey REL think by 1s

      ‘One way that I was thinking,’

(AAG.0072)

(24)  Lowa ndau sa = esa ko suku one Rongga.
      Lowa that one = CLASS about clan in Rongga

      ‘Lowa is one of the clans in Rongga.’

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5  Judul ‘title’ is an Indonesian loan word.
3.2. Mensural

3.2.1. Quantity classifiers for corn: wole, mbuku, mbo’e, mbele

Corn is counted using special terms shown in (25). Thus, mbuku zhua jawa means ‘two bunches of corn, each consisting of four corn cobs’ (i.e. 2 x 4). Sanbele⁶ is a collection of ten mbo’e, which could be 240 pieces (10 x 6 x 4).

(25) a. mbuku = 4 wole
    b. mbo’e = 6 or 8 mbuku²
    c. mbele = 10 mbo’e

3.2.2. Quantity classifiers for rice or coffee: neo, bondo, mbeka, tongga

These classifiers refer to traditional containers called neo, bondo, mbeka and tongga, woven from palm leaves. The first three are shown in figure 1. Neo and bondo are used for measurement, mbeka for carrying rice or coffee from the garden (hanging by a strap from the head, see figure 2), and tongga for storage.⁷

![Figure 1](image)

Figure 1. Bondo, mbeka, neo containers

3.2.3. Quantity classifiers for coconut: liwu, ulu

Quantity classifiers for coconuts are shown in (26). Corn is possibly counted using ulu (i.e. 40 pieces).

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⁶ Mbele is presumably from the Indonesian word belek ‘(big) tin can’.

⁷ There seems to be variation in the exact quantity of a mbo’e: it may contain 10 mbukus (40 woles of corn).

⁸ Tongga is no longer available or made now, and I have no picture of it as I could not find one when I did the fieldwork.
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Figure 2. Way of carrying mbeka

(26) a. lwu = 4 pieces
    b. ulu = 10 lwu (= 40 pieces)

3.2.4. Fraction classifiers

There are very limited 'fraction' classifiers in Rongga. A 'half' of something that is obtained by 'splitting' it is referred to as sa-wengga. This applies to solid things such as coconut fruits and bamboo. The classifier wengga gets its origin from the related verb wengga 'split something using an axe or machete'.

The fraction classifier sa = bhinigi 'a half' refers to a half of a basket, generally used to measure mass. However, modern loan classifiers from Indonesian such as setengah 'half' or seperempat 'quarter' in conjunction with measurement such as kilo(gram) are increasing in use in Rongga.

4. Numerals

There are two numeral systems used in Rongga: traditional and contemporary.

4.1. Traditional numeral system

The traditional numerals appear part of an unusual number system. There are no expressions for numbers over twenty. The numeral expressions of one to ten are all unique. 'One' and 'two' are, however, still recognisable as related to the contemporary forms in Rongga, (e)su and zhu (see below). These forms are clearly Austronesian numerals (cf. Blust 1974; Dahl 1981; among others).

(27) dha ‘one’   woe ‘six’
    dhuw ‘two’   sipi ‘seven’
    demu ‘three’ sapa ‘eight’
    dheko ‘four’ nggwo ‘nine’
    ali ‘five’    ngguru ‘ten’

Numerals eleven to twenty partly have a system, even though there is no clear arithmetical operation involved. Almost all are a kind of compound with some being
formed by juxtaposition of similar expressions, possibly intervened by a (ligature) consonant, e.g. -ng for 'eleven' and 'thirteen'. Note that numerals 'eleven' and 'nineteen' have the segment esa but the system is not clear. For example, there is no evidence for a subtraction in that 'nineteen' watupesa is derived from twenty minus one, because 'twenty' is mopen and the word watu is attested but its meaning is totally unrelated, namely 'stone'. While the addition system is observed in the contemporary system, e.g. 6 = 5 + 1 (see limaes below), the word for 'eleven' esanggesa does not follow this pattern since the word for ten in the traditional system is ngguru. Likewise, words such as kimia, ila, and pesa are attested but bear unrelated meanings: 'snail', 'bamboo (for flute)', and 'a kind of insect', respectively.

(28)  esanggesa  ‘eleven’
      shuandua  ‘twelve’
      telunggetu  ‘thirteen’
      wutunggetu  ‘fourteen’
      limakima  ‘fifteen’
      angganae  ‘sixteen’
      nenggonae  ‘seventeen’
      soroila  ‘eighteen’
      watupesa  ‘nineteen’
      mopen  ‘twenty’

The unusual traditional numeral system in Rongga could have been associated with a (language) game in past times. One elder indeed had a very vague recollection that traditional counting was related to a game, now extinct. Language games with unusual or irregular (counting) patterns are also reported in other Indonesian languages of Maluku (Florey, p.c.).

4.2. The contemporary numeral system

The contemporary numeral system shows base five (quintenary) and base ten (decimal). Numerals that have unique expressions are one to five, ten, one hundred, and one thousand. A list of the numerals is given in (29). Among the numeral expressions, the words esa 'one', shua 'two', telu 'three', lima 'five', and sambulu 'ten' are clearly Austronesian words. They are cognates of numeral words commonly found in other Austronesian languages of Indonesia and beyond, as discussed in Dyen (1947), Dahl (1976; 1981), Blust (1974), and Li (2006), among others. The others, wuta 'four' and taraesa 'nine', appear to be an innovative development of languages in central Flores because similar forms are also encountered in the neighbouring language of Ngadha, and even in Kéo (Baird 2002), a language east of Ngadha.

The numeral system in Rongga shows addition and multiplication arithmetic operations. The system can be described as follows.

Firstly, two numerals after five use 'addition', e.g. 6 = 5 + 1. The numeral six is said to be expressed by the function of five and one. The terms 'augend', 'addend', and 'summand' are used in this paper following Greenberg (1978): augend is the numeral that is added to, addend is that which is added, and summand is the sum. Thus, for (the summands) six and eleven in the contemporary Rongga numeral system, five and ten
are augends, and one is the addend. Rongga can be said to comprise base five and base ten systems.

Certain numeral expressions that appear to be bimorphic (such as zhuambutu and taraesa) are often considered 'simple' words by Rongga speakers. While zhuambutu 'eight' seems to be still analysable as having two morphemes zhu ‘two’ and mbulu ‘four’, there is no evidence it involves multiplication of two and four. There is no evidence Rongga comprises a base four system as does Kéo (cf. Baird 2002). Likewise, taraesa certainly contains the word esa ‘one’ but it is not considered a monomorphemic expression in Rongga. It is not analysed as possibly involving subtraction of one from ten, as the term for 'ten' is mbulu.

However, it should be made clear that the numeral system in Rongga does show multiplication. For example, sambulu is analysable as (e)sa and mbulu, which is one times ten. Intuitively, this is interpreted as one pile of ten things. Mbulu zhu ‘twenty’ is ten times two, intuitively interpreted as two piles of ten things. They can be represented as (1 x 10) and 10 (x 2) respectively. Ten is called the 'multiplier' and one and two are the 'multipliers' (Greenberg 1978). Thus again we see Rongga showing a base ten system.

Finally, a complex numeral expression over ten often involves both multiplication and addition. The last expression in a string of numeral expressions in Rongga contains a general classifier, (e)sa 'piece'. Thus, eleven is sambulu saesa, literally 'one ten and a piece of one', or ((1 x 10) + 1). Likewise, twelve is sambulu esahua 'one ten and a piece of two' or ((10 x 2) + 2); twenty-two is mbulu zhu saesahua 'two tens and a piece of two' ((10 x 2) + 2) and so on.

(29) (e)sa   ‘one’   ‘1’    
   zhu   ‘two’   ‘2’    
   telu ‘three’   ‘3’    
   wutu ‘four’   ‘4’    
   lima ‘five’   ‘5’    
   limaesqa ‘six’   ‘6’    
   limashua ‘seven’   ‘7’    
   zhuambutu ‘eight’   ‘8’    
   taraesa ‘nine’   ‘9’    
   sambulu ‘ten’   ‘10’    
   sambulu saesa ‘eleven’   (1 x 10) + 1 
   sambulu esahua ‘twelve’   (1 x 10) + 2 
   sambulu esa telu ‘thirteen’   (1 x 10) + 3 
   sambulu esa wutu ‘fourteen’   (1 x 10) + 4 
   sambulu esa lima ‘fifteen’   (1 x 10) + 5 
   sambulu esa limaesqa ‘sixteen’   (1 x 10) + 6 
   sambulu esa limashua ‘seventeen’   (1 x 10) + 7 
   sambulu esa zhuambutu ‘eighteen’   (1 x 10) + 8 
   sambulu esa taraesa ‘nineteen’   (1 x 10) + 9 
   mbulu zhu ‘twenty’   (10 x 2) 
   mbulu zhu saesa ‘twenty-one’   (10 x 2) + 1 
   mbulu zhu saesahua ‘twenty-two’   (10 x 2) + 2 
   mbulu telu ‘thirty’   (10 x 3)
mbulu wutu  '40' (10 x 4)  
mbulu lima  '50' (10 x 5)  
mbulu limaesa  '60' (10 x (5 + 1))  
mbulu limausahaan  '70' (10 x (5 + 2))  
mbulu thuambitu  '80' (10 x 8)  
mbulu taraesa  '90' (10 x 9)  
sangasu  '100' (1 x 100)  
sangasu mbulu thuasa  '120' ((1 x 100) + (10 x 2))  
sangasu mbulu thuasa esa lima  '125' ((1 x 100) + (10 x 2) + 5)  
sangasu mbulu lima  '150' (1 x 100) + (10 x 5))  
sangasu mbulu lima esa lima  '155' ((1 x 100) + (10 x 5) + 5)  
sangasu mbulu thuambaibitu  '180' ((1 x 100) + (10 x 8))  
sangasu mbulu taraesa  '190' ((1 x 100) + (10 x 9))  
sangasu mbulu taraesa esa lima  '195' ((1 x 100) + (10 x 9) + 5)  
ngasu thuasa  '200' (100 x 2)  
ngasu thuasa mbulu lima  '250' ((100 x 2) + (10 x 5))  
ngasu thuasa mbulu lima esa lima  '255' ((100 x 2) + (10 x 5) + 5)  
ngasu thuasa mbulu lima thuasa  '270' ((100 x 2) + (10 x (5+2)))  
ngasu thuasa mbulu thuambaibitu  '280' ((100 x 2) + (10 x 8))  
ngasu thuasa mbulu taraesa  '290' ((100 x 2) + (10 x 9))  
ngasu thuasa  '300' (100 x 3)  
ngasu wutu  '400' (100 x 4)  
ngasu lima  '500' (100 x 5)  
ngasu limausahaan  '700' (100 x (5 + 2))  
sariwu9  '1000' (1 x 1000)  
riwu thuasa esa lima  '2005' ((1000 x 2) + 5)  

4.3. Ordinal numbers

Rongga, as stated in §2, is an isolating language. In regard to its ordinal numbers, it employs no (morphological) marker to encode them. Hence, the same expressions are used for cardinal and ordinal numbers. The following illustrates the use of esa, thuasa, thuasa, and wutu as ordinal numbers.

(30)  Esa Nggeli Kondo Lolo, thuasa Nggeli Nganggo, thuasa first Nggeli Kondo Lolo second Nggeli Nganggo third

Nggeli Mottu, wutu Nggeli Sawa.
Nggeli Mottu four Nggeli Sawa

'The first is Nggeli Kondo Lolo, second Nggeli Nganggo, third Nggeli Mottu, fourth Nggeli Sawa.' (AMB.083)

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9 Riwu also means 'a lot'. This could be the original meaning of its proto form: the allegedly cognate forms in Formosan and Sulawesi languages could mean 'an extraordinarily high indefinite number', 'any uncountable large quantity' (Mills 1975:582; Dahl 1981).
5. Final notes

5.1. Endangerment

Comrie (2005) notes that numeral systems are particularly susceptible to sociolinguistic changes (through language contact) that over time result in their extinction. The traditional numeral system in Rongga described in §4.1 is highly endangered. It is no longer used nowadays; it is known only by older generations. While the other system described in §4.2 is still in use, the numeral system of the dominant language, Indonesian, is often used. Even the contemporary numeral system in Rongga shown in (29) appears now to be under threat. Evidence for this comes from the fact that the list shown in (29) was ‘rediscovered’ after consulting with a number of elders. Furthermore, at present not all of them are used for calculation in everyday life. Rongga children educated in Indonesian typically do not have competence in the system, particularly with the higher numerals.

The general sortal classifiers *mori, ata, eko, pu' u, and esa* and the specific classifier *li'e* are still used in contemporary Rongga. When Indonesian numerals are used, Indonesian classifiers are also often simultaneously used in Rongga texts, e.g. *delapan orang* 'eight persons', but not *orang zhuambutu, *zhuambutu orang, *delapan mori, *mori delapan.

Certain mensural classifiers are also endangered. While words such as *mbele* (from the Indonesian *belek*), *mbeka*, and *tongga* are still used as nominals referring to the containers of things, they are no longer used as classifiers, as they have now been replaced by modern standards such as *kilo(gram), kurung 'bag/sack', and liter 'litre*.'

5.2. Adaptability

One test of the viability of a system is its adaptability to encoding culturally new things. It is interesting to observe how this happens to Rongga in relation to classifiers. For this, I discussed with a group of Rongga people how they would determine the appropriate classifiers for modern products such as TVs, motorbikes, CDs, and cameras.

There was often disagreement among the speakers with respect to this. They also had problems with the classifiers for abstract concepts such as elections and democracy. To avoid problems, speakers of Rongga generally switch to the Indonesian classifiers. Hence, as noted earlier, loan Indonesian nouns often come into Rongga together with their Indonesian classifiers. Even nouns commonly assigned native classifiers in Rongga are now referred to by using Indonesian classifiers, e.g. *sa = esa tana* 'a piece of land' is replaced by *sa = bidang tana(h) where bidang 'piece' is an Indonesian classifier.

The disagreement among speakers appears to stem from two related facts. First, a traditional classifier encodes a broad category that has more than salient property. Second, modern products often have new or 'strange' shapes that are not easily classified in terms of the available classifiers, or they could fit in more than one category. Modern concepts (e.g. elections and democracy) are abstract, and are not traditionally part of the lexicon, and therefore speakers of Rongga often find it uncomfortable to assign a Rongga classifier to them. Here are some cases.

While a piece of paper or letter is classified with *wenu* (for 'leaf'), there is disagreement whether *wenu* could be used for an envelope. Some suggest *esa*, others *li'e*, a classifier for 'fruit'. Those who agree with *li'e* are young persons who might use *li'e* as a general classifier just like its Indonesian counterpart *buah* (literally) 'fruit'. According to them, an
Classifiers in Rongga

References


envelope is a container, and therefore it is not inappropriately classified as a wunu, even though in reality an envelope is a kind of flat thing, just like a piece of paper.

However, the speakers tend to classify a stamp as sa = esa, rather than sa = wunu.

Airplanes and helicopters are classified as li'e or esa. A rocket, e.g. Apollo, after a debate, is sa = esa, not sa = toko. Recall that toko is a classifier for long round objects (§3.1.2.), and being long and cylindrical is prominently in the shape of a rocket, at least from a non-Rongga perspective.

A church or any other modern building such as a hotel or restaurant is sa = li'e, or sa = esa.

A piece of tile (for the roof) is hard to classify. It is a sa = mbi'i (like wood plank), sa = bhinggi (of the same size as a bhinggi), or sa = esa (elsewhere classifier). The last two, though possible, are disfavoured.

Abstract things like ‘an idea’ and ‘a question’ are often hard to decide, though sa = esa is fine.

There is a great deal of disagreement over how to classify a rifle: se-li'e ‘round shape’, se-toko ‘round and long’, se-esa ‘general, inanimate’, or se-bhinggi (i.e. the classifier specifically for spear, dagger, and machete).

Classifier selection is worth further investigation. It could provide a window for the understanding of how a number of salient properties associated with classifiers are activated or interact in semantic categorisation. In relation to language endangerment, such research also provides insights into the cognitive basis of the ways in which the semantic categorisation of a minority language becomes endangered or threatened by a different or similar categorisation of a dominant language with which it is in contact. I leave this for future research.

Abbreviations

Abbreviations conform to the Leipzig Glossing Rules (www.eva.mpg.de/lingua/pdf/ LGR08_09_12.pdf) with the exception of the following:

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<td>classifier</td>
<td>P</td>
<td>phrase</td>
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<td>particle</td>
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<td>prefix</td>
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<td>subject</td>
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<td>numeral</td>
<td>V</td>
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<td>O</td>
<td>Object</td>
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The following are the abbreviations used for example sources. These sources refer to transcribed natural texts. Examples without sources are elicited data.

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<td></td>
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<td>SP</td>
<td>Sunday Prayer</td>
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