

# 13 *On the zero (voice) prefix and bare verbs in Austronesian languages of Nusa Tenggara, Indonesia*

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## 1 Introduction<sup>1</sup>

A zero prefix has no phonological material but is considered present on the basis of functional and paradigmatic opposition in a particular grammatical system. Consider the following different forms of the verb ‘collide’ in Balinese.<sup>2</sup>

- (1) Voice paradigm with the verb *palu* ‘collide’ (Balinese)
- |    |                           |                    |                |
|----|---------------------------|--------------------|----------------|
| a. | <i>m-(p)alu</i>           | (<N- <i>palu</i> ) | ‘AV-collide’   |
| b. | $\emptyset$ - <i>palu</i> |                    | ‘UV-collide’   |
| c. | <i>ka-palu</i>            |                    | ‘PASS-collide’ |
| d. | <i>ma-palu</i>            |                    | ‘MV-collide’   |

The bare form *palu* (1b) is used to express the Undergoer Voice (UV) in Balinese. It can be analysed as having a zero prefix, represented by  $\emptyset$ -, on the basis of systematic formal opposition with the other forms in (1). The zero prefix is a marker prefix in the same morphological slot as other voice markers in Balinese grammar, namely, the Actor Voice (AV) prefix *N-*,<sup>3</sup> the passive (PASS) prefix *ka-*, and the middle voice (MV) prefix *ma-*. In this view, all verb forms in Balinese are equally marked to encode their specific voice types (Arka 2003).

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<sup>2</sup> Abbreviations used in this paper: A – actor; APPL - applicative; AV - Actor Voice; DEF - definite; IR - irrealis; EMP - emphatic; LIG - ligature; LOC - locative; MV - Middle Voice; NEG - negator; p - plural; OV - Object Voice; PART - particle; PASS - passive; PERF - perfective; R - realis; REL - relativiser; s - singular; U - Undergoer; UV - Undergoer Voice; 1,2,3 – first, second, third person.

<sup>3</sup> The homorganic nasal prefix *N-* is phonologically conditioned. It replaces the stem-initial consonant and is realised as /m/, /n/, or /ŋ/ depending on the replaced consonant, e.g., *N-+palu* → *malu* as in (1a).

Evidence for the functionality of the zero prefix in Balinese comes from the examples in (2), where the verb with the zero (UV) prefix, *uber* ‘UV.chase’, is not intersubstitutable with the verb with the nasal prefix, *nguber* ‘AV.chase’.<sup>4</sup>

- (2) a. *Tiang nguber/\*uber Nyoman* (Balinese)  
 1 AV.chase/UV.verb Nyoman  
 ‘I chased Nyoman.’
- b. *Nyoman uber /\*nguber tiang*  
 Nyoman UV.chase /AV.chase 1  
 ‘I chased Nyoman.’

Both sentences in (2) have the same meaning: ‘I chased Nyoman’ (i.e., with the first person ‘I’ being the actor). In (2a) where the Actor is the Pivot/subject,<sup>5</sup> only the AV verb *nguber* can be used. In (2b) where the Undergoer is the subject, only the UV verb can be used. In short, the nasal prefix and the zero prefix are functionally in contrastive distribution in Balinese morphosyntax.

Other Austronesian languages of Nusa Tenggara, east of Bali,<sup>6</sup> also feature bare verb forms. While the analysis of the zero prefix for bare verbs in Balinese is well motivated, extending the same analysis to bare verbs in these languages is problematic because the functional contrast of the type seen in Balinese is lacking.

Consider the data in (3) from the Puyung variety of Sasak. The nasal verbs (*meli*, *mancing*) and the bare verbs (*beli*, *pancing*) are intersubstitutable. This indicates that, unlike Balinese (cf. example (2)), Sasak shows no functional opposition of the *N-* and  $\emptyset$ -prefixes in this context (see further discussion in §2.2).<sup>7</sup>

- (3) a. *Amir beli/meli buku jari Tono* (Puyung Sasak)  
 Amir buy/N.buy book for Tono  
 ‘Amir bought a book for Tono.’
- b. *Kanak=nó jangke=n pancing / mancing mpaq*  
 child=that PRES=3 catch N.catch fish  
 ‘The child is catching fish.’ (Austin 2001, ex. 33)

In what follows, I present further data from the languages of Nusa Tenggara, Indonesia. I examine the functionality of the zero prefix in the context of how coding resources are used to express different realisations of core arguments. Section 2 begins with the definition of core arguments/relations and is followed by a discussion of how coding resources are employed to express these core arguments in Balinese (§2.1), Sasak (§2.2), Sumbawa (§2.3), Bima (§2.4), Manggarai, and Rongga, Kéo, and Ende (§2.5–§2.6). I show that the case illustrated by Puyung Sasak is an indication of the attrition of the distinctive

<sup>4</sup> The bare verb is also often called the oral verb in contrast to the nasal verb (i.e., that with the nasal prefix).

<sup>5</sup> I use the notion of Pivot as described in Foley and Van Valin (1984) and Van Valin and LaPolla (1999), which is basically the same as the surface grammatical subject (SUBJ) as described in contemporary syntactic theories such as LFG (Bresnan 2001).

<sup>6</sup> The region of Nusa Tenggara (lit. the southeast islands) in Indonesia includes the islands of Bali, Lombok, Sumbawa, Flores, (West) Timor, Sumba, and other surrounding small islands.

<sup>7</sup> Informal Indonesian also shows that the nasal and zero-verbs are not in contrastive distribution as seen in the following example:

*Mereka (me-)langgar aturan* (informal Indonesian)  
 they (AV-)violate regulation  
 ‘They violated regulations.’

function of Austronesian voice morphology, and that the languages of central Flores such as Keo and Ende exemplify the ultimate loss of the Austronesian voice system. Section 3 provides a summary and discussion of the merit of positing a zero prefix for language-specific analyses and the theoretical issues of such an analysis.

## 2 Coding resources for core relations

The term ‘core relations’ is used to refer to the main argument relations associated with a head predicate (typically a verb) that expresses the relational involvement of participants in the state of affairs (states or events) depicted by the predicate. In the terminology commonly adopted in linguistic typology (Dixon 1979, 1994), these are represented as A, O (or P, as in Comrie (1978)), and S, or as Actor and Undergoer in Role and Reference Grammar (RRG) (Foley and Van Valin 1984; Van Valin and LaPolla 1999).

Core relations are associated with one of the basic functions of language in communication, namely, the expression of the distinction between the ‘doer’ (i.e., the Actor) of an action and the ‘undergoer’ (i.e., the participant that is acted upon) in a typical highly agentive two-participant event. This basic distinction may be coded in more than one way by verbal marking, dependent marking, and linear order. The Austronesian languages of Nusa Tenggara, Indonesia, show variation in the availability and employment of these strategies. This is discussed below, beginning with Balinese, followed by Sasak, Sumbawa, Bima and the Flores languages.

### 2.1 Balinese

Balinese employs all of the three strategies to express different core relations: voice morphology, NP versus PP coding for core versus oblique distinction of arguments, and strict constituent order with possible backgrounding of the A in passive. For example, the verb *uber* ‘chase’ takes two arguments: ‘the chaser’ (Actor) and ‘the thing chased’ (Undergoer). Two possible alternative realisations of the argument relations are exemplified in (2) above. In the AV construction (2a), the verb is marked by the prefix *N-*; the A expressed in an NP precedes the verb, and the U, also expressed as an NP, follows the verb. The reverse holds in the UV counterpart (2b): the U NP precedes the verb, and the A NP follows it. In the passive, exemplified in (4) below, the A is backgrounded and demoted to Oblique (expressed by a PP), and the verb should bear passive morphology (*ka-*).<sup>8</sup>

- (4) *Nyoman ka-uber teken ipun* (Balinese)  
 Nyoman PASS-chase by 3  
 ‘Nyoman was chased by him/her.’

Further discussion about the precise nature of verbal derivation in Balinese is given in §3.1 and §3.2.

<sup>8</sup> There are two passives in Balinese — the *ka-* passive and the *-a* passive — dubbed the ‘high’ and ‘low’ passive, respectively, in Arka (2003) because of the difference in register between them. Syntactically, both show a typical passive structure, e.g., an alternation of SUBJ → OBJ (of the agent) and OBJ SUBJ (of the patient). The bound form *-a* is also a third person clitic appearing to encode an actor of the UV structure; hence, it serves a double life in contemporary Balinese (see Arka 2008 for details).

## 2.2 Sasak

While Sasak shows significant variation across its varieties,<sup>9</sup> it also exhibits voice morphology, with verbs displaying a distinction between *N-* (nasal) and bare forms. The Ngeno-Ngene dialect of Sasak retains relatively more verbs with possible *N-* forms than other dialects on the island. Even in this dialect, the opposition is not functional in the context where the actor is given prominence, for example, the ‘fronted’ sentence as initially seen in (5). Either the bare or the nasal verb can be used in this context.

- (5) *Aku jengke-ng=ku bace / mbace buku=ni* (Narmada Ngeno-Ngené Sasak)  
 I PROG-LIN=1 Ø.read / N.read book=this  
 ‘I am reading this book.’

However, it should be noted that the *N-* versus bare verb distinction in Sasak is not fully neutralised. There is at least one context in which they are not intersubstitutable (discussed further in Arka (2009)). This case occurs when the Undergoer question word *epe*<sup>10</sup> is fronted, as in (6). Only the bare form can be used in this context, as seen by the contrast between (6a) and (6b). Note that this constraint, and hence the contrast shown in (7), is exactly parallel to that found in Balinese where the UV form must be used when the Undergoer is questioned.

- (6) a. *epe te Amir paleng rubin?* (Selong Ngeno-Ngené Sasak)  
 what PART Amir Ø.steal yesterday  
 ‘What did Amir steal yesterday?’  
 b. \**epe (te) Amir maleng \_\_\_ rubin?*  
 what PART Amir N.steal yesterday
- (7) a. *Apa ane paling cai?* (Balinese)  
 what REL UV.steal 2  
 ‘What did you steal?’  
 b. \**Apa ane cai maling \_\_\_?*  
 what REL 2 AV.steal

An important feature that distinguishes Sasak from Balinese is what I call ‘double argument expressions’. This is the structure where the Actor of a transitive verb can still appear in the subject position (realised as a clitic) and is then cross-referenced by a post-verbal PP.<sup>11</sup> This is exemplified in (8a). This structure, dubbed the *isiq* construction by Kroon (1998), is syntactically not passive because the Actor argument is still the Subject,

<sup>9</sup> While a number of dialects have been identified for Sasak (Jacq 1998), there is no clear linguistic evidence for dialect grouping (Wouk pers. comm.). In the absence of good evidence to support dialect identification, the term ‘variety,’ rather than ‘dialect,’ is therefore used in this paper, e.g., Ngeno-Ngené variety. In addition, a particular variety is often identified by the locality where it is spoken, e.g., Selong (Ngeno-Ngené) Sasak.

<sup>10</sup> Phonetically, this is [əpə] in Selong Sasak and [apa] or [apə] in other varieties (Wouk pers. comm.).

<sup>11</sup> The doubling of the bound pronominal on the verb with free-floating PPs/NPs is quite common in the Austronesian languages of Nusa Tenggara, e.g., Sumbawa, Bima (discussed in this paper), and Kambera (Klamer 1998), as well as other Austronesian languages of eastern Indonesia beyond Nusa Tenggara: it is common in the Austronesian languages of Maluku such as Taba (Bowden 2001), Alune (Florey 2001), and Kei.

appearing in the preverbal subject position as the clitic =*n*.<sup>12</sup> The *isiq* PP is not obligatory, as an adjunct-like unit adding further specification to the referentiality of the Actor. However, Sasak does have a truly passive structure, exemplified in (8b), in which case the verb bears passive morphology (*te-*). Crucially, unlike in (8a), the subject in (8b) is the Undergoer because the *isiq* PP does not cross-refer to the subject. In (8b), the clitic in the subject position is =*k*, cross-referenced by the free sentence-initial pronoun *aku*.

- (8) a. *Yaq=n gitaq kanak-kanak=nó isiq Herman* (Puyung Sasak)  
 fut=3 see reduplicated-child=that by Herman  
 ‘Herman will see the children.’ (Austin, MLI paper, 2002)
- b. (*Aku*) *wah=k te-empuk isiq Ali*  
 1s PERF=1 PASS-hit by Ali  
 ‘I have been hit by Ali.’ (Shibatani 2008, ex. 8)

Shibatani (2008) uses terminology from Philippine linguistics, analysing the bare verb construction in (8a) as Patient Focus (PF) and the construction with the nasal verb as the Actor Focus (AF). He argues that sentence (8a) is a PF structure because the A is backgrounded and the Patient is given prominence (even though in this particular example the Patient also occurs postverbally). Note that what Shibatani calls a PF structure is primarily characterised by the presence of the backgrounded *isiq* PP accompanying the bare transitive verb. However, in the absence of the *isiq* PP, the bare verb is intersubstitutable with the nasal verb, as seen in (5).

AF and PF structures are functionally (and, arguably, grammatically) distinct structures in Sasak that determine the basis for possible relativisation (see Shibatani (2008) for details).

Given the fact that the bare verb itself can appear in AF and PF constructions in Sasak, there seems to be no good reason to posit a zero prefix for the bare verb in Sasak.

It is worth highlighting the point that the PF structure in Sasak is not exactly equivalent to the UV verb in Balinese (which Shibatani also claims is a PF structure). While the Patient in the PF structure in Sasak and Balinese is given prominence and classified as Topic by Shibatani in both languages, the PF structures in these two languages are crucially distinct. The Balinese PF structure is always grammatically classified as UV, where the UV coding is morphologically distinct as discussed above. By contrast, the Sasak PF construction is not, strictly speaking, classified as UV because the actor argument in the Sasak PF structure remains the subject syntactically; that is, it appears in the subject position (cf. the clitic =*n* in (8a)). Given our current understanding of Sasak, it is not clear whether we do want to claim that Sasak has UV at all. The coding of PF is purely constructional. That is, at the level of verbal morphology, the bare verb cannot be exclusively associated with PF.

<sup>12</sup> The distribution and forms of subject clitics in Sasak may vary across varieties of Sasak (cf. Austin 2002). The generalisation is that it is a second position clitic, and, in the presence of an auxiliary or a negator before the verb, the auxiliary or the negator would host the clitic. Otherwise, the verb may host the clitic, where it may be encliticised to the verb as in the following example:

*Nu ie kanak saq gitaq=kò nuong* (Ganti Menu-Meni Sasak)  
 that 3 child REL see=1s that (Austin 2002, ex. 43)  
 (a) ‘That is the child who I saw.’  
 (b) ‘That is the child who saw me.’

### 2.3 Sumbawa

On the basis of the available data to date, Sumbawa (Austin 2001, 2002; Shibatani 2008; Shiohara 2000; Wouk 2002) appears to have almost lost the Austronesian nasal voice morphology.<sup>13</sup> As for Sasak, there is no good reason to posit a zero voice prefix in this language, even though it displays a passive-like alternation. As shown by the examples in (9), there is no nasal prefix on the verb of the ‘active’ (transitive) structure in (9a). Both core arguments (A and P) in Sumbawa, when pronominals (except for the third person, which is zero), are cliticised on the verb. A free NP may co-index a clitic; for example, *aku* co-indexes *=ku* in (9b).<sup>14</sup>

- (9) a. *Ka=ku=pukil=mu* (Sumbawa)  
 PERF=1s=hit=2s  
 ‘I’ve hit you.’ (Shibatani 2008, ex. 10b)
- b. *Aku na=i=pukul=ku ning Ali* (Sumbawa Taliwang)  
 1s FUT=PASS=hit=1s by Ali  
 ‘I will be hit by Ali.’ (Shibatani 2008, ex. 10f)
- c. *Surat=nan mu=tulis*  
 letter=that 2s=write  
 ‘You wrote the letter.’
- d. *Ali [adé ka=ya=pukul bedus] sakit* (Sumbawa Jereweh)  
 Ali REL PERF=3=hit goat sick  
 ‘Ali, who has hit a goat, is sick.’ (Shibatani 2008, ex. 49)

The verb can appear in bare form, without bound clitics. In this case, its free core NP arguments appear before and after the verb as exemplified in (10a). The preverbal NP is the understood A, which is also the Topic and Subject. The postverbal NP is the Object.

- (10) a. *tau=lokaq beri tòdé=nan*  
 person=old love child=that  
 ‘The parents love the child.’ (Shibatani 2008, ex. 22)
- b. *\*tòdé [adé tau=lokaq beri Ø]*  
 child REL person=old love  
 ‘the child whom the parents love’
- c. *tòdé [adé ya=beri ling=tau=lokaq]*  
 child REL 3=like by=person=old  
 ‘the child who is loved by his/her parents’ (Shiohara, 2000:88)

Sumbawa appears to have a passive prefix *ka-* as seen in (11a). However, a bare verb can also turn up with a backgrounded PP Agent as in (11b), which is structurally similar to the analytic passive encountered in Bima, Manggarai, and Rongga.

<sup>13</sup> The *N-* prefix does occur, but is restricted to intransitive clauses (Wouk 2002). However, it remains to be checked whether this is true across all varieties of Sumbawa.

<sup>14</sup> The gloss PASS for *i=* in example (9b) follows the gloss given by Shibatani (2008). The bound form *i-* in the Jereweh/Taliwang variety might be comparable to *ya* in Sumbawa Besar. The construction of *i=* followed by a backgrounded PP agent in the Jereweh variety might have been grammaticalised to become a passive marker. This looks like the grammaticalisation of the clitic *=a* ‘3s’ to a PASS marker in Balinese (Arka 2003, 2008). However, further evidence is needed to support a definitive analysis for the status of *i=* in Sumbawa.

(11) a. *ka-ajak-ku ling dengan-ku lalo ko Moyo*  
 PASS-invite-1s by friend-1s go to Moyo  
 ‘My friend invited me to go to Moyo.’

b. *Andi pukul ling Iwan*  
 Andi hit by Iwan  
 ‘Andy was hit by Iwan.’ (Wouk 2002, ex. 40, 44)

Sumbawa and Balinese show a similar relativisation constraint in that, when the A is expressed as an NP, presumably in the leftmost prominent position of the clause, the P cannot be relativised. The A-V-P structure in (10a) appears equivalent to the Balinese (AV) A-V-P structure given in (12a). Relativising P in this type of structure is prohibited in both Sumbawa and Balinese, as seen by the contrast between (10a) and (10b) (Shibatani 2008) and between (12a) and (12b).

(12) a. *Meme-bapa-n-ne nyayang-in pianak-ne* (Balinese)  
 mother-father-LIG-DEF AV.love-APPL child-DEF  
 ‘The parents love the child.’

b. \**Pianak [ane meme-bapa-n-ne nyayang-in \_\_\_]*  
 child REL mother-father-LIG-DEF AV.love-APPL  
 (FOR: ‘(the) child whom the parents love’)

c. *Pianak [ane ka-sayangin baan meme-bapan-ne]*  
 child REL PASS-love-APPL by mother-father-LIG-DEF  
 ‘(the) child who is loved by the parents’

The similarity between the acceptable sentences in Sumbawa (10c) and Balinese (12c) should also be noted. In both examples, the A arguments are backgrounded and expressed by postverbal free PPs. There is compelling evidence that the Balinese structure is syntactically passive with the A argument being an Oblique (see Arka 2003 for details) and the P the grammatical Subject (and the understood Topic within the relative clause).

However, the structure with backgrounded A in Sumbawa (e.g., as in (10c)) is quite different. Here, the A argument is arguably the Subject because of its coding as a proclitic in the subject position in the clause. This backgrounding of A with a pronominal clitic in the subject position in Sumbawa is therefore like the Sasak construction seen in (8).

A notable difference is that that the Actor in Balinese (12c) is syntactically demoted to oblique status. This structure is syntactically intransitive and passive, as seen from the verbal coding with passive morphology (*ka-*). On the other hand, the backgrounded PP structure in Sumbawa of the type shown in (10c) is syntactically transitive with both A and P being core arguments. The verb has no verbal passive morphology. Hence, we have a case of backgrounding without demotion of the A argument. The same is true for the equivalent *isiq* structure in Sasak.

To sum up, Sumbawa displays no nasal versus zero-prefixed/bare verb distinction. The bare verb may be used in a construction that expresses a highly prominent A NP argument equivalent to the Balinese AV, in which case the relativisation of its P is barred. However, Sumbawa is like Sasak in that the bare verb can also be used in a structure with a backgrounded PP Actor, in which case the Patient is prominent with the Actor remaining in its subject position and realised by a proclitic.

## 2.4 Bima

Bima (Arka 2000, 2008b; Austin 2001; Jauhary 2000; Wouk 2002) is also an SVO language with the verb possibly taking optional verbal subject agreement. Pronominal agreement on the verb, if present, carries different aspectual meanings/tenses. The prefix is associated with irrealis forms and the suffix with realis forms. Certain bound forms are homonymous, for example, *-ku* ‘emphatic/evidential suffix for future certainty’ versus *-ku* ‘1s.Realis.’ The suffix requires the presence of the prefix on the verb as in (13a).

- (13) a. *Nahu ku-tu’ba-ku nggomi* (Bima)  
 1s 1s.IR-stab-EMP 2  
 ‘I will (certainly) stab you.’ (i.e., a threat)
- b. *Nahu tu’ba-ku nggomi*  
 1s stab-1s.R 2  
 ‘I stabbed you.’

As in Sasak and Sumbawa, in Bima, there is no good reason to posit a functional zero affix that marks a voice type for the same reason outlined above; namely, the same verb form can be used to encode two grammatically distinct structures. Consider the following examples showing argument alternations in Bima.

- (14) a. *Sia doho di kadera* (Bima)  
 3s sit LOC chair  
 ‘(S)he sat on the chair.’ (Jauhary 2000, ex. 25a)
- b. *Sia doho-kai kadera.*  
 3s sit-APPL chair  
 ‘(S)he sat on the chair.’ (Jauhary 2000, ex. 25b)
- c. *Kadera ede doho-kai ba sia*  
 chair that sit-APPL by 3s  
 ‘The chair was sat on by him’. (Jauhary 2000, ex. 28a)

The sentence in (14a) is intransitive, with the locative *kadera* appearing as an Oblique marked by the preposition *di*. In (14b), the sentence is the applicative structure with the locative *kadera* promoted to object, expressed as an NP and appearing postverbally. (14b) is an active transitive structure, and (14c) is its passive counterpart. There is evidence that the *ba* construction with a bare verb (i.e., without an Actor clitic) is syntactically passive (Jauhary 2000). Thus, in this analysis, (14c) is intransitive with the backgrounded Actor being an Oblique, prepositionally marked by *ba* ‘by’. Crucially, both (14b) and (14c) employ the same verb form, *doho-kai*.

Even when pronominal agreement is present, the same verb form (together with the agreement affix) is used for a fronted Undergoer question. For example, the same verb form, *mpanga-na*, is used both for the structure in which U appears in its canonical postverbal position (15a) and for the structure in which U is fronted (15b). These two structures appear to be the ‘active’ structures, i.e., the Actor marked by *-na* is the Subject in the same way as *-ku* in *tubaku* in (13b). In other Austronesian languages with a functional AV-UV distinction such as Balinese and Indonesian, the pair of structures equivalent to that in (15) would require obligatory distinct verbal morphology. In the case of a fronted P content question, this should also be accompanied by the removal of the Actor from its subject status.

- (15) a. *Mpanga-na au awin* (Bima)  
 steal-3s what yesterday  
 ‘What did s/he steal yesterday?’
- b. *Au la Ami mpanga-na \_\_\_ awin?*  
 what ART Ami steal-3s yesterday  
 ‘What did Amir steal yesterday?’

Bima, however, has passive morphology: *di-* for ‘irrealis passive’ and *ra-* for ‘realis passive’. In addition, the passive morphology is accompanied by backgrounding of the Actor and demotion of the Actor to Oblique status. Typically, the Actor appears as a postverbal PP, a clear sign of Oblique status, as seen in the following alternation.

- (16) a. *Iwa nahu sepe-na buku ede* (Bima)  
 friend 1s borrow-3s book that  
 ‘My friend borrowed that book.’
- b. *Buku ede ra-sepe ba iwa nahu*  
 book that PASS.R-borrow by friend 1s  
 ‘The book was borrowed by my friend.’

The passive morphology can also appear with pronominal suffix agreement as in (17). In this case, the Actor can appear as an NP cross-referencing the pronominal suffix.<sup>15</sup> However, unlike an ‘active’ Actor NP, the Actor can typically no longer appear in a preverbal position, as seen from the following contrast.

- (17) a. *Au ra-mpanga(-na) la Ami awin?*  
 what PASS.R-steal(-3s) ART Ami yesterday  
 ‘What was stolen by Amir yesterday?’
- b. \**Au la Ami ra-mpanga-na awin?*  
 what ART Ami PASS.R-steal-3s yesterday

To sum up, there are at least three kinds of passive constructions in Bima: (i) passive without passive morphology where the A argument is expressed postverbally as a PP (not an NP) as in (14c); (ii) passive with passive morphology without pronominal cross-referencing of the Actor on the verb by a PP, as in (16b); and (iii) passive with passive morphology with possible pronominal cross-referencing of the Actor on the verb by an NP (17a). While Bima shows active-passive alternations, the same bare verb can be used in both the active and passive structures; hence, no motivation exists for positing a zero verbal voice prefix.

## 2.5 Manggarai and Rongga

Manggarai and Rongga (Arka and Kosmas 2005; Kosmas 2000) are SVO languages, showing evidence for a grammatical subject. They also show active-passive alternations without passive morphology of the kind seen in Bima. Unlike Bima, Manggarai and Rongga are highly isolating and therefore lack any verbal morphology. There are bound (clitic) forms in Manggarai, but not in Rongga. Since the same verb forms are used for

<sup>15</sup> The precise status of the postverbal NP cross-referencing the pronominal suffix needs further investigation. It could be that the Actor is a core argument, i.e., the NP is in an appositive or adverbial relation providing additional information to the pronominal suffix, which itself is the real core argument of the verb.

both the active and passive constructions, there is no good reason to posit a zero verbal voice prefix in these languages. The following are examples of active and passive constructions in Manggarai and Rongga:

- (18) a. *Aku cero latung=k.* (Manggarai)  
 1s fry corn=1s  
 ‘I fry/am frying corn.’
- b. *Latung hitu cero l=aku=i.*  
 corn that fry by=1s=3s  
 ‘The corn is (being) fried by me.’
- (19) a. *Ardi pongga ana ndau.* (Rongga)  
 Ardi hit child that  
 ‘Ardi hit the child.’
- b. *Ana ndau pongga ne Ardi.*  
 child that hit by Ardi  
 ‘The child was hit by Ardi.’

The (a) sentences are active, with the Actor appearing sentence-initially and the Undergoer postverbally. In the (b) sentences, the Actor appears as an Oblique, prepositionally marked as *le* (shortened to *l=*) in Manggarai and *ne* in Rongga. Evidence that the (b) sentences are syntactically passive, apart from a change in word order and the prepositional marking of the Actor, comes from other behavioural properties such as relativisation (see Arka and Kosmas 2005; Arka, Kosmas and Suparsa 2007 for details; Kosmas 2000).

## 2.6 Kéo and Ende

Like Rongga, Kéo (Baird 2002), Nage, and Ende are highly isolating and canonically have A-V-P structures. However, these languages exhibit no evidence for a syntactic Pivot/Subject, and neither is there any voice alternation. A notable difference between these languages and the other two Flores languages already discussed (i.e., Manggarai and Rongga) is the lack of backgrounding of the Actor when the Undergoer is fronted. That is, in Kéo and Ende, there is no structure of the type NP[P]-V-PP[A] as seen in the passive sentences of Manggarai and Rongga in (18) and (19).

However, a P argument can be fronted and is assigned pragmatic prominence. Consider:

- (20) a. *Selus bhelo keli ke* (Nage-Rendhu)  
 Selus see mountain that  
 ‘Selus saw the mountain.’
- b. *Keli ke Selus bhelo*  
 mountain that Selus see  
 ‘The mountain Selus saw (it).’

Sentence (20a) from the Rendhu variety of Nage exemplifies the canonical A-V-P structure in Nage. The same pattern is found in Kéo and Ende. When the P argument is fronted as in (20b), the A argument, *Selus*, remains in its preverbal position, giving rise to a P-A-V structure.

There are good reasons not to analyse the P-A-V structure in these languages as the UV. Rather, it involves topicalisation of P. Likewise, there is no good evidence for a grammatical voice in these languages of the type seen in Balinese, standard Indonesian, or Manggarai/Rongga.

Kéo and Ende, for example, appear to have no privileged syntactic unit (identified as Pivot/grammatical Subject) for certain exclusive syntactic properties such as relativisation. In Kéo, all core arguments can be relativised (Baird 2002:72), as seen in (21).<sup>16</sup> Crucially, when the P argument is relativised (21b-c), the A argument remains in its structural position (evidence for this is provided below). That is, the relativisation of P does not trigger a change in the grammatical status of the A argument.

- (21) a. *'Imu nai tado nio [ta \_\_ jangga déwa]* (Kéo)  
 3s climb unable coconut REL height tall  
 'He can't climb coconut (trees) that are tall.'
- b. *'Ata [ta 'imu bhobha \_\_] ké palu*  
 person REL 3sg hit that run  
 'That person that he hit ran.'
- c. *Nga'o pui bili né'é pui [ta 'ata ti'i nga'o \_\_]*  
 1s sweep room with broom REL person give 1s  
 'I swept the room with the broom that someone gave me.'

Evidence that the relativisation of P does not affect the grammatical status of A comes from the clausal negation test and the clausal adverbial insertion test.

The idea of the negation test is this: the negator (NEG) *iva* comes between A and the verb (V) in the canonical clause structure of A-V-P in Ende; i.e., A-NEG-V-P, as seen in (22a). If the A argument *ja'o* were grammatically Pivot/Subject in this structure and if there were a grammatical voice in Ende, the foregrounding of P in relativisation would be expected to be accompanied by the demotion of A from its Subject status. Such demotion is typically reflected by a change in the structural position of A. It is therefore expected that A cannot precede NEG in a relativised clause. However, this is not borne out in Ende, as seen in (22b). Thus, the A argument *ja'o* occupies the same structural position in (22a) (canonical structure) and (22b) (non-canonical structure). In Ende, there is no evidence of a change in the grammatical status of A due to the relativisation of P.

- (22) a. *ja'o iva e kau* [A-NEG-V-P] (Ende)  
 1s NEG remember 2s  
 'I didn't remember you.'

<sup>16</sup> One could argue that the relativisation in (21b-c) involves not relativisation of the P, but relativisation of the TOP, which happens to be P. Hence, the bracketing for the sentence in (21b) should look like (i) or (ii):

- (i) *'Ata [ta \_ ['imu bhobha \_ ] ké palu*  
 person REL 3sg hit that run
- (ii) *'Ata [ta \_ ['imu bhobha ] ké palu*  
 person REL 3sg hit that run  
 'That person that he hit ran.'

While this analysis makes explicit the function of the P argument as TOP, this TOP-NP analysis does not affect the claim made in this paper; i.e., that fronting the P NP would not result in the change in the grammatical status of the A NP. Hence, there is no grammatical voice alternation in the P-A-V structure.

- b. *kau* [*əta* [ *ja'o* *iva* *e* \_\_\_ ]] [P-A-NEG-V]  
 2s REL 1s NEG remember  
 'It is you who I didn't remember.'

The clausal adverbial insertion test shows a similar result. A clausal adverbial (e.g. *numai* 'yesterday') is a mobile unit in Ende, which generally appears sentence-finally as in (22a). It can also appear between the A and the verb as in (23b), but, importantly, not within the VP, that is, between the V and the P argument, as seen in (23c).

As far as the adverbial test, the idea is this: if the A argument, *Selu*, in (23a-b) were the grammatical Subject and if there were a voice alternation as in the NEG test above, we would expect that the foregrounding of P in relativisation would demote A to a non-subject status and it could no longer appear in its original canonical position. It is expected that the A argument *Selu* cannot appear before the adverbial *numai* in a relative clause. However, this expectation is again not borne out, as seen from the acceptability of sentence (23c). In other words, there is no evidence for a structural alternation (i.e., of grammatical function) as a result of P-fronting or P-relativisation in Ende.

- (23) a. *Selu naka manu numai* (Ende)  
*Selu steal chicken yesterday*  
 'Selu stole chicken yesterday.'
- b. *Selu numai naka manu*  
*Selu yesterday steal chicken*  
 'Selu stole chicken yesterday.'
- c. \**Selu naka numai manu*  
*Selu steal yesterday chicken*
- d. *Apa əta Selu numai naka?*  
 what FOC Selu yesterday steal  
 'What did Selu steal yesterday?'

In other Austronesian languages that have a similar clausal structure with the preverbal A NP position but show AV/UV alternation (e.g., Indonesian), the clausal negation test (and the adverbial insertion test) would force a structural position change of the A NP and a change in voice marking. Consider the following examples:

- (24) a. *Amir tidak melihat gunung itu* (Indonesian)  
*Amir NEG AV.see mountain that*  
 'Amir didn't see the mountain.'
- b. ?\**Gunung yang [Amir tidak melihat \_\_\_]*  
 mountain REL Amir NEG AV.see
- c. *Gunung yang [ \_\_\_ tidak Amir lihat / \*melihat]*  
 mountain REL NEG Amir UV.see AV.see

Sentence (24a) is a negation of a canonical A-V-P structure where the negator *tidak*, like the negator in Ende, precedes the verb outside of the VP. The fronting of the P argument required in relativisation/clefting, as in (24b), is not possible if the A argument remains in its subject position, that is, before the negator; hence, (24b) is unacceptable. The acceptable structure is that given in (24c) where the A NP *Amir* must follow the negator *tidak* and

precede the verb. Crucially, the verb must be in the UV (i.e., bare) form *lihat* and not the AV form *melihat*.

To conclude, there is no voice system, and therefore no zero affix, in Ende or Kéo.

### 3 Discussions

If we assume the well-accepted view that the ancient Austronesian voice systems (PAN or PMP) were multi-way voice systems similar to those currently encountered in the Philippine-type languages (see, among others, Blust 2002, 2003; Himmelmann 2002; Ross 2002; Starosta, Pawley, and Reid 1982 and the references therein; Wolff 2002), we can then say that the Balinese voice system is a simplified one, and that those of the other Austronesian languages in Nusa Tenggara discussed in this paper show further attrition, with the ultimate loss being attested by the languages of central Flores such as Ende, Nage, and Kéo. In this last section, the issue of positing a zero prefix is resumed and discussed in terms of its merit in linguistic analysis (§3.1) and linguistic theories (§3.2). A historical note is also provided in §3.3.

#### 3.1 Marked or unmarked?

Positing a zero prefix ( $\emptyset$ -) in Balinese is well motivated, as pointed out in §1. In the analysis adopted in this paper, all verbs in Balinese are equally marked — the bare verb is marked by a zero prefix.

The basic idea of how the opposition of verbal marking works in Balinese grammar can be summarised in the diagram in (25a). The zero prefix in Balinese marks the selection of a non-Actor core argument as a Pivot or grammatical Subject. The zero prefix is a verbal coding functionally distinct from the nasal prefix (*N-*) in (25b), which marks the selection of the Actor-like argument as grammatical subject. The notation used here (i.e., the placement of the Actor(-like) argument in (25a) and the Undergoer(-like) argument in (25b) within brackets) is meant to capture the idea that the coding opposition applies to transitive and intransitive structures. That is, if there is a single core argument and if this argument is an Undergoer, then the verb is in UV form (i.e., with  $\emptyset$ -). If there are two core arguments (i.e., transitive) and if the Undergoer is selected as grammatical Subject (and the Actor remains a core argument), then the verb must also be in UV form. Having a zero prefix code UV verbs allows us to capture the basic idea in the analysis that Balinese grammar shows an active/Split-S system as far as verbal voice marking is concerned. This is represented in the diagram in (26).<sup>17</sup>

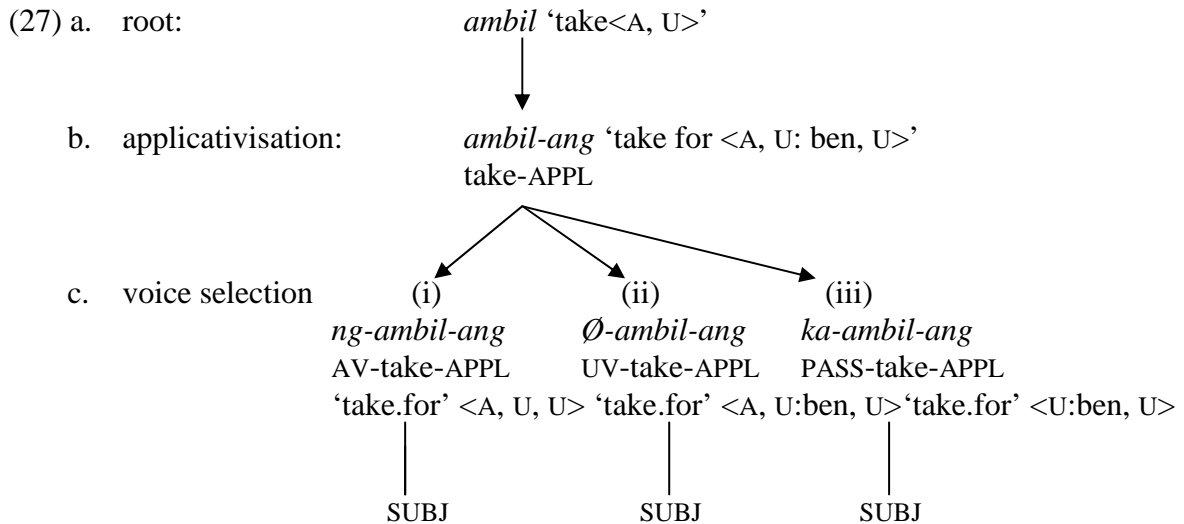
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<sup>17</sup> Following common practice in work on typological linguistics, in this diagram, I use the label S to represent the sole argument of an intransitive verb and A and P to represent Actor-like and Patient-like arguments of transitive verbs. This is to highlight the idea of a Split-S system in Balinese. Note that the A and P in (26) are roughly equivalent to Actor and Undergoer in (25). It should be noted that the picture given in (26) is somewhat simplified and excludes ditransitive structures where more than one U/P argument is involved.



In LFG (Bresnan 2001; Dalrymple 2001; Falk 2001, among others), lexical items carry different kinds of information that constrain syntax. Passivisation and other processes that change the shape of lexical items are morpholexical operations, which change the information carried by the lexical items. The change in lexical form therefore correlates with a change in the syntactic constraints of the item. This lexical framework suits Balinese and other languages that exhibit overt affixation for syntactic alternations, such as passivisation, which changes the subcategorisation frame of a verb.

Consider the derivation processes (applicativisation and voice selection) with the transitive verb root *ambil* ‘take’ in (27), which shows how each derivation is registered by a particular affix.



The transitive argument structure of the root in (27a) is represented as <A, U> (i.e., having two core arguments: an Actor and an Undergoer). The applicative *-ang* in (27b) turns the transitive verb root *ambil* into a ditransitive base, *ambil-ang* ‘take for.’ The applicativisation introduces a benefactive Undergoer (U:ben) into the argument-structure of the root. As noted, the ditransitive structure has an A and two U arguments. This ditransitive output, in turn, becomes an input for the voice selection process (27c). There are at least three possibilities here, depending on the selected voice types. The AV marked by the prefix *N-* (i.e., homorganic nasal) selects the A as the Pivot/Subject. The UV marked by the prefix  $\emptyset$ - selects the U:ben argument as the Pivot. The passive voice *ka-* removes or demotes the A argument from core status to Oblique, and selects the U:ben as Pivot/Subject. In short, a verb emerges from the lexicon fully inflected, with different forms imposing different specific subcategorisation frames.

The crucial point to note for the derivation in the Balinese example is that the morphology specifies what alternation(s) have taken place and what constraint(s) the verb would impose on syntax. For example, the *ka-/-ang* affixation in *kaambilang* (27c.iii) would impose a passive structure with the promoted U:ben realised as the Pivot/Subject in the sentence, and the A would be either unexpressed or demoted to Oblique status.

However, in isolating languages like Manggarai and Rongga, there is no affix whatsoever by which morphology can tell syntax that a certain operation has taken place. It is only when the verb is used in a syntactic construction that we identify a particular voice type. That is, voice selection is achieved by means of analytic expression, for example, backgrounding the Actor and marking it with a preposition. There is a clear absence of a

morpholexical operation as observed in Balinese. Applying a morpholexical analysis such as that depicted in (27) to the isolating languages would mean applying a zero affixation to virtually all verbs for all grammatically distinct structures. This is certainly not an appealing analysis.

Applying a Chomskian transformational movement-based analysis as described in the Minimalist model (Chomsky 1995; Hornstein, Nunes, and Grohmann 2005) to the isolating languages appears to be a challenge, too. In the Minimalist framework, distinct overt morphology on the verb is a ‘spell-out’ of certain syntactic features. Distinct verbal voice morphology registers different kinds of ‘extractions’ (i.e., movement) of NPs out of the verbal nodes during syntactic derivation (Rackowski and Richards 2005). The derivation is motivated by a theory-internal case-checking mechanism. In a Minimalist analysis for the Actor voice structure in Balinese, for example, the agent NP is extracted from the verbal nodes and relevant features are spelled out on the verb as the nasal prefix. In the case of the Undergoer Voice, the patient NP is extracted and the spell-out on the verb is realised as a zero prefix (see Cole, Hermon and Yanti (2008) and Aldridge (2008) for the Minimalist analysis of Indonesian voice alternations).

In short, the crucial property of the Minimalist analysis to the Austronesian voice alternation is that distinct verbal morphology correlates with the extraction of a certain argument (Agent, Patient, etc.) from the verbal node. Again, this is fine with Balinese or Indonesian where we have distinct morphology for distinct voice types. If extended to account for voice alternation in Manggarai and Rongga, this Minimalist approach may run into the same problem as the LFG approach, precisely because of the absence of distinct morphology, assumed in this theory to be distinct spell-outs on the verb that indicate different extractions. The question is how to justify that the same (zero) spell-out correlates with two quite different extractions: one being the extraction of the Agent (equivalent to the AV structure in Balinese) and the other the extraction of the Patient in the passive. According to a Minimalist linguist (Richards 2006) in his review of Arka and Ross (2005) on this very issue in Manggarai (Arka and Kosmas 2005) and Palu’e (Donohue 2005), positing a zero prefix might not be a good idea. However, this claim is not elaborated upon any further.

Since the distinction of voice types in the Austronesian languages of Nusa Tenggara, particularly those of Flores, is encoded purely at the level of analytic expression, the data would perhaps be better couched using the insights from construction-based frameworks (Croft 2001, among others; Goldberg 1995). Lexically-based theories such as LFG could be extended to capture construction-based voice alternations, perhaps within the proposals made in Nordlinger (1998) and Ackerman (2003). Discussing the precise details of how the proposal would work with the Austronesian languages of Nusa Tenggara is beyond the scope of the present paper.

### 3.3 Historical notes

From a historical perspective, the discussion of zero prefix and bare verbs brings up the question of the development of voice systems and grammatical relations in the Austronesian language family. In what follows, the development of analytic passives is discussed. Due to space limitations, the discussion is focussed on the construction with third person bound pronominals that reflect PMP *\*ya/\*-ña*.<sup>18</sup>

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<sup>18</sup> These are reconstructed forms as described in Ross (2002).

Of particular interest are constructions involving bound pronouns with backgrounded Actors. These constructions are pragmatically marked with the P being highly topical. While they resemble passives, they may not be all syntactically passives, especially in the absence of the backgrounded Actors. Consider (28), which shows the patterns seen in the languages discussed earlier and in other related languages within the so-called Proto Malayo-Sumbawan (Adelaar in press). The family tree of Malayo-Sumbawan (MS) proposed by Adelaar is shown in Figure 1.<sup>19</sup>

The point to be highlighted here is as follows: the constructions shown in (28) provide additional morphosyntactic evidence for the idea that Balinese, Sasak, and Sumbawa genetically form a subgroup (Adelaar in press; Esser 1938; Mbete 1990). Bali-Sasak-Sumbawa (BSS) shows a common pattern of a third person bound pronoun cross-referenced by backgrounded A (28a-e). The bound pronoun may or may not show up on the verb.

(28)	Balinese:	V=(n)a <sub>i</sub>	(PP:agent <sub>i</sub> ) /*NP:agent <sub>i</sub>	(a)
	Sasak:	AUX=n <sub>i</sub>	V (PP:agent <sub>i</sub> ) /*NP:agent <sub>i</sub>	(b)
	Sumbawa:	AUX=ya <sub>i</sub>	V (PP:agent <sub>i</sub> ) /*NP:agent <sub>i</sub>	(c)
		i=V	(PP: agent) /*NP:agent <sub>i</sub>	(d)
		V	PP:agent /*NP:agent <sub>i</sub>	(e)
	Bima:	V-na <sub>i</sub>	((P) NP:agent <sub>i</sub> )	(f)
		V	PP: agent	(g)
	Manggarai/Rongga:	V	PP: agent	(h)
	Kéo/Ende/Sikka/Lamaholot:	V without backgrounded	PP:agent	(i)
	Indonesian:	di-V	((P)NP:agent)	(j)
	Sundanese:	di-V	((P)NP:agent)	(h)
	Madurese:	e-V	((P)NP:agent)	(i) (Davies 2005) <sup>20</sup>

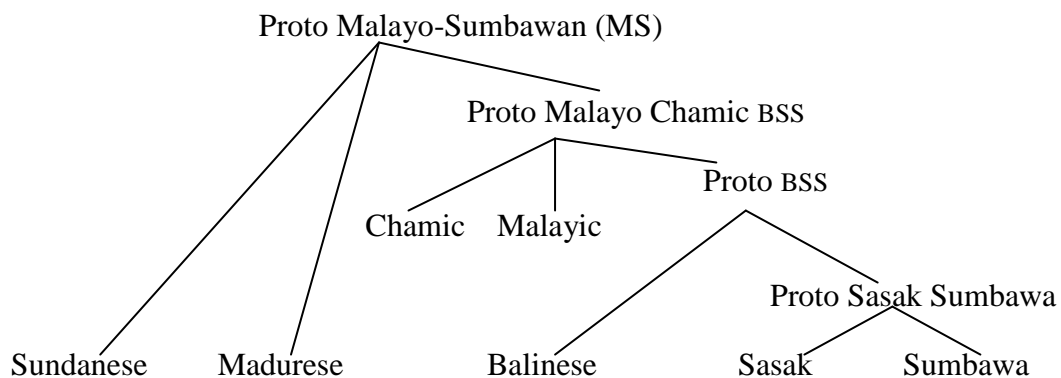


Figure 1: Family tree of Malayo-Sumbawa (Adelaar in press)

<sup>19</sup> I modified the direction of the branching, (i.e., putting Sundanese at the far left instead of the far right) to reflect the geography.

<sup>20</sup> *e-* in Madurese can appear with a non-third person Actor:

*Alwi e-pokol sengko*  
 Alwi OV-hit 1  
 'I hit Alwi.'

As noted, the A must be obliquely marked by a preposition in the BSS group. This sets them apart from other languages within the MS group, namely Indonesian, Madurese and Sundanese. In these languages, backgrounded Actors can be NPs or PPs. In the following examples from Madurese, the Actor appears as a PP, *bi' Siti*, in (29a), and an NP, *Marlena*, in (29b).

- (29) a. *Meja juwa e-saba'-i buku bi' Siti* (Madurese)  
 table that UV-put-E book by Siti  
 'Siti put the book on the table.'
- b. *Bambang e-bala-agi Marlena dha' Ita*  
 Bambang UV-say-AGI Marlena to Ita  
 'Marlena talked about Bambang to Ita.' (Davies 2005, ex. 28, 22)

The realisation of the backgrounded A in BSS also sets these languages apart from Bima and the Flores languages. BSS belongs to western Malayo-Polynesian (WMP) whereas Bima and the Flores languages belong to the Bima-Sumba subgroup within central Malayo-Polynesian (CMP) (Grimes 1992; Ross 1995).<sup>21</sup> In Bima, the backgrounded A can appear as a PP or NP; but, unlike Indonesian/Sundanese/Madurese, Bima (together with Manggarai and Rongga) allows it with a bare verb.

Balinese is the only language within MS discussed here that has no proclitic A arguments, that is, of the type *ku=/kau=/dia=Verb* seen in Indonesian. Hence, Balinese deserves to be set apart from Sasak-Sumbawa on the one hand, and from Indonesian/Madurese/Sundanese on the other. All A pronouns in Balinese are postverbal, and only the third person is clearly realized as a clitic, namely, *=(n)a*.<sup>22</sup> The third person clitic has been grammaticalised to become a passive marker in contemporary Balinese (Arka 2003; 2008a for further discussion).

- (30) a. *Celeng-e adep-a taken I bapa* (Balinese)  
 pig-DEF sell-3.PASS by ART father  
 'The pig was sold by father.'
- b. \**Celeng-e adep-a I bapa*
- c. *Celeng-e adep=a*  
 pig-DEF UV.sell-3  
 'S/he sold the pig.'

Given the family tree in Figure 1, which is established on phonological evidence, and given the patterns of backgrounded Actors with possible cross-referencing pronominals so far discussed, we can now hypothesise the development of passives, particularly analytic passives as seen in (11b) in Sumbawa.

First of all, it is reasonable to adopt the view that the PP marking requirement for the backgrounded A as encountered in BSS must be a recent innovation. That is, the backgrounded Actor argument was initially just a core argument, typically an NP. Then, it was interpreted as an oblique-like argument, which therefore licensed the PP marking. The

<sup>21</sup> The terms WMP and CMP are still used here as convenient labels of groupings of languages that have been generally considered to be related (Blust 1981, 1993; Grimes 1992). The evidence for the phylogenetic unity of these grouping labels has been questioned (see Donohue and Grimes (2008) for detailed discussion).

<sup>22</sup> *-na* is used when the verb is vowel-final, e.g., *aba-na* 'bring-3'.

double marking, of the type seen in contemporary Indonesian/Madurese, must have been available in the stage of Proto Malayo-Sumbawa (PMS).

The passive-like voice with cross-referencing pronominal must have developed out of the Undergoer-Voice (UV) construction (also known as PF-Patient Focus). Given the widely accepted view that PAn/PMP was relatively rich in voice morphology, UV in Proto Malayo-Sumbawan (PMS) must have been morphologically or pronominally marked. The UV coding might have been in the same prefix slot of the Actor Voice *\*maN-*. The system might have been like the one in Indonesian, shown in (31). At the time of PMS, there must also have already been a real passive, that is, the ancestral (proto) form of the contemporary passive *ter-* (Indonesian) and *te-* (Sasak) with the Actor being obligatorily an Oblique PP.

(31)	Indonesian			
	Actor Voice		Undergoer Voice	
	(ALL PERS)	1sA	2sA	3sA
	<i>meN-V</i>	<i>ku=V</i>	<i>kau=V</i>	<i>dia=V/di-V</i>

Therefore, the bare or analytic passive of the type currently observed in Sumbawa, pattern (28e), must have been a further developmental step after the emergence of the coding of the Actor PP. That is, PP encoding might have rendered the verbal coding (e.g., *i-(<\*ya)* in (28d) in Sumbawa) functionally redundant. The verbal marking was then dropped.

The development that led to the analytic passive construction, for example, as seen in Sumbawa, can be hypothesised to have followed the stages shown in (32a-c). Stage (a) is the one prior to PMS where a backgrounded Actor was a core argument, marked by core phrase markers. Stage (b) is the PMS stage where two kinds of marking were possible, PP and NP. Stage (c) is the PBSS stage where cross-referencing of backgrounded Actor must be in the PP. Finally, in stage (d), the bound pronominal associated with the UV disappeared, resulting in an analytic passive. At the same time, the AV marking, that is, *N-(<\*maN-)* disappeared as well (cf. §2.3).

(32) a.	Backgrounding of A:	NP:Topic	UV <sub>i</sub> =VERB	NP:BackgroundedActor-core <sub>i</sub>
b.	NP/PP A marking:	NP:Topic	UV <sub>i</sub> =VERB	[(P) NP:BackgroundedActor(-core)] <sub>PP</sub>
c.	PP A marking only:	NP:Topic	UV <sub>i</sub> =VERB	[PP:BackgroundedActor(-core)] <sub>PP</sub>
d.	Loss of UV/AV marking:	NP:Topic	VERB	[PP:BackgroundedActor]

The existence of analytic passives in Bima, Manggarai, and Rongga deserves a brief comment because these languages belong to CMP rather than WMP, but they show a passive-like structure with a backgrounded Agent PP of the type shown in (32d). Note that such an analytic passive with a backgrounded Actor, either as a PP or an NP, is not encountered in the languages of central and eastern Flores. Neither is it typically found in other Bima-Sumba/CMP languages.<sup>23</sup> Therefore, the (analytic) passive with a backgrounded PP in Bima, Manggarai, and Rongga must not be a property inherited from the ancestral language of Proto Flores (see Fernandes (1996) for the genealogical grouping of Flores languages), or Proto Bima-Sumba, or PCMP (if such a language ever existed; see Donohue and Grimes (2008)). The developmental stages might be different from those

<sup>23</sup> However, the cross-referencing of a bound A pronominal on the verb by a free NP, not by a PP, is observed in the neighbouring CMP languages of Kambara, Sumba (Klamer 1996). Klamer argues that such a structure is grammatically not passive.

hypothesised in (32). While it is reasonable to conclude that the analytic passive in Bima, Manggarai, and Rongga might not have followed the stages shown in (32), the precise history of the emergence of bare verbs, in transitive verbs in particular, or the analyticity of Flores languages in general, is far from clear.

Language contact might have complicated the picture. It has been pointed out by Adelaar (in press) that contemporary Balinese has been overwhelmingly influenced by Javanese, and this has masked the genetic link of Balinese to its neighbouring languages to the east (i.e., Sasak and Sumbawa). Balinese acquired the speech level system and lexicon from Javanese (Clynes 1989). As Lombok was occupied by the Balinese from the mid-17<sup>th</sup> to the early 20<sup>th</sup> century, the speech level system and Balinese lexicon also spread to Sasak. The islands of Sumbawa (i.e., the location of Bima) and Flores used to be under the occupation of the Goa Kingdom of South Sulawesi in the early 17<sup>th</sup> century. In addition, Flores (in particular western-central Flores where Manggarai and Rongga are now spoken) fell to the domination of the Bima Kingdom after the Kingdom of Goa was defeated with the help of the Dutch colonial force in the mid-17<sup>th</sup> century. Contact between ethnic groups through trade and political dominance in this region has been going on for centuries. However, it is still unclear whether the passive-like constructions with backgrounded Oblique Actor PPs now encountered in Bima and other languages of western Flores were acquired through contact.

#### 4 Conclusion

The morphosyntactic status of bare verbs in the Austronesian languages of Nusa Tenggara discussed in this paper are not exactly identical. In Balinese, bare verbs can surely be analysed as having a zero prefix on the basis of formal and functional opposition with other verbs prefixed with *N-* (AV) (<PMP \**maN-*), *ka-* (PASS), or *ma-* (MV). However, no good evidence exists for such an analysis in the other neighbouring languages. This is mainly due to the (gradual) disappearance of the AV prefix reflecting \**maN-*. In Sasak, *N-* verbs are often used interchangeably with bare verbs in certain contexts. Bare verbs are therefore ‘unmarked’; that is, they are not exclusively used for one particular voice type. In Sumbawa, the nasal prefix is only restricted to intransitive verbs and is totally lost in transitive verbs. In Bima, it is lost both in intransitive and transitive verbs.<sup>24</sup> In Flores languages, which are highly isolating, there is no trace of the Austronesian AV, \**maN-*.

Discussion has been provided with respect to the synchronic analysis of the bare verbs. It has been pointed out that extreme analyticity that shows voice alternation is a challenge to theoretical linguistics. While it is suggested that insights from construction-based

<sup>24</sup> Bima has *ma*, which may not necessarily be prefixed to a verb. *Ma* may show constraints similar to the AV prefix *N-*. For example, it cannot be used when a transitive content question object is fronted (Arka 2009). Consider the contrast between (ii) and (iii) below:

- (i) *Cou ma-mpanga janga awin?*  
who ma-steal chicken yesterday  
‘Who stole chickens yesterday?’
- (ii) *Aula Ami mpanga-na \_\_\_ awin?*  
what ART name steal-3s yesterday  
‘What did Amir steal yesterday?’
- (iii) \**Au la Ami ma-mpanga-na \_\_\_ awin?*

frameworks should be incorporated to allow a proper analysis of the data, the precise details of the analysis still need to be worked out.

Finally, bare verbs are the ultimate end of attrition where all verbal (voice) markings (affix and pronominal clitics) have disappeared, resulting in extremely isolating languages, as has happened to Flores languages.

Discussion has focussed on the development of bare verbs with cross-referencing backgrounded Actors, which may have led to analytic passives. It appears that historical processes of analyticity in Sumbawa, Bima, and Manggarai on the one hand, and in other languages of central and eastern Flores on the other, may not be the same. While the findings in this paper provide some support for the genealogical grouping of Bali, Sasak, and Sumbawa, the question remains of how to explain the observation that the analytic passive is encountered in Sumbawa, Bima, and languages of western Flores such as Manggarai and Rongga, but not in other isolating languages of central-eastern Flores such as Ende and Kéo. For this question, further investigation is needed to uncover the complex issues of dialect chains and contact-induced language change in the area.

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