

Exclamatives and temporal nominalizations in Austronesian

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Two functions commonly fulfilled by nominalization are exclamative formation and temporal subordination. This article examines the morphology and syntax of these types of nominalizations across a wide range of Austronesian languages. I argue that the commonality between these two functions is found in the presuppositionality (both real and accommodated) involved in their interpretation. Special attention is paid to the mixed nominal-verbal properties of these constructions while offering evidence that nominalization can be a process which applies at several levels within the syntax.

1. Introduction

As is by now well known, nominalization strategies are employed for a strikingly wide variety of discourse functions across languages (Noonan 1997, *inter alia*). In this paper we examine just two functions of nominalization, exclamatives and temporal adjuncts, as they are attested commonly throughout Austronesian languages. We take a primarily diachronic-descriptive approach to the data and posit a new historical account for the genesis of a particular type of exclamative morpheme Proto-Malayo-Polynesian **ka-* and temporal adjunct marker **paR-*.^{1,2} We also touch upon the idea of

1. The term Western Malayo-Polynesian (WMP) does not refer to a genetic subgroup but is rather composed of all the Malayo-Polynesian languages which cannot be subgrouped into the better defined Central-Eastern Malayo-Polynesian (CEMP) (Blust 1993). But because CEMP languages are generally understood to have undergone morphosyntactic restructuring, probably due in no small part to contact with non-Austronesian languages in East Indonesia, many of the patterns discussed here can likely be reconstructed for Proto-Malayo-Polynesian without recourse to external witnesses from CEMP.

2. All Tagalog and Indonesian/Malay data comes from my own notes. Because the majority of the discussion is illustrated by Tagalog, this language is not specifically indicated on the right of each example.

“high nominalization” as a possible explanation for some of the common properties between these two constructions.

A brief note on lexical category is in order before setting out on our main topic. The question of identifying nouns and verbs in morphologically conservative Austronesian languages naturally looms large in any discussion of nominalization. Philippine verbs have been argued to possess many nominal properties (Himmelmann 1999; Naylor 1979 *et seq.*; Kaufman 2007, 2008, in progress) which in turn has been argued to be the result of an older reanalysis of nominal categories into verbal ones (Starosta, Pawley & Reid 1982). What are typically referred to as patient voice and actor voice sentences in the Austronesianist literature are exemplified by Tagalog in (1). Sentence (1a), a canonical transitive construction with a definite agent and patient, employs the patient voice which corresponds with genitive case on the agent and nominative case on the patient. Sentence (1b), employs the actor voice, used for intransitives and transitives with indefinite patients. Here, nominative case is assigned to the actor and genitive case is assigned to the patient. As noted by earlier grammarians, these sentences are translatable as either verbal predications or copular sentences with nominal predicates. The latter interpretation is motivated by the noun-like distribution of these predicates and their assignment of genitive (possessor) case to non-subject arguments.

- (1) a. *s<in>únog-Ø ni Maláyà ang bandílà*
 <RL>burn-PV P.GEN M. NOM flag
 ‘Malaya burnt the flag’ ~ ‘The flag was Malaya’s burnt thing.’
- b. *nag-súnog si Maláyà nang bandílà*
 <RL>burn-AV P.NOM M. GEN flag
 ‘Malaya burnt a flag’ ~ ‘Malaya was the burner of a flag.’

For clarity, we forgo Tagalog orthographic conventions and spell out the genitive case marker as *nang* and plural marker as *manga* (orthographically, *ng* and *mga*)

Abbreviations:

ABS	absolutive	GEN	genitive	PL	plural
ACC	accusative	GRND	gerundive	PRT	unidentified
ADJ	adjectival	INCM	incompletive		particle
ALRD	already	INTNS	intensive	PST	past
ASP	unidentified aspect	LNK	linker	PV	patient voice
AV	ACTOR VOICE	LOC	locative	QM	question marker
CMPL	completive	MDRT	moderative	REL	relative marker
DEIC	deictic	NEG	negation	RL	realis
DET	non-case marking determiner	NMLZ	nominalizer	SOC	sociative
DIST	distributive	NOM	nominative	TEMP	temporal adjunct marker
ERG	ergative	NVL	non-volitional	TOP	topic marker
EXCL	exclamative	OBL	oblique	TR	transitivity
EXT	existential	P	personal name case marker		related affix

Morphologically conservative Austronesian languages show up to four voices (patient, actor, locative, conveyance) which can be reconstructed to Proto-Austronesian (Wolff 1973; Ross 2002). These voices are used for a much wider variety of functions than is indicated by their names but all have in common that they assign nominative case to the argument bearing the proto-role with which they are associated. With this short background, we can compare nominalizations proper, the subject of the present investigation. While the canonical predicates above typically assign nominative case to a thematic argument in the clause, nominalizations do not assign nominative case but rather can only assign genitive and oblique case to arguments. This can be seen by comparing the canonical property predicate in (2a) with the corresponding exclamative in (2b). In the former the sole argument appears as a subject with nominative case and in the latter it takes genitive case and is syntactically restricted in the same manner as other genitive/possessor dependents in Tagalog. Note that the property predicate cannot assign genitive case to its subject and the exclamative cannot assign nominative case, as shown in (3).

- (2) a. *ma-ganda si Maria.*
 ADJ-beauty P.NOM M.
 ‘Maria is beautiful.’
- b. *kay ganda ni Maria!*
 EXCL beauty P.GEN M.
 ‘How beautiful Maria is!’
- (3) a. **ma-ganda ni Maria.*
 ADJ-beauty P.GEN M.
 ‘Maria is beautiful.’
- b. **kay ganda si Maria!*
 EXCL beauty P.NOM M.
 ‘How beautiful Maria is!’

Looking now at temporal adjuncts, in (4a) we find a canonical intransitive sentence with an actor voice predicate and in (4b) we find its corresponding temporal adjunct. Again, we find that the sole argument is expressed as a genitive/possessor rather than a subject.

- (4) a. *<um>alis si Maria*
 <AV.RL>leave P.NOM M.
 ‘Maria left.’
- b. *pag-alis ni Maria...*
 GER-leave P.GEN M.
 ‘When Maria leaves/left...’

The underlying commonality between the constructions under discussion here is that they lack assertive force and do not constitute predications on their own. In all cases, a predication is packaged as a presupposition. Seen in this way, both temporal adjuncts and exclamatives seem to share a relationship to anaphoric expressions. A typical usage of temporal adjuncts in Tagalog is shown in (5). Note that, just as the referent *Pedro* in the first clause is referred to anaphorically by the genitive pronoun *niya* in the following clause, the predicate *dumating* in the first clause, marked by voice and aspect, is referred to nominally in the following clause (as gerundive *pag-dating*). Pronominal anaphora can thus be seen as a model for temporal anaphora via nominalization.

- (5) *D<um>ating_i si Pedro_j Pag-dating_i niya_j...*
 <AV.RL>arrive P.NOM P. GER-arrive 3S.GEN
 ‘Pedro arrived. When he arrived...’ (More literally ‘Upon his arrival...’)

This is expected in the case of the temporal adjuncts as they are truly part of the background at the point of utterance, as in (5) but perhaps not so obvious in the case of exclamatives. However, Michaelis & Lambrecht (1996) and Michaelis (2001) argue that the presuppositional nature of exclamatives can be the key commonality tying together the various ways in which they are expressed cross-linguistically. That exclamatives contain presuppositions was already noted by Sadock & Zwicky (1985: 162) (cited by Michaelis 2001: 1040), emphasis mine:

Exclamations are intended to be expressive whereas declaratives are intended to be informative. Both represent a proposition as being true, but in an exclamation, the speaker emphasizes his strong emotional reaction *to what he takes to be a fact*, whereas in a declarative, the speaker emphasizes his intellectual appraisal that the proposition is true.

The actual exclamatory force of nominalized exclamatives is probably best considered as arising from the pragmatic bridging which the hearer must undertake for the exclamative to be interpretable. The speaker is moving one step ahead of the hearer in assuming the property attributed to the subject and making a claim as to its degree.³ Following the analogy of (5) above, we can also conceive of property exclamatives as forcing accommodation on the part of the hearer, as indicated by the coindexing in (6), where the discourse antecedent is overt. Again, an indefinite predicational antecedent is referred back to with a nominal. In a typical exclamative, the discourse antecedent

3. Portner & Zanuttini (2004) attribute this to a null exclamative morpheme but this cannot capture the intuition that the exclamative quality results from forcing the hearer to accommodate a referent without previous introduction (see also Potsdam this volume for an additional criticism).

is not overt and requires accommodation, underscoring the mirative nature of the speech act.

- (6) *Ma-bilis_i si Pedro_j Kay bilis_i niya_j talaga!*
 ADJ-speed P.NOM P. EXCL speed 3S.GEN truly
 ‘Pedro is fast. He’s so fast!’ (More literally, ‘His speed!’)

In this way, both temporal adjuncts and exclamatives can be analyzed as anaphoric expressions, the latter of which attains its illocutionary force, at least in part, by triggering pragmatic accommodation.

The rest of this paper is organized as follows. A development from existentials to adjectivals and exclamatives with the PMP **ka-* formative is proposed in Section 2.1; some synchronic properties of Tagalog exclamatives and the split nominal/adjectival features of exclamatives are explored in Section 2.2; the generalization of the **ka-* morpheme to new environments is taken up in 2.3; an interim summary is presented in 2.4. In Section 3.0 we proceed to temporal adjuncts and discuss the development of PMP **paR-* from a gerund marker of sorts to a temporal subordinator. The morphology and syntax of gerunds is sketched out in 3.1 and split nominal-verbal features of gerunds and temporal adjuncts are discussed in 3.2. Section 4.0 concludes and offers some speculations on the syntax-semantics correspondences in the constructions discussed.

2. Tagalog exclamatives from an Austronesian perspective

2.1 The exclamative-existential connection

Most Philippine languages have a number of morphological and syntactic strategies for forming exclamatives from property denoting roots. Tagalog, for instance, has the three morphological exclamative formations in (7a)–(c). One defining feature of the exclamatives in (7a)–(c) is their assignment of genitive case to the intransitive subject in contrast to their adjectival predicate counterparts which assign nominative case, as seen in (8).

- (7) a. *kay ganda niya!* b. *pagka-(ganda~)ganda niya!*
 EXCL beauty 3S.GEN EXCL-INTNS~beauty 3S.GEN
 ‘how beautiful she is’ ‘how beautiful she is’
- c. *nápaka-ganda niya!*
 EXCL-beauty 3S.GEN
 ‘how beautiful she is’
- (8) *ma-ganda siya*
 ADJ-beauty 3S.NOM
 ‘She’s beautiful’

All three exclamatives formations above contain what is in all likelihood a frozen prefix *ka-*, as highlighted. As discussed in detail by Blust (2003), Proto-Austronesian (Pan) **ka-* was a multifunctional morpheme which had an essential role in the paradigm of stative verbs and is often found to be in a paradigmatic relation with *ma-* in statives and adjectives in modern languages.⁴ In Proto-Malayo-Polynesian (PMP) – a primary branch of Pan and the progenitor of all Austronesian languages outside of Taiwan – this affix appears to have taken on several more functions, such as ‘formative for abstract nouns’, ‘manner in which an action is carried out’ (Blust 2003: 473) in addition to a (probably unrelated) ‘co-’ function (e.g. Tagalog *ka-silid* co-room ‘roommate’). It seems that **ka-* additionally (or underlyingly) functioned as an existential marker in at least PMP, if not PAN.⁵ It survives in this putatively original function in examples such as (9a), from Tagalog, and also possibly underlies the common Austronesian locative circumfix *ka- -an*, also exemplified here with Tagalog in (9b).⁶

- | | | | |
|--------|---------------------|----|--------------------|
| (9) a. | <i>mag-ka-pérah</i> | b. | <i>ka-batu-han</i> |
| | AV-EXT-money | | EXT-stone-LOC |
| | ‘to have money’ | | ‘stony place’ |

4. See Evans & Ross (2001) for the multifunctionality of Proto-Oceanic **ma-* (used primarily for forming stative and experiential verbs and adjectives) where the prefix shares many of its characteristics with its cognate forms in Western Malayo-Polynesian languages albeit with much less productivity.

5. If the existential function can be reconstructed for Pan **ka-*, then this may have underlied its role in the stative paradigm. There is a wealth of evidence that predicates of possession and obtaining – functions for which the reflexes of **ka-* are regularly employed in modern languages – are easily reanalyzed as passives. One need only compare the widespread *get* > passive marker in East Asian languages and English (see also Zeitoun & Teng’s (2009) arguments for a similar reinterpretation of **ki-* ACQUISITIVE having been reinterpreted as a passive marker in Rukai, Paiwan and Puyuma). The similar function of stative predicates in expressing non-volitional and agentless actions in Austronesian makes this connection imminently plausible but this line of inquiry must be left to further investigation.

6. Because it is not entirely productive or transparent, the *ka* element in *magka-* and *ka- -an* is not typically recognized as an independent morpheme and is usually left unglossed. Naylor (2005: 429, fn.26) treats Tagalog *ka-* as an inchoative although this seems to be an inappropriate gloss for most of its functions. Herein, glosses will follow the existential **ka-* hypothesis unless clearly unwarranted in a particular language. Example (7b) further contains *pag-*, a polysemic affix which is difficult to ascribe a precise function but which will be discussed in further detail in Section 3. Example (7a) contains *nápa-* which is most probably the perfective stative *na-* combined with the causative *pa-*, although this is no longer part of a productive paradigm and must thus be considered frozen morphology.

As shown in (10)–(16), reflexes of PAN **ka-* can further be seen in this function in Bolaang Mongondow *ko-*; Pendau *ʔ*; Timugon Murut *maka*; Babuza/; Bugis *əŋka*; Wolio *ko-*,⁷ to only name a few. Clearly, much work is to be done to reconstruct this function for **ka-* although this preliminary genealogical distribution appears promising.

- (10) Bolaang-Mongondow
 a. *ko-iput* b. *ko-mata*
 EXT-tail EXT-eye
 ‘having a tail’ ‘having eyes’ (Usup et. al. 1981: 20)
- (11) Pendau
aʔu ndau ʔ-piso
 1S.NOM NEG EXT-machete
 ‘I don’t have a machete.’ (Quick 2003: 139)
- (12) Murut
ati-ati pulu’-rali, maka-ulun noyo bagu
 whichever headland-DET.PL AV.EXT-person ALRD PRT
 ‘As for whichever were the headlands (i.e. every single headland), there were people (there)’ (Prentice 1971: 252)
- (13) Murut
aa, ginio panauntu nano, tuan, maka-putor
 HEST that young_foliage 3S.GEN sir AV.EXT-sago_palm_grub
 ‘Er, as for that also, its young foliage, sir, (it) has sago palm grubs.’
 (Prentice 1971: 265)
- (14) Bugis
Nakko əngka tau-pa-sala
 if EXT person-TR-sin
 ‘If there is a guilty person.’ (Sirk 1996: 170)

7. Unlike in Bolaang-Mongondow and Pendau, the vowel in Wolio *ko-* shows an irregular **a>o* vowel correspondence (cf. Wolio adjectival *ma-*). It is not clear if this is due to borrowing, sporadic change, or inheritance from PMP **ka-R-* with the addition of the PMP **<R>* infix of unclear function (cf. Bikolano *ka<g>-harong* EXT<?>-house ‘owner of the house’). Mead (2003) discusses the sporadic **a>o* change in Sulawesi.

- (15) Wolio
- | | | | | | |
|----|--------------------|----|-----------------|----|-------------------------|
| a. | <i>ko-bulu</i> | b. | <i>ko-bake</i> | c. | <i>ko-tawa</i> |
| | EXT-hair | | EXT-fruit | | EXT-leaves |
| | 'to be hairy' | | 'to bear fruit' | | 'to have leaves' |
| d. | <i>ko-baju</i> | e. | <i>ko-oni</i> | f. | <i>ko-nami-gara</i> |
| | EXT-jacket | | EXT-voice | | EXT-taste-salt |
| | 'to wear a jacket' | | 'to speak' | | 'to have a salty taste' |
- (Anceaux 1988: 14)

Ross (1995) reconstructs stative/adjectival PAn prefix **ma-* as a reduction of **k<um>a-* which we can now view here as the combination of the existential prefix and the actor voice infix.⁸ In many languages, the prefixes *ma-* and *ka-* are still in a paradigmatic relationship in which the former is found in finite contexts (loosely construed) and the latter in non-finite contexts (e.g. imperatives, complements of negation, “narrative tense”). While in Tagalog, this *ka-* emerges in morphologically complex exclamatives, as seen earlier in (7a)–(c), other Philippine languages employ the prefix *ka-* unadorned in the same context, as shown in (17) for Cebuano, (18) for Mansaka and (19) for Wolio.⁹ The ‘finite’ adjectival counterparts are shown in the corresponding (b) examples (see also Zorc 1975: 142 for other Bisayan examples).

- (16) Cebuano
- | | | | |
|----|------------------------|----|-----------------------|
| a. | <i>ka-tambok niya!</i> | b. | <i>ma-tambok siya</i> |
| | EXT-fat 3S.GEN | | ADJ-fat 3S.NOM |
| | 'How fat he is!' | | 'He's fat.' |

8. The gloss ADJ will be maintained in languages where there is little synchronic evidence for this morphological decomposition.

9. There is, however, one unexpected difference between *kay* and *may* in Tagalog which groups *kay* together with the adjectival *ma-* instead of the existential *may*. This involves the possibility of number agreement with *ma-* and *kay* but not with *may*, as shown in (i)–(iii). CV reduplication is possible in (i) and (ii) but not in (iii), the putative actor voice existential. Plural reduplication is again possible when property words are used in argument position, as in (iv). I have no explanation for this fact at present.

- | | | | |
|-------|--|------|---------------------------|
| (i) | <i>Ma-ga~ganda sila</i> | (ii) | <i>Kay ga~ganda nila!</i> |
| | ADJ-PL~beauty 3P.NOM | | EXT PL~beauty 3P.GEN |
| | 'They are beautiful.' | | 'How beautiful they are!' |
| (iii) | <i>May (*ga~)ganda sila</i> | | |
| | AV.EXT PL~beauty 3P.NOM | | |
| | 'They have beauty.' (i.e. 'They are somewhat beautiful') | | |
| (iv) | <i>Na-bighani ako sa ga~ganda nila</i> | | |
| | PV.NVL.RL-enchanted 1S.NOM OBL PL~beauty 3P.GEN | | |
| | 'I was enchanted by their beauty.' | | |

(17) Mansaka

- a. *ka-pora da agaw naan*
 EXT-red ALRD NOW 3S.GEN
 'Oh, how red it is!'

(Svelmoe & Svelmoe 1974: 63ff, cited in Blust 2003:fn.10)

- b. *ma-pora yang atup nang baray...*
 ADJ-red NOM roof GEN house
 'The roof of the house is red'

(Svelmoe & Svelmoe 1990: 291)

(18) Wolio

- a. *ka-luntu-na o mia sii*
 EXT-lazy-3.GEN DET person this
 'How lazy this person is!'

(Anceaux 1988: 53)

- b. *ma-luntu o mia sii*
 ADJ-lazy DET person this
 'This person is lazy.'

Understanding both adjectives and exclamatives to be built off of existentials, the Tagalog exclamative marker *kay* seen in (7) above can be analyzed as the basis of the existential marker *may*.¹⁰ The morphemes *kay* and *may* can be decomposed to several component proto-morphemes at some earlier stage of the language with *kay* containing the existential element *ka-* followed by what may be reconstructed as a (possibly indefinite) determiner **i* (cf. Reid 1978), as shown in (20a).¹¹ The existential *may* can be reconstructed to the same combination of morphemes plus the PAn actor voice morpheme <um>, as shown in (20b).

- (19) a. **ka i > kay* b. **k<um>a i > may*
 EXT DET EXT <AV>EXT DET AV.EXT

10. Although these are both represented orthographically as separate words in Tagalog, they both behave as proclitics or prefixes in being inseparable from their complements. For instance, they may not be followed by second position clitics, as full words generally can.

11. It is not clear to what historical stage this determiner can be reconstructed with a nominative function. It is found in several Cordilleran and Bisayan languages (Wolff 1963; Sityar 2000 for Cebuano; Rubino 2005 for Utudnon; and Zorc 1975) and is employed on the complements of existential and negative existential predicates, e.g. Cebuano *duna=y* and *walà=y*, respectively. It probably also gave rise to the *i-* initial indefinite nominative case markers in Waray-Waray. A locative marker **i* has been reconstructed by Blust (1995) for PAn and identified with Tagalog *y* in *may* by Naylor (2005). However, we expect that a locative marker would precede the possessor and not the possessum in an existential, and it is thus more likely that Tagalog *y* should be identified as a frozen indefinite nominative marker rather than a locative.

The presence of the actor voice in the *may* existential is reflected syntactically in the fact that the possessor is expressed in the nominative case, as can be seen in (21), similar to regular intransitive subjects. This pattern is different from the common syntactic pattern found with reflexes of PAn **wada*, an independent existential predicate, in which the possessor is expressed as a genitive modifier of the possessum, as exemplified by Ilokano in (22) and Kimaragang Dusun in (23). Note that in the latter language, the affixal existential *ki-* (possibly from **ka- i*), which also crucially lacks the bilabial nasal element typically indicative of actor voice morphology, follows the same pattern.

- (20) *may aso siya*
 AV.EXT dog 3S.NOM
 ‘He has a dog.’

- (21) Ilokano
Adda aso=na
 EXT dog=3S.GEN
 ‘He has a dog.’ (Rubino 1997: 118)

- (22) Kimaragang
 a. *waro tanak nuh oy?*
 EXT child 2S.GEN QM
 ‘Do you have any children?’
 b. *ki-tanak nuh oy?*
 EXT-child 2S.GEN QM
 ‘Do you have any children?’ (Kroeger 2005: 411)

From a synchronic perspective, it is thus not unreasonable to still consider exclamative *kay* as a voiceless existential and *may* as an actor voice existential, as the case marking of cooccurring arguments corresponds to that of unmarked and actor voice predicates, respectively. In particular, the actor voice existential assigns nominative case to the most agentive argument (Foley & Van Valin’s (1984) “Proto-Agent”) across the board, which can correlate to the possessor in existential constructions. Unmarked predicates on the other hand, typically assign genitive case to this argument. Compare for instance the different case marking patterns with the unmarked bivalent predicate in (24) and its actor voice counterpart in (25).

- (23) *dala ni Ligaya ang pitákà*
 carry P.GEN L. NOM wallet
 ‘Ligaya carries the wallet.’

- (24) *nag-dá~dala si Ligaya nang pitákà*
 AV.RL-INCM~carry P.NOM L. GEN wallet
 ‘Ligaya carries a wallet.’

The bare predicate in (26) can also be argued to have a fairly direct analog in another type of exclamative construction in Philippine languages. This type employs a bare property denoting root embedded under a nominative determiner. As above, genitive case is assigned to the sole argument. Similar examples in Botolan Sambal and Ivatan are shown in (27) and (28).¹²

- (25) *ang ganda mo!*
 NOM beauty 2s.GEN
 ‘How beautiful you are!’

- (26) Botolan Sambal
 a. *hay ganda nin babayi!*
 NOM beauty GEN woman
 ‘How beautiful the woman is!’
 b. *hay bitil ko!*
 NOM hunger 1s.GEN
 ‘How hungry I am!’

(Antworth 1979: 50)

- (27) Ivatan
ay so pia na no tao
 EXCL ACC good 3s.GEN GEN person
 ‘How good the man is!’

(Reid 1972: 58)

Relatedly, Amurrio (1970: 36) describes a Pangasinan construction employing *agáy la* or *aláy* as expressing ‘wonder, compassion or indignation’. This marker may take property denoting complements with the *ka-* *-an* circumfix, as in (29a), or in their bare form, as in (29b); in both forms the (notional) subject is expressed in the genitive case.¹³

- (28) Pangasinan
 a. *aláy ka-abig-an to!*
 EXCL NMLZ-good-NMLZ 3s.GEN
 ‘How good he is!’ (lit. ‘what goodness of him’)
 b. *agáy_la=y sulit mo*
 EXCL=DET cruel 2s.GEN
 ‘How cruel you are!’ (lit. ‘What cruelty of you!’)

12. Ivatan unexpectedly uses accusative case for certain types of fronted arguments, as with exclamatives.

13. In keeping with Amurrio’s descriptive practice for Pangasinan, I gloss the *ka-* *-an* circumfix as a nominalizer here rather than existential plus locative as done elsewhere.

In this section, we have examined the possibility of historical and synchronic connection between existentials and property denoting words in Austronesian. Both have been argued to be formed with the existential *ka-* prefix. While property predicates were formed with the addition of the actor voice **<um>* infix, exclamatives employed the non-finite form, i.e. the bare *ka-* form. This form can be considered as a nominalization of sorts as it expresses the subject in the genitive case. A more direct manifestation of nominal syntax in exclamatives is the bare predicate construction in which a bare property denoting root is embedded under a nominative determiner with the subject again being expressed in the genitive case.

In the following section we take a closer look at the synchronic morphosyntax of exclamatives in Tagalog, concentrating on the mixed nature of exclamatives as semi-adjectival and semi-nominal constituents.

2.2 Synchronic properties of Tagalog exclamatives

Interestingly, despite the difference in their case assignment properties when functioning as predicates, the unmarked existential and actor voice existential have the same basic syntax when used as modifiers. Compare these two formations in predicate function in (29) and modifier function in (31).¹⁴

- | | | | |
|---------|-----------------------------------|----|------------------------------|
| (29) a. | <i>kay ganda nang áwit!</i> | b. | <i>may ganda ang awit</i> |
| | EXT beauty GEN song | | AV.EXT beauty NOM song |
| | ‘How beautiful the song is!’ | | ‘The song has beauty.’ |
| (30) a. | <i>ang áwit na kay ganda</i> | b. | <i>ang áwit na may ganda</i> |
| | NOM song LNK EXT beauty | | NOM song LNK AV.EXT beauty |
| | ‘The song which is so beautiful.’ | | ‘The song which has beauty.’ |

The external argument can also be topicalized, as in (32). When topicalized, this argument appears in the nominative and not the genitive case, following the Austronesian general ban on extraction of genitive arguments.

- (31) *ang áwit ay kay ganda!*
 NOM song TOP EXT beauty
 ‘The song is so beautiful!’

The exclamative is also notable in that it is one of the few constructions in Tagalog which imposes selectional requirements on root type. In contrast to the forms in (7), the forms in (33a)–(c) are unacceptable because the exclamative is combined with an action-denoting root, *takbo* ‘run’, instead of a property-denoting one. These formations

14. This must thus be added to the list of exceptional syntactic environments which license relativization of genitives in Tagalog, as discussed by Cena (1979).

do not have the “derivational strength” of *ma-*, as shown in (33), which can convert almost any root into a property denoting word.

- (32) a. **kay lákad!* b. **pagka-lákad~lákad!*
 EXT walk EXCL-INTNS~walk
 c. **nápaka-lákad!* d. *ma-lákad*
 EXCL-walk ADJ-walk
 ‘has a walk’¹⁵

The Tagalog exclamative can, however, be used to modify a verbal predicate in the same way adjectivals may take verbal complements in Tagalog. Compare the sentence in (34a) where the agent of the following verbal predicate is assigned genitive case by the exclamative with its non-exclamative counterpart in (34b) in which the subject is assigned nominative case by the adjective.

- (33) a. *kay bilis niya=ng t<um>akbo!*
 EXT speed 3S.GEN=LNK <AV>run
 ‘How fast he runs!’
 b. *ma-bilis siya=ng t<um>akbo*
 ADJ-speed 3S.NOM=LNK <AV>run
 ‘He runs fast.’

Despite the existential analysis of exclamatives in Tagalog argued for here, these constructions should not be mistaken for existential *predications*. Rather, it is clear that the existential exclamatives are robustly non-predicational. The pivotal feature found in all the above examples, including those containing embedded verbal predicates as in (34), is the inability of expressing an assertion. This can be diagnosed by the (un-)grammaticality of adding a question marker to the two constructions in (34). All predicational statements can be converted into yes-no questions by the addition of the question marker *ba*, but this is disallowed with exclamatives, as seen in (35).¹⁶

15. Although not particularly common, this adjective can be used to describe a place which requires much walking, a person who has many things to do (*lákad* ‘walk, errand’). Additionally, it has a more specialized meaning, as described by Newsbreak magazine (12/20/07), “‘Malakad’ is a commonly used term in legal circles, referring to a judge’s or justice’s penchant to use connections to get promoted.”

16. The ‘bare’ exclamative in Tagalog differs here in marginally allowing the question marker, as in (i). However in this case, it is perhaps only truly felicitous as an echo question, i.e. in a context in which a speaker has already uttered an exclamative of the same general form.

(i) *ang ganda ko ba?*
 NOM beauty 1S.GEN QM
 ‘Am I so beautiful?’

- (34) a. **kay bilis ba niya=ng t<um>akbo?*
 EXT speed QM 3S.GEN=LNK <AV>run
- b. *ma-bilis ba siya=ng t<um>akbo?*
 AV.EXT-speed QM 3S.NOM=LNK <AV>run
 ‘Does he runs fast?’

Finally, another interesting synchronic aspect of Tagalog exclamatives emerges in their plural marking which suggests that despite seemingly nominal type syntax, these constructions cannot be completely assimilated to nouns. Several types of plural marking exist in Tagalog: argument plurality and nominal predicate plurality are indicated by the proclitic *manga* and adjectival number agreement is indicated by CV-reduplication. CV-reduplication on an entity denoting lexeme is ungrammatical as shown in (36). Conversely, the use of *manga* with property denoting lexemes, as in (37a), is awkward and requires special context. As shown in (38), exclamatives pattern with property lexemes in taking CV-reduplication to indicate plurality rather than the proclitic *manga*. This is unexpected given that they display two hallmarks of nominal syntax; they are embedded under a case marking determiner and assign genitive case to their subject.

- (35) a. *manga gurò sila*
 PL teacher 3P.NOM
 ‘They’re teachers.’
- b. **gu~gurò sila*
 PL~teacher 3P.NOM
- (36) a. ??*manga ma-ganda sila*
 PL AV.EXT-beauty 3P.NOM
- b. *ma-ga~ganda sila* (cf. **ma-ga~ganda siya*)
 AV.EXT-PL~beauty 3P.NOM AV.EXT-PL~beauty 3S.NOM
 ‘They are beautiful.’
- (37) a. *?*ang manga ganda ninyo!*
 NOM PL beauty 2P.GEN
- b. *ang ga~ganda ninyo!* (cf. **ang ga~ganda mo!*)
 NOM PL~beauty 2P.GEN NOM PL~beauty 2S.GEN
 ‘How beautiful you are!’

However, this mixed behavior is expected if we understand nominalization as a process which can apply on several different levels in the morphosyntax (cf. Malchukov 2004; Alexiadou 2001; Ntelitheos 2006; Yanagida & Whitman 2008). If the order of phrases within the nominal domain is DetP > NumP > NP, in accordance with the standard surface order of these elements, nominalization on the level of DetP excludes the possibility of nominal-type number marking, as the material beneath the locus of

nominalization retains its “pre-nominalized” category. Because bare root exclamatives only obtain syntactic nominality from the case marking determiner, nominal type plural marking, which is internal to the case marker, is illicit, as seen above in (38).

On the other hand, there are some morphological facts regarding reduplication in these constructions which do not obtain an easy structure-based explanation. As already hinted by the above, Tagalog has an exceedingly rich arsenal of reduplicant morphemes employed with a wide variety of meanings. Some of these different morphemes possess different phonological forms (e.g. 1σ , 2σ) and can also be distinguished by their different interpretations in different morphosyntactic contexts. 2σ -reduplication, when applied to *ma-* adjectivals, yields a moderate degree interpretation of the adjective, as seen in (39), but the same reduplication in the bare exclamative construction yields the opposite, an intensive interpretation, as seen in (39) (Wolff; Centeno & Rau 1991:§6.742). These facts are somewhat puzzling considering that this reduplication does not occur with entity denoting roots at all and thus cannot be understood as resulting from the split adjectival-nominal nature of property exclamatives in Tagalog. Similarly, full-word reduplication is found with *ma-* adjectivals with an intensive interpretation but is ungrammatical with bare exclamatives, as seen in (40).

- (38) a. *ma-ligá~ligáya ang babáe*
 ADJ-MDRT~joy NOM woman
 ‘The woman is somewhat joyful.’
 b. *ang ligá~ligáya nang babáe!*
 NOM INTNS~joy GEN woman
 ‘How incredibly joyful the woman is!’
- (39) a. *ma-ligáya=ng ma-ligáya ang babáe*
 ADJ-joy=LNK ADJ-joy NOM woman
 ‘The woman is very joyful.’
 b. **ang ligáya=ng ligáya nang babáe*
 NOM joy=LNK joy GEN woman
 ‘The woman is somewhat joyful.’

The intensive reduplication found in (39b) is furthermore not found when the property denoting root is used as an argument, as in (41). It is thus an exclusive feature of property of exclamatives.

- (40) *Hindi niya na-intindi-han ang (??liga~)ligaya ko*
 NEG 3S.GEN PV.NVL.RL-understand-LV NOM INTNS~joy 1S.GEN
 ‘He didn’t understand my joy’

We have seen in this section that while bare exclamatives share properties of both canonical *ma-* adjectivals and canonical nominals, they also show unique features which cannot be ascribed to either component, as summarized in (42). A proposal

for accounting for the split nature of exclamatives was briefly sketched out. This involved treating them as adjectivals which have undergone “high nominalization”. A fuller analysis which also takes into account their unique properties will have to await further work.

(41) Summary of exclamative properties in Tagalog:

nominal	adjectival	unique
genitive subjects NOM case marking	1 σ REDP PL. agreement	2 σ REDP intensive

2.3 The generalization of **ka-* to a multifunctional exclamative in Austronesian

A synchronic link between **ka-* derived existentials and what are analyzed here as existential + actor voice **ma-* formations need not exist in order for derivations with the former to have exclamative force. Many languages retain no synchronic traces of the existential function of **ka-* and have additionally lost the adjectival **ma-* prefix but maintain a **ka-* reflex in a nominalizing and exclamative function. Muna is one such language as can be seen in the alternation below. A regular predication is shown in (43a) with its exclamative counterpart (43b). (Note that, unlike Philippine languages, Muna shows person agreement on verbal and adjectival predicates, as seen with the *no-* prefix in (43b) which agrees with the grammatical subject *lalo-ku* ‘my heart’.)

(42) Muna

- a. *no-pana lalo-ku*
3S.RL-hot heart-1S.GEN
‘I am angry.’ (Lit. ‘My heart is angry’)
- b. *ka-pana-no lalo-ku!*
NMLZ-hot-3S.GEN heart-1S.GEN
‘How angry I am!’ (Lit. ‘The anger of my heart!’) (van den Berg 1989: 173)

In (43a), a canonical predication, the property predicate *pana* ‘hot’ carries subject agreement while the (idiomatic) subject *lalo ku* ‘my heart’ follows. In (43b), the predicate head is marked with the nominalizer *ka-* while the subject agreement is replaced by genitive agreement. As van den Berg (1989) shows, Muna constructions headed by predicates nominalized with *ka-* are ambiguous between nominalizations and exclamatives, as he illustrates with the alternative interpretations of (44).

(43) Muna

- ka-bhari-no anahi-hi-mu (!)*
NOM-many-3S.GEN child-PL-2S.GEN
- (i) ‘the number of your children’
(ii) ‘how many children you have!’ (van den Berg 1989: 173)

Other languages have generalized the exclamative function of **ka-* with property denoting roots to new contexts. Ivatan (Batanic, N. Philippines) allows attachment of *ka-* to event denoting roots. The result is interpreted as an event-oriented exclamative, as in (45a), which can be compared to its predicational counterpart in (45b).

- (44) Ivatan
- | | | |
|----|------------------------------------|-------------------------------|
| a. | <i>machi-nanaw sa du kayskuyan</i> | |
| | AV.SOC-study 3P.NOM OBL school | |
| | ‘They study in school.’ | (Hidalgo & Hidalgo 1971: 148) |
| b. | <i>su ka-pachi-nanaw da!</i> | |
| | ACC EXCL-SOC-study 3P.GEN | |
| | ‘How hard they study!’ | (Hidalgo & Hidalgo 1971: 148) |

Another, unrelated exclamative morpheme in Ivatan, *ja-*, alternates with adjectival *ma-*, as shown in (46a) and (46b). Interestingly, this prefix can also be attached to event denoting and entity denoting roots with interpretations varying accordingly. When attached to event denoting roots with aspect marking it yields the meaning ‘how often PRED’, as in (46). When attached to entity denoting roots it yields the meaning ‘how many ROOT’, as in (46). Although we do not know the provenance of this affix, its complementary distribution with adjectival *ma-* is similar to reflexes of **ka-* and its usage appears to have spread throughout the lexicon such that it can now apply to almost any lexical category.

- (45) Ivatan
- | | | | |
|----|----------------------------|----|-------------------------|
| a. | <i>ma-vid sya</i> | b. | <i>ja-vid na!</i> |
| | ADJ-beauty 3S.NOM | | EXCL-beauty 3S.GEN |
| | ‘She is beautiful!’ | | ‘How beautiful she is!’ |
| c. | <i>ja-ta~tañis-en</i> | d. | <i>ja-savung</i> |
| | EXCL-ASP~CRY-PV | | EXCL-blossom |
| | ‘how often <i>x</i> cries’ | | ‘how many blossoms’ |
- (Hidalgo & Hidalgo 1971: 70, 95)

We have seen in this section how **ka-* has expanded its role in other Austronesian languages to form nominalized exclamatives from other types of roots, notably, event denoting and entity denoting roots. The commonality maintained with these **ka-* derivations throughout Austronesian is their use of genitive case for the subject (when present) and their lack of assertive force. There also exist constructions which lack nominalizing morphology and which show semi-verbal properties but which still assign genitive case to the subject and possess an exclamative function. In the next section we take a look at some of these “hidden” nominalizations and their properties.

2.4 Split nominal features in exclamatives

Some Austronesian languages appear to have generalized other elements of the nominal syntax associated with *ka-* existentials to non-*ka-* forms. Often this involves

treating *ma-* adjectivals as nominalizations as well. This change can be viewed as the reinterpretation of a “low” morphological nominalization to a “high” syntactic one. An example can be seen in Bugis, which employs canonical adjectival predicates with genitive pronouns instead of nominative ones for exclamative/exclamatory purposes. This is shown in (47a) with the *ma-* adjective *mapanre* ‘dexterous’ and in (48) with the unaffixed (but reduplicated) adjective *sommeng* ‘arrogant’. Compare this to the canonical adjectival predication in (47b), in which the intransitive subject is assigned nominative/absolute case.

- (46) Bugis
- a. *ma-panre=na=ritu jemma!*
 ADJ-dexterous=3S.GEN=DEIC person
 ‘What a dexterous man that one is!’ (Sirk 1996: 149)
- b. *ma-panre=i*
 ADJ-dexterous=3S.NOM
 ‘S/he is dexterous.’

- (47) Bugis
- somme~ssommem-mu, le to-sunra-e!*
 INTNS~arrogant-2S.GEN RT person-sunra-DET
 ‘How arrogant you are, oh Sunra people!’ (Sirk 1996: 149)

The exclamative construction in *Tukang Besi*, as seen in (49) and (50), also employs regular adjectival predicates with genitive subjects.¹⁷

- (48) *Tukang Besi*
- Ke 'eka-su i aba!*
 and fear-1S.GEN OBL earlier
 ‘I was really frightened earlier!’
- (49) *Ke to'oge nu ana-'u!*
 and big GEN child-3.GEN
 ‘Hasn't your son grown up!’ (Donohue 1999: 480)

As discussed earlier for Tagalog, *Tukang Besi* exclamatives also display part-adjective and part-nominal syntax. The underlying property denoting nature of the adjective is still visible in its ability to license degree adverbs like *saori* ‘very’, as shown in (51). Following the proposal sketched out above, the exclamative may be analyzable as a bona fide adjective at the point of modification. Nominalization takes place

17. Donohue (1999: 156) further states that genitive subjects are also occasionally heard for canonical adjective predicates but not for any other type of predication, although this usage was ‘univesally proscribed’ by speakers when queried about it.

in the syntax above modification thus allowing possessor agreement on the entire constituent *saori-nini*.

- (50) *I wudo monini-a di Walanda ke saori-nini-no!*
 OBL season cold-NMLZ OBL Holland and very-cold-3.GEN
 'In winter in Holland it's very cold!' (Donohue 1999: 459)

Another example can be seen in the Malay constructions in (52) employing *betapa*, an exclamative marker for property denoting words. Here, the adjective is typically marked with =*nya*, which is both the third person genitive and a more general marker for a possessum (see Englebretson 2003; Yap 2007). The subject is thus typically introduced as a possessor as shown in (52a). Introducing the subject as a canonical nominative argument, as in (52b), is awkward, although not ungrammatical.

- (51) a. *betapa cantik=nya Ayu!*
 EXCL beautiful=3S.GEN Ayu
 'How beautiful Ayu is!'
 b. *?betapa cantik Ayu!*
 EXCL beautiful Ayu
 'How beautiful Ayu is!'

In all of these cases, adjectival predicates maintain their basic predicate form but adopt aspects of nominal syntax in taking genitive subjects instead of expected nominative ones. These languages thus follow the same general pattern of exclamative nominalization despite having lost the inherited morphological *ma-* ~ *ka-* alternation to express it.

2.5 Summary: Austronesian exclamatives

The reconstruction of **ka-* as an existential marker in PAN must still be regarded as tentative and more supporting data from Formosan languages is necessary to secure it.¹⁸ Assuming, however, that this reconstruction can be substantiated, the functional development of the affix in Figure 1 appears natural. The adjectival and stative functions consistently appear in those adjectives which can be construed as possessing the root, as opposed to coming about as the result of the root (cf. Himmelmann's 1999 Type 1 and Type 2 adjectives in Tagalog) and are thus easily derived from an existential interpretation. From the adjectival function, the property exclamative is derived as the non-predicational variant of the adjective proper, which additionally contained actor voice morphology. Finally, from the property exclamative function, we find languages

18. At this point, projecting an existential meaning for **ka-* at the level of PAN has been motivated by reconstruction of **ka-* as a PMP existential affix and internal reconstruction from the other functions of **ka-* attested in Formosan languages, especially stative/adjectival.

such as Ivatan which have gone a step further and expanded the function of **ka-* to marking exclamatives of any lexical category.

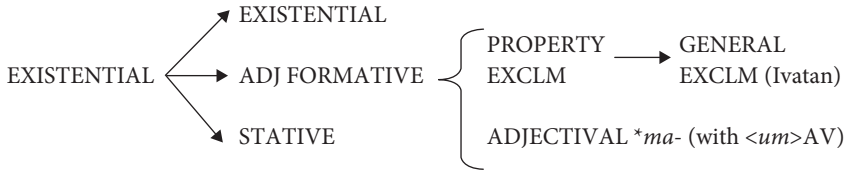


Figure 1. Proposed development of PAN **ka-*

Having observed one type of nominalization, we now move on to our second topic: gerundive constructions and their use in temporal adjuncts.

3. Gerundives

In the second part of this paper we investigate a particular use of gerunds (event-nominalizations) as when-clauses in Philippine languages along with certain functional cognates in other Austronesian languages.

3.1 Morphology and syntax

Gerundive is understood here as a general term subsuming both gerunds proper, i.e. event nominals, in addition to temporal adjuncts (Schachter & Otanes 1972: 160, 446) which, as will be seen shortly, differ slightly from event nominals in Tagalog. Gerundives are distinguished from voice marked forms in not assigning nominative case to any argument. Rather, all (non-directional) arguments are expressed in the genitive case (i.e. the ‘nominal’ pattern in Koptjevskaja-Tamm’s (1993) typology). This general case frame is exemplified by three languages in (53)–(55) (with Ilokano in (55) marking the object with oblique case).

(52) Tagalog

ang pag-da~dala nila nang asáwa ko sa Manilá
 NOM GER-TR~bring 3P.GEN GEN spouse 1S.GEN OBL Manila
 ‘Their bringing of my wife to Manila’

(53) Sarangani Manobo

peg-ibing te esawa ko doton te Davao
 GER-bring GEN wife 1S.GEN there GEN Davao
 ‘The bringing of my wife to Davao’

(DuBois 1976: 94)

(54) Ilokano

...*ti panag-subalit=na kadaḡiti surat=na*
 DET GER-answer=3s.GEN OBL.PL letter=3s.GEN

'...his answering of her letters'

(Rubino 1997: 105)

In Tagalog, some gerunds (event nominals) are formed from stems by CV reduplication of the root. Derivational verbal morphology (e.g. *paki-* sociative, *pa-* CAUSATIVE, *pang-* DISTRIBUTIVE), but not voice morphology is included in gerund formations. In Table 1, we can see actor voice forms with three derivational prefixes compared with their corresponding gerunds.

Table 1. Actor voice forms with three derivational prefixes and corresponding gerunds

	<i>pag-</i> TR	<i>paki-</i> SOC	<i>pang-</i> DIST
Actor voice infinitive	<i>mag-húli</i> 'to catch'	<i>maki-húli</i> 'to catch with others'	<i>mang-húli</i> 'to catch many of'
Gerund	<i>pag-hu~húli</i> 'catching'	<i>paki~ki-húli</i> 'catching with others'	<i>pang-hu~húli</i> 'catching many of'

The initial nasal in the actor voice forms can be thought of as derived from the addition of the actor voice affix <um> to a *p-* initial stem, e.g. <um> + *pag-* → *mag-*. In all of the examples in Table 1, the gerunds are thus derived simply by the addition of the prefix plus reduplication of the first CV.

Two major exceptions to this pattern are found in gerunds of verbs which do not take further verbal morphology in the actor voice, that is, plain <um> actor voice verbs, and *ma-* verbs (glossed here as patient voice non-volitional). In these two cases, shown in Table 2, we find the addition of *pag-* even though it is absent in the corresponding actor voice form. The CV reduplication seen in Table 1 is also notably absent here.

Table 2. Addition of *pag-* to <um> actor voice verbs, and *ma-* verbs

	<um> AV	<i>ma-</i> PV.NVL
Actor voice infinitive	<i>h<um>úli</i> 'to catch'	<i>ma-húli</i> 'to get caught'
Gerund	<i>pag-húli</i> 'catching'	<i>pag-ka-húli</i> 'getting caught'

Note that, due to the differences in gerund formation between the two types of verbs it is impossible to isolate a single morphological exponent for the category of gerund in Tagalog; gerunds are formed sometimes by reduplication and sometimes by the addition of *pag-*.¹⁹ We return to this point below.

In addition to forming event nominals, it seems that gerunds were also historically employed for introducing temporal adjuncts with the function of ‘when’ clauses. Evidence for this can be seen in (56) and (57) from Tagalog, and in (58) and (59) from Sarangani Manobo and Botolan Sambal, respectively.

(55) Tagalog

pag-pások nang pulis sa bangko...
 GER-enter GEN police OBL bank
 ‘When the police entered the bank ...’

(56) Tagalog

pag-bili ko nang isda...
 GER-buy 1S.GEN GEN fish
 ‘When I bought a fish ...’

(57) Sarangani Manobo

Peg-dineg te amay din kenyan
 GER-hear GEN father 3S.GEN hat.OBL
 ‘When his father heard that.’ (DuBois 1976: 94)

(58) Botolan Sambal

pama-ka-lengè nin ari ha h<in>alità-Ø nin gowardya...
 GER-NVL-hear GEN king OBL <RL>speak-PV GEN guard
 ‘The king, upon hearing what the guard said.’ (Antworth 1979: 105)

Although it may have been the case historically that one morphological paradigm was employed both for event nominals and temporal adjuncts, these two functions have taken on separate lives in certain languages. As shown above in Table 1 and Table 2, CV reduplication is required for the gerund forms of all Tagalog verbs except those with plain ACTOR VOICE <um> and STATIVE *ma-*. Temporal adjuncts, on the other hand, never employ reduplication regardless of the verb form. This can be seen by comparing the when-clause in (60a) with the gerund in (60b). The root *bukas* ‘open’ takes the *pag-* prefix in the actor voice and therefore requires reduplication in the gerund but does not take this reduplication as a temporal adjunct. The presence of reduplication thus

19. We adopt a glossing convention here for Tagalog by which *pag-* is glossed as the GERUND morpheme and CV- reduplication is marked as a TRANSITIVITY related morpheme but nothing crucial hinges upon this choice of interpretations.

serves to distinguish temporal adjuncts from event nominal gerunds with verbs which take *pag-* in the actor voice. (As above, the *pag-* prefix continues to be glossed with the more general label GERUNDIVE for both of these functions.)

- (59) a. *pag-bukas ko nang isa=ng pintò...*
 GER-open 1S.GEN GEN one=LNK door
 ‘When I opened one door...’
- b. *ang pag-bu~bukas ko nang isa=ng pintò*
 NOM GER-TR~open 1S.GEN GEN one=LNK door
 ‘my opening of one door’

The lack of correspondence between the gerund proper and the temporal adjunct form appears to be a consequence of the degrammaticalization of *pag-* from a gerund marker in an earlier stage of Tagalog to an independent temporal subordinator. Recall from Table 2 that *pag-* turns up in two common Tagalog paradigms where it is absent in the finite verb form. If true gerunds were historically used for introducing temporal adjuncts, then it is clear how the *pag-* prefix – with its wider than expected distribution in gerunds, appearing in the <um> and *ma-* paradigms – could have been reinterpreted as a temporal subordinator itself.

A more obvious consequence of the degrammaticalization of *pag-* is its separability from the verb in its temporal adjunct function, but not its gerund function.²⁰ This can be seen with the addition of adverbial material such as negation as in (61a). Note, furthermore, that the verb is not a gerund at all but is rather inflected as a regular actor voice predicate and assigns nominative case to its subject. Splitting the prefix from its host in a real gerund is ungrammatical, as seen in the comparison between (61b) and (61c).

- (60) a. *pag hindi ka p<um>ások...*
 TEMP NEG 2S.NOM <AV.RL>enter
 ‘When you don’t enter...’
- b. **pag hindi mo pások*
 GER NEG 2S.GEN enter
- c. *ang hindi mo pag-pasok*
 NOM NEG 2S.GEN GER-enter
 ‘your not entering’

Interestingly, however, *pag* in temporal adjuncts cannot always be treated as an independent subordinator as there also exist constructions in which it clearly functions

20. Note that in its degrammaticalized manifestation, *pag* is glossed here as a TEMPORAL subordinator.

as a bound prefix, just as in true gerunds. This is seen in “immediate when-clauses”, as shown in (62), where the gerundive is reduplicated with the corresponding ‘just as *x* happened’ reading. It is clear that *pag-* forms a single word with the root in such constructions as only words can be subject to reduplication with the linker.

- (61) *pag-dating na pag-dating ni Mario*
 GER-arrive LNK GER-arrive P.GEN M.
 ‘As soon as Mario arrived’

In connection to the previous discussion of split properties in exclamatives, it is also worth noting that the reduplication in (62) is characteristic of property predicates but not verbal ones. The corresponding construction with a non-gerundive verb form is ungrammatical, as shown in (63).

- (62) **d<um>ating na d<um>ating si Mario*
 <AV.RL>arrive LNK <AV.RL>arrive P.NOM M.

Note also that if this reduplication is analyzed on par with the intensive reduplication of the same form applying to property predicates, we can derive its meaning by having the intensive function applying to the temporal semantics itself, i.e. ‘when’ + INTENSIVE = ‘just as’.

We saw in this section that although temporal adjuncts probably developed from gerunds in Philippine languages, some divergences between the two constructions exist in present day Tagalog. In particular, the *pag-* prefix has been degrammaticalized into a temporal subordinator with the consequence that an associated transitive distinction expressed by reduplication in the gerund is lost in the temporal adjunct and external elements can now intervene between temporal subordinator *pag* and its complement. In the next section we turn our attention to several Austronesian languages outside the Philippines in order to observe nominal properties in temporal adjuncts which lack morphological signs of nominalization.

3.2 Split nominal features in temporal adjuncts

Just as we saw for exclamatives, temporal adjuncts also display split nominal features in a wide range of Austronesian languages. In particular, we commonly find forms retaining certain verbal properties but expressing their subjects in the genitive case.

In Indonesian/Malay, the temporal adjunct is formed with the prefix *se-* and the 3rd sg. genitive pronoun/determiner *-nya*, as in (64a), although the external argument can also be expressed directly on the adjunct as a genitive pronoun, as shown in (64b) (but this usage is somewhat antiquated). The cognate construction in Wolio is shown in (65).

(63) Indonesian/Malay

- | | |
|----------------------------------|----------------------|
| a. <i>se-tiba=nya</i> <i>aku</i> | b. <i>se-tiba=ku</i> |
| TEMP-arrive=3S.GEN 1s | TEMP-arrive=1s.GEN |
| ‘When I arrive.’ | ‘When I arrive.’ |

(64) Wolio

- sa-tuwu-na* *o* *bulu-na...*
 TEMP-grow-3.GEN DET feather-3.GEN
 ‘when the feathers (of his wings) had grown...’ (Anceaux 1988: 55)

The Indonesian/Malay *se-* *-nya* temporal adjunct appears to be restricted to verbs as opposed to property predicates, but this is by no means a particularly widespread restriction cross-linguistically.²¹ As shown by Mead (2006), the cognate construction in Mori Bawah also allows adjectives, as seen in (66).

(65) Mori Bawah

- Sa* *mokula-no* *wua* *m-petiba* *andio...*
 when hot-3S.GEN fruit LG-winged.bean this
 ‘When the winged bean seeds were hot ...’ (Mead 2006: 13)

All the above examples show the nominal property of expressing their subjects as possessors but these forms cannot be treated as regular nominalizations. For one, they are sensitive to a transitivity distinction which is not present in other nominalizations. While gerunds can be formed from both transitive and intransitive verbs in Indonesian/Malay, transitive verbs are impossible in temporal adjuncts. Compare the ungrammatical temporal adjunct of the verb *dengar* ‘to hear’ in (67a) with its perfectly acceptable gerund in (67b).

(66) Indonesian/Malay

- | | |
|------------------------------|-----------------------------|
| a. * <i>Se-dengar-nya...</i> | b. <i>pen-dengar-an-nya</i> |
| TEMP-hear-3S.GEN | GER-hear-GER-3S.GEN |
| | ‘his/her hearing’ |

21. As Foong Ha Yap (p.c.) reminds me, *se-* takes on a different meaning with adjectival roots in Indonesian/Malay, namely, ‘as *x* as’, e.g. *se-panas-nya* ‘as hot as’, as seen in (i). *Se-* also receives an ‘as’ interpretation with a small number of verbs such as *tahu* ‘know’ in the construction shown in (ii).

- | | |
|---|-----------------------------------|
| (i) <i>se-panas~panas-nya</i> <i>hari</i> <i>itu...</i> | (ii) <i>se-tahu</i> <i>aku...</i> |
| as-hot~REDUP-3S.GEN day that | as-know 1sg |
| ‘As hot as it was that day...’ | ‘As far as I know...’ |

Transitive verbs in the temporal adjunct construction in Mori Bawah also appear to require a different form. Although Mead is not explicit about this, he offers an example of a transitive temporal adjunct in (68), in which the genitive pronoun is attached directly to the temporal marker and the verb appears in the actor voice (glossed by Mead as PARTICIPLE). (This is strikingly similar to the degrammaticalization of Tagalog *pag-* observed above, where the verb also appears in its voice marked form.)²²

- (67) Mori Bawah
- | | | | | |
|----------------------------------|--------------------------|------------|--------------|-----------------|
| <i>sa-no</i> | <i>r<um>onge-o</i> | <i>mia</i> | <i>andio</i> | <i>motae...</i> |
| when-3S.GEN | <PART>hear-3S.ABS | person | this | that |
| ‘When this person heard that...’ | | | | |
- (Mead 2006: 14)

Split properties of temporal adjuncts are nowhere more visible than in the South Sulawesi languages. Just as we saw earlier with the Bugis exclamatives in (48) and (47), temporal adjuncts in South Sulawesi languages often express the subject in the genitive without showing any nominalizing morphology on the verb. Transitive verbs in all South Sulawesi languages (except those of the Seko subgroup) are distinguished by ergative prefixes, historically derived from genitive enclitics, and absolutive second position clitics, historically derived from nominative pronouns. Under the proposal sketched out in Section 2.2 above, temporal adjuncts resemble high nominalizations in maintaining the ergative prefix from the verbal form as is. If nominalization is conceived of as applying at a particular point within the phrase structure, the verb can pick up its nominal properties above the point at which ergative case is assigned but below the point at which absolutive case is assigned. In this way, nominalization effects the type of case assigned to transitive patients but not to transitive agents (see Ntelitheos 2006; Yanagida & Whitman 2008 and references therein for details). This is seen in the comparison of the Bugis temporal adjunct with its corresponding predication in (69a) and (b), respectively. An example from the related Mamasa language is shown in (70), where the logical subject of the first clause (highlighted) is again expressed as a genitive.

22. Another morphological form for expressing temporal adjuncts in Mori Bawah employs a reflex of PAn **ka-*, as seen earlier with Tagalog. Unlike Tagalog, a genitive pronominal in this construction can also express patients. In (i), the genitive marked pronoun refers to the patient while in the second verb it refers to the intransitive subject.

- (i) Mori Bawah
- | | |
|---|------------------------|
| <i>Ko-tidu-ku,</i> | <i>ko-tebangku-ku.</i> |
| TEMP-punch-1S.GEN | TEMP-fall.over-1S.GEN |
| ‘Immediately I was punched, I fell over.’ | |
- (Mead 2006: 20)

(68) Bugis

- a. *mu-tikkən-na*
 2S.ERG-seize-3S.GEN
 'when/because you seized him'
- b. *mu-tikkən=i*
 2S.ERG-seize=3S.ABS
 'you seized him' (Sirk 1996: 94)

(69) Mamasa

- na-lambi'-na ade' na-anda'-i bakku'-na*
 3.ERG-find-3.GEN RPRT 3.ERG-pick.up-LOC backpack-3S.GEN
 'When she reached him, she picked up his knapsack' (Matti 1994: 80)

The intuition that nominalization is taking place here at an intermediate point in the clause structure is strongly supported by data from the geographically proximate Rampi language (Pamona-Kaili, Central Sulawesi). Unlike the South Sulawesi languages, Rampi indicates temporal adjuncts morphologically in addition to the changes in case assignment. Rampi temporal adjuncts employ a reflex of PAN **ka-* (*ko-*, glossed here as NMLZ in accordance with Friberg 1990) which is crucially positioned *outside* of ergative agreement as shown in (71). This is the expected position if nominalization takes place above ergative case assignment.

(70) Rampi

- Ko=no=oki'=na=lu datu wulehu' to mahi=mo...*
 NMLZ=3S.ERG=look=3S.GEN=PST king mouse REL die=CMP
 'The king seeing the already dead mouse...'
 (Friberg 1990: 61)

While having a derivational affix external to agreement marking may be surprising from a typological perspective on affix ordering (cf. Bybee 1985), it is expected given the possibility of high nominalization, which yields split verbal-nominal properties. This suggests a basic structure of the form: ABS/GEN > (NMLZ) > ERG > ROOT, in which the choice of genitive or absolutive marking is governed by the presence or absence of the nominalizer.

To sum up this section, we have seen that temporal adjuncts, more specifically, when-clauses, are formed by nominalization in a variety of Austronesian languages. In Philippine languages, this appears to have been done on the basis of the gerund. In Tagalog, a prefix common in gerund formation has been reanalyzed as a temporal subordinator via a process of de-grammaticalization. While this has led to finite verb forms being licensed in subordinate when-clauses, we also witnessed evidence from intensive reduplication that true gerunds still play a role in this area. Outside of the Philippines we observed several examples of split nominal properties in when-clauses.

In the case of the South Sulawesi languages and Rampi, it was suggested that these constructions could be fruitfully analyzed as high nominalizations, on par with the exclamatives discussed earlier.

4. Conclusion

A priori, we would be at odds to find semantic commonalities between such disparate phenomena as exclamatives and when-clauses. Yet, we have seen considerable evidence here from Austronesian languages that both phenomena are typically expressed via nominalization. This could either be a family particular fluke or there could be a cognitive basis for treating these phenomena in a structurally similar fashion. It has been argued here that there does exist such a basis and that this basis finds an analogy in anaphoric relations. Returning to examples (5) and (6), repeated here as (72) and (73), both when-clauses and exclamatives refer back to a predicate (whether overt or not) from which they derive their reference.

- (71) *D<um>ating_i si Pedro_j Pag-dating_i niya_j...*
 <AV.RL>arrive P.NOM P. GER-arrive 3S.GEN
 ‘Pedro arrived. When he arrived...’ (More lit. ‘Upon his arrival...’)
- (72) *Ma-bilis_i si Pedro_j Kay bilis_i niya_j talaga!*
 ADJ-speed P.NOM P. EXT speed 3S.GEN truly
 ‘Pedro is fast. He’s so fast!’ (More lit. ‘His speed!’)

As anaphoric elements, both when-clauses and exclamatives are most appropriately expressed as nominals. Nominals, although by no means requiring presuppositionality, have been argued to inherently possess referential properties either by virtue of their lexical category (Baker 2003) or due to their proto-typical functions in discourse (Croft 1991). They are thus uniquely suited for anaphoric functions. Following this line of thought, we can now explain why Philippine gerunds are interpreted specifically as when-clauses rather than hypotheticals (i.e. if-clauses) or as indicating simultaneous action (i.e. as-clauses).²³ The answer is that when-clauses are semantically distinct from these other types of adjuncts in being presuppositional, i.e. requiring a previously introduced or pragmatically bridged referent, as originally argued by Heinämäki (1978). Hypotheticals on the other hand are quite the opposite, typically

23. Foong Ha Yap (p.c.) brings to my attention the fact that nominalization for marking conditional clauses has been reported for Old Chinese (Yap & Wang this volume). Further typological research should be able to uncover just how widespread a pattern this is.

disallowing presuppositional complements. We can see this quite clearly in the incompatibility of Tagalog *kay* exclamatives in conditional sentences. In (74a), we see a property predicate felicitously embedded under the conditional and in (74b) we see the ungrammatical result of embedding the *kay* exclamative under the same operator.^{24,25}

- (73) a. *Kung ma-ganda si Maria...*
 if ADJ-beauty P.NOM M.
 'If Maria is beautiful...'
- b. **Kung kay ganda ni Maria...*
 if EXT beauty P.GEN M.(For, 'If Maria is so beautiful...')

The presuppositionality inherent in *pag-*gerunds has also been retained in the degrammaticalized temporal subordinator, *pag*. This is clear when we compare the minimal pair in (75). In the first member of the pair, (75a), we find a typical conditional reading; we are being told that Maria is the designated substitute without any implication that Maria has ever replaced the speaker. In contrast, in (75b) with degrammaticalized *pag*, we additionally find a strong implication that Maria has already served as the speaker's replacement on at least one occasion, a difference which is captured well by the use of 'if' versus 'when' in the translations.

- (74) a. *Kung walà ako rito, si Maria ang kapalit ko*
 if NEG.EXT 1S.NOM here P.NOM M. NOM replacement 1S.GEN
 'If I'm not here, Maria is my replacement.'
- b. *Pag walà ako rito, si Maria ang kapalit ko*
 TEMP NEG.EXT 1S.NOM here P.NOM M. NOM replacement 1S.GEN
 'When I'm not here, Maria is my replacement.'

24. According to the glossing here of *kay* as a "bare existential", this may appear strange, as existentials are understood to introduce a variable into the discourse and are thus inherently non-presuppositional. It appears however that this characterization only applies to existential predicates. Crucially, Philippine languages appear to make a distinction between predicational and non-predicational existentials: the former are produced with the existential marker plus voice while the latter simply involve the existential marker, hence the term "bare existential".

25. Note that a simple syntactic account which claims that the exclamative marker and the conditional operator occupy the same position and are thus in complementary distribution – a story which could account for the ungrammaticality of English (i) – cannot be correct for Tagalog, as *kay* exclamatives have no connection to the left-periphery and are rather positioned similarly to non-exclamative adjectives, as shown in (ii).

(i) *'If how beautiful Maria is...'

(ii) *umaga=ng kay ganda*
 morning=LNK EXT beauty
 'a morning so beautiful'

Presuppositionality can thus be seen as the common semantic denominator in both constructions. Nominal type temporal adjuncts are also presupposed in that they always refer back to a predication, as seen in (72). Nominal type exclamatives derive their illocutionary force in part by compelling the hearer to accommodate a presupposition, i.e. corresponding to the adjectival predication in (73) preceding the exclamative, which in this atypical example, happens to be overt. As a final note, it should be mentioned that nominalization appears to be a necessary but not sufficient condition for the type of presuppositionality inherent in the when-clauses and exclamatives examined here. Event nominals can, of course, also have non-presuppositional uses, as in English (76) and Tagalog (77).²⁶

(75) A killing could happen at any time here.

(76) *Kung gusto nila nang pag-na~nákaw, na~nakáw-an din sila.*
 if like 3P.GEN GEN TR-GER~steal INCM~steal-LV also 3P.NOM
 'If they like stealing/thievery, they will also be stolen from.'

Although there does appear a tendency in discourse for nominalizations to be employed in presuppositional and definite contexts, it is perhaps only in their grammaticalization with more specific functions that this tendency becomes categorical.

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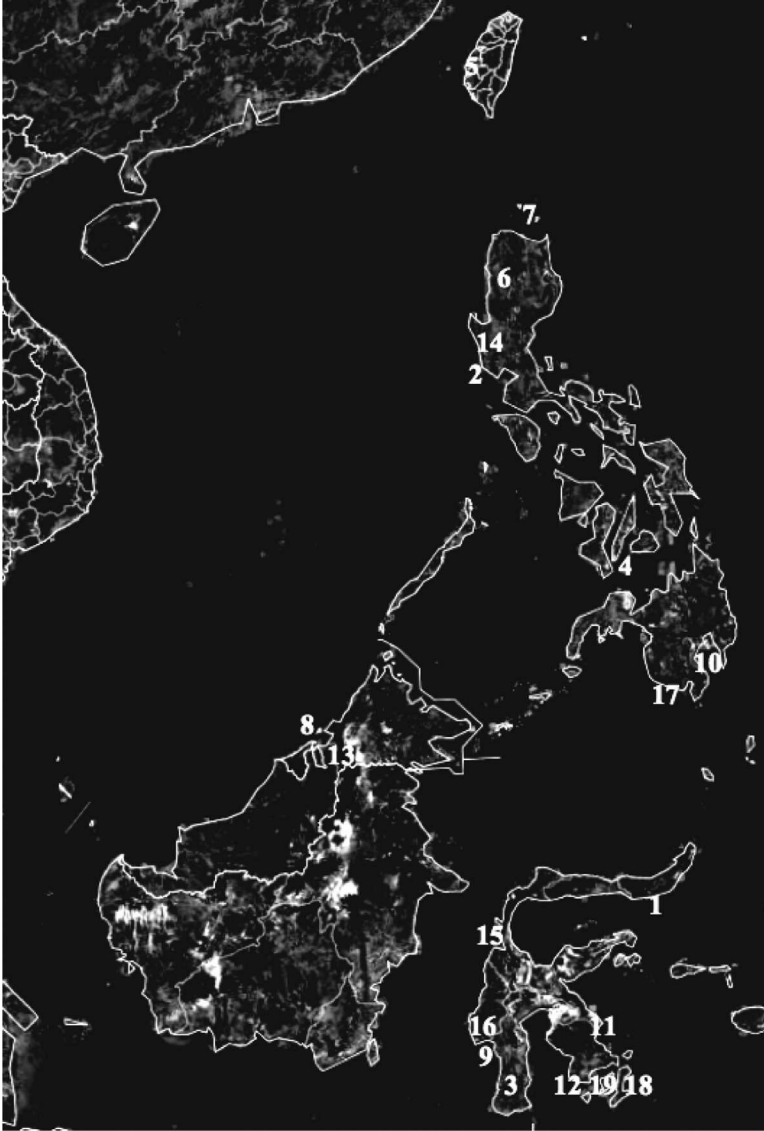
26. Thanks to an anonymous reviewer for emphasizing the importance of this point.

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Appendix 1. Austronesian languages



Language Key:

Bolaang Mongondow 1, Botolan Sambal 2, Bugis 3, Cebuano 4, Favorlang 5, Ilokano 6, Ivatan 7, Kimaragang 8, Mamasa 9, Mansaka 10, Mori Bawah 11, Muna 12, Murut 13, Pangasinan 14, Pendau 15, Rampi 16, Sarangani Manobo 17, Tukang Besi 18, Wolio 19
National Languages: Tagalog (Philippines), Malay (Malaysia, Brunei), Indonesian (Indonesia)