# Predicate classes and PAn *ka-

Daniel Kaufman
ELA/Columbia University
*bahasawan@gmail.com*

June 28, 2012

## 1  Background

- Some goals:

  1. unify several functions of *ka-* in An languages

  2. better understand the morphosyntax of property denoting words and statives in An

  3. obtain a better account of synchronic differences between two word classes in Tagalog

  4. reconsider universalist claims about predicate decomposition

### 1.1  PAn *pa-, *<R>, *ka-

- This work is part of a larger project to investigate several widespread derivational prefixes Kaufman (2009b):

  (1) a.   *pa-* CAUSATIVE (inner and outer)
      b.   *<R>* MIDDLE VOICE
      c.   *<ŋ>* DISTRIBUTIVE
      d.   *ka-* **have′**?

- Kaufman (2011) proposed that PAn *ka-* was a type of existential morpheme in PAn. Here we will sketch out its historical development and focus on its synchronic behavior in relation to what are sometimes referred to as "stative" word classes involving *ma-* and *ka-* (Kroeger, 1990; Himmelmann, 2006; Zeitoun and Huang, 2000; Yeh, 2000; Evans and Ross, 2001; Himmelmann, 2008, 2004).

- Ross (1995, p.740-1) – four major formal classes of roots:

1

    i. those which took <um> directly to form the ACTOR VOICE

    ii. those which had no affixes

    iii. those who root began with *pa-* and whose ACTOR VOICE began with *ma-*

    iv. those whose root began with *ka-* and whose AV form began with *ma-* (derived historically from *um* + *ka*) many of these verbs are complex roots formed with the prefix *ka-* (perhaps INCHOATIVE).

- Inherently event-denoting roots could form event-denoting predicates with only *<um>* or without affixation. (The difference between classes I and II remains obscure and will not concern us here.)

- Class III appears to have required verbalization through the use of *pa-*, a causative morpheme, although it's far from clear that the roots in this class could be predicted on a purely semantic basis.

- The most semantically predictable class is IV, which in many languages includes emotion predicates and statives and requires the prefix *ka-* (Zeitoun and Huang, 2000; Huang, 2000).


## 1.2   Blust (2003) on *\*ka-*

- Blust 2003 reconstructs PAn *\*ka-* with the following functions:

  1. stative marker in negative construction

  2. abstract nouns of quality

  3. past time (Brandstetter's "adverbial formative")

  4. past participle/achieved state (Brandstetter's "passive formative")

  5. inchoative verb/adjective

- Our first goal is to find the hidden common denominator behind these functions.


## 1.3   Stative marker in negative constructions

- Prefixes *\*ka-* and *\*ma-* appear to be in complementary distribution with each other as stative markers.

- In run of the mill positive polarity declaratives we typically find *ma-*, but *ka-* appears in several environments that Zeitoun and Huang (2000) called IRREALIS

- Clear examples can be seen in Atayal (2) where *ka-* is found alternating both with *ma-* and ∅, as well as Tanan Rukai (3) and Amis (4):

(2)     *Mayrinax Atayal* (Huang, 2000; Yeh, 2000)

a.   kithuʔ ʔiʔ   yayaʔ=mu
     AF:fat  NOM mother=1SG.GEN
     'My mother is fat'

b.   iniʔ ka-kithuʔ ʔiʔ   yayaʔ=mu
     NEG AF:KA-fat NOM mother=1SG.GEN
     'My mother is not fat'

c.   ma-βuqaʔ kuʔ     saraman
     AF-broken NOM.RF bowl
     'The bowl is broken'

d.   ini ka-βuqaʔ      kuʔ     saraman
     NEG AF:KA-broken NOM.RF bowl
     'The bowl is not broken.'

(3)     *Tanan Rukai* (Li, 1973; Yeh, 2000)

a.   idi-a
     'Stand up!'

b.   \*ma-bɨlɨŋ-a
     'Be tall!'

c.   ka-bɨlɨŋ-a
     'Become tall!'

(4)     *Amis* (Fey, 1986)

a.   ma-fana' kako
     *ma*-know 1SG.NOM
     'I know'

b.   caay ka-fana' kako
     NEG *ka*-know 1SG.NOM
     'I don't know'

   – Blust (2003:466):

   "the comparative evidence clearly allows a conjunction of these three environments, and hence an inference that in PAn \*ka- 'stative' replaced \*ma- 'stative' in what can appropriately be called irrealis (future, negative, imperative) constructions."

- But such alternations are not specific to *ka-* and *ma-*. We find that PAn ACTOR VOICE \*<um> was probably absent in all IRREALIS environments.

(5)     *Cebuano*

a.   mag-daːgan si     Dodong
     <AV>*pag*-run P.NOM Dodong
     'Dodong will run.'

b.   pag-daːgan!
     *pag*-run!
     'Run!'

- If stative *ma-* is actually the combination of *ka-* with the ACTOR VOICE infix *<um>*, as proposed by Ross (1995), then we expect *ka-* to surface wherever *<um>* cannot appear.

- Because of its appearance in imperatives and negatives, *ka-* was susceptible to analogical reanalysis as a marker of these categories.

- This is what seems to have happened in Amis and Paiwan to some extent:

(6)      *Amis* (Wu, 2000, p.96-97)

    a.    k\<um>aen ku    lutoŋ   tu   pawli
            \<AF>eat   Nom monkey ACC banana
            'The monkey is eating a banana.'

    b.    ka-k\<um>aen kisu   tu   pawli
            KA-\<AF>eat   2S.NOM ACC banana
            'Eat banana!'

(7)      *Paiwan* (Yeh, 2000, p.26)

    a.    ini=aŋa   ka t\<əm>əkəɭ it   kama tua vava
            NEG=still *ka* \<AV>drink NOM father ACC wine
            'Father has not drunk wine yet.'

    b.    ini=aŋa   ka-kən     a    madudu
            NEG=still *ka*-1SG.NOM LNK angry
            'I am not angry.'

## 1.4   Abstract nouns of quality

- Blust (2003:446) cites the following forms, among others, in support of *ka-* as a formative for abstract nouns.

- In most cases, a property denoting word usually beginning in *ma-* has a *ka-* initial counterpart that refers to the abstract entity characterized by the root. (Note however that several forms below do not appear with *ma-* in their plain adjectival function.)

| | | |
|---|---|---|
| Itbayaten | *ayah* 'red color' | *ka-vayah* 'redness' |
| Bontok | *a-dalem* 'deep' | *ka-dalem* 'depth' |
| Ifugao | *tagu* 'person' | *ka-tagu* 'manhood' |
| Aklanon | *ma-tamʔis* 'sweet' | *ka-tamʔis* 'sweetness' |
| Sarangani Manobo | *init* 'hot, warm' | *ke-init* 'heat, warmth' |
| Bolaang Mongondow | *mo-loben* 'large' | *ko-loben* 'size, magnitude' |
| Malagasy | *tsara* 'good' | *ha-tsara* 'goodness' |
| Banggai | *ma-lanak* 'greasy' | *ka-lanak* 'greasiness' |

## 1.5    Past time

- Blust (2003:445) cites a number of languages which show *ka-* in the word for 'yesterday'. The same formant can also be seen in 'when' for languages that differentiate a past and future 'when'.

  | | | |
  |---|---|---|
  | Paiwan | *nu-tiaw* 'tomorrow' | *ka-tiaw* 'yesterday' |
  | Ivatan | *ma-koyab* 'afternoon' | *ka-koyab* 'yesterday' |
  | Binongan Itneg | *gídaŋ* 'afternoon' | *ka-gídaŋ* 'yesterday' |
  | Tagalog | *gabi* 'night, evening' | *ka-gabi* 'yesterday' |
  | Sindangan Subanun | *dle-labuŋ* 'afternoon' | *ka-labuŋ* 'yesterday' |
  | Tausug | *ma-hapun* 'afternoon' | *ka-hapun* 'yesterday' |
  | Minangkabau | *patang* 'evening' | *ka-patang* 'yesterday' |
  | Sangir | *hebi* 'night' | *ka-hebi* 'yesterday' |
  | Bolaang Mongondow | *gobii* 'night' | *ko-gobii* 'the previous night' |

## 1.6    Past participle/achieved state

- Blust states that reflexes of \**ka-* with achieved state semantics are found "from at least the southern Philippines to the central Pacific."

  | | | |
  |---|---|---|
  | Maanyan | *rengey* 'to hear' | *ka-rengey* 'heard' |
  | Old Javanese | *bebed* 'badn, tie, bandage' | *ka-bebed* 'bound, entwined' |
  | | *dawut* 'pull out, uproot' | *ka-dawut* 'uprooted' |
  | Fijian | *basu* 'break, open a person's eyes or mouth' | *ka-basu* 'torn open' |

## 1.7    Inchoative

- The inchoative function claimed by Ferrell (1982, p.91-92) and Starosta (1995) is by far the most weakly attested of all those discussed here.

- Blust cites only two examples with the second one, from Paiwan, not being an easy fit:

(8)   *Thao*
  - a.   ma-bazay
       'be worn and thin, as clothing'
  - b.   ka-bazay
       'become worn and thin, as clothing'

(9)   *Paiwan*
  - a.   vala
       'fortunate'
  - b.   ka-vala
       'feel something to be fortunate'

- Yeh (2000) provides another good inchoative example from Li's description of Tanan Rukai. Note though that *ka-* only appears in the IRREALIS and is difficult to differentiate from 'will be tall' without further context.

  (10)    *Tanan Rukai* (Li 1973: 214, Yeh 2000:32)

     a.   ma-bɨlɨŋ ku-ani aŋatu
          MA-tall   that    tree
          'That tree is tall.'

     b.   *ay-ma-bɨlɨŋ ku-ani aŋatu
          will-MA-tall that    tree

     c.   ay-ka-bɨlɨŋ  ku-ani aŋatu
          will-KA-tall that    tree
          'That tree will get tall.'

## 1.8    The empirical data thus far

- Generally, *ka-* "replaces" *ma-* in all contexts where *<um>* cannot appear or appears earlier in the word.

- This includes certain (irrealis) moods as well as environments where *ka-* is simply not word initial.

  (11)    *Pazeh* (Li and Tsuchida, 2002; Wolff, 2009)

     a.   Ini   ma-ngesel aku
          NEG afraid        1SG.NOM
          'I am not afraid.'
     b.   Pa-ka-ngesel-i
          CAUS-STA-fear-IMP
          'Cause (him) to be afraid.'

- It is more profitable to look for commonalities between environments where ACTOR VOICE *<um>* cannot appear rather than where *ka-* does appear.

# 2   PAn *$ka$*- as **have**′

- What is **have**′?

– Not a full lexical verb but rather a functional element that signals than one argument is in the possession of another argument.

– A universal atom of meaning which combines with other lexical and functional material to form complex predicates.

• Some comparative evidence for reconstructing *ka-* as **have′** (Kaufman, 2011):

(12)    *Tagalog*
mag-ka-pera
AV-**have**-money
'to have money'

(13)    *Bolaang-Mongondow* (Usup et al., 1981)
ko-iput
**have**-tail
'to have a tail'

(14)    *Pendau* (Quick, 2003, p.139)
a'u      nday 'o-piso
1SG.NOM NEG  **have**-knife
'I have a machete'

(15)    *Murut* (Prentice, 1971, p.252)
ati-ati    pulu?-rali,    ma**ka**-ulun   noyo  bagu
whichever headland-DET.PL AV.EXT-person already PRT
'As for whichever were the headlands, there were people (there).'

(16)    *Bugis* (Sirk, 1996, p.170)
Nakko əng**ka** tau-pa-sala
if     EXT  person-TR-sin
'If there is a guilty person'

(17)    *Wolio* (Anceaux, 1988, p.14)
ko-bulu
**have**-hair
'to be hairy'

(18)    *Nabay* (Cohen, 1999)
ma-**ka**-talingo aku
AV-**have′**-ear   1SG.NOM
'I have ears.'

(19)    *Bunun* (De Busser, 2009)
a.    ka-las
**have′**-fruit
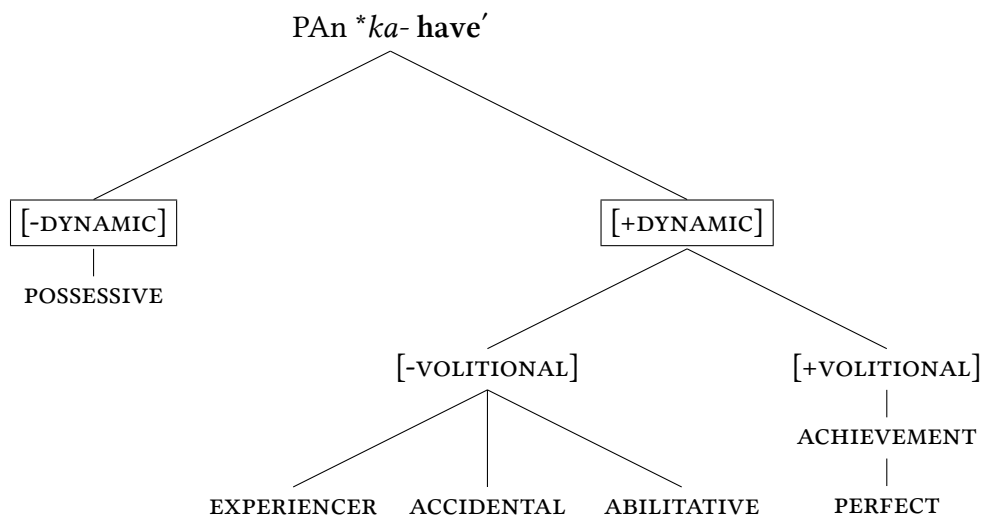'grow fruits (of plants)'
b.    ka-puaq
**have′**-flower
'bloom'

• Forms like Wolio *ko-bulu* do not have a stative meaning ('to be hair'), nor an inchoative meaning

7

('to become hair'), nor an achieved state meaning.

- Knowing what we know about grammaticalization, it is very difficult to imagine how semantically complex functions such as those seen earlier could lead to **have′**.

- Conversely, I argue that deriving all these functions from the simpler **have′** is highly plausible and has excellent analogues in unrelated languages.

## 2.1   The evolution of *\*ka-*

- Comparative evidence supports the following functional expansion of **have′**:

PAn *\*ka-* **have′**

[-DYNAMIC]          [+DYNAMIC]

POSSESSIVE

[-VOLITIONAL]          [+VOLITIONAL]

ACHIEVEMENT

EXPERIENCER   ACCIDENTAL   ABILITATIVE          PERFECT

### 2.1.1   From *have′* to experiencer predicate

- The canonical complement of **have′** denotes something within the subject's "domain".

- This can be a property ('to have intelligence') or a concrete entity ('to have a horse').

- Austronesian roots appear to have been inherently entity-denoting, as suggested by unexpected interpretations of bare roots across Philippine and several Formosan languages (Kaufman, 2009a). This can be gleaned from the ACD (Blust, 1995/2011) entry for *\*takut.*

| PAn (ACD) | *takut | fear |
|---|---|---|
| Siraya | takot | fear |
| Ifugaw | tákut | fear; to fear; to frighten somebody |
| Ibaloy | takot | fear for one's bodily safety |
| Pangasinan | takót | fear |
| Kapampangan | tákut | fear |
| Tagalog | tákot | fear |
| Kelabit | taʔut | fear |
| Kayan | takut | be afraid of, in fear of; be frightened by |
| Kayan (Uma Juman) | takut | fear; afraid |
| Murik | takut | fear; afraid |
| Malagasy | táhotra | fear, dread, horror, terror |
| Malay | takut | fear, afraid |

- Roots that denoted emotions like *takut* would thus require an extra semantic step before being able to predicate directly with a subject as a property, i.e. fear → afraid.

- Noonan (1993) and Harley (1995) argue that the subjects of psychological predicates are possessors, as is transparently the case in languages like French.

(20)    *French*

a.   Tintin a      faim                                    b.   Tintin a      peur de...
     Tintin HAVE hunger                                          Tintin HAVE fear  of
     'Tintin is hungry.'                                         'Tintin is afraid of...' (Harley, 1995, p.200)

- If *k<um>a-* is the ACTOR VOICE of **have′** then the following forms mean, just as in French, 'to have fear'.

| PAn (ACD) | *ma-takut | to be afraid |
|---|---|---|
| Ibaloy | ma-tekot | inclined to fear, fearful |
| Pangasinan | ma-takót | afraid |
| Kapampangan | ma-tákut | afraid |
| Tagalog | ma-tákot | afraid, scared; apprehensive, worried or anxious |
| Toba Batak | ma-tahut | to fear, be afraid |
| Sangir | ma-takuʔ | to fear, be afraid |
| Lun Dayeh | me-toot | afraid, have fear |

### 2.1.2   From *have′* to accidental

- The basis for the extension of **have′** from experiencer predicates to accidental actions is clear.

- Emotion and and other experiencer predicates are characterized by the subject's lack of control.

- If lack-of-control is taken to be the criterial feature of **have′** predicates then its use in constructions like (21) is predicted.

(21)      *Tagalog*

      Halos   na-lúnod             si      Juanito
            k\<um>\<in>a-lúnod
      almost  \<AV>\<BEG>**have′**-drown P.NOM Juanito
      'Juanito almost drowned.'

(22)      *Malay*

      Susanto hampir ke-tenggelam
                      ka-tenggelam
      Susanto almost  **have′**-drown
      'Susanto almost drowned.'

- The same extension has been made with English *get* as can be seen in the difference between the two passives in (23).

(23)      UNINTENTIONAL *get*
   a.   John got hit     [-intentional]
   b.   John was hit    [±intentional]

### 2.1.3   From *have′* to abilitative

- The expression of both an accidental and abilitative function by a single morpheme has often been considered to be an unnatural state of affairs. At the same time, the connection between the two has been surprisingly persistent, even holding over unrelated morphemes such as Malay *ter-* (e.g. *ter-makan* 'accidentally eaten/edible', *tak ter-makan* 'inedible/not accidentally eaten').

- It has been noted by others that a similar semantic overlap exist in Salish languages.

- In fact, English provides evidence from the *get* construction in (24) that **have′** can be responsible for both functions cross-linguistically.

(24)    ABILITATIVE *get*

    to get to talk = to be able to talk

- Garifuna, an Arawakan language of Central America, also shows the same dual function (also coincidentally stemming from an earlier existential *ka-* prefix).

- In (25), we see a regular verb with *ga-* **have′** and an entity-denoting root *seinsu* 'money'. When combined, the resulting verb means, as expected, 'to have money'.

- When combined with an event-denoting root, however, *ga-* is interpreted with an abilitative function, yielding 'I can sing' from *eremuha* 'sing'.

(25)    *Garifuna*
    ga-seinsu-tina
    **have**-money-1SG
    'I have money.'

(26)    *Garifuna*
    a.    eremuha-tina
        sing-1SG
        'I sing.'
    b.    g-eremuha-tina
        **have**-sing-1SG
        'I can sing.'

### 2.1.4    From *have′* to ACHIEVEMENT to PERFECT

- The grammaticalization of **have′** to PERFECT(IVE) has been the most discussed cross-linguistically, featuring prominently in the history of the Romance and Germanic languages.

(27)    *Latin*
    Ego        librum        scriptum  habeo
    1SG.NOM book.ACC written    have
    'I have written a book.'

- For Tagalog, Dell (1983-84) and Travis (2000b,a, 2005) identify *ka-* as relating to telicity (see also Zorc n.d. who identifies *\*ka-* as a Proto-Philippines perfective).

- The path from **have**′ to ACHIEVEMENT goes via the meaning of "possessing" an entire event in one's domain. Uses such as that in (28) are ubiquitous throughout Austronesian.

- Note the equivalence of the English paraphrase with **have**′

(28)     *Nabay* (Cohen p.21)

Pa**ka**padusu'        poiyo iro,  paka-kito iro   du dipo.
AFTER.AT.AF.swim ncom 3P.F AT.AF-see they NM snake.o
'After they went swimming, they happened to see a snake.'
'**Having** gone swimming...'

- Blust (2003:447) ventures that the "past participle" function of *\*ka-* only developed in PMP but evidence from Rukai such as the following suggest that it was already present in PAn:

(29)     *Rukai* (Zeitoun, 1997; Yeh, 2000, p.132-133)

a.    sa-**maka**-twatuman-naku     ka   watan-naku ku  aga
when/if-finish-work-1s.NOM will eat-1s.NOM   OBL rice
'When I finished working, I ate.'

b.    nu-**maka**-twatuman-naku     ka   aykan-naku ku  aga
when/if-finish-work-1s.NOM will eat-1s.NOM   OBL rice
'When I finish working, I will eat.'

## 2.2    *\*ka-* in the ACTOR VOICE

- *k<um>a-* predicates in Austronesian are the only predicates containing *<um>* yet assigning an undergoer role to their subject.

- How then could actual actors be introduced? With causative *\*pa-* (cf. Starosta 1995:701) .

- This explains the widespread alternations between NON-ACTOR VOICE *ma-/ka-* and actor voice *maka-/paka-* (Himmelmann and Wolff, 1999).

|  | HISTORICAL DERIVATION | TAGALOG |
|---|---|---|
| ACTOR VOICE | p<um>a-ka-kaRat<br><AV>CAUS-**have**-bite | maka-kagat |
| PATIENT VOICE | k<um>a-kaRat<br><AV>**have**-bite | ma-kagat |
| LOCATIVE VOICE | k<um>a-kaRat-an<br><AV>**have**-bite-LV | ma-kagat-an |
| CONVEYANCE VOICE | k<um>a-Si-kaRat<br><AV>**have**-CV-bite | ma-i-kagat |

Table 1: Etymology of the potentive voice paradigm

| PAn (ACD) | *paka-takut | to frighten |
|---|---|---|
| Tae' | paka-takuʔ | to frighten |
| Soboyo | paka-taku | frightened |
| Wayan | vaka-mataku | be fearsome, frightening… |
| Niue | faka-mataku-taku | to frighten |
| Samoan | faʔa-mataʔu | to frighten, threaten |
| Hawaiian | hoʔo-makaʔu | to frighten, scare, terrify, make afraid |

| PAn | *p<um>a-ka-takut → *makatakut | to scare |
|---|---|---|
| Tagalog | maka-tákot | to scare |
| Kapampangan | maka-tákut | frightening |

# 3 Tagalog *ka-*

- Tagalog possesses two broad types of *ma-* formations:

  - *ganda*-type: *ma-ganda* 'beautiful', *ma-taas* 'tall'…

  - *putol*-type *ma-pútol* 'to get cut off', *ma-túlog* 'to sleep', *ma-básag* 'to break'…

- These two classes possess very distinct morphosyntactic behaviors.

| Morpheme | √GANDA 'beauty' | √PÚTOL 'a cut of s.t.' |
|---|---|---|
| **ma-**<br>AV:**have**′ | *ma-ganda*<br>'beautiful' | *ma-pútol*<br>'X to get cut' |
| **na-**<br>AV:PRF:**have**′ | *\*na-ganda* | *na-pútol*<br>'X got cut' |
| **<um>**<br>AV | *g<um>anda*<br>'to become beautiful' | *p<um>útol*<br>'X to cut' |
| **-in**<br>BEG | *\*ganda-hin* | *putúl-in*<br>'to cut X' |
| **ma- -han**<br>AV:**have**′-LV | *ma-ganda-han*<br>'X to feel OBL is beautiful' | *ma-putúl-an*<br>'X to potentially have s.t. cut from' |
| **nápaka-**<br>EXCLM | *nápaka-ganda*<br>'how beautiful!' | *\*nápakaputol* |
| **ang**<br>NOM | *ang ganda!*<br>'how beautiful!' | *\*ang putol!* |
| PL | *ma-ga-ganda*<br>'beautiful (pl.)' | *m<aŋ>a-pútol*<br>'X to get cut (pl.)' |
| RESULTATIVE | *\*ganda* | *putol*<br>'cut' (as in 'The branch is cut') |

Table 2: Two types of *ma-* predicates in Tagalog

---

**Explanandum:**
1. Why does only the *ganda*-type allow for exclamatives with *nápaka* and *ang*?
2. Why can't the *ganda*-type predicates take aspectual inflection with *na-*?
3. Why are *ganda*-type ACTOR VOICE predicates inchoatives while *putol*-type predicates transitive?
4. Why are only *putol*-type predicates compatible with PATIENT VOICE?
5. Why does only the *ganda*-type allow for experiencer subject construction (w/ *ma- -an*)?
6. Why do only *putol*-type predicates allow for the length deleting resultative?

---

- Today's answer:

    - the *ganda*-type predicates which do not take direct aspect inflection are *relational* nouns which project a possessor. They require **have**′$^{Poss}$, a productive morpheme which functions much like an applicative in promoting a possessor to subject.

– All other examples take the other flavor of **have**′ which serves to license experiencers in addition to contributing the non-volitional and potentive semantics associated with *ka-* forms.

– The most important functional split of PAn \**ka-* **have**′ was [+DYNAMIC] and [-DYNAMIC]

## 3.1   Sabbagh 2011: **unergative and unaccusative adjectives**

- Sabbagh (2011) notes the ban on *putol*-type exclamatives:
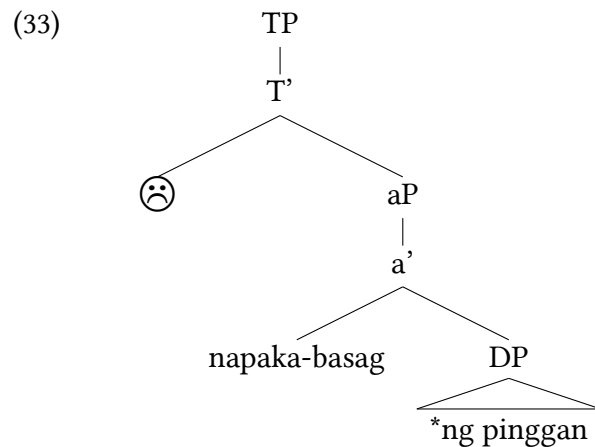
(30) a.  napaka-ganda   niya!
         EXCLM-beautiful 3SG.GEN
         'How beautiful she is!'
     b.  ang ganda niya!
         NOM beauty 3SG.GEN
         'How beautiful she is!'

(31) a.  \*napaka-basag niya!
         EXCLM-broken 3SG.GEN
     b.  \*ang basag  niya!
         NOM broken 3SG.GEN

- This is taken as evidence of two adjectival classes in Tagalog: unergative (*ganda*-type) and unaccusative (*putol*-type).
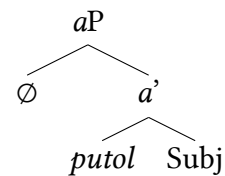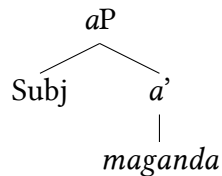


- The adjectival category head *a* does not assign case

- When T is active, the unaccusative argument of an adjectival passive can raise to get case (presumably at LF)

- Case from T is unavailable in "impersonal constructions" (where the subject surfaces with genitive case)

(32) TP

DP     T'

ang pinggan$_i$     T     aP

a'

basag     $t_i$

(33) TP

T'

☹     aP

a'

napaka-basag     DP

\*ng pinggan
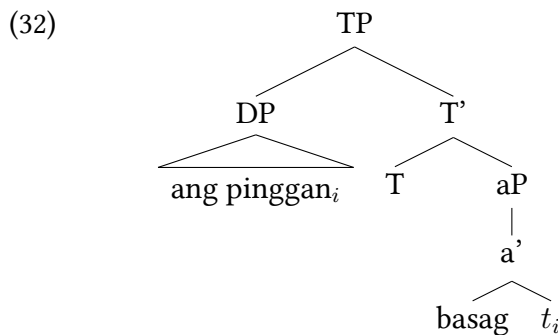
- T cannot agree with the unaccusative subject because it's locked in its phase.

- A related phenomenon that Sabbagh tackles is the asymmetric behavior with the equative comparative *kasing-*

  (34)   Kasing-talino     ni     Elena si     Maria
         EQUAL-intelligence P.GEN Elena P.NOM Maria
         'Maria is as intellegent as Elena.'

  (35)   \*Kasing-pagod ni     Elena si     Maria
         EQUAL-tired    P.GEN Elena P.NOM Maria
         for, 'Elena is as tired as Maria.'

- Here the explanation is a little different but still relies on the fact that the subject of ma- adjectives is an external argument

  - Confusingly, both arguments in (34) are treated by Sabbagh as nominative despite one surfacing with genitive case.

  - It is unclear how the argument in Spec,aP can obtain nominative case. A suggestion in a footnote alludes to multiple agree but this would be difficult to reconcile with the rest of the analysis.

- Essentially anything in Spec,aP can be licensed but unaccusative adjectival arguments require special conditions.

- An immediate problem with the locality approach to this problem is that the same facts hold when there is no competition.

- A reflexive comparative exists, *magkasing-* in which a single plural argument occupies subject position

- But as seen in (37), the "unaccusative" adjectives are equally bad here.

(36)     mag-kasing-talino     ang  dalawang babae
REFL-EQUAL-intelligent NOM two:LNK   woman
'The two women are equally smart.'

(37)     *mag-kasing-pagod ang  dalawang babae
REFL-EQUAL-tired   NOM two:LNK   woman
(for, 'The two women are equally tired.')

(38)
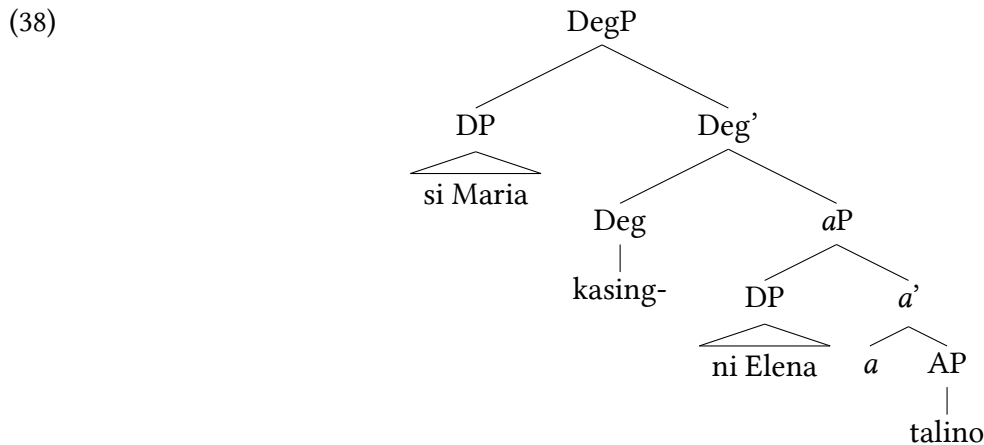


- Similarly, the superlative construction cannot be classified as 'impersonal', it does not involve any genitive ("accusative") arguments but rather takes the form of a copular sentence with two nominative phrases. Nonetheless, it only allows *ganda*-type predicates:

(39) a.   Si     Kenkoy ang  pinaka-magaling
P.NOM Kenkoy NOM SUPERLAT-great
'Kenkoy is the greatest.'

   b.  *Si     Kenkoy ang  pinaka-pagod
P.NOM Kenkoy NOM SUPERLAT-great
'Kenkoy is the most tired.'

- Finally, T appears completely irrelevant to the licensing of "unaccusative" subjects. They are perfectly at home in embedded clauses where we would imagine T to be defective, as in (40).

(40)     gusto ko=ng     tapos na     ang lahat
         want 1SG.GEN=LNK finish already NOM all
         'I want it to be all finished.'

## 3.2    An alternative account
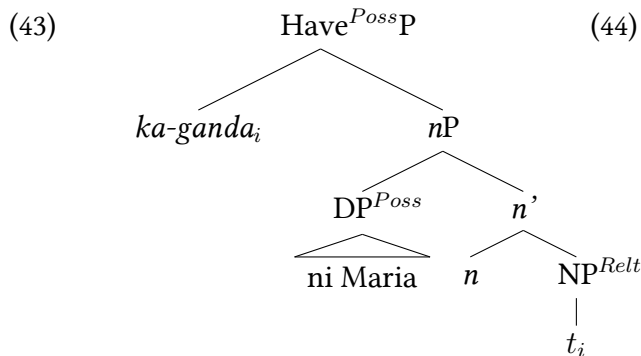
### 3.2.1    *ganda*-type roots

- The first thing to notice about the above cases is the presence of *ka-* in all the constructions: napa**ka**-, **ka**sing, pina**ka**-.

- The case is further strengthened by (41), another type of comparative construction in which the subject has no competition and takes nominative case.

(41) a.    ganito ka-tangkad si     Maria
         like.this **have′**-height P.NOM Maria
         'Maria is this tall.'

     b.    *ganito ka-pagod si     Maria
         like.this **have′**-tired P.NOM Maria

- Pelaez-Soberano (1977) shows data from other Tagalog dialects in which the one consistent element in the *napaka-* construction is *ka-*:

(42) a.    napa**ka**-laki 'how big!'                                *Manila Tagalog*
     b.    pa**ka**-laki 'how big!'                                  *Western Marinduque*
     c.    ma**ka**-laki 'how big!'                                  *Eastern Marinduque*

- Having observed the consistent alternation between *ma-* and *ka-* across Austronesian languages it seems clear that this *ka-* is none else then **have′** minus ACTOR VOICE *<um>*.

(43)   Have$^{Poss}$P                    (44)                              TP

         *ka-ganda$_i$*        *n*P                    PredP                    T'

                    DP$^{Poss}$      *n*'             VoiceP              T      DP

                  ni Maria    *n*   NP$^{Relt}$    *<um>*   Have$^{Poss}$        si Maria

                              $t_i$              *ka-*   NP$^{Relt}$

                                                        *ganda*

| ka-ganda | ni | Maria | ma-ganda | si | Maria |
|---|---|---|---|---|---|
| **have′**-beauty | P.GEN | Maria | AV:**have′**-beauty | P.NOM | Maria |
| ('How beautiful Maria is!') | | | 'Maria is beautiful.' | | |

- Because it is only the *ganda*-type roots that take **have′** in their property denoting predicate function, it is expected that only these roots will be able to take *ka-*.

- But why do they need it? They are essentially *relational nouns which are inherently evaluative.* The evaluated arg is projected as a possessor.

- One apparent exception to the morphological generalization involving *ka-* are the bare exclamatives:

(45)  a.   ang ganda mo,      day!
           NOM beauty 2SG.GEN day
           'How beautiful you are, miss!'

     b.   %ang gálit  mo,      day!
           NOM anger 2SG.GEN day
           (OK for, 'Your anger, miss!')

- The seeming exception only reenforces the current analysis. The evaluated argument of a relational noun is an underlying possessor.

- Possessors can either be expressed as genitive modifiers or can be promoted to subject via **have′** plus the actor voice.

(46) a.  áso ko
dog 1SG.GEN
'my dog.'

b.  nag-ka-áso        ako
AV.PRF-**have′**-dog 1SG.NOM
'I had a dog.'

(47) a.  ang ganda ko!
NOM beauty 1SG.GEN
'How beautiful I am!'

b.  nag-ka-ganda        ako
AV.PRF-**have′**-beauty 1SG.NOM
'I obtained beauty.'

- Case is not the problem here. Exclamatives of the above type are a unique property of evaluative nouns in Tagalog.

  – Only *yaman* 'wealth' belongs to the *ganda* class of relational nouns.

  – *Pera* 'money' is a run of the mill entity-denoting noun and thus does not project an evaluated argument as a possessor.

(48)    *mayáman si Kenkoy*

k<um>a-yaman    si    Kenkoy
<AV>**have′**-wealth P.NOM Kenkoy
'Kenkoy is rich.'

(49)    *mapéra si Kenkoy*

k<um>a-pera        si    Kenkoy
<AV>**have′**-money P.NOM Kenkoy
'Kenkoy is rich.'

(50)    ang yáman ni    Kenkoy!
NOM wealth P.GEN Kenkoy
'How rich Kenkoy is!'

(51)    %ang péra    ni    Kenkoy!
NOM money P.GEN Kenkoy
(OK for 'Kenkoy's money!')

### 3.2.2   *putol*-type roots and psych predicates

- Sabbagh's *putol* type "adjectives" actually belong to two distinct classes: psych-predicates (e.g. *gálit* 'anger') and ordinary bivalent predicates (e.g. *pútol* 'cut').

- These show different behavior and are posited here to project two different structures.

- Psych-predicates do not project an Agent but rather an Experiencer, as expected.

(52)

```
                        TP
              ┌─────────┴─────────┐
           PredP                  T'
      ┌──────┴──────┐         ┌───┴───┐
    PredP         DP^Effect   T       DP
      │            /\               /\
    AspP        sa iyo          si Maria
  ┌───┴───┐
 Asp    VoiceP
      ┌───┴───┐
    <um>    Have^Exp P
          ┌───┴───┐
         ka-      NP
                  │
              tuwa[Effct,Exp]
```
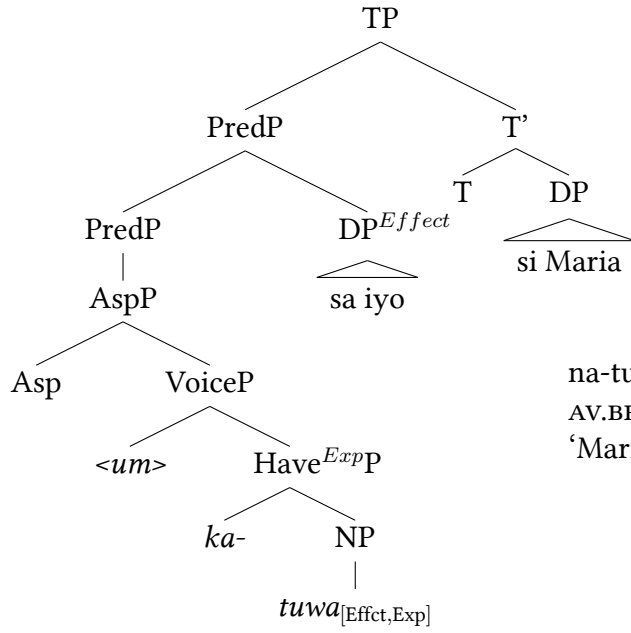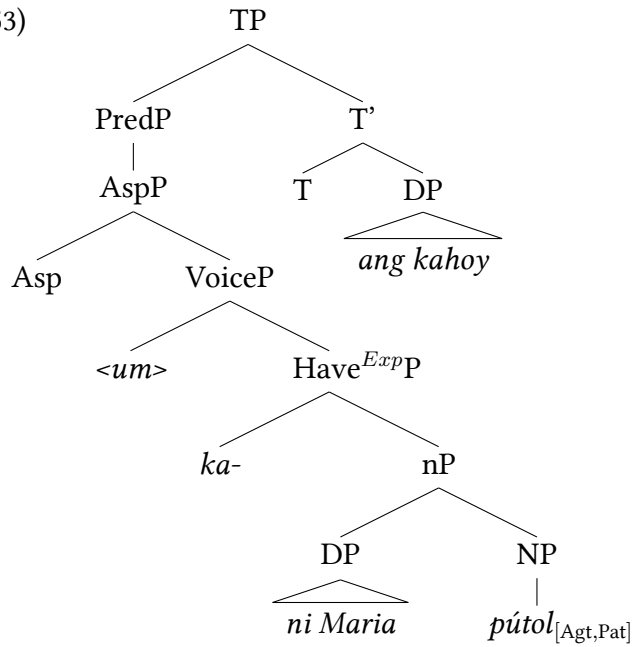
na-tuwa            sa  iyo si   Maria
AV.BEG:**have′**-happy OBL 2SG P.NOM Maria
'Maria was pleased with you.'

(53)

```
                   TP
           ┌───────┴───────┐
         PredP             T'
           │           ┌───┴───┐
         AspP          T       DP
       ┌───┴───┐              /\
      Asp    VoiceP        ang kahoy
           ┌───┴───┐
         <um>    Have^Exp P
               ┌───┴───┐
              ka-      nP
                   ┌───┴───┐
                  DP       NP
                  /\       │
              ni Maria  pútol[Agt,Pat]
```

na-pútol            ni    Maria ang  káhoy
AV.BEG:**have′**-cut P.GEN Maria NOM wood
'Maria (could/accidentally) cut the wood.'

21

**Q:** How is the structure in (53) possible if *<um>* typically selects the highest argument as *ang* phrase?

**A:** The Actor is introduced low and *<um>* selects the (experiencer) argument of **have′** not *pútol*. Additional evidence for this is the licensing of Actors without any voice morphology at all:

(54)     pútol/kúha/sábi ni     Maria
         cut/take/say     P.GEN Maria
         'the cut/taken/said thing of Maria' (= what Maria cut/took/said)

**Q:** How do we know the *effector* is projected by the root?

**A:** Because the effector is licensed with bare roots and resultatives:

(55)     tuwa=ng   tuwa ako     sa iyo
         happy=LNK happy 1SG.NOM OBL 2SG          (56)     \*masaya=ng masaya ako     sa   iyo
         'I'm very happy due to you.'                       happy=LNK happy   1SG.NOM OBL 2SG
         (cf. English \*I'm very happy by you)

**Q:** Why can't the *ganda*-type predicates take aspectual inflection with *na-*?

**A:** Possession is inherently stative. Experience is not.

(57)     *Persian* (Folli et al 2005:1379)          (58)     *Persian* (Folli et al 2005:1379)

a.   Kimea ye   sag dâr-e                     a.   Kimea Papar-o dust   dâr-e
     K.      one dog have-3SG                       K.      P.-SPCF  friend have-3SG
     'Kimea has a dog.'                             'Kimea loves papar.'
b.   \*Kimea dâr-e     ye sag dâr-e            b.   \*Kimea dâr-e     Papar-o dust   dâr-e
     K.      have-3SG one dog have-3SG              K.      have-3SG P.-SPCF  friend have-3SG
     (Lit. \*Kimea is having a dog.)                (Lit. \*'Kimea is having love Papar.')

### 3.2.3   Resultative length-deletion

- Sabbagh (2011) treats resultatives as inherently unaccusative adjectives but they are derived by a morphological process which removes vowel length (if present) from the root (and occasionally adds CV-reduplication when combining with voice).

- This morpheme, which I take to be the only real adjectival head in Tagalog is only compatible with roots that project Patients or Experiencers.
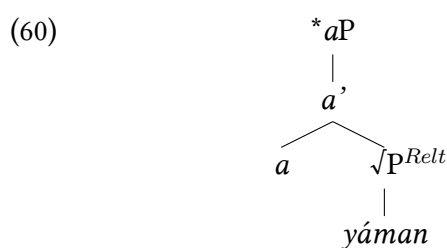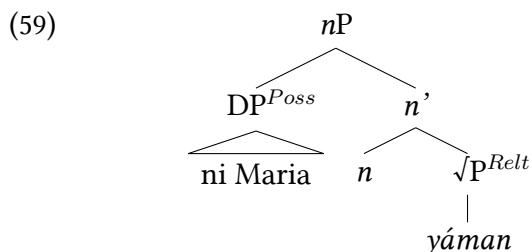
| derivation | | form | meaning |
|---|---|---|---|
| $\sqrt{}_{\text{Agt,Pat}}$ | $\rightarrow$ | súnog | 'fire' |
| $a > \sqrt{}_{\text{Agt,Pat}}$ | $\rightarrow$ | sunog | 'burnt' |
| $\text{Asp}_{Inf} > \text{Voice}_{Pat} > \sqrt{}_{\text{Agt,Pat}}$ | $\rightarrow$ | sunúg-in | 'thing to be burnt' |
| $\text{Asp}_{Prf} > \text{Voice}_{Pat} > \sqrt{}_{\text{Agt,Pat}}$ | $\rightarrow$ | s\<in>únog | 'thing that was burnt' |
| $a > \text{Voice}_{Pat} > \sqrt{}_{\text{Agt,Pat}}$ | $\rightarrow$ | sunug-in | 'thing to be burnt' |
| $^{*}\text{Asp}_{Prf} > a > \text{Voice}_{Pat} > \sqrt{}_{\text{Agt,Pat}}$ | $\rightarrow$ | *s\<in>unog | |

Table 3: *a* derivations with $\sqrt{}_{\text{Agt,Pat}}$

| derivation | | form | meaning |
|---|---|---|---|
| $\sqrt{}_{\text{Poss}}$ | $\rightarrow$ | yáman | 'wealth' |
| $a > \sqrt{}_{\text{Poss}}$ | $\rightarrow$ | *yaman | |

Table 4: No *a* derivations with $\sqrt{}_{\text{Poss}}$

- Can we derive this behavior from what we have seen so far?

- *a* searches for a PATIENT/EXPERIENCER. If it attaches low to a relational noun (or any entity-denoting root) there is nothing for it to apply to.

(59)

*n*P
├── DP$^{Poss}$
│   └── ni Maria
└── *n*'
    ├── *n*
    └── $\sqrt{}$P$^{Relt}$
        └── *yáman*

(60)

$^{*}a$P
└── *a*'
    ├── *a*
    └── $\sqrt{}$P$^{Relt}$
        └── *yáman*

- The *a* morpheme incidentally also shows us where Agents come from: AspP.

- Because Aspect in Tagalog (which is historically inherited from a nominal category) cannot take an adjectival complement, genitive phrases associated with higher *a*P can only be interpreted as possessors, never Agents.

(61)    Hindi ko        ba:~basá:-hin   ang  ba~basa-hin-*μ* ko
        NEG   1SG.GEN   IMPRF~read-PV   NOM  *a*~read-PV-*a*   1SG.GEN

'I won't read my readings.'

- The resultative's selection of Patient/Experiencer explains the overlap between roots which are compatible with length deletion and those compatible with PATIENT VOICE and experiencer *ma-* (cf. Sabbagh 2011:1430).

*sunúg-in* 'to burn X', *sunog* 'burnt', *patay-in* 'to kill X', *patay* 'dead'
*ma-tulog* 'to sleep', *tulog* 'asleep', *ma-tuwa* 'to be happy' *tuwa* 'happy'

### 3.2.4   A more complete picture

- The challenge is deriving the behavior of the various root classes from their theta-grids, as this must be given on all theories.

| Form | Gloss | Function |
|------|-------|----------|
| *<um>* | ACTOR VOICE | selects highest argument |
| *-in* | PATIENT VOICE | selects PATIENT |
| *ka-* | **have′** | introduces POSSESSOR/EXPERIENCER |
| length-deletion | RESULTATIVE | selects EXPERIENCER/PATIENT |

Table 5: Essential morphology

| Examples | Roles | PV | AV | **have′**-AV | **have′**-AV-ASP | RESULT |
|----------|-------|-----|-----|-----------|--------------|--------|
| √SAYA (happy) | POSS! | *saya-hin | s<um>aya | ma-saya | *na-sa-saya | *saya |
| √TUWA? (happy) | EFCTR, EXP | *tuwa-in | *t<um>uwa | *ma-tuwa | na-tu-tuwa | tuwa |
| √GÁLIT? (anger) | EFCTR, EXP | galít-in | g<um>álit | *ma-gálit | na-ga-gálit | galit |
| √PÚTOL (break) | AGT, PAT | putúl-in | p<um>útol | #ma-pútol | na-pu-pútol | putol |

Table 6: Four root types

**Q:** Why is \**tumuwa* bad?

**A:** The experiencer has to be introduced by the higher head **have′** and the effector, while semantically licensed by the root, is introduced as a high adjunct. This means that if <um> attaches directly to a "pure" psych predicate like *tuwa*, no arguments are visible yet and the experiencer role remains unlicensed.

(62)

$$\text{VoiceP}$$

```
        VoiceP
       /      \
    <um>      NP
               |
           tuwa[Effct,Exp]
```
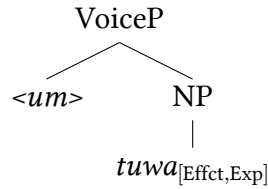
**Q:** A more difficult question: Why is *s<um>aya* 'to become happy' good?

**A:** This tells us a lot about what <um> does. It doesn't only choose the highest argument in its scope. It can seemingly *add* an argument as well, *<um>ulan* 'to rain', *b<um>áhay* 'to house', *l<um>úpa* 'to ground'. Because relational nouns require Have$_{Poss}$, they cannot take *ka-* and then go on to attach to aspect. But they can take <um> directly because they got nothin' (thematic) to lose.

  – **Historical note**: The use of <um> to form inchoatives has been argued by Blust (2003) to be innovation that characterizes PMP.

• Relatedly, we have a solution for why *ganda* type predicates can never take objects in their "verbal" incarnation.

(63)     g<um>anda siya     (\*ng kwarto)
         <AV>beauty 3S.NOM GEN  room
         (For, she beautified the room)

• This is unexpected if they are plain "unergatives" (ala Sabbagh 2011):

(64)     t<um>akbo ako     ng   marathon
         <AV>run   1SG.NOM GEN marathon
         'I ran a marathon'

• But if they differ precisely in not projecting an External Argument, the behavior in (63) is predicted trivially by Burzio's generalization (no external argument → no object).

**Q:** Why can experiencer predicates, e.g. √GÁLIT above, take PV and AV morphology?

(65) a. na-gálit      sa báboy si   Maria
     AV:BEG-**have′**-anger OBL pig   P.NOM Maria
     'Maria got angry with the pig.'

    b. na-tuwa      sa báboy si   Maria
     AV:BEG-**have′**-happy OBL pig   P.NOM Maria
     'Maria was happy with the pig.'

(66) a. g<in>álit      ni   Maria ang báboy
     <BEG>anger:PV P.GEN Maria NOM pig
     'Maria angered the pig.'

    b. \*t<in>uwa      ni   Maria ang báboy
     <BEG>happy:PV P.GEN Maria NOM pig
     For, 'Maria made the pig happy.'

| Examples | Roles | PV | AV | **have′**-AV | **have′**-AV-ASP | RESULT |
|---|---|---|---|---|---|---|
| √TUWAʔ (happy) | EFCTR, EXP | \*tuwa-in | \*t<um>uwa | \*ma-tuwa | na-tu-tuwa | tuwa |
| √GÁLIT (anger) | EFCTR, EXP | galít-in | g<um>álit | \*ma-gálit | na-ga-gálit | galit |
| | AGT, PAT | | | | | |

Table 7: √TUWAʔ versus √GÁLIT

**A:** Exceptional affectedness or volition with experiencer predicates allows for the following transformation on thematic roles:

(67) **Transposition**
         EFFECTOR,      EXPERIENCER
         ⇓          ⇓
         AGENT,      PATIENT

(68) **Transposition**
         EXPERIENCER
         ⇓
         AGENT

- It should be noted that this operation does not exist in all Phil. languages and its very unclear what happened in PAn or PMP when <um> attached to experiencer predicates.

(69)     *Tagalog*
     Sino ang g<um>álit sa   kanya?
     who NOM <AV>anger OBL 3SG
     'Who angered her?'

(70)     *Pangasinan*
     siopa=y   nan-pa-pasnok ed   sikato?
     who=NOM AV-CAUS-anger OBL 3SG
     'Who angered her?'

(71)     *Paiwan* (Hsieh, 2011, p.84)
    a. na-d<em>udu   timadju aravac.
     PFV-<AF>angry 3SG.NOM very

'He is very vexatious.'

b.  r<em>ekutj timadju.
    <AF>fear    3SG.NOM
    'He is formidable.' 'He is dreadful.'

- If the root itself is an object of **have**′, we expect that the root cannot take any direct complements. This seems to be overwhelmingly the case and accounts for why we don't have *ka- -in* **have**′ -PV. The behavior is thus identical to the lack of PV with incorporation in Tagalog (NB: rare!).

  (72)    i-p<in>ag-dalang-tao        ni   Rhea sina     Romulus at   Remus
          CV<BEG>-carry:LNK-person P.GEN Rhea P.NOM.PL Romulus and Remus
          'Rhea was pregnant with (lit. person-carried) Romulus and Remus.'
          (http://tl.wikipedia.org/wiki/Romulus_at_Remus)

- There is one more important morphological combination which we have not accounted for yet here: *ma- -an*

(73)  na-ganda-han        ako    sa  iyo        (74)  *na-galit-an         ako    sa  iyo
      AV.BEG:**have**′-beauty-LV 1SG.NOM OBL 2SG           AV.BEG:**have**′-anger-LV 1SG.NOM OBL 2SG
      'I felt that you're beautiful.'
      (Lit. there was beauty to me with you)

- A fully compositional analysis of this remains to be worked out in detail but we can preliminarily posit the following ingredients:

  1. attachment of *-an* introduces a recipient
  2. attachment of *ka-*: recipient → experiencer
  3. crucially, the introduction of a recipient yields a dynamic interpretation which requires $\text{Have}_{Exp}$ instead of $\text{Have}_{Poss}$.

## 3.3   Hidden treats

### 3.3.1   Binding

- Two AFLAs ago, I presented arguments against a structural account of binding in Tagalog on the basis of data similar to that first discussed by Dell (1983-84) and Kroeger (1993):

(75) a.  t<in>alo            ni      Tyson ang  sarili niya
         <BEG>defeat:PV P.GEN Tyson NOM self   3S.GEN
         'Tyson defeated himself.'

   b.  *?t<in>alo           si      Tyson ng   sarili niya
         <BEG>defeat:PV P.NOM Tyson GEN self   3S.GEN
         ('Himself defeated Tyson.')

(76) a.  na-talo                  ni      Tyson ang  sarili niya
         AV.BEG:**have**′-defeat P.GEN Tyson NOM self   3S.GEN
         'Tyson defeated himself.'

   b.  na-talo                  si      Tyson ng   sarili niya
         AV.BEG:**have**′-defeat P.NOM Tyson GEN self   3S.GEN
         ('Himself defeated Tyson.')

- There is further evidence in the control facts.

(77) a.  ayaw     ko=ng         halik-an $PRO_{Gen/Erg}$
         not.like 1S.GEN=LNK kiss-LV
         'I don't want to kiss X.'

   b.  ayaw     ko=ng         ma-halik-an        $PRO_{Nom/Abs}$
         not.like 1S.GEN=LNK AV:**have**′-kiss-LV
         'I don't want to be kissed.'

- But the above facts make perfect sense even on a strict syntactic analysis if *mahalikan* is an ACTOR VOICE/ANTIPASSIVE predicate.

- Having said that, *ma-* forms appear to allow both possibilities given the right context:

(78) a.  ayaw      ni    $Maria_i$=ng ma-pansin        ni      Jojo $PRO_i$
         not.want P.GEN Maria=lnk AV.**have**′-notice P.GEN Jojo
         'Maria doesn't want to be noticed by Jojo.'

   b.  ayaw      ni    $Maria_i$=ng ma-pansin        $PRO_i$ si      Jojo
         not.want P.GEN Maria=lnk AV.**have**′-notice         P.NOM Jojo
         'Maria doesn't want to notice Jojo.'

- Of course, experiencers have posed notorious and well-discussed problems for binding theory:

(79) a.  Pictures of himself always make John uncomfortable
   b.  Pictures of John always make him uncomfortable

### 3.3.2   Historical morphology

- If *\*ka-* was **have′** it starts to look very similar to *\*ki-*, shown by Zeitoun and Teng (2009) to function as a genuine *get*-passive in several Formosan languages.

- Blust (2003) discusses a PAn morphological trichotomy:
  *pu-* causative of motion
  *pi-* causative of location
  *pa-* general causative

- ACTOR VOICE counterparts seem to have existed for all of them:
  *mu-* motion verb
  *mi-* location verb??
  *ma-* active

- This open up the intriguing possibility that Zeitoun & Teng's *get*-passive *ki-* is actually:

(80)    k(a)-i
        **have′**-LOC
        get

An almost perfectly compositional derivation!

## References

Anceaux, J.C. 1988. *The Wolio Language*, volume 11 of *Verhandelingen van het Koninklijk Instituut voor Taal-, Land- en Volenkunde.* Dordrecht-Holland: Foris Publications, second edition.

Blust, Robert. 1995/2011. Austronesian Comparative Dictionary (ACD). URL `http://www.trussel2.com/ACD`.

Blust, Robert. 2003. Three notes on early Austronesian morphology. *Oceanic Linguistics* 42:438–478.

Cohen, Nancy. 1999. Nabay verbal morphology. *SIL Electronic Working Papers* .

De Busser, Rik L.J. 2009. Towards a grammar of Takivatan Bunun: Selected topics. Doctoral Dissertation, La Trobe University.

Dell, François. 1983-84. An aspectual distinction in Tagalog 22- 23:175–206.

Evans, Bethwyn, and Malcolm Ross. 2001. The history of Proto-Oceanic \*ma-. *Oceanic Linguistics* 40:269–290.

Ferrell, Raleigh. 1982. *Paiwan dictionary*. C-73. Canberra: Pacific Linguistics.

Fey, Virginia. 1986. *Amis dictionary*. Taipei: The Bible Society.

Folli, Raffaella, Heidi Harley, and Simin Karimi. 2005. Determinants of event type in Persian complex predicates. *Lingua* 1365–1401.

Harley, Heidi Britton. 1995. Subjects, events and licensing. Doctoral Dissertation, MIT, Cambridge.

Himmelmann, Nikolaus. 2004. On statives and potentives in Western Austronesian (mostly Tagalog). *Proceedings of Austronesian Formal Linguistics Association* 11:103–119.

Himmelmann, Nikolaus. 2006. How to miss a paradigm or two: Multifunctional ma- in tagalog. In *Catching Language*, ed. A. Evans N. Ameka, F. Dench. Berlin: Mouton de Gruyter.

Himmelmann, Nikolaus. 2008. Lexical categories and voice in Tagalog. *Voice and Grammatical Functions in Austronesian Languages* 247–293.

Himmelmann, Nikolaus, and John Wolff. 1999. *Toratán (Ratahan)*. Number 130 in Languages of the World/Materials. Munich: Lincom Europa.

Hsieh, Fuhui. 2011. The conceptualization of emotion events in three Formosan languages: Kavalan, Paiwan and Saisiyat. *Oceanic Linguistics* 50:65–92.

Huang, Lillian M. 2000. Verb classification in Mayrinax Atayal. *Oceanic Linguistics* 39:364–390.

Huang, Shuping, and Li-May Sung. 2008. The undergoer focus ma- in Kavalan. *Oceanic Linguistics* 47:159–184.

Kaufman, Daniel. 2009a. Austronesian nominalism and its consequences: A tagalog case study. *Theoretical Linguistics* 35:1–49.

Kaufman, Daniel. 2009b. On the proto-austronesian morphemes \*pa-, \*<r> and \*<ŋ>. Paper presented at ICAL XI, Aussois.

Kaufman, Daniel. 2011. Exclamatives and temporal nominalizations in Austronesian. In *Nominalization in Asian Languages: Diachronic and Typological Perspectives*, ed. Foong Ha Yap and Janick Wrona, Typological Studies in Language. Amsterdam/Philadelphia: John Benjamins.

Koontz-Gaborden, Andrew. 2009. Anticausativization. *Natural Language & Linguistic Theory* 22.

Kroeger, Paul. 1990. Stative aspect and unaccusativity in kimaragang dusun. *Oceanic Linguistics* 29:110–131.

Kroeger, Paul. 1993. *Phrase structure and grammatical relations in Tagalog.* Center for the Study of Language and Information, Stanford University.

Li, Paul Jen-kuei. 1973. *Rukai Structure.* Number 64 in Special Publication. Taipei: Institute if History and Philosophy, Academia Sinica.

Li, Paul Jen-kuei, and Shigeru Tsuchida. 2002. *Pazih texts and songs.* Taipei: Institute of Linguistics (Preparatory Office), Academia Sinica.

Marantz, Alec. 1998. No escape from syntax: don't try morphological analysis in the privacy of your own lexicon.

Prentice, D.J. 1971. *The Murut languages of Sabah.* Number 18 in C. Canberra: Pacific Linguistics, Research School of Pacific Asian Studies, ANU.

Quick, Philip A. 2003. A grammar of the pendau language. Doctoral Dissertation, Australian National University.

Ross, Malcolm. 1995. Proto-Austronesian verbal morphology: Evidence from Taiwan. In *Austronesian Studies relating to Taiwan*, ed. Paul Jen-kuei Li, Cheng-we Tsang, Dah-an Ho, Ying-kuei Huang, and Chiu-yu Tseng, number 3 in Symposium Series of the Institute of History and Philology. Academica Sinica.

Ross, Malcolm. 2009. Proto-Austronesian verbal morphology: A reappraisal. In *Austronesian Historical Linguistics and Culture History: A festschrift for Robert Blust*, ed. Alexander Adelaar and Andrew Pawley, 295–326. Canberra: Pacific Linguistics.

Ruffolo, Roberta. 2004. Topics in the morpho-syntax of Ibaloi, Northern Philippines. Doctoral Dissertation, Australian National University.

Sabbagh, Joseph. 2005. Non-verbal argument structure: evidence from Tagalog. Doctoral Dissertation, MIT, Cambridge.

Sabbagh, Joseph. 2011. Adjectival passives and the structure of VP in Tagalog. *Lingua* 1424–1452.

Sirk, Ülo. 1996. *The Buginese Language.* Moscow: Nauka.

Starosta, Stanley. 1995. A grammatical subgrouping of formosan languages. In *Austronesian studies relating to Taiwan*, ed. Paul Jen-kuei et. al. Li, number 3 in Symposium series of the Institute of History and Philology, 683–726. Taipei: Academica Sinica.

Travis, Lisa. 2000a. Event structure in syntax. In *Events as Grammatical Objects: the Converging Perspectives of Lexical Semantics and Syntax*, ed. Carol Tenny and James Pustejovsky, 145–185. CSLI Publications.

Travis, Lisa. 2000b. The l-syntax/s-syntax boundary: evidence from Austronesian. In *Formal Issues in Austronesian Linguistics*, ed. Ileana Paul, Vivianne Philipps, and Lisa Travis. Dordrecht-Holland: Kluwer Academic Publishers.

Travis, Lisa. 2003. Lexical items and zero morphology. In *Proceedings of the 6th Generative Approaches to Second Language Acquisition Conference*, ed. et al. Liceras, Juana M., 315–330. Somerville, MA: Cascadilla Proceedings Project.

Travis, Lisa. 2005. States, abilities and accidents. In *Proceedings of the 2005 annual conference of the Canadian Linguistic Association.*.

Usup, H.T., J. Kuhon Rompas, Ny. S.V. Moningkey-Rumambi, M.M. Toding Datu, and Rattu A.B.G. 1981. *Morfologi dan Sintaksis Bahasa Bolaang Mongondow*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa Departmen Pendidikan dan Kebudayaan.

Wolff, John U. 2009. Reconstructing pan morphology by analyzing reconstructing pan morphology by analyzing commonalities between pazih and tagalic languages. Paper presented at ICAL XI, Aussois.

Wu, Joy. 2000. *A mei yu can kau yu fa [A Reference Grammar of Amis] (in Chinese).* Taipei: Yuan-Lio.

Wu, Joy. 2005. *Ma-* verbs in amis: A role and reference grammar analysis. Paper presented at the 2005 International Course and Conference on Role and Reference Grammar, Academica Sinica, Taipei.

Yeh, Marie Meili. 2000. The uses and functions of ka in formosan languages. In *Paper presented at the Ninth International Conference on Chinese Linguistics, Singapore, June 25-27*. Ms.

Zeitoun, Elizabeth. 1997. Temporal, hypothetical and counterfactual clauses in some formosan languages. In *Papers for the Eighth International Conference on Austronesian Linguistics*, 131–158. Taipei: Academia Sinica.

Zeitoun, Elizabeth, and Lillian M. Huang. 2000. Concerning ka-, an overlooked marker of verbal derivation in Formosan languages. *Oceanic Linguistics* 39:391–414.

Zeitoun, Elizabeth, Lillian M. Huang, Marie M. Yeh, and Anna H. Chang. 1999. Existential, possessive, and locative constructions in formosan languages. *Oceanic Linguistics* 38:1–42.

Zeitoun, Elizabeth, and Stacy Fang-ching Teng. 2009. From ki-n 'get n' in formosan languages to ki-v 'get-ed' (passive) in rukai, paiwan and puyuma. In *Discovering History through Language: Papers in Honour of Malcolm Ross*, ed. Bethwyn Evans, 479–500. Canberra: Pacific Linguistics.