The possession-modification scale and a reappraisal of “genitive”
in Paiwan, Rukai, and Puyuma

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1. Introduction

1.1 Aims of this study

➢ To test the monotonicity requirement along the possession-modification scale (Nikolaeva and Spencer 2010, 2013; see Section 2) against Budai Rukai (BudRuk), Makazayazaya (Northern) Paiwan (MakPai), and Rikavung Puyuma (RikPuy).

➢ To demonstrate split possession in these three languages and to argue for (i) a split in Paiwan (e.g. nih(n) contrast) based on the degree of individuality of the possessor, rather than on semantic class of the possessor (i.e. “common” vs. “personal”) as is commonly believed in the literature (Tang et al. 1998:351; Chang 2000:83; Li 2010:28); (ii) an alienability split in Rukai and Puyuma, where heavy possessives tend to mark alienable possession whereas light possessives inalienable possession (cf. Tsuchida 1995 on Tamalakaw Puyuma and Saillard 1995 on Maga Rukai).

➢ To reappraise the notion of “genitive case marker” in these three languages, and more specifically, to argue, along the lines offered in Shibatani (2009), that GEN-marked NPs in Paiwan and Rukai are independent denoting expressions rather than subordinate modifiers of a head nominal. The connection between possession and nominalization is also discussed, with special attention paid to Rukai -ane. Independent possessive pronouns in RikPuy are briefly addressed as well.

1.2 Terminological and glossing issues

➢ Confusing use of GEN and POSS: “The terminology surrounding “possessives” and “genitives” is confusing, since the correspondences among morphological forms, syntactic positions, grammatical relations, and semantic interpretations are complex and debated, and vary considerably across languages.” (Partee & Borschev 2001:91) For instance, the same set of pronouns (nak ‘1S’, mihu ‘2S’, thithu ‘3S’, etc.) in Thao is termed GEN in Blust (2003:207) but POSS Li (2011:7).

➢ GEN and POSS in Austronesian linguistics (Reid & Liao 2004:436; Ross 2006:524) GEN: the formative that marks BOTH the possessor of a nominal phrase AND the non-pivot Actor of a transitive construction (The choice for “genitive” is to some extent arbitrary. In Inuktitut languages, which are ergative like most Formosan languages, the convention is to use the term “relative case” for the possessor-agent isomorphism.) POSS: the formative that marks the possessor but NOT the non-pivot Actor

➢ GEN and POSS in general typology (Dryer 2007:178; Aikhenvald 2013:7)
“It is important not to confuse the two sorts of affixes...The genitive affix...is a case affix and signals that the possessor noun it occurs with is functioning as a possessor. The
possessive affix ..., in contrast, is a pronominal morpheme, varying for pronominal features of the possessor.” (Dryer 2007:178)

GEN: the formative in construction with the possessor (Pr) which signals a (pro)nominal as the possessor (Pr)

POSS: the formative in construction with the possessum (Pm) which indexes the features of the possessor (Pr)

(1) Maybrat (West Papuan; Dryer 2007:185)
   a. amah ro-Petrus
      house Gen-Petrus
      ‘Petrus’s house’
   b. Sely m-me
      Sely 3S.NMasc. Poss-mother
      ‘Sely’s mother’

   ➢ Consistent distinction between GEN and POSS is important because the same language may illustrate both in the same construction (i.e. “double-marking” languages).

(2) Turkish (Turkic; Dryer 2007:181)
   Ahmed-in oğl-u
   Ahmed-Gen son-3S. Poss
   ‘Ahmed’s son’

   ➢ If we follow the glossing convention in general typology, we would have to gloss Paiwan and Saaroa data like (3) and (4).

(3) Makazayazaya Paiwan (Austronesian; Fieldnote)
   kina ni Camak
   mother Gen Camak
   ‘Camak’s mother’

(4) Saaroa (Tsouic, Austronesian, per Blust 1999; Fieldnote)
   suhlate=isa Amahle
   book=3. Poss Amahle
   ‘Amahle’s book’

   ➢ But then we lose the generalization that indexing pronominals on Pm (e.g. =isa in (4)) are also non-pivot Actor in most Formosan languages (with some exceptions). Thus, to reconcile, we continue to follow the convention in Austronesian linguistics, glossing both indexing pronominals and Pr-introducing formatives as GEN, as in (5). But at the same time, we distinguish two types of functional formatives relevant to possessive/genitive constructions: (i) “possessive pronouns”, a set of pronominal forms, be it bound or free, that are morphosyntactically in construction with Pm and index Pr; (ii) “genitive

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1 Li (2010) analyzes /isa/ (as well as other pronominal forms in the same paradigm) as a clitic while Pan (2012) treats it as a suffix. The clitic analysis is adopted here because /isa/ occurs further away from the host than uncontroversial clitics (e.g. the change-of-state aspect marker =cu).
case markers”, formatives (free words, clitics, or affixes) that specify a pronominal or noun phrase as Pr.

(5) Budai Rukai (Austronesian; adapted from Chen 2008:40)

tama=ini ki Kalawane ku Kineple
father=3S.Gen Gen Kalawane Det Kineple
‘Kineple is Kalawane’s father.’

- The term “case” (in its strict sense) is understood as “a system of marking dependent nouns for the type of relationship they bear to their heads” (Blake 2004:1). Since so-called “case markers” in Formosan languages often illustrate a hodgepodge nature, marking grammatical and/or semantic roles as well as diverse features (e.g. visibility, plurality, definiteness/specificity, personal/nonpersonal) (see also Reid 2002:296-97), they are collectively referred to as “nominal phrase markers” (Npm) at the crosslinguistic level.

- Intralinguistic vs. crosslinguistic glossing: Since all cases in any language are language-particular categories (see Haspelmath 2011), it makes little sense to compare Case X in A language with Case Y in language B even if X and Y bear the same label. To make sure we are comparing the like with the like, “genitive case marker” is defined here functionally as the formative that introduces the possessor (pro)nominal in a prototypical possessive relationship (ownership, meronymy, and kinship relations; Aikhenvald 2013:3), regardless of the case syncretism or polysemy patterns in a language. For instance, there is GEN-E polysomy in Nanwang Puyuma and GEN-O/S syncretism in Rikavung Puyuma (see also Teng 2009:830). The intralinguistic glossing principle would posit one single category OBL for GEN-E in Nanwang (as is done by Teng 2007), but the crosslinguistic glossing principle would single out GEN, to be comparable with GEN in Rikavung, where GEN is indistinguishable in form from the marker for O/S in the case of plural personal nouns.

(6) Nanwang Puyuma (Austronesian; Fieldnote, cf. Teng 2009:831)²

a. Senayan i, amau nantu wadi kan Lregan
    Senayan Top Cop Def/3.Gen younger.sibling Gen.S Lregan
    ‘As for Senayan, (she) is Lregan’s younger sibling.’

b. k<em>edreng=ku kan Senayan
    <AF>pull=1S.Nom Obl.S Senayan
    ‘I pulled Senayan.’

c. ku=kedreng-aw i Senayan
    1S.Gen=pull-PF Nom.S Senayan
    ‘I pulled Senayan.’

² For Nanwang Puyuma, Teng (2007) treats non-pivot Actor as Gen and the possessor as Psr because the two set differ in first person inclusive (mi= for Gen and niam= for Prs; ibid.:70). But she (Teng 2011:7) later revises mi= into niam=, resulting into unanimous forms for both Gen (i.e. non-pivot Actor) and Prs. Moreover, my Nanwang and Rikavung consultants both accept niam= for both non-pivot Actor and the possessor. Hence, it’s motivated to lump together both non-pivot Actor and the possessor, and gloss them as GEN (as is done here and elsewhere in other Formosan languages). I owe this insight to Liao (2011:592).
2. The possession-modification scale

- Nikolaeva and Spencer (2010) investigate the morphosyntax of four major types of attributive constructions:

  A **canonical modification**, where modifiers denote gradable properties, such as size, shape, age and the like (but with color terms excluded): e.g. English *big house*

  B **modification-by-noun**, where modifiers denote non-gradable properties such as material, kind, and gender: e.g. English *apple tree*

  C **alienable possession**, where the possessum is non-relational nouns: e.g. English *John’s car*

  D **canonical/ inalienable possession**, where the possessum is relational terms such as kinship and body parts: e.g. English *John’s mother*

They claim that the encoding strategies used to express these four types observe a **monotonicity requirement** along the possession-modification scale running from A through D, meaning “a given strategy will cover only continuous segments of the scale” because “the neighboring points on the scale are semantically/conceptually close.” *(ibid.:34)*

- Possible coding strategies (ignoring pronominal possessors, word orders, and agreement/indexing patterns): M stands for all kinds of attributes and N for a nominal head. X and Y are construction-internal markers (CM) that can be affixes, clitics, or free words. The + symbol indicates morphosyntactic affiliation and its absence means no such affiliation exists (though CM might still be phonologically affiliated with either M or N).
(8) Coding strategies for Construction A through D (modified from N&S 2010:15):

<table>
<thead>
<tr>
<th>attribute</th>
<th>referent</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. M</td>
<td>N</td>
<td>[Simple juxtaposition without CMs]</td>
</tr>
<tr>
<td>b. M+X</td>
<td>N</td>
<td>[One CM affiliated with M]</td>
</tr>
<tr>
<td>c. M</td>
<td>N+X</td>
<td>[One CM affiliated with N]</td>
</tr>
<tr>
<td>d. M+X</td>
<td>N+Y</td>
<td>[Two CMs each affiliated with M or N]</td>
</tr>
<tr>
<td>e. M</td>
<td>X N</td>
<td>[One CM affiliated with neither M nor N]</td>
</tr>
</tbody>
</table>

(9) Crosslinguistic attested patterns predicted by the monotonicity requirement (“=” indicates “same strategy” and “=/=” “different strategies”; N&S 2010:19)

| A ≠ B ≠ C ≠ D | (Lele, Tuvaluan, Hoava) |
| A = B ≠ C ≠ D | (Maori, Samoani) |
| A = B = C ≠ D | ? |
| A ≠ B = C ≠ D | (Maltese Arabic, Miya, Yamphu) |
| A ≠ B ≠ C = D | (Kolyma Yukaghir, Turkish, Russian) |
| A ≠ B = C = D | (Finnish, Udihe, Swedish, Hausa) |
| A = B ≠ C = D | (Tundra Nenets, Malagasy, Taleshi, Tümpisa Shoshone, Hungarian, English, Tagalog) |
| A = B = C = D | (Persian, Tajik, Hindi, Albanian, Northern Khanty, Indonesian, Bantu, Chukchi) |

3. The possession-modification scale in Paiwan, Rukai, and Puyuma

3.1 Methodology

Unlike in Pazeh (see 10), the distinction between an NP-internal construction marker and a clause-level pivot-argument marker in MakPai, BudRuk, and RikPuy is not straightforward. Considering the potential isomorphism (a in MakPai, ka in BudRuk, and na in RikPuy), two criteria are met to make sure we are dealing with adnominal morphosyntax: (i) the relevant expression can be a reply to questions asking about “who/what”, (ii) the relevant expression as a whole can take the argument slot of a prototypical clause.

(10) Pazeh (Northwest Formosan, Austronesian, per Blust 1999; Li 2000:97)

a. ni taruat ki babizu
   Gen Taruat Nom book
   ‘The books is Taruat’s.’

b. ni taruat a babizu
   Gen Taruat Lnk book
   ‘Taruat’s book’

(11) Budai Rukai (Austronesian; Fieldnote)

a. Q: manemane ku lrangai=su?
   what Det buy=2S.Gen
   ‘What did you buy?’

b. A: laimai ki ababai
   clothes Gen woman
   ‘women’s clothes’
c. A: \textit{ababadh-ane ka/ku laimai} \\
woman-Gen Det clothes \\
‘clothes for women’

(12) Makazayazaya Paiwan (Austronesian; Fieldnote)

a. Q: \textit{anema su=\langle ki\rangle~kim-en?} \\
what 2S.Gen<Prog>~look.for-PF \\
‘What is it that you’re looking for?’

b. A: \textit{(k<em>i~kim=a’en tua) sunat ni Camak} \\
<AF>Prog~look.for=1S.Nom Obl book Gen Camak \\
‘(I’m looking for) Camak’s book.’

c. A: \textit{(k<em>ikim=a’en tua) ni Camak=a sunat} \\
<AF>Prog~look.for=1S.Nom Obl Gen Camak=Lnk book \\
‘(I’m looking for) a book of Camak’s.’

3.2 \textit{Coding patterns}

In all the three languages, there is a unanimous structural contrast between (in)canonical modification on the one hand and (in)canonical possession on the other (i.e. $A=B=\neq C=D$), which is predicted by the monotonicity requirement.

Table 1: Attributive constructions in Makazayazaya Paiwan

<table>
<thead>
<tr>
<th>Modification</th>
<th>Canonical</th>
<th>Incanonical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Modification</strong></td>
<td>[A] kurakural=a uma’ big=Lnk house ‘big house’</td>
<td>[B] kasiv=a tikeza wood=Lnk bridge ‘wooden bridge’</td>
</tr>
<tr>
<td></td>
<td>\textit{’aca’aca=a ’unu’unu} tall=Lnk kid ‘tall kid’</td>
<td>\textit{tianges=a kasiv} tangerine=Lnk tree ‘tangerine tree’</td>
</tr>
<tr>
<td></td>
<td>[Type e: M X N]</td>
<td>[Type e: M X N]</td>
</tr>
<tr>
<td><strong>Possession</strong></td>
<td>[D] kina ni Camak mother Gen Camak ‘Camak’s mother’</td>
<td>[C] zitusia ni Camak car Gen Camak ‘Camak’s car’</td>
</tr>
<tr>
<td></td>
<td>\textit{kasiv n(u)a tianges} wood Gen tangerine ‘trunk of tangerine trees’</td>
<td>[Type b: N Y+M]</td>
</tr>
<tr>
<td></td>
<td>[Type b: N Y+M]</td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Attributive constructions in Budai Rukai

<table>
<thead>
<tr>
<th>Modification</th>
<th>Canonical</th>
<th>Incanonical</th>
</tr>
</thead>
</table>
|              | [A] Npm *ma-adraw* Npm *dane*  
Nfut-big Npm *house*  
‘big house’  
Npm *ma-telrege* Npm *lrenege*  
Nfut-heavy Npm *stone*  
‘heavy stone’  
[Type d: X+M Y+N] | [B] Npm *vavalake* Npm *ababai*  
child female  
‘girl’  
Npm *lrubu* Npm *lapanai*  
porridge corn  
‘corn porridge’  
[Type d: X+M Y+N] |

| Possession | [D] *takal*/*valrisi* ki Cegau  
sibling/tooth Gen Cegau  
‘Cegau’s sibling/tooth’  
[Type b: N Z+M] | [C] *paisu* ki Cegau  
money Gen Cegau  
‘Cegau’s money’  
laimai ki ababai  
clothes Gen woman  
‘(a/the) woman’s clothes’  
[Type b: N Z+M] |

Table 3: Attributive constructions in Rikavung Puyuma

<table>
<thead>
<tr>
<th>Modification</th>
<th>Canonical</th>
<th>Incanonical</th>
</tr>
</thead>
</table>
|              | [A] Npm *ma^izang* Npm *ruma*’  
big Npm *house*  
‘big house’  
Npm *tihasar* Npm *alrak*  
tall child  
‘tall child’  
[Type d: X+M Y+N]  
(Flexible order b/n M and N) | [B] Npm *suwan* Npm *alrak*  
dog child  
‘puppy’  
Npm *siyaw* Npm *bu’ir*  
soup taro  
‘taro soup’  
[Type d: X+M Y+N]  
(Flexible order b/n M and N) |

| Possession | [D] *nantaw* taina ni Misak  
Def/3.Gen mother Gen Misak  
‘Misak’s mother’  
[Type h: X+W+M Z+M] | [C] *nantaw* palizing ni Misak  
Def/3.Gen car Gen Misak  
‘Misak’s car’  
*nantaw* suwan na *alrak*  
Def/3.Gen dog Gen child  
‘(a/the) child’s dog.’  
[Type h: X+W+M Z+M] |
In addition, all the three languages have an alternative coding strategy for (in)canonical possession. The phonologically heavier variant is called the heavy form and the other the light form.

Table 4: Two attributive possessive constructions in Makazayazaya Paiwan

<table>
<thead>
<tr>
<th></th>
<th>Canonical</th>
<th>Incanonical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Light form</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[D]</td>
<td><em>kina ni Camak</em> mother Gen Camak</td>
<td><em>zitusia ni Camak</em> car Gen Camak</td>
</tr>
<tr>
<td></td>
<td>‘Camak’s mother’</td>
<td>‘Camak’s car’</td>
</tr>
<tr>
<td></td>
<td><em>ktang n(u)a tianges</em> wood Gen tangerine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘trunk of tangerine trees’</td>
<td>[Type b: N Y+M]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Heavy form</strong></td>
<td>[D]</td>
<td>[C]</td>
</tr>
<tr>
<td></td>
<td><em>ni Camak=a kina</em> Gen Camak=Lnk mother</td>
<td><em>ni Camak=a zitusia</em> Gen Camak=Lnk car</td>
</tr>
<tr>
<td></td>
<td>‘Camak’s mother’</td>
<td>‘car of Camak’s’</td>
</tr>
<tr>
<td></td>
<td><em>ntang n(u)a tianges=a kasiv</em> Gen tangerine=Lnk wood</td>
<td>[Type f: Y+M X N]</td>
</tr>
<tr>
<td></td>
<td>‘trunk of tangerine trees’</td>
<td></td>
</tr>
</tbody>
</table>
Table 5: Two attributive possessive constructions in Budai Rukai

<table>
<thead>
<tr>
<th>Light form</th>
<th>Canonical</th>
<th>Incanonical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[D] takal/valrisi ki Cegau sibling/tooth Gen Cegau ‘Cegau’s sibling/tooth’ [Type b: N Z+M]</td>
<td>[C] paisu ki Cegau money Gen Cegau ‘Cegau’s money’ lainai ki ababai clothes Gen woman ‘(a/the) woman’s clothes’ [Type b: N Z+M]</td>
</tr>
<tr>
<td>Heavy form</td>
<td>[D] *Npm Cegav-ane Npm takal/valrisi Cegau-Gen sibling/tooth (Not acceptable!)</td>
<td>[C] Npm Cegav-ane Npm paisu Cegau-Gen money ‘money for Cegau’ Npm ababadh-ane Npm lainai woman-Gen clothes ‘clothes for a/the woman’ [Type g: X+M+W Y+N]</td>
</tr>
</tbody>
</table>

Table 6: Two attributive possessive constructions in Rikavung Puyuma

<table>
<thead>
<tr>
<th>Light form</th>
<th>Canonical</th>
<th>Incanonical</th>
</tr>
</thead>
</table>

➢ As has been pointed out by Teng (2011:18), the light possessive in Puyuma is only acceptable with a handful of kin terms and shows considerable variations across dialects.
(see Dahl & Koptjevskaja-Tamm (2001:210) for a similar case in Catalan). Since the Pm type compatible with Puyuma light possessive is the most likely member on the inalienability hierarchy, it is safe to say that Puyuma light possessive is an “inalienable” construction while the heavy alternative is an “alienable” construction. This would give rise to the coding pattern $A=B=\neq C=\neq D$, which is predicted by the monotonicity requirement.

- As for the heavy form in Paiwan and Rukai, they are structurally almost identical to the modification-by-noun construction (i.e. B) except for the extra “genitive marker” on Pr.

Table 7: Heavy possessive vs. modification-by-noun in Makazayazaya Paiwan

<table>
<thead>
<tr>
<th>Modification-by-noun</th>
<th>Heavy possessive</th>
</tr>
</thead>
<tbody>
<tr>
<td>tianges=a kasiv</td>
<td>n(u) tianges=a kasiv</td>
</tr>
<tr>
<td>tangerine=Lnk tree</td>
<td>Gen tangerine=Lnk wood</td>
</tr>
<tr>
<td>‘tangerine tree’</td>
<td>‘trunk of tangerine trees’</td>
</tr>
<tr>
<td>[Type e: M X N]</td>
<td>[Type f: Y+M X N]</td>
</tr>
</tbody>
</table>

Table 8: Heavy possessive vs. modification-by-noun in Budai Rukai

<table>
<thead>
<tr>
<th>Modification-by-noun</th>
<th>Heavy possessive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Npm vavalake Npm ababai</td>
<td>Npm ababadh-ane Npm laima</td>
</tr>
<tr>
<td>child female</td>
<td>woman-Gen clothes</td>
</tr>
<tr>
<td>‘girl’</td>
<td>‘clothes for a/the woman’</td>
</tr>
<tr>
<td>[Type d: X+M Y+N]</td>
<td>[Type g: X+M+W Y+N]</td>
</tr>
</tbody>
</table>

- The structural parallel suggests that GEN+Pr in both languages is an independent nominal just like an underived noun in modification-by-noun construction (more on this below), and as such it should be considered a single element as far as the coding strategy is concerned. Thus, type e and f in Paiwan and type d and g in Rukai would count as the same strategy.

- The heavy form in Paiwan does not seem to show any functional difference with respect to (in)alienability, thus rending the alternative coding pattern $A=B=C=D$ in Paiwan. The heavy form in Rukai, however, illustrates a twist. While the light form is applicable to either alienable or inalienable possession (with different meanings), the heavy form never seems to be compatible with inalienable possession, thus bringing about the alternative coding pattern $A=B=C=\neq D$ in Rukai. The two alternative coding patterns both conform to the monotonicity requirement.

(13) Budai Rukai (Austronesian; Fieldnote)

a. yakai ku paisu/dane ki Camake?
   Ex Det money/house Gen Camake
   ‘Does Camake have (any) money/house?’
Finally, although it doesn’t seem to show any alienability split, MakPai illustrates split possession of a different nature. Among genitive case markers in Paiwan, the contrast between *ni* and *n(u)a* (setting *nia* aside for now) is generally believed to be one between “personal” and “common” (e.g. Tang et al. 1998:351; Chang 2000:83; Li 2010:28). That is, while *ni* marks “personal” possessors/Actors, *n(u)a* marks “common” ones. Although the personal/common contrast is widespread across Formosan and Philippines languages (Reid and Liao 2004:469), what counts as “personal” nouns varies from one language to another (just like “inalienable” possessums). Typical members of “personal” nouns include pronouns, demonstratives, personal names, and/or kinship terms. However, we argue that labels such as “personal” and “common” are problematic and misnomers, at least in the case of Paiwan *ni* and *n(u)a*. For one thing, Paiwan *ni* co-occurs with various types of nouns that are previously believed to belong to the “common” category. For another, even kinship terms, which are thought to be “personal”, can be alternatively marked by the “common” genitive marker *n(u)a*. It seems that the contrast between *ni* and *n(u)a* has more to do with specificity/definiteness than with the personal/common contrast. That is, while *ni* singles out a specific/definite Pr, *n(u)a* introduces a generic one.

(14) Makazayayaza Paiwan (Austronesian; Fieldnote)

a. *uma*’ *ni* ’ama i Camak  
   house Gen uncle Prs Camak  
   ‘Uncle Camak’s house’

a’. *uma*’ *n(u)a* kama  
   house Gen uncle/father  
   ‘house of (those who are) uncles/fathers’

b. *singsi* *ni* vavayan  
   teacher Gen woman  
   ‘a (specific)/the woman’s teacher’

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3 This is inspired by Tang (2009).
4 ’ama is the address form while *kama* is the reference form. The same contrast is seen in ‘inalkina’ ‘mother, aunt, or middle-aged woman’
b'. *singsi n(u)a va<vaya>~vayan
   teacher Gen <P>~woman
   ‘women’s teacher’

c. vutulj ni kuka
   meat Gen chicken
   ‘a (specific)/the chicken’s meat’

c'. vutulj n(u)a kuka
   meat Gen chicken
   ‘chicken meat’

- However, n(u)a is not compatible with inanimate Pr at all. Also, it seems that the nil/n(u)a contrast is used to show degrees of reverence. For instance, the word kaka denotes siblings of all ages and genders. When older siblings are intended, ni is used, but when younger siblings are intended, n(u)a is used instead.

(15) Makazayazaya Paiwan (Austronesian; Fieldnote)

a. *asav ni kasiv
   leaf Gen tree

a'. asav n(u)a kasiv
   leaf Gen tree
   ‘tree leaf’

b. sunat ni kaka
   book Gen sibling
   ‘(my older) sibling’s book’

b'. sunat n(u)a ‘u=kaka
   book Gen 1S.Gen=sibling
   ‘my (younger) sibling’s book’

- The bottom line: There are two extreme types of (pro)nominals. Personal pronouns (e.g. ni ‘aen ‘Gen=1S’, ni=sun ‘Gen=2S’, etc.) and personal names are at one extreme, always taking ni; inanimate nouns are at the other extreme, always taking n(u)a. Everything else in between is subject to variations. Personal pronouns, personal names, and specific/definite animate entities can all be subsumed under the notion of high degree of individuality, marked by ni. In contrast, n(u)a marks much less individuated entities such as inanimate ones and animate but generic ones. And a sibling may be construed either way: (i) as highly individuated and thus given greater attention and respect if older siblings are intended; (ii) as less individuated and thus given less attention and respect if younger siblings are intended.

- Finally, the individuality-based contrast between ni and n(u)a is believed to be rather prevalent in all Paiwan varieties since a similar contrast is also found in Kuskus Paiwan, a Southern variety. Further research might refine the notion of individuality, but a contrast more sophisticated than personal/common is definitely called for to better explain the distributions of Paiwan ni and n(u)a.
4. GEN+Pr as independent denoting expressions

- So-called “absolute” or “bare” possessives in Paiwan and Rukai consist of a “genitive case marker” and the Pr. Along the lines offered in Shibatani (2009), we argue that neither *ni/nua* as in Paiwan “*ni/nua Pr*” nor -ane as in Rukai “Pr-ane” is “a genitive case marker” in its strict sense (or any case marker for that matter). They are in fact nominal substantivizers (or nominalizers in Shibatani’s term) that create an associated nominal (*ni/nua Pr and Pr-ane*) out of a base nominal (Pr). Associated nominals denote entities associated with base nominals, and its reference is typically context-driven, primed by the immediate linguistic context without some Pm necessarily occurring in prior discourse.

- As denoting expressions, Paiwan “*ni/nua Pr*” and Rukai “Pr-ane” can function as an argument or a nominal predicate, just like underived nouns.

(16) Makazayazaya Paiwan (Austronesian; Fieldnote)

a. [ni Camak]/[nua 'u=aljak] aicu=a talupun
   Gen Camak Gen 1S.Gen=child this=Lnk hat
   ‘This hat is Camak’s/my child’s.’

b. [nua vatu] aicu=a aljis
   Gen dog this=Lnk tooth
   ‘This tooth is from a dog.’

c. [nua veljevelj] aicu=a asav
   Gen banana this=Lnk leaf
   ‘This leaf is from the banana (palm).’

(17) Makazayazaya Paiwan (Austronesian; Fieldnote)

a. Q: azua 'u=umiyaki, kabang. anema=a ni Camak?
   that 1S.Gen=gift bag what=Nom Gen Camak
   ‘My gift is a bag. What is Camak’s?’

b. A: sunat=a ni Camak
   book=Nom Gen Camak
   ‘Camak’s is a book.’

c. A: *ni camak=a sunat
   (Not acceptable in this context, but acceptable as an answer to “What are you looking for”; see 12c)

(18) Budai Rukai (Austronesian; Fieldnote)

a. Cegav-ane/kaka-ne kikai talrupunu
   Cegau-Gen/older.sibling-Gen this hat
   ‘This hat is Cegau’s/(my) older sibling’s.’

b. taupong-ane kikai valisi
   dog-Gen this tooth
   ‘This tooth is from a dog.’

c. tatukul-ane kikai vasaw
   Taiwan.acacia-Gen this leaf
   ‘This leaf is from the Taiwan acacia.’

13 / 22
(19) Budai Rukai (Austronesian; Fieldnote)
a. Q: ku ki-a-cebe=li kabange. laka manemane ku Cegav-ane?
   Det Pass-NFut-give=1S.Gen bag also what Det Cegau-Gen
   ‘My gift (lit. what I was given) is a bag. What about Cegau’s?’

b. A: senate ku Cegav-ane
   book Det Cegau-Gen
   ‘Cegau’s is a book.’

   ➢ It is undesirable to analyze GEN+Pr as “headless” heavy possessive constructions (i.e. with Pm being “deleted” or elided), just as it is undesirable to analyze underived nouns as being elided from modification-by-noun constructions (see Table 7 and 8 above). Moreover, the “deletion” analysis cannot account for the idiosyncratic reference of GEN+Pr in some contexts. For instance, GEN+Pr may refer to human private parts in both Paiwan and Rukai (see Teng (2007:423) for a similar example in Nanwang Puyuma).

(20) Makazayazaya Paiwan (Austronesian; Fieldnote)
a. tja-masanpazangar=a 'u=zitusia t(ua) 'u=cekelj
   Compr-important=Nom 1Sg.Gen=car Obl 1Sg.Gen=spouse
   ‘My car is more important than my spouse.’

a'. tja-masanpazangar=a 'u=zitusia t(ua) n(ua) 'u=cekelj
   Compr-important=Nom 1Sg.Gen=car Obl Gen 1Sg.Gen=spouse
   ‘My car is more important than my spouse’s (private parts).’

(21) Budai Rukai (Austronesian; Fieldnote)
a. kai senate=li ma-ku<cia>~cingalre ki senate=su
   this book=1Sg.Gen NFut<Compr>precious Obl book=2S.Gen
   ‘My book is more expensive than your book.’

b. kai senate- li ma-ku<cia>~cingare ki musu-ane
   this book=1Sg.Gen NFut<Compr>precious Obl 2S-Gen
   ‘My book is more precious than your (private parts).’

   ➢ There is historical evidence for Paiwan n(ua), probably a reflex of PAn *nu, being a denoting noun as opposed to a case marker on a dependent nominal. Reid (2007:250) points out that “there seems to be clear evidence...that *nu was probably not a case marker at all, but a non-referential noun ‘thing’ that formed the base of a wide range of interrogative words.” He then cites Paiwan n(ua) and Amis nu as supporting evidence. Other possible reflexes of PAn *nu not mentioned in Reid (2007) include: Tsou nu as in nu=taini ‘his (thing)’ (Zeitoun 2000:241) and Truku Seediq n= as in n=tama ‘father’s (thing)’ (Hsu 2008:16).

   ➢ The story of Amis nu is quite telling because there are some instances that can’t possibly be interpreted as a “genitive case marker”. Contrary to the common belief that Amis nu is in a paradigmatic relation with ni and na (Huang 1995:225; Wu 2006:79; among others), nu can actually combine with nil/na.
Cinanuka (Central) Amis (East Formosan, Austronesian, per Blust 1999; Fieldnote)

(a. ni  Kacaw=ay a  cuidad  kuni )
Gen  Kacaw=Emph Lnk  book  Nom.this
‘This is Kacaw’s book.’

(b. nu=ni  Kacaw=ay a  cuidad  kuni )
Gen?=Gen  Kacaw=Emph  Lnk  book  Nom.this
‘This is a book of Kacaw’s making (one that he wrote, edited, etc.).’

b. u  mata  ni  Kacaw
Neut.Cmn  eye  Gen  Kacaw
‘Kacaw’s eyes’

b’. u  mata  nu=ni  Kacaw
Neut.Cmn  eye  Gen?=Gen  Kacaw
‘Kacaw’s insight’

Now we turn to the “case” analysis of Rukai -ane marked on (pro)nominals, which has been analyzed as ACC by Li (1996:210-211), OBL by Zeitoun (1997:316), and GEN by Tang (2008:16). Despite the different labels chosen by different scholars, (which is not a problem at all since each study is internally consistent), the case analysis is motivated by the fact that Rukai -ane marks a dependent pronominal that bears various semantic roles with respect to the verbal predicate, including patient, goal, and agent.

Budai Rukai (Austronesian; Fieldnote)

(a. ma-elrela  naku-ane  ku/ka  Kineple)
NFut-scorn  1S-Obl  Det  Kineple
‘Kineple scorned me.’ (Chen 2008:53; with changes in glossing)

(b. wa-dukulru  nai-ane  ka  babila)
NFut-throw  1PE-Obl  Det  monkey
‘The monkey threw (something) at us.’ (Tang 2008:20; with changes in glossing).

(c. ki-a-lrumai  naku-ane  ka  Takanau)
Pass-NFut-hit  1S-Obl  Det  Takanau
‘Takanau was hit my me.’ (Chen 2008:43; with changes in glossing)

However, the case analysis of -ane alone (be it ACC, OBL, or GEN) does not account for instances where (i) a nominal is marked by both ki (GEN or OBL) and -ane; (ii) a plural pronominal is doubly marked by -ane to denote locations.

Budai Rukai (Austronesian; Fieldnote)

(a. ma-ku<cia>~cingalre  kai  senate=li  ki  Cegau)
NFut<-Compr>precious  this book=1Sg.Gen  Obl  Cegau
‘My book is more important than Cegau (as a person).’

(a’. ma-ku<cia>~cingalre  kai  senate=li  ki  Cegav-ane)
NFut<-Compr>precious  this book=1Sg.Gen  Obl  Cegau-Gen
‘My book is more important than Cegau’s (book).’

---

5 See Tuchida (1995:798) for a similar case of the figurative sense of body parts in Tamalakaw Puyuma.
b. ka Cegau, wa-kane=nga ku aga i-kai nai-yan-ane/mita-n-ane/numi-yan-ane\(^6\)
Det Cegau NFut-eat=CosAsp Det rice at-Dem 1PE-Gen-Obl/1PI-Gen-Obl/2P-Gen-Obl
‘Cegau, (he) already had a meal at our (excl.)/our (incl.)/your (pl.) place.’

- Importantly, in addition to derive an associated nominal from another nominal, Rukai -ane also derives event or argument nominalizations (in any sense of the term) from a verbal, which is more often discussed in the literature (e.g. Chen 2005; Sung 2011). Considering the structural parallel between possession and nominalization (together with the distributions of -ane that the case analysis fails to explain), all the instances of -ane that have been glossed GEN so far are better understood as a nominal-based nominalizer, which creates an independent associated nominal that can fulfill the complete argument slot (and hence is case-marked as required the grammar) or modify another nominal (by following the morphosyntax necessary for modification), just like an underived noun.

(21) Budai Rukai (Austronesian; Fieldnote)
a. lalak-ane=li (child-Nmlzr=1S.Gen)
‘of or relating to my child’
b. talragi-ane=lini (friend-Nmlzr=3P.Gen)
‘of or relating to their friend(s)’
(22) Budai Rukai (Austronesian; Chen 2008:54, 147)
a. dalam-ane=li (love-Nmlzr=1S.Gen)
‘someone that I love’
b. a-tulisi-yan=ini (Fut-criticize-Nmlzr=3S.Gen)
‘someone who s/he will criticize’

- This isomorphism between possession and (verbal-based) nominalization is widespread across languages (e.g. Aristar 1991:10), and it finds a natural explanation in Shibatani’s (2009:191) functional notion of nominalization (or “substantivization” as is used by Greek and Latin grammarians), which encompasses nominal-based nominalization (which creates an associated nominal out of a base nominal) and verbal-based nominalization (which creates a nominal that either denotes a state of affairs or plays a crucial role in that state of affairs). Both types of nominalization are rooted in the cognitive process of metonymy (creating something new out of something known), and can be seen as instances of what Langacker (1993) calls “reference-point constructions”.

- Languages may or may not use the same formative for both nominal-based and verbal-based nominalization, but even when the isomorphism does not happen, we can still talk about nominal-based nominalization as such because it often involves formatives such as demonstratives, definiteness markers, nominal classifiers, which are the common source of verbal-based nominalizers across languages (see also Ultan 1978:27 for the discussion on “possessive substantives”). Paiwan n(u)a, Amis nu, and Tsou nu are such cases. They mark nominal-based but not verbal-based nominalization, and yet their possible source (PAn *nu ‘thing’) has a very general nominal notion that is often the source of verbal-based nominalizers in other languages (e.g. koto ‘thing’ in Japanese; see Horie 1997).

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\(^6\) This phenomenon is first reported by Tang (2008:19), who has a different explanation for the second instance of -ane. Double marking of the equivalent of Budai -ane is also found in Tona Rukai (see Wang 2003:95), but has different functions.
We save Puyuma for the last because it presents a more complicated “case”. Unlike in Paiwan and Rukai, a genitive case marker plus a nominal possessor (except for the interrogative eman ‘what’) in Puyuma cannot stand on its own without the company of a pronominal possessor cliticized to a case marker (abbreviated as CM=Pro). Thus understanding CM=Pro is the key to understanding associated nominals in Puyuma.

(22) Rikavung Puyuma (Austronesian; Fieldnote)

a. Q: *ni eman balray i ini?
   Gen.S what book S this
   ‘Whose book is this?’

b. A: nantaw *(ni Misak)
   Def/3.Gen Gen Misak
   ‘Misak’s (or hers)’

c. A: *ni misak

Table 8 lists some free CM=Pro combinations (the indefinite CM za is ignored here due to lack of the Pr/non-Pr contrast, and so are third person pronominals due to their complications), and all the case markers in Rikavung are given in Table 9, along with those in Nanwang, for ease of reference.

Table 9: Free pronouns in Rikavung Puyuma (Fieldnote; cf. Tsuchida (1995:795) and Tang (2011) for Tamalakaw Puyuma)

<table>
<thead>
<tr>
<th>Topic (I)</th>
<th>NOM/GEN (II) (for S/O/A)</th>
<th>OBL (III) (for E)</th>
<th>OBL (IV) (for Pr of E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1S</td>
<td>i-n=ku</td>
<td>n-i-n=ku</td>
<td>ka-n-i-n=ku</td>
</tr>
<tr>
<td></td>
<td></td>
<td>na-n=ku</td>
<td>*ka-n=ku</td>
</tr>
<tr>
<td>1EP</td>
<td>i-n=niam</td>
<td>n-i-n=niam</td>
<td>*ka-n-i-n=niam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>na-n=niam</td>
<td>ka-n=niam</td>
</tr>
<tr>
<td>1IP</td>
<td>i-n=ta</td>
<td>n-i-n=ta</td>
<td>*ka-n-i-n=ta</td>
</tr>
<tr>
<td></td>
<td></td>
<td>na-n=ta</td>
<td>ka-n=ta</td>
</tr>
<tr>
<td>2Sg</td>
<td>i-n=nu</td>
<td>n-i-n=nu</td>
<td>*ka-n-i-n=nu</td>
</tr>
<tr>
<td></td>
<td></td>
<td>na-n=nu</td>
<td>ka-n=nu</td>
</tr>
<tr>
<td>2Pl</td>
<td>i-n=mu</td>
<td>n-i-n=mu</td>
<td>*ka-n-i-n=mu</td>
</tr>
<tr>
<td></td>
<td></td>
<td>na-n(e)=mu</td>
<td>ka-n(e)=mu</td>
</tr>
</tbody>
</table>
## Table 10: Case markers in Nanwang and Rikavung Puyuma

<table>
<thead>
<tr>
<th></th>
<th>Nanwang (Teng 2009:840)</th>
<th>Rikavung (Fieldnote)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Singular</strong></td>
<td>NOM</td>
<td>i</td>
</tr>
<tr>
<td></td>
<td>GEN</td>
<td>kan</td>
</tr>
<tr>
<td></td>
<td>OBL</td>
<td>ki</td>
</tr>
<tr>
<td><strong>Plural</strong></td>
<td>NOM</td>
<td>na</td>
</tr>
<tr>
<td></td>
<td>GEN</td>
<td>kana</td>
</tr>
<tr>
<td><strong>Definite</strong></td>
<td>NOM</td>
<td>na</td>
</tr>
<tr>
<td></td>
<td>GEN</td>
<td>kana</td>
</tr>
<tr>
<td><strong>Indefinite</strong></td>
<td>NOM</td>
<td>a</td>
</tr>
<tr>
<td></td>
<td>GEN</td>
<td>dra</td>
</tr>
</tbody>
</table>

- Some observations are in order here:
  1. By comparing forms in set I with those in set II, we learn that the morpheme *n-* and *na* are responsible for turning a pronoun into a possessor, and as such may be considered a “genitive” marker. And in fact, *na* is described as a genitive marker for personal plural and common definite nouns.
  2. By comparing forms in set III with those in set IV, we learn that except for 1S the *kan=*Pro series consistently mark E argument whereas the *kanan*=Pro series mark the Pr of the E argument, and never the other way around (see 23 for examples).
  3. That the forms in set II can mark all the core grammatical roles (S/A/O) makes the “genitive” status of *n-* and *na* suspicious. Also, by comparing the *nan*=Pro series in set II with the *kanan*=Pro series in set IV, we learn that the *nan*=Pro series can be further marked by the oblique marker *ka* and then take the E argument slot. Likewise, there is one instance from the *nin*=Pro series that can be further marked by *ka* (i.e. *kaninku* ‘Obl.1S’ though the Pr meaning is missing in this case).
  4. All the distribution facts suggest that forms in set II are independent nominals that can be further marked by case as necessary. Therefore, *n-* in the *nin*=Pro series and *na* in the *nan*=Pro series are not “genitive” markers in the sense that they mark a pronominal as dependent. Rather they are nominal-based nominalizers (similar to what Reid (2006:10) calls “nominal specifiers”) that create independent associated nominals that can be further marked by case or modify another noun, just like Paiwan *ni/n(u)a* and Rukai *-ane* as discussed above (see also Liao (2011:592) for the “case-less” analysis of Nanwang “nominative possessors”).

(23) Rikavung Puyuma (Austronesian; Fieldnote)

a. *i Misak mu, me-<na’u>~na’u kanantaklar*
   
   Prs.Sg Misak Top AF-<Prog>~look Obl/1PL.Gen child
   
   ‘As for Misak, (she) keeps looking at our (incl.) child.’
5. Conclusion

- Four types of attributive constructions in MakPai, BudRuk, and RikPuy all conform to the monotonicity requirement along the possession-modification scale as predicted by Nikolaeva and Spencer (2010).
- We have shown split possession in the three languages. In MakPai, there is a Pr-split marked by ni/na as opposed to n(u)a. The split is far more sophisticated than what the personal/common contrast can explain. In BudRuk and RikPuy there is an alienability split, where heavy possessives are responsible for alienable possession (BudRuk) whereas light possessives for inalienable possession (RikPuy).
- If “genitive case marker” is understood as something that marks a (pro)nominal as a subordinate dependent of a head noun, we argue that Paiwan ni/n(u)a and Rukai -ane in heavy possessive constructions are not genitive case markers (or any other case markers for that matter), but instead nominal-based nominalizers that create independent nominals that can further be marked by case or modify another noun. Similar arguments can be made to n- in the nin=Pro series and na in the nan=Pro series of free possessive pronouns in Rikavung Puyuma.
- “Many linguists speak European languages in which genitives, adjectives and relative clauses are highly differentiated. Perhaps because of this, most descriptive and theoretical traditions within current linguistics provide ready-made ways of distinguishing between such constructions. However, such traditions often fail to provide the tools for not distinguishing between them, in the case of languages in which genitives, adjectives and relative clauses are not highly differentiated. Often, linguists coming from European languages will posit distinct genitive, adjective and relative clause constructions even in languages which seem not to have them. Indeed, when faced with a new language, it is often easier to recognize the existence of some exotic and unfamiliar category than it is to realize that a commonplace and familiar category is in fact absent. However, ... linguists must strive to overcome such predispositions.” (Gil 2005:249)
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References


