Independent and dependent possessive person forms:
a cross-linguistic study

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Outline

1. Introduction
2. Three Universal tendencies
3. Explanations
4. Diachronic account
5. Conclusions
1. Introduction:

- Background
- Comparative concepts
- Sampling
Introduction

► Background

• Although there are a number of previous typological studies about adnominal possessive constructions (e.g. Ultan 1978; Nichols 1988; Siewierska 2001), independent possessive person forms and dependent ones have been subject to much less inquiry.

• Haspelmath et.al 2013; Haspelmath & Michealis 2016
Introduction

Comparative concepts (Hasepelmath 2010)

• Possessive relations:
  – kinship relation (e.g. my son),
  – part-whole relation (e.g. your legs)
  – ownership (e.g. her necklace).

• Adnominal possessive constructions: nominal constructions used to express possessive relations.
Comparative concepts

- Alienability split: alienable and inalienable possessive relations are coded differently in a language.
  - Inalienable possessive relations: kinship and/or body-part relation.
  - Alienable possessive relations: ownership & other.

- Formal split of alienability is not an universal feature.
- In different languages, the scope of (in)alienable relation varies.
- There are different coding strategies to show alienability split.
For instance, in Zialo, there are two sets of possessive person prefixes, i.e. alienable possessive prefixes and inalienable possessive prefixes. Body-part and physiological liquids are treated as inalienable possessive relation and coded with inalienable possessive person prefixes.

(1) Zialo (Mande, Africa)

a. (¨)-tòkóy
   1SGPOSS.INAL-hand  inalienable
   ‘my hand’

b. nè-lòmàgì
   1SGPOSS.AL-shirt  alienable
   ‘my shirt’

(Babaev 2010: 64)
Comparative concepts

• Dependent possessive person forms: person forms used in adnominal possessive constructions where the possessed noun is overtly expressed as a full nominal. Such as my in English.

• Independent possessive person forms: person forms which can stand alone to express possessive meaning. Such as mine in English.
  – The reference of the possessed entity can be inferred from the context.
Comparative concepts

- Substantivizers refer to the morpheme in the independent pronominal possessor, making it possible for the independent possessive person form to be used freely.

  - A substantivizer can be an extra morpheme added to form the independent possessive person form, or identical to the genitive marker.
In the following examples of Wari’, -m is a dependent possessive person form, and mene-m is an independent possessive person form. Besides, mene is the substantivizer.

(2) Wari’ （Chapacuran, South America）

a. wina-m
   head-2SG ‘your head’

b. mene-m
   SUBST-2SG ‘yours’

(Everett & Kern 1997: 148)
• It is possible that in a language, dependent possessive person forms are identical to the independent ones. In such circumstances, the genitive marker normally bears the function of substantivizer, as illustrated by the following example of Lao. In Lao, \( khòòng= \) functions as a genitive marker in dependent possessive person forms, and as a substantivizer in independent possessive person forms.

（3）Lao (Tai-Kadai, Eurasia)

\[
\text{majbanthat } khòòng=khɔɔj \text{ njaau lyyn } \, khòòng=cau.
\]

ruler \quad \text{GEN = 1SG} \quad \text{long} \quad \text{bigger} \quad \text{GEN = 2SG}

‘My ruler is longer than yours.’

(Morev et.al 1979: 89)
Sample: 66 genealogically and geographically diverse languages, 39 of which show alienability split.

- Africa: 9 languages (9 families)
- Eurasia: 15 languages (13 families)
- North America: 13 languages (12 families)
- South America: 12 languages (8 families)
- Papuanesia: 17 languages (16 families)
2. Three Universal Tendencies

- Length Universal
- Constituent Order universal
- Alienability Universal
Universal tendencies

• **U1**: Independent possessive person forms are either longer than or as long as the corresponding dependent ones. (Length Universal)

• Haspelmath & Michealis (2016) addresses this universal from a diachronic perspective: diverse sources conspiring towards a uniform result.
In some languages, independent possessive person forms are longer than the corresponding dependent ones, as illustrated by the following examples of Kaluli.

(4) Kaluli (Bosavi, Papuainesia)

a. ni \textit{so:lo:-wo: tambo} \\
   1SG GEN family-TOP all dependent \\
   ‘my entire family’

b. \textit{kabi we ni-no:} \\
   axe this 1SG GEN-SUBST independent \\
   ‘this axe is mine’

(Grosh & Grosh 2004: 54, 41)
(5) Kolyma Yukaghir (Yukaghir)

a. *titte* čomōj čohōjo-pul-gele
   3PL.GEN big knife-PL-ACC dependent
   ‘their big knife’

b. *titte-*l’e
   3PL.GEN-SUBST independent
   ‘theirs’

（Maslova 2003: 235-236）
(6) Kilen (Tungusic)

a. `min-i əniə-mi
   1SG-GEN mother-1SG dependent
   ‘my mother’

b. `min-əŋka
   1SG-SUBST independent
   ‘mine’

(Zhang 2013: 94, 105)
In other languages, independent possessive person forms are identical in length to the corresponding dependent ones, as illustrated by the following examples from Wa.

(7) Wa (Austroasiatic, Eurasia)

a. *si be? tsʰiɛ=maʔ?
clothes GEN=2SG dependent
“your clothes”

b. *tsʰiɛ=maʔ?
GEN=2SG independent
“yours”

(Zhou & Yan 1984: 70)
same length

(8) Huallaga Quechua (Quechuan, South America)

a. qam-pa surti-ki
   2SG-GEN fate-2SG dependent
   ‘your fate’

b. qam-pa
   2SG-GEN independent
   ‘yours’

(Weber 1989: 255)
same length

(9) Miao (Hmong-Mien, Eurasia)

a. $vi^{11} = \text{pan}^{31} \ lɛ^{33} \ ti^{44}$
   $1SG = GEN \ CL \ bowl \ dependent$
   ‘my bowl’

b. $vi^{11} = \text{pan}^{31}$
   $1SG = GEN \ independent$
   ‘mine’

(Wang 1985: 50,78)
Universal Tendencies

Evidence for Length Universal

<table>
<thead>
<tr>
<th>Value</th>
<th>languages</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>longer</td>
<td>41 languages</td>
<td>62%</td>
</tr>
<tr>
<td>same</td>
<td>25 languages</td>
<td>38%</td>
</tr>
<tr>
<td>Total</td>
<td>66 languages</td>
<td>100%</td>
</tr>
</tbody>
</table>

✓ No counter example.
✓ No significant areal pattern.
✓ Preference for longer forms.
U2: constituent order universal

U2a. If the possessed noun is preposed, then the substantivizer is also preposed.

(10) Anywa (Nilotic, Africa)

a. tóoGG-é
   spear-3SG
   ‘his spear’

b. már-é.
   SUBST-3SG
   ‘his’

(Reh 1996: 143, 166)
U2: constituent order universal

U2b. If the possessed noun is postposed, then the substantivizer is also postposed.

(11) Kashibo-Kakataibo (Pano-Tacanan, South America)

a. ‘ën piti
   1SG.GEN food
   ‘my food’

b. ‘ë=nan
   1SG=SUBST
   ‘mine’

(Zariquiey Biondi 2011: 226, 324)
Evidence for constituent order universal

<table>
<thead>
<tr>
<th>Value</th>
<th>Languages</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>postposed</td>
<td>55 languages</td>
<td>83%</td>
</tr>
<tr>
<td>preposed</td>
<td>11 languages</td>
<td>17%</td>
</tr>
<tr>
<td>Total</td>
<td>66 languages</td>
<td>100%</td>
</tr>
</tbody>
</table>

✓ No counter example.
✓ No significant areal pattern.
✓ Preference for postposed patterns.
U3: Alienability universal: if dependent possessive person forms in inalienable possessive constructions can be used to form independent possessive person forms, dependent possessive person forms in alienable possessive constructions can also be used to form independent possessive person forms. (Implicational universal tendency)

✓ Using possessive person form in inalienable constructions to form independent possessors
→ possessive person forms in alienable constructions can also be used to form independent possessors.
There are four logically possible combination of possessive person forms in alienable and inalienable possessive constructions to form independent possessors. “Alienability universal” gives us a constraint which blocks the fourth possibility.

1. [+alienable] & [+inalienable]
2. [-alienable] & [-inalienable]
3. [+alienable] & [-inalienable]
4. * [-alienable] & [+inalienable]
• Examples...

Type 1. Possessive person forms in both alienable and inalienable possessive constructions can be used to form independent possessive person forms. In this case, alienability split is manifested by obligatory possession of inalienable nouns.

(12) Huehuetla Tepehua (Totonacan, North America)
   a. *ki-maka*?
      1SG-hand
      “my hand”
      inalienable
   b. *ki-wayti*
      1SG-food
      “my food”
      alienable
   c. *ki-7anu*?
      1SG-SUBST
      “mine”
      independent

   (Kung 2007: 354, 399)
Type 2. Possessive person forms in both alienable and inalienable possessive constructions cannot be used to form independent possessive person forms. Instead, independent possessive person forms are formed by another set of pronominal forms.

(13) Tapieté (Tupian, South America)

a. *h-o’o*  
   3SG.INAL-flesh inalienable  
   “his/her flesh”

b. *yì-i’a*  
   3SG.AL-plate alienable  
   “his/her plate”

c. *ñ-a’ampowa*  
   3SG-SUBST independent  
   “his/hers”

(González2005: 120, 112,243)
Type 3. Possessive person forms in alienable possessive constructions, rather than inalienable ones, can be used to form independent possessive person forms.

(14) Bororo (Bororoan, South America)

a. *i*-ke
   
   1SG.INAL-food  
   “my food”  
   inalienable

b. *ino* tori
   
   1.SG.AL stone  
   “my stone”  
   alienable

c. *ino*
   
   1SG.PROSS  
   “mine”  
   independent

(Crowell1979: 215-217)
Evidence for alienability universal:

<table>
<thead>
<tr>
<th>Value</th>
<th>Languages</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. [+alienable] &amp; [+inalienable]</td>
<td>12</td>
<td>31%</td>
</tr>
<tr>
<td>2. [-alienable] &amp; [-inalienable]</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>3. [+alienable] &amp; [-inalienable]</td>
<td>25</td>
<td>64%</td>
</tr>
<tr>
<td>4. * [-alienable] &amp; [+inalienable]</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100%</td>
</tr>
</tbody>
</table>

- Preference for pattern 3, i.e. using the possessive person forms in alienable possessive constructions instead of inalienable constructions to form independent possessive person forms.
- No significant areal pattern.
3. Explanations
Form-frequency correspondence

The “length universal” can be explained by the “form-frequency” correspondence principle.

more frequent -> more predictable -> less coding material

（Zipf 1935; Haspelmath 2008; Haspelmath et.al. 2014）
The independent possessive person forms are less frequent, consequently, less predictable, which leads to the result that they are longer or at least as long as the corresponding dependent ones.

Here are some preliminary corpus evidence from three languages: English, Mandarin, and Korean.
## Frequency of pronominal possessors in English

*the corpus of contemporary American English*

<table>
<thead>
<tr>
<th>Form</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>my</em></td>
<td>1,239,555</td>
</tr>
<tr>
<td><em>your</em></td>
<td>883,613</td>
</tr>
<tr>
<td><em>her</em></td>
<td>1,845,549</td>
</tr>
<tr>
<td><em>our</em></td>
<td>702,300</td>
</tr>
<tr>
<td><em>their</em></td>
<td>1,417,175</td>
</tr>
<tr>
<td><em>mine</em></td>
<td>32,654</td>
</tr>
<tr>
<td><em>yours</em></td>
<td>13,190</td>
</tr>
<tr>
<td><em>hers</em></td>
<td>10,412</td>
</tr>
<tr>
<td><em>ours</em></td>
<td>8,271</td>
</tr>
<tr>
<td><em>theirs</em></td>
<td>5,344</td>
</tr>
</tbody>
</table>
## Frequency of pronominal possessors in Mandarin

### CCL Corpus

<table>
<thead>
<tr>
<th></th>
<th>Form</th>
<th>Person</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>dependent</td>
<td>wo de</td>
<td>1SG</td>
<td>964</td>
</tr>
<tr>
<td></td>
<td>ni de</td>
<td>2SG</td>
<td>642</td>
</tr>
<tr>
<td></td>
<td>ta de</td>
<td>3SG</td>
<td>1,128</td>
</tr>
<tr>
<td></td>
<td>women de</td>
<td>1PL</td>
<td>380</td>
</tr>
<tr>
<td></td>
<td>nimen de</td>
<td>2PL</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>tamen de</td>
<td>3PL</td>
<td>190</td>
</tr>
<tr>
<td>independent</td>
<td>wo de</td>
<td>1SG</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>ni de</td>
<td>2SG</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>ta de</td>
<td>3SG</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>women de</td>
<td>1PL</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>nimen de</td>
<td>2PL</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>tamen de</td>
<td>3PL</td>
<td>4</td>
</tr>
</tbody>
</table>
**Frequency of pronominal possessors in Korean**

*the corpus of the National Institute of Korean Language*

<table>
<thead>
<tr>
<th></th>
<th>Form</th>
<th>Meaning</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>dependent</td>
<td><em>na-uy</em></td>
<td>1SG</td>
<td>11,393</td>
</tr>
<tr>
<td></td>
<td><em>neo-uy</em></td>
<td>2SG</td>
<td>1,218</td>
</tr>
<tr>
<td></td>
<td><em>geu-uy</em></td>
<td>3SG</td>
<td>35,775</td>
</tr>
<tr>
<td></td>
<td><em>wuli-uy</em></td>
<td>1PL</td>
<td>13,645</td>
</tr>
<tr>
<td></td>
<td><em>dangsin-deul-uy</em></td>
<td>2PL</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td><em>gue-deul-uy</em></td>
<td>3PL</td>
<td>8,472</td>
</tr>
<tr>
<td>independent</td>
<td><em>na-uy-geot</em></td>
<td>1SG</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td><em>neo-uy-geot</em></td>
<td>2SG</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><em>geu-uy-geot</em></td>
<td>3SG</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><em>neo-uy-geot</em></td>
<td>1PL</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td><em>dangsin-deul-uy-geot</em></td>
<td>2PL</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><em>gue+deul+ui+geot</em></td>
<td>3PL</td>
<td>1</td>
</tr>
</tbody>
</table>
In these languages, independent possessive person forms all show lower frequency.
Explanations for constituent order universal

- The *constituent order universal* can be accounted by diverse diachronic sources of the substantivizer.
Possible sources of the substantivizers

1. genitive marker
2. dative marker
3. demonstrative pronoun
4. intensified pronoun
5. “one”
6. relative pronoun
7. classifier
8. General substantivizer/nominalizer
9. thing/matter
10. property/possession
11. pet
12. “here”
13. postposition
14. PP+Nominalizer+assertive clitic
15. verb “be ones” （rare）
16. verb “possess” （rarer）
17. unknown
• As is shown by the above source meanings of substantivizers, in languages the substantivizer is usually used as a reduced referential device and gives clues for the reconstruction of the possessed item from the context.
Explanations for alienability universal
• If in a language the possessor in inalienable possession is marked, the possessor in alienable possession is marked as well. (van Rijn 2016a)

• Possessive person forms in alienable possession never show a lower degree of referentiality than the person forms in inalienable possession. Furthermore, a person marker used in alienable possession never shows a lower degree of formal independence than a person marker used in inalienable possession (van Rijn 2016b).
• Features of person forms in alienable possession:
  – marked as possessors
  – higher degree of referentiality (more likely to get role-assigning)
  – higher degree of formal independence

➤ These features lead to the result that person forms in alienable possessive constructions are more likely to be used to form the independent possessive person forms, which have higher degree of formal independence and referentiality.
• It can also be explained by the form-frequency correspondence. Since the alienable possession is less frequent, the person form in alienable possession is less predictable as possessors, which enforces languages to code the role information, leading to a higher degree of referentiality.
4. Diachronic account
Formal independence of the possessive person forms:

full pronoun > clitic > referential marker > agreement marker > zero

Needless to say, independent possessive person forms can never be reduced into zero.
It is also hard to reduce the independent possessive person form into an agreement marker, which does not encode the “role” information.
Formal independence of the “substantivizer”

content item > grammatical word > clitic > inflectional affix
(“Cline of grammaticality”, Hopper and Traugott 1993: 7 )
• In both grammaticalization scenario, the item suffers a loss of lexical meaning as well as referentiality during the process of grammaticalization.

• The grammaticalization degree of the “substantivizer” seems to contain the grammaticalization of the person form in independent pronominal possessors.

• The more grammaticalized the substantivizer is in a language, the less likely the possessive person form being grammaticalized and reduced, and vice versa.
For instance, in Teribe, the substantivizer is a suffix, which is highly grammaticalized and does not show any overt lexical meaning, while the possessive person form ‘bor’ is an independent pronoun and shows lower degree of grammaticalization.

(15) Teribe
a.  *bor  wa*
   1SG.GEN    son    dependent
   ‘my son’

b.  *bor-oya*
   1SG.GEN -SUBST    independent
   ‘mine’

(Quesada 2000: 138)
In Huallaga Quechua, the genitive marker is the same as the substantivizer, both were grammaticalized and fused into the possessive pronoun, while the pronoun is an independent form.

(16) Huallaga Quechua (Quechuan)

a. *qam-*pa  *surti-ki*
   2SG-GEN  fate-2SG
   dependent form
   ‘your fate’

b. *qam-*pa
   2SG-SUBST
   independent form
   ‘yours’

(Weber 1989: 255)
In Piro, there are both indexes and independent pronouns. The substantivizer is a highly grammaticalized suffix \(-nɨ\) which only has grammatical function instead of lexical meaning. The independent possessor is formed from the independent pronoun instead of the prefix.

(17) Piro (Kiowa-Tanoan)

a. \(n-ʃimane\)
   1SG-fish
   ‘my fish’

b. \(hita\ tpali\)
   1SG thigh.of
   ‘my thigh’

c. \(hita-nɨ\)
   1SG-SUBST
   ‘mine’

(Hanson 2010: 30, 49, 52)
In contrast, when the substantivizer is less grammaticalized, it is possible to use person indexes to form the independent possessive person forms, as illustrated by the following example.

(18) Canela-Krahô (Macro-Ge, South America)

i-tekjê
1SG-possession
“mine”

（Popjes & Popjes 1986: 134）
Conclusions

• In this talk, I generalize three Universal tendencies based on a sample of 66 languages.
  – length universal
  – constituent order universal
  – alienability universal

• These universals can be explained by form-frequency correspondence and diachronic sources of substantivizers.
Conclusions

• The reason why independent pronominal possessors are never shorter than the corresponding dependent ones lies in the fact that independent pronominal possessors are less frequent and less predictable.

• The constituent order correspondence of substantivizers and possessed nouns is due to the diachronic sources of substantivizers, which are mostly reduced referential devices of the possessed item.
Conclusions

• The alienability universal can be explained by features of alienable pronominal possessors, such as higher degree of referentiality and formal independence, as well as higher possibility of being marked with role information. Form-frequency correspondence also plays a role in the alienability universal. Alienable possessors are less frequently used as possessors, therefore they have a higher possibility of getting marked.

• From a dynamic diachronic perspective, the grammaticalization of substantivizers contains the grammaticalization of person forms in independent possessors.
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References


Thank You!