

A typology of marking and indexing in pronominal and nominal possession

- I am investigating the typology of attributive pronominal and nominal possession structures, in which the possessive relationship is achieved by morphological marking on one, both or neither of the two constituents involved in the phrase.
- In pronominal possession, the dependent constituent is a pronoun and the head constituent is a noun, and in nominal possession structures, both constituents are nouns.
- In addition to the traditional notion of head and dependent marking, I am considering an extra level of organisational complexity within these possessive structures, termed indexing (from Nichols (1986: 58)).
- While head and dependent-marking is well-understood, head and dependent-indexing has not yet been systematically explored.
- Indexing is defined as the extra layer of information that can be encoded within the morphological marking that refers to the phrase-level properties of one or both of the relevant constituents within the phrase. This extra information is inflectional in nature and typically refers to person, number and gender characteristics of the two nominals.
- Indexing, unlike the similar term agreement, can be achieved via both concatenative and non-concatenative means, i.e. via affixation and stem changes.
- Marking and indexing, therefore, represent two interrelated though independent concepts, representing two different hierarchical levels of information: marking refers to the syntactic relationship of the two constituents and indexing supplies morphological information about these constituents.
- To clearly illustrate the concept of indexing, some examples of the four different indexing possibilities (head, dependent, zero and double) are given below from dependent-marking nominal possession structures.

(1)	<u>Zero-indexing: Maybrat</u> <i>amah ro-Petrus</i> house gen -Petrus Petrus's house	(2)	<u>Head-indexing: Awngi</u> <i>murí-k^w aq(ká)</i> village- gen.Possd.pl man.pl The men of the village
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- In (1), the morphological marking comprises a genitive prefix on the dependent noun. In terms of indexing, since no additional information beyond that of the possessive relationship is provided by the genitive suffix form, this marking is zero-indexing.
- In (2), however, the genitive suffix in Awngi on the dependent noun indexes that the following, head noun is plural in number. This genitive suffix also indexes the gender of singular head nouns, via the use of different genitive forms. Thus, the genitive in this example is head-indexing.

Dependent-indexing: Gollango

- (3) *ʃaško mánnee-té*
thatch house.pl-**gen.Possr.pl**
The thatch of the houses

Double-indexing: Beja

- (4) *ʔo(r)-t-i:-t* *de*
girl(f).sg-**Possr.f-gen(Possr.sg)-Possd.f** mother(f)
A girl's mother

- In (3), the genitive suffix in Gollango indexes via its form that the dependent noun is plural. For singular nouns, gender is indexed in the genitive suffix by the use of different forms for both masculine and feminine.
- In (4), the genitive suffix cluster in Beja indexes both the gender and number of the possessor, dependent noun, and the gender of the possessed, head noun. Hence it is double-indexing.
- When all the combinations of zero, head, dependent and double marking and indexing are calculated, 25 logical possibilities for pronominal and nominal possession structures result, and these are summarised in Table 1 on the following page.
- In this table, the first column numbers the structure types from 1 to 25. The second column refers to the possessor (P'r), dependent constituent and the third column to the possessed (P'd), head constituent (this order is not intended to be restrictive –the opposite order is equally possible). In these two columns, if the constituent is not marked for possession in a particular structure type, then the cell is empty (as in type 1).
- If the constituent is marked for possession, it has the potential for indexing. The type of indexing its displays is symbolised by \emptyset for zero-indexing, $_H$ for head-indexing, $_D$ for dependent-indexing, and $_{H+D}$ for double-indexing.
- This information is summarised in the next two columns, labelled marking and indexing. In the indexing column, two sets of information are required for the double-marked types 10 to 25, since both occurrences of marking need to be summarised in terms of their indexing. In these cases, the first cell refers to the marking on the dependent constituent and the second cell to the marking on the head constituent.
- The final two columns list the languages that have so far been found to exhibit each structure type for both nominal and pronominal possession. Some structure types are impossible for pronominal possession structures¹ and these are labelled as NPO for Not a Possible Outcome, and shaded grey.
- Those structure types yet to be attested in real languages have a \otimes symbol in the language columns.

¹ This is because pronouns marked for possession are always inherently indexed for at least one feature, person, of the dependent constituent, otherwise they cannot be considered pronominal. Thus, zero and head-indexing are not possible for possessive pronouns.

Table 1 - Typology for marking and indexing in nominal and pronominal possessive structures

Type	P'r (D)	P'd (H)	Mark-ing	Index-ing	Language: Nom Poss	Language: Pro Poss
1			∅	∅	Afar, Indonesian, Koyukon (inalienable, body parts), Tiwi, Asmat, Chalcatongo Mixtec, Dhaasanac, Ewe (inalienable set), Acholi (inalienable)	Yanomama, Indonesian, Asmat, Pirahã
2	∅		D	∅	English, Somali, Dhaasanac, Afar, Chechen, Kayardild, Tundra Nenets, Aranda, Archi, Finnish, Krongo, Maybrat (alienable), Tauya	NPO
3	H		D	H	Awngi, Darasa	NPO
4	D		D	D	Gollango, Somali, Arabic, Sidamo, Afar, Upper Sorbian, Chukchi	English, Finnish, Lele (non-singular possessor, inalienable possessed), Eastern Pomo (alienable), Bau, Warndarang, Nez Perce, Tauya
5	H+D		D	2	Beja, Chukchi, Kashmiri, Upper Sorbian(?), Bagwalal	Spanish, French, German, Beja , Burji, Lele (alienable possessed), Shona, Surmic languages, Kashmiri, Kayardild, Upper Sorbian, Chukchi
6		∅	H	∅	Dhaasanac, Koyukon (alienable), Indonesian, Javanese, Fijian, Yoruba, Ewe (inalienable set)	Fijian
7		H	H	H	Hungarian(?)	Hungarian(?)
8		D	H	D	Abkhaz, Dalabon, Motu, Navajo, Koyukon (inalienable, kin terms), Acoma, Tzutujil, Québec-Labrador Inuktitut (Eskimo-Aluet), Maybrat (inalienable), Kutenai	Abkhaz, Tundra Nenets, Dalabon
9		H+D	H	2	Somali, Hungarian(?)	Hungarian
10	∅	∅	2	∅	Warlpiri (kinship nouns)	NPO
11	D	∅	2	D	∅	Kune, Warlpiri
12	H	∅	2	H	∅	NPO

13	H+D	∅	2	2	∅	⊗	⊗
14	∅	D	2	∅	D	Turkish, Huallaga Quechua, Tundra Nenets, Dalabon, Aramaic, Southern Sierra Miwok, Mangarrayi, Jivaro	NPO
15	∅	H	2	∅	H	Hungarian(?)	NPO
16	∅	H+D	2	∅	2	Hungarian(?)	NPO
17	D	D	2	D	D	⊗	Finnish
18	D	H	2	D	H	⊗	⊗
19	D	H+D	2	D	2	⊗	Beja?
20	H	D	2	H	D	⊗	NPO
21	H	H	2	H	H	⊗	NPO
22	H	H+D	2	H	2	⊗	NPO
23	H+D	D	2	2	D	⊗	Lele
24	H+D	H	2	2	H	⊗	⊗
25	H+D	H+D	2	2	2	⊗	Beja

LEGEND

∅	Zero	2	Double
D	Dependent-indexing	H	Head
H	Head-indexing	D	Dependent
D+H	Double-indexing	⊗	Not attested
[NPO]	Not a possible outcome		

As can be seen, there are still many unattested structure types, and due to the scope of my research I am limited in the amount of typological searching I can do. If anyone has any data from languages they know of that fit into any of the unattested or more uncommon structure types, I would greatly appreciate your input.

Please contact me with questions if anything is unclear.

Many thanks,

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