

Explaining alienability contrasts in adnominal possession: economy vs. iconicity

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1. The main claim of this talk

The universals of form-function relationship in alienability contrasts should not be explained in terms of iconic motivation, as in Haiman's (1983) influential paper, but by economic motivation and the frequency of occurrence in possessed constructions.

e.g.

(1) Abun (West Papuan) (Berry & Berry 1999:77-82)

a. alienable possession

ji bi nggwe
I of garden
'my garden'

b. inalienable possession

ji syim
I arm
'my arm'

Haiman 1983:

For 'arm', a juxtaposition construction is chosen, with little "linguistic distance" between possessor and possessum. This iconically reflects the greater conceptual closeness of possessor and possessum (arms are not conceived of independently of their owners). By contrast, 'my garden' shows an overt marker *bi* between the possessor and the possessum, implying greater linguistic distance. This reflects the greater conceptual distance between 'garden' and 'I'.

My story:

Nouns like 'arm' normally, or at least very frequently, occur as possessums in possessive NPs, whereas for nouns like 'garden', this is much less frequent: We often talk about gardens without mentioning or even thinking about their possessors. This means that the overt expression of the possessive relation is expected anyway. Abun exploits this redundancy and uses an overt possessive marker only with nouns like 'garden', while body-part terms occur in a more economical markerless construction.

2. Definition of key concepts

possessive relation = relation of ownership (e.g. 'my garden'),
part-whole (e.g. 'my arm'),
or kinship (e.g. 'my father')

(similar constructions are also often used for other relations, e.g. 'my school', 'my report', but these are harder to compare cross-linguistically)

adnominal possessive relation =

relation in which the possessor is the head of a noun phrase and the possessum is a modifier, e.g. 'my book', 'Aisha's head'

but not: *Pedro hit me on the head.* (= 'hit my head') (external possession)

La mère lui a lavé les cheveux. 'Mother washed his hair.' ('to-him the hair')

possessive split =

a situation whereby different classes of nouns require or favour different possessive constructions, e.g.

- (2) Jeli (Mande, Tröbs 1998:167-169):
- | | |
|--|---|
| <p>a. <i>Soma ra monbilo</i>
Soma of car
'Soma's car'
(*<i>Soma monbilo</i>)</p> | <p><i>possessum-determined split</i>
b. <i>Soma bulo-ni</i>
Soma arm-PL
'Soma's arms'
(*<i>Soma ra bulo-ni</i>)</p> |
|--|---|
- (3) English
- | | |
|---|---|
| <p>a. <i>the roof of the car</i>
(vs. ?<i>the car's roof</i>)</p> | <p><i>possessor-determined split</i>
b. <i>Pedro's car</i>
(vs. ?<i>the car of Pedro</i>)</p> |
|---|---|

(different possessive constructions may also alternate in a non-split way, e.g. German *das Dach des Autos/das Dach von dem Auto* 'the roof of the car', Thai *săamii (kh๓๓๓) phĕan (kh๓๓๓) nŭu* [husband of friend of I] 'my friend's husband')

alienability split =

a possessive split determined by the possessum in which one of the classes characteristically consists of kinship terms and/or body part terms.

inalienable possessive construction =

in an alienability split, a construction used with kinship and/or body part terms (and perhaps others)

alienable possessive construction =

in an alienability split, a construction **not** used with kinship and/or body part terms

3. Overt vs. zero coding: iconic vs. economic motivation

3.1. The explanandum

Universal: If a language has an adnominal alienability split, and one of the constructions is overtly coded while the other one is zero-coded, it is always the inalienable construction that is zero-coded, while the alienable construction is overtly coded.

3.2. Examples e.g. Abun in (1), Jeli in (2), and also:

	alienable	inalienable
(4) Kabba (central Sudanic, Moser 2004:120-121)	<i>kùlā lè déné</i> work of woman 'a woman's work'	<i>məkàjà̀ gɔ̀ lɛ́</i> knee his.leg 'the knee of his leg'
(5) Lango (Nilotic, Noonan 1992:156-157)	<i>gwôkk à lócà̀</i> dog of man 'the man's dog'	<i>wì rwòt</i> head king 'the king's head'
(6) Dogon	<i>tigε wo mɔ</i>	<i>u ba</i>

(Niger-Congo, Plungian 1995:35)	name he GEN 'his name'	you father 'your father'	
(7) Karo (Tupian, Gabas 1999:148ff.)	<i>ma ʔwɪr at ka ʔa</i> man of house 'man's house'	<i>aaro cagá</i> parrot eye 'parrot's eye'	
(8) Haida (isolate, Enrico 2003:678ff.)	<i>Bill gyaara daallraay</i> Bill of money 'Bill's money'	<i>Joe ʔaww</i> Joe mother 'Joe's mother'	
(9) Kayardild (Tangkic, Evans 1995:143, 248)	<i>dibirdibi-karran(-ju) dulk(-u)</i> Rock.Cod-GEN(-CASE) place(-CASE) 'Rock Cod's place'	<i>dangkaa thukanda</i> man chin 'man's chin'	
(10) Mandarin (Sinitic, Li & Thompson 1981:113-116)	<i>tā-de chèshān</i> he-GEN shirt 'his shirt'	<i>tā(-de) māma</i> he(-GEN) mother 'his mother'	
(11) Samoan (Oceanic, Mosel & Hovdhaugen 1992:282-90)	<i>le naifi a le fafine</i> the knife of the woman 'the woman's knife'	<i>le uso o le fafine</i> the sister of the woman 'the woman's sister'	

3.3. The iconicity explanation

Haiman 1983:

"...two concepts are close to the extent that they are perceived as inseparable (e.g. there is a closer conceptual link between a possessor and an inalienably possessed object than between a possessor and an alienably possessed object)." (p. 783)

Iconic motivation: "The linguistic distance between expressions corresponds to the conceptual distance between them." (p. 782)

Hence, the contrasts in (4)-(10), where the "linguistic distance" is greater in the alienable construction, is iconically motivated.

Adopted by various linguists, e.g. Chappell & McGregor (1989), Croft (1990:175-176), Koptjevskaja-Tamm (1996), Payne (1997:105), Lazard (2005:18).

3.4. The economy explanation

There is a marked difference in frequency of occurrence in possessive constructions: Inalienable nouns (=bodypart/kinship terms) very often occur as possessed nouns, whereas alienable nouns occur as possessed nouns much more rarely (cf. Nichols 1988:579: "those nouns which are most often possessed"). (See Table 1 for some corpus evidence from English.)

Hence, upon hearing an inalienable noun, hearers can predict that it will occur as possessum in a possessive construction, and overt marking is relatively redundant. This redundancy is exploited in some languages:

(12) *frequency* → *predictability* → *less need for coding* (cf. Zipf 1935)

Table 1: Some frequency figures from English
 (spoken register of the British National Corpus, only preposed possessors counted)

bodypart terms				kinship terms							
"alienable" nouns											
	total	possessed	%		total	possessed	%		total	possessed	%
<i>Head</i>	1699	868	51%	<i>Mother</i>	1892	1107	59%	<i>House</i>	4768	1059	22%
<i>Hand</i>	2282	570	25%	<i>Father</i>	1473	888	60%	<i>Car</i>	3925	617	16%
<i>Hands</i>	970	545	56%	<i>Brother</i>	762	518	68%	<i>Job</i>	3960	584	15%
<i>Face</i>	1061	544	51%	<i>Brothers</i>	303	60	20%	<i>Dinner</i>	986	277	28%
<i>Finger</i>	283	149	53%	<i>Sister</i>	636	402	63%	<i>Work</i>	6226	577	9%
<i>Fingers</i>	351	210	60%	<i>Sisters</i>	170	26	15%	<i>Health</i>	1601	109	7%
<i>Knee</i>	163	88	54%	<i>Wife</i>	1107	710	64%	<i>Tree</i>	511	13	3%
<i>Knees</i>	127	70	55%	<i>Husband</i>	818	605	74%	<i>Knife</i>	184	19	10%
<i>Ear</i>	222	91	41%	<i>Son</i>	733	351	48%	<i>Bed</i>	1845	160	9%
<i>Ears</i>	207	114	55%	<i>Sons</i>	134	46	34%	<i>Community</i>	1294	46	4%
<i>Leg</i>	527	191	36%	<i>Daughter</i>	555	358	65%	<i>Meat</i>	424	28	7%
<i>Legs</i>	522	255	49%	<i>Daughters</i>	86	25	29%	<i>Friend</i>	1071	334	31%
<i>Wrist</i>	49	17	35%	<i>Mum</i>	4253	1434	34%	<i>Money</i>	6598	671	10%
<i>Hair</i>	1154	624	54%	<i>Dad</i>	2779	1020	37%	<i>Bike</i>	373	123	33%
<i>Nose</i>	372	235	63%	<i>Grandfather</i>	99	61	62%	<i>Suitcase</i>	22	5	23%
<i>Neck</i>	326	156	48%	<i>Grandmother</i>	88	69	78%	<i>Tools</i>	191	14	7%
<i>Belly</i>	45	15	33%	<i>Aunt</i>	111	44	40%	<i>Book</i>	2271	272	12%
<i>Skin</i>	347	72	21%	<i>Uncle</i>	236	73	31%	<i>Books</i>	898	124	14%
<i>Elbow</i>	64	20	31%					<i>Room</i>	2413	211	9%
<i>Chest</i>	267	106	40%					<i>Bedroom</i>	678	199	29%
								<i>Kitchen</i>	777	79	10%
		mean	46%			mean	49%			mean	15%

4. A wrong prediction of the iconicity explanation: middle position of the alienable marker

- Haiman's iconicity explanation predicts that the additional element in alienable constructions should occur in the middle between the possessor and the possessum (as seen in the canonical examples from Abun in (1), Jeli in (2), and most of the examples in (4)-(10).
- The economy explanation makes no such prediction about linear order.

It turns out that the possessive marker may also occur to the left or right of both the possessor and the possessum, as seen in (13). (See also the Dogon example in (6) above.)

(13)	alienable construction	inalienable construction
a. Puluwat (Elbert 1974:55, 61)	<i>nay-iy hamwol</i> POSS-1SG chief 'my chief'	<i>pay-iy</i> hand-1SG 'my hand'
b. 'O'odham (Zepeda 1983)	<i>ñ-mi:stol-ga</i> 1SG-cat-POSSD 'my cat'	<i>ñ-je'e</i> 1SG-mother 'my mother'
c. Koyukon (Thompson 1996:654, 667)	<i>se-tel-e'</i> 1SG-socks-POSSD 'my socks'	<i>se-tee'</i> 1SG-head 'my head'
d. Achagua (Wilson 1992)	<i>nu-caarru-ni</i> 1SG-car-POSSD 'my car'	<i>nu-wíta</i> 1SG-head 'my head'

Haiman (1983:795) himself cites the Puluwat example and recognizes that it is a problem for him:

"Clearly, the classifier is not interposed between possessor and possessum. It is possible that, at some earlier stage of the language, the possessive affixes also followed alienably possessed nouns... Word order could change in defiance of iconicity. Perhaps, then, it will be necessary to revise [my earlier statement in terms of distance]..., by claiming the following:

(37) In no language will the phonological expression of inalienable possession be bulkier than that of alienable possession.

Whether this revision is necessary depends on the frequency of the pattern exemplified by Puluwat."

But if this revision is adopted, we no longer have any evidence for iconicity! Rather, Haiman himself offers evidence for economy.

5. Further predictions made by both approaches

5.1. The cohesion scale

Haiman proposes a "scale of linguistic distance" as in (14).

(14) Haiman's (1983:782) cohesion scale

- | | | |
|-------|-----------------|----------------------------|
| (i) | X <i>word</i> Y | (function-word expression) |
| (ii) | X Y | (juxtaposition) |
| (iii) | X-Y | (bound expression) |
| (iv) | Z | (portmanteau expression) |

I call it *cohesion scale* here, because (ii) and (iii) do not literally differ in distance, and distance is not really applicable to (iv).

Haiman's universal (27) (attributed to Joseph Greenberg, p.c.; 1983:793):

"In no language will the linguistic distance between X and Y be greater in signaling inalienable possession, in expressions like 'X's Y', than it is in signaling alienable possession."

Haiman notes that this also explains bound-free contrasts:

5.2. Bound vs. free expression

(15)	alienable construction	inalienable construction
a. Nakanai (Johnston 1981:217)	<i>luma taku</i> house I 'my house'	<i>lima-gu</i> hand-1SG 'my hand'
b. Hua (Haiman 1983:793)	<i>dgai? fu</i> I pig 'my pig'	<i>d-za?</i> 1SG-arm 'my arm'
c. Ndjébbana (McKay 1996:302-6)	<i>budmánda ngáyabba</i> suitcase I 'my suitcase'	<i>nga-ngardabbámba</i> 1SG-liver 'my liver'
d. Kpelle (Welmers 1973:279)	<i>ŋa pɛɛi</i> I house 'my house'	<i>m-pôlu</i> 1SG-back 'my back'

The cohesion scale also makes a correct prediction that Haiman does not note:

5.3. Portmanteau expression

(16)	alienable construction	inalienable construction
a. Ju 'hoan (Dickens 2005:35)	<i>mí útò</i> 'my car'	<i>taqè</i> 'mother', <i>áíá</i> 'my mother' (* <i>mí taqè</i>)
b. Lakhota (Buechel 1939:103)	<i>t'ípi mi-t'áwa</i> 'my house' <i>t'ípi ni-t'áwa</i> 'your house'	<i>ina</i> 'my mother' <i>ni-hu</i> 'your mother'

5.4. Cohesion and frequency

But this prediction is also made by the frequency-based explanation. High frequency of occurrence not only leads to short coding, but also to cohesive expression, i.e. bound or portmanteau expression.

Some examples from different domains:

(17)	X Y	X-Y	Z
	(juxtaposition)	bound	portmanteau
comparatives	<i>more arid</i>	<i>dri-er</i>	<i>worse</i>
past tense		<i>play-ed</i>	<i>went</i>
negation	<i>doesn't see</i>	<i>has-n't</i>	<i>won't</i>
gender	<i>lady doctor</i>	<i>actr-ess</i>	<i>mother</i>
diminutive	<i>young elephant</i>	<i>pig-let</i>	<i>puppy</i>

There are no meaning differences here: The items that show greater formal cohesion are simply more frequent, and high frequency is known to be a favorable environment for *phonological fusion* (e.g. *hasn't* vs. **knowsn't*), for the *preservation of older affixal patterns* that are losing productivity (e.g. *actress* vs. **protectress*, attested in earlier English), and for the *preservation and creation of suppletive patterns* (see Osthoff 1899, Ronneberger-Sibold 1988).

6. Predictions not made by Haiman's iconicity explanation

6.1. Length of the possessive marker

In all the examples in (15a-d), the possessive pronoun is shorter in the inalienable construction. This also occurs when both are free, or both are bound:

(18) a.	Ju 'hoan (Dickens 2005:35)	<i>mì tjà</i> I house 'my house'	<i>m bá</i> my father 'my father'
b.	Choctaw	<i>chĩ-chokka</i> 2SG.AL-house 'your house'	<i>chi-shki</i> 2SG.INAL-mother 'your mother'

6.2. Impossibile nouns

Some languages have some nouns that cannot occur as possessed nouns in a possessive construction, e.g. in Yucatec (Maya; Lehmann 1998:57-58):

(19)	<i>máak</i>	'person'
	<i>xch'up</i>	'woman'
	<i>suhuy</i>	'virgin'
	<i>ìik</i>	'air, wind'
	<i>ka'n</i>	'sky'
	<i>yóok'olkab</i>	'world'

As Lehmann (1998) notes, person nouns and environmental nouns are "highly unfit as possessa" -- they occur very rarely as possessed nouns (English: *world* 2.6%, *woman* 0.6%, *sky* 0.4%).

Rare occurrence in grammar generally leads to a requirement of "bulkier" formal coding; but it may also result in **complete lack of grammatical coding**.

Excursus: Rarity and lack of grammatical coding

(cf. Haspelmath 2006+)

(20) 2nd person vs. 3rd person imperative

short-long:	Latin <i>canta-Ø</i> sing-2SG.IMPV 'sing!'	<i>canta-to</i> sing-3SG.IMPV 'let him sing!'
yes-no:	German <i>singe!</i>	* <i>sing-to</i>

(21) inanimate vs. animate locative

short-long:	Tamil <i>maratt-il</i> tree-LOC 'in the tree'	<i>maṇitaṇ-iṭam</i> man-LOC 'in the man'
yes-no:	Dhivehi (Cain & Gair 2000:16) <i>fotu-gā</i> book-LOC 'in the book'	* <i>darī-gā</i> child-LOC 'in the child'

(22) same-subject vs. different-subject construction of 'want'

short-long:	German <i>Ich will spielen.</i> 'I want to play.'	<i>Ich will, dass du spielst.</i> 'I want you to play.'
yes-no:	Acehnese (Durie et al. 1994:177-8) <i>Lôn-tém woe.</i> I-want return 'I want to return.'	* <i>Lôn-tém droeneuh woe.</i> I-want you return 'I want you to return.'

In a way, "grammatical coding" implies "short coding"; and "no coding" does not mean that a lexical-syntactic paraphrase is impossible -- but it is invariably longer.

6.3. Possidend nouns

(*nomina possidenda* 'nouns that must be possessed')

In many languages, some nouns **must** occur as possessed nouns in possessive constructions, they cannot (normally) occur in an **unpossessed, absolute** way:

"*possidend nouns*" (=obligatorily possessed nouns, "bound inalienables", Nichols & Bickel 2005a)

Two subtypes:

A. Absoluble possidend nouns: (Lehmann 1998:51)

These can be used absolutely after "absolutization" through a derelationalizing ("alienizing") marker:

(23) Yucatec *tatah-* *in tàatah* *le tatah-tsil-o*
 'father' 1SG father ART father-DEREL-ART
 'my father' 'the father' (Lehmann 1998:52)

(24) Koyukon *-tlee'* *se-tlee'* *k'e-tlee'*
 'head' 1SG-head DEREL-head
 'my head' 'head' (Thompson 1996:654-667)

(25) Paamese *vat-* *vat-in* *a-vat*
 head head-3SG.POSS DEREL-head
 'head' 'his/her head' 'head' (Crowley 1996:417)

(26) Cahuilla *puč-* *hé-puš* *púč-il*
 'eye' 3SG.POSS-eye eye-DEREL
 'his eye' 'eye' (Seiler 1983:25)

B. Inabsoluble possidend nouns

e.g. (27) Yucatec *ich* 'face' (Lehmann 1998:52)
 mòts 'root'
 ti'a'l 'property'
 otoch 'home'

- Again, rare occurrence (of the unpossessed construction) leads to a complete lack of grammatical coding.

- Haiman's iconicity does not make any predictions about unpossessed constructions, but the economy account predicts just what we see:

Alienable nouns tend to require overt coding (or a paraphrase) in the possessed construction, whereas inalienable nouns tend to require overt coding in the unpossessed construction.

Compare the parallel with imperatives:

(28) Koyukon	unpossessed	possessed
alienable	<i>teł</i> socks 'socks'	<i>se-tel-e'</i> 1SG-socks-POSSD 'my socks'
inalienable	<i>k'e-tlee'</i> UNSP-head 'head'	<i>se-tlee'</i> 1SG-head 'my head'
(29) Turkish	imperative	indicative
2nd person	<i>gel</i> come(2SG.IMPV) 'come!'	<i>gel-di-n</i> come-PST-2SG 'you came'
3rd person	<i>gel-sin</i> come-3SG.IMPV 'let her come'	<i>gel-di</i> come-PST(3SG) 'she came'

7. Is alienability a purely formal or a (morphosyntactically expressed) conceptual category?

- Traditionally (e.g. Lévy-Bruhl 1914): **a conceptual category**
- Nichols (1988, 1992): **primarily a formal category**

"No account of the semantics of possession types will accurately predict the membership of the "inalienable" set of nouns, either within one language or cross-linguistically." (Nichols 1988:568)

" [the opposition] is best approached as a structural opposition rather than a semantic one. Languages with an opposition of inalienable to alienable possession have split systems of possession marking, and alienable and inalienable are not cross-linguistic semantic constants but simply the extremes of the nominal hierarchy defined by the splits." (Nichols 1992:117)

- Reaction to Nichols: **back to semantics and conceptualization**

Chappell & McGregor (1996:9):

"In contradistinction to Nichols...we believe that predictions for each language can be made on the basis of cultural and pragmatic knowledge..."

Heine (1997:174):

"...rather than linguistic form [as in Nichols's account], it is meaning or, more generally, the cognitive source structures that can be held responsible for the morphosyntactic characteristics of attributive possession."

These patterns are not very likely to be due to systematic frequency differences, and it seems that they arose by later semantic generalization and regularization.

8. The diachronic creation of alienability contrasts

There are at least two ways in which high frequency of possessed use leads to the diachronic creation of alienability contrasts:

- differential phonological reduction
- differential inhibition of a novel construction type

8.1. Differential phonological reduction

- This is the mechanism that Zipf (1935) proposed to explain the frequency effects. Examples:

(31) a. Old Italian < Latin
moglia-ma < *mulier mea* 'my wife'
fratel-to < *fratellus tuus* 'your brother'
**terra-ma* (cf. *terra mea*) 'my land' (alienable noun)

b. Nyulnyul (Nyulnyulan; northern Australia; McGregor 1996):

<i>jan yil</i>	vs.	<i>nga-lirr</i>	(< <i>ngay lirr</i>)
I.OBL dog		1SG-mouth	I mouth
'my dog' (alienable)		'my mouth' (inalienable)	

8.2. Differential expansion/inhibition of a new construction

- Most cases of economical coding are not due to differential phonological reduction, but to differential expansion of a new, more complex construction (often called "periphrasis").
- Such novel constructions typically make an existing meaning more transparent by including a special additional morpheme, and they are introduced when speakers want to call special attention to the relevant meaning.
- A novel construction may then expand and become more frequent in an increasing number of new contexts, but it will be prevented from spreading to the contexts in which the relevant meanings occur most often.
- Such "inhibition of expansion" may occur for two reasons:
 - (i) One reason is that the most frequently occurring combinations of meanings are the most deeply entrenched in the speakers' mental grammars and are thus unlikely to be replaced by innovations. Here we see **the conserving effect of usage frequency.**
 - (ii) But another reason **the redundancy coming from the hearers' expectations:** the expression of the meaning in question is redundant when it is typically associated with another meaning.

An example: In Classical Arabic, all nouns can take possessive affixes:

- (32) *yad* 'hand' *kitaab* 'book'
 yad-ii 'my hand' *kitaab-ii* 'my book', etc.

In Maltese, only inalienable nouns (body part terms/kinship terms) take possessive affixes; others occur in a periphrastic construction with *tiegħ-* 'of':

- (33) *id* 'hand' *ktieb* 'book'
 id-i 'my hand' **ktieb-i* 'my book'
 il-ktieb tiegħ-i (originally: 'the book my-possession')

The novel construction involving the possessive noun did not expand to inalienable nouns: Maltese does not allow **l-id tiegħ-i* 'my hand' (Koptjevskaja-Tamm 1996).

- Dahl & Koptjevskaja-Tamm (1998) make the strong claim that differential expansion is the only way in which an inalienability split can arise:

"We suggest the generalization that an expanding possessive construction must encroach on the territory of pronominal possession for an alienability split to arise".

But see (31a-b) above for attested cases of differential phonological reduction.

9. Conclusion

- Many cross-linguistically recurring properties of inalienable and alienable adnominal possessive constructions can be explained by the fact that inalienable nouns occur more frequently as possessed nouns.
- Haiman's (1983) well-known iconicity explanation is less general and makes some wrong predictions.
- More generally, it seems that **the explanatory power of iconicity has been overestimated**. For instance, all "iconicity of markedness matching" effects can be explained by frequency asymmetries as well (Haspelmath 2006:40, in prep.)
- If we want to understand language structure, we need to look at language use, in particular frequency of use.

Postscript:**What about Nichols's (1988, 1992) head-marking generalization?**

- Nichols 1988, 1992: alienability contrasts are strongly associated with (perhaps even forced by) head-marking possessive patterns:

"Most languages with head-marked possession have inalienable possession, and no language in my sample with exclusively dependent-marked possession has inalienable possession." (Nichols 1992:118)

However, Koptjevskaja-Tamm (2003) cites three languages that do show an alienability contrast exclusively with dependent-marking:

	alienable	inalienable
(34) Old French	<i>la terre de sa mere</i> 'his mother's land'	<i>la bouche sa mere_{OBL}</i> 'his mother's mouth'
(35) Spoken Faroese	<i>húsið hjá Ólavi</i> house at Olav 'Olav's house'	<i>sonur norsk-a kong-in</i> son Norwegian-acc king-acc 'the Norwegian king's son'

+ Khinalug (Nakh-Daghestanian)

A further language of this type:

(36) Krongo (Kadugli; Reh 1985:314ff.)	<i>còorì kâ-káaw yíkkì</i> house GEN.AL-man that 'that man's house'	<i>nìinò mó-còorì</i> door GEN.INAL-house 'the door of the house'
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(in addition: Polynesian languages and Northern Pomo, Nichols 1988:577, but these also have minor head-marked possession types)

Note that Nichols's (1992) sample is highly skewed!

WALS samples (Nichols & Bickel 2005b, 2005c):

	dependent-marking	head-marking
"possessive classification"	35 lgs. (17 fam.)	33 (29)
no "possessive classification"	49 (27)	30 (27)

Summary:

The tendency for alienability contrasts to be associated with head-marking is not nearly as strong as originally suggested by Nichols, but it needs to be investigated further.

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