The Origin of Possession Markers in Yuman

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In a number of inflected languages of the world, affixes marking person on verb forms tend to have formal similarities with affixes marking possession on nouns. Implicit in this observation must be the assumption that these resemblances are not accidental, but are somehow motivated by more than vague semantic congruence. In addition, these markers often show similarities to independent personal pronouns as well. It is the intent of this paper to explicate this relationship in Yuman languages.

The relationship between independent pronouns and object-subject markers in Yuman has been demonstrated by Langdon and Hinton (1976) and will not be repeated here. Suffice it to say that verbal markers of person are the result of successive waves of pronoun incorporation deriving naturally from both the SOV nature of Yuman languages and general accentual conditions.

Various hypotheses could be entertained about the nature of the relationship between nominal possessive markers and verbal object-subject prefixes. They could be postulated to be derived one from the other in either direction, or a more remote relationship could be postulated such as analogical formation, or a combination of these. The direction to be assumed for Yuman points most clearly to the verbal function as primary, if for no other reason than the fact that the most productive aspect of Yuman structure centers unambiguously around verbs, that nominals can be derived freely from verbs, and that verbs can derive from nouns only under very rigidly prescribed conditions. This hypothesis does not deny the possible role of alternative trends, but simply states the verbal origin to be the most likely, and, as will be demonstrated below, the most general.

While the object-subject prefixes on verbs have been reconstructed in detail for Proto-Yuman (Langdon and Hinton 1976), the possessive prefixes on nouns, while well-known for each of the languages, have not been explicitly reconstructed. The reason seems to be that there are competing strategies for marking possession in various Yuman languages, the major differences residing in competition between simple prefixation and periphrastic, more complex, syntactic constructions. A treatment of the latter is beyond the scope of this paper. However, there is enough evidence from all branches of the family to allow the reconstruction of the following possessive prefixes for Proto-Yuman: *?- 'my', *m- 'your', *θ- 'his, her, its' (with no distinction of number), which are formally identical to the pronominal prefixes meaning 'first person subject/third person object', 'second person subject/third person object', and 'third person subject/third person object' respectively. These are the basic possession markers for inalienably possessed nouns. Other nouns are marked for possession
by inserting between these same prefixes and the stem an element *-n^y-. If such a system is reconstructed for Proto-Yuman, it can be assumed that the relationship between the possessive prefixes and the verbal pronominal markers has its source in pre-Proto-Yuman times, although the argumentation used in this paper makes use wherever possible of synchronically attested information of individual languages.

**Kinship terms**

The clearest evidence for the verbal origin of possessed forms is found in kinship terms, whose verbal nature is synchronically obvious in a number of languages, somewhat less transparent in others.

The analysis of kintems as verbs is due, as so much else in Yuman structure, to the work of Abraham Halpern, whose "Yuma Kinship Terms" (Halpern 1942) is the source of major insights into the functioning of this section of the lexicon in Yuma. For our purposes, the basic notion to be emphasized is that by far the largest number of kintemis of Yuma are based on verb themes. The syntax of the particular sentence in which they are used then determines whether their surface function is a verbal or a nominal one. A particularly pleasing corollary of this analysis is that it explains in a natural way why kintemis have elaborate plural forms, a category typically absent from most nouns. The productivity of the processes involved may be illustrated with various forms of the theme 'to call someone younger brother':

<table>
<thead>
<tr>
<th>Nominal</th>
<th>Verbal</th>
</tr>
</thead>
<tbody>
<tr>
<td>ašuc</td>
<td>'younger brother' 'to call someone younger brother'</td>
</tr>
<tr>
<td>?-ašuc</td>
<td>'my younger brother' 'I call him younger brother'</td>
</tr>
<tr>
<td>m-ašuc</td>
<td>'your younger brother' 'you call him younger brother'</td>
</tr>
<tr>
<td>Ø-ašuc</td>
<td>'his younger brother' 'he calls him younger brother'</td>
</tr>
<tr>
<td>acšuc</td>
<td>'younger brothers' 'to call each one of them younger brother'(distributive object)</td>
</tr>
<tr>
<td>ašucc</td>
<td>'their younger brothers' 'they call him younger brother'(collective plural)</td>
</tr>
<tr>
<td>u·šucv</td>
<td>'to have a younger brother'</td>
</tr>
</tbody>
</table>

In their function as possessed nominals, these forms act as true nouns, taking the typical demonstrative and case endings, and their use is completely straightforward. Their verbal function may be illustrated in the following sentences (from Halpern 1942:428):

**Yu:**

(1) mak^Ýe·c n^Ý-ašuc-mø-k (anyone-subject he/me-call=younger=brother-prative-tense) 'Nobody calls me younger brother(i.e. I don't have an older brother)'

(2) mak^Ýen^Ý n^Ý-ašuc-mø-c n^Ýa-ʔ-adú·-va (anyone-absolutive he/me-call=younger=brother-prative-subject when-I-be-perhaps)'I am nobody's younger brother'
These sentences show clearly that, not only is the kinterm a verb, it is a transitive verb, where the type of kin relationship is denoted by the stem, the subject is the possessor, and the object the possessed. Therefore, the notion 'my younger brother' is more exactly 'I call him younger brother, I have him as a younger brother' rather than, as might be supposed from the evidence of languages like English 'he is my younger brother, he is a younger brother to me'. In Yuma therefore (and, by extension in other Yuman languages since they pattern similarly), the focus is on the possessor's active identification of his relationship to his kinsman, which elegantly reflects the cultural fact that each kinship relationship demands from the individual certain obligations towards the kinsman. The emphasis is clearly on duty toward the other rather than on the possessor's position as recipient of the rewards implicit in the relationship.

The analysis of kinterms as verbs also affords an explanation for the internal structure of the fully specified possessive phrase where the possessor is expressed by an independent nominal as well. Thus, the phrase meaning 'the man's younger brother' would take the form literally translatable as "possessor noun(unmarked for case) + possessed form of kinterm", i.e. 'man his-younger-brother'. This can be construed as derived from a genuine predication of the form "man-subject case + inflected verb form with 3rd person subject and 3rd person object", i.e. 'the man calls him younger brother'. This predication is nominalized and marked for its appropriate case function in the matrix sentence in which it occurs. There are, however, a number of nominalizing processes in Yuman, and it is important to specify which one is involved here. Without going into the full demonstration which would take us too far afield, it should be pointed out that the only process of nominalization which is semantically appropriate to account for the meaning of the possessive construction is a headless relative clause, so that 'the man's younger brother' really means '(he whom) the man calls younger brother'. As is normal in this construction, the underlying subject (man) is no longer marked for subject, and the noun phrase as a whole is marked for its syntactic function in the matrix clause by the appropriate case ending suffixed to its last word. This analysis helps clarify the structure of sentence (2) above, where mak'yn y'n'asunəc is the relativisation of sentence (1), mak'yn being the non-subject form of the indefinite pronoun. The subject marker on the last word of (2), while strange at first since the verb aďu 'be' is marked first person, is nevertheless appropriate when this sentence is identified as a predicate nominal construction, requiring just such morphology (for a full discussion of predicate nominals in Yuman, see Munro 1976).

An exactly parallel sentence is attested in Diegueño:

(3) Di 'iḵpa' n'ya-xu'ma'y-c-yi-s (eagle he/me-calls=son-subject-he-emphatic) 'I am the eagle's son' [from underlying 'iḵpa-c n'ya-xu'ma'y (eagle-subject he/me-calls=son) 'The eagle calls me son'.]

With the verbal analysis of kinterms demonstrated for Yuma, it can now be shown that they have verbal forms in other Yuman languages as well, although the extent of the evidence suggests that not all possible forms are
productively used.

Mo: Unnamed -vuci'-c (me 1-daughter-subject) 'I have a daughter.'
Ya: ?n'-hakva-c (me 1-brother-subject) 'my brother (subject)'
'c-hakva (1-plural=object-brother) 'my brothers' 4

Ki:  

nku 'elder sister'  
n'ap nku 'my elder sister'  
h-nku 'she is elder sister to her'

Co:  

n'?e  'my father (woman speaking)'  
pn'u'?ay 'she calls him father, he is her father'
[p- is the marker of third person object, the infixed -u- is  
third person subject. Crawford (1966) identifies -y as a  
derivative suffix. While there is good evidence for such  
a suffix in Yuman, this particular form is also interpreta- 
tible as deriving from underlying n'?a'y since there is a rule  
in Cocopa deleting y and w after long vowels finally. The  
etymological presence of y in the noun is supported by cogna- 
tes in Mo and Ma which both have n'?ay]

kn'?wi  'my father's older brother'  
kn'?wis 'my father's older brothers'

Di:  

nema[w  'father's mother'  
'?-nema[w  'my father's mother'  
m-nema[w  'your father's mother'  
pa-nema[w  'his father's mother'

[The possessive prefix pa- indicating third person possession  
uniquely on kinterms, is unexplained synchronically in Die- 
gueño, but its source is clear when compared with Cocopa,  
where it is a productive part of verb paradigms to indicate  
third person object. It is thus a trace of the verbal nature  
of kinterms in Diegueño, though the verbal forms of 'father's  
mother' are not found in the language.]

Body parts

The demonstration that body parts can be analyzed as verbs (so that  
their possessed forms may be accounted for in the same manner as kinship  
terms) is not as straightforward and requires more circumstantial evi- 
dence. In order for the argument to become clear, it is necessary to  
bring in some general morphological information.

There is abundant evidence for the reconstruction of a Proto-Yuman  
prefix *1- 'body part marker on nouns'. In some languages, e.g. Yuma,  
most body-part terms do in fact have this prefix. In other languages,  
however, only some body-part nouns have the prefix, but there is suffi- 
cient evidence in all branches of the family to justify the reconstruc- 
tion. The synchronic facts can be accounted for by a process of reduc- 
tion which in many cases does not favor the retention of full vowels
in unstressed position. Examples of body-part terms with the prefix throughout the family are:

Yu:  i'to 'stomach'
     i'do 'eye'

Mo:  i'me 'leg'
     i'salv 'hand, arm'

Di:  i'cíx 'heart, chest'
     i'wi 'shoulder'

Co:  i'xu 'my nose'
     i'salv 'my hand, arm'

Pa:  ?ičer 'my chest'
     ipu'k 'neck'

Ya:  hi'wil 'hip'
     i'waya 'heart'

Wa:  yowa'y 'heart'
     yopal 'tongue'

Ha:  yiwaya 'heart'
     ipál 'tongue'

It is now possible to raise the question of whether this is simply a totally isolated prefix or whether it can be related to other aspects of the structure of Yuman languages. Abraham Halpern (personal communication) has suggested a possible relation in Yuma of the body-part prefix i'- to a homophonous verbal prefix which typically (but not necessarily) cooccurs with a suffix -v to derive verbs from other verbs to mean 'to be worthy or capable of doing V, having V done to one' (Halpern 1947:27). This, in turn, contrasts with another process for deriving verbs from verbs by a prefix u-- also cooccurring with -v to mean 'to be one who does V, to have been doing V' (Halpern 1947:26). The common presence of -v accounts for the essentially medio-passive sense of these forms, and the remaining contrast between u-- verbs and i-- verbs is that the former focus on some activity directed to an object distinct from the subject, whereas the latter reflect attributes of the subject which are inherent, spontaneous, or self-induced. Although I am not positive of this, I believe that neither verb type allows overt objects because of the medio-passive component. Halpern's examples will illustrate these derivations.

Yu:  u'súc'v 'to have a younger brother' (from a'súc 'to call someone younger brother')
     ku'nác'v 'to be one who orders' (from kanác 'to order, summon')
There are also other verbs in Yuma which contain the prefix ı'-, and do not require the suffix -v. They also clearly belong to the class of verbs that focus on inherent, spontaneous, or self-induced states of their subjects. Thus:

Yu:  

naň'i:nuy  'to be rich'
nyi'na'm  'to be important'
ni'mar  'to be alone'
n'i:xú'  'to make a confused noise'
i'má  'to dance'
ti'ná'äm  'to be dark'
n'i'ká'äm  'to defeat'
k'as'i:de'  'to be a doctor'
?i:xan  'to be pretty'
xi:pük  'to be first'
?i:pá'  'to be a man'
xi:pán  'to be near'

The semantic link between the category of body-part nouns and verbs containing the prefix ı'- should now be fairly obvious: it consists of the inherent (=inalienable for body parts) notion. They are both somehow self-centered.

The ı'- verbal prefix is attested in other Yuman languages as well, in semantic areas completely compatible with that described for Yuma. Thus:

Mo:  

i'doyv  'to be sharp, have a sharp edge'
i'ma  'to dance'
i'we*  'do oneself, have one's own'
i'wev  'pay attention to'

[The situation is complicated in Mojave by the fact that so many verbs begin in short ı-, some of which, though certainly not all, may be related to the set in question. I have refrained from trying to sort them out. It is also possible that most of the Mojave examples (except 'dance') are ultimately derived from body parts.]

Di:  

i'ca'  'to think'
i'xaipay  'to be in a hurry'
i'nyawp  'to be lost'
i'waiyp  'to be clearly visible'
?omi'pi lp  'to be dusty' (from ?ompil 'ashes')
?omi'wan  'to be lazy'
?i'xaat  'to be greedy' (from?oxaat 'dog, domestic animal')
?i'ku'  'to be big'
?i'pat  'to be alive'
somīˈrāˈy 'to be simple-minded' (cf. saˈmərəˈy 'to be drunk')
xiˈlāy 'to be limp'
mawkiˈwaiˈyk 'to forget'
ʃiˈyuˈsp 'to be proud'

Co: Crawford (1966:112) defines the prefix i- as follows: "...denotes the subject of the verb as assuming the attributes of, or performing the action indicated by, the verb stem." Examples:
iˈxay 'I get wet, it is soupy' (from xay 'be wet')
ʃkiˈmirq 'become slick, slippery' (from ʃkmirq 'be slick, slippery')
mšiˈyaˈyip 'it's frightening' (from mšyayp 'it is dangerous')
mɩˈxaˈn 'it is good, pleasant' (from mxan 'to look at')
iˈpaˈy 'to rise from the dead'
ɾiˈwiˈɾ 'to compare, contrast'
xiˈpuˈk 'to be first'
iˈxaˈa 'to be an enemy' (from xˈa 'enemy')
ciˈxay 'to be windy' (from cxa 'wind')

Pā
iˈkˈis 'to grab'
iˈxan 'to saddle up'
iˈma 'to dance'
iˈko 'to have (someone) along'

Wā
yipar 'to learn'
yima 'to dance'
yapaˈk 'to be dark'
yapal 'to be greedy'

Kī
hiˈpət 'to project, draw out'
hìˈhiˈw 'to fly'

One interesting aspect of the above list is the fact that the i-prefix apparently can derive verbs from either verbs or nouns. While most body parts are not further analyzable after removal of the body part prefix, some suggest a derivation somewhat parallel to that of the verbs above. Thus *iˈ-tu 'belly' can be related to a stem *tu meaning 'center', so that 'belly' can be interpreted as 'that which one has as one's center', and *iˈ-xu 'nose' may be compared to a stem *xu 'hole, orifice', and 'nose', is 'that which one has as an orifice'. A fully specified possessed body-part phrase such as Yu iˈpaː. iˈxu 'the man's nose' can be interpreted in exactly parallel fashion to the kinship terms, i.e. 'that which the man has as an orifice', even though it is clear that the body parts have become reanalyzed as nouns a long time ago. Many body parts can, in fact, be reconstructed for Proto-Yuman, complete with the 'body part' prefix i-. There is also good evidence (Osvald 1977) for a Proto-Hokan prefix **i associated with body parts. Whether the verbal prefix *i- of Yuman is attested in other Hokan languages as well is a question which needs investigation.
There is also within Yuman some evidence for relating the prefix i- to an independent lexical item which might be reconstructed as *yay 'soul, heart, breath, self', suggesting that the i- prefix is a reduced form of this word. Independently motivated rules within the history of Yuman, and particular in Yuma (see Langdon 1976) would produce just this result. The prefix i- could then be seen to represent an instance of the well-attested process of noun-incorporation, which in Yuman is specifically restricted to demonstratives, and some basic body parts.

A full demonstration of this hypothesis is well beyond the scope of this paper. Suffice it to point to alternatives such as Di i'wi' ~ ey-wi' and to the fact that in Havasupai, the normal Yuman reflexive *mat (incidentally related to the word for body *i'ma't) is replaced by an element yevm (ye-v-m). In addition, there is evidence for a more recent instance of just the process of noun incorporation suggested above with the element yav in Diegueño verbs of emotion such as

\[\text{eyay } \text{'to be glad'} \quad (\text{lit.'his heart is good'})\]
\[\text{eyay } \text{'to be sad'} \quad (\text{lit.'his heart is bad'})\]

which in some dialects become single words inflected like all other verbs.

Alienably Possessed Nouns

As noted above, nouns which are neither kintems nor body parts mark possession with the same prefixes followed by an element -n'. If the base noun normally has the nominal prefix ?, this prefix is lost in the possessed form. Thus

<table>
<thead>
<tr>
<th>Yu</th>
<th>?axaṭ</th>
<th>'horse'</th>
<th>n'aaxaṭ</th>
<th>'his horse'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mo</td>
<td>?utis</td>
<td>'gun, bow'</td>
<td>n'utis</td>
<td>'my gun'</td>
</tr>
<tr>
<td>Di</td>
<td>?aWHAT</td>
<td>'knife'</td>
<td>n'ahk'e</td>
<td>'my knife'</td>
</tr>
<tr>
<td>Co</td>
<td>apa n'awa</td>
<td>'water'</td>
<td>n'y'awa</td>
<td>'my tears'</td>
</tr>
<tr>
<td>Pa</td>
<td>n'amat</td>
<td>'house'</td>
<td>n'mati</td>
<td>'your house'</td>
</tr>
<tr>
<td>Ya</td>
<td>n'wa</td>
<td>'homeland'</td>
<td>n'xat</td>
<td>'husband'</td>
</tr>
<tr>
<td>Ha</td>
<td>n'yama</td>
<td>'home'</td>
<td>n'mni</td>
<td>'my necklace'</td>
</tr>
<tr>
<td>San</td>
<td>n'yawa</td>
<td>'the man's house'</td>
<td>n'yawa</td>
<td>'his pocket'</td>
</tr>
<tr>
<td>Hov</td>
<td>n'ya</td>
<td>'the man's wife'</td>
<td>n'yu</td>
<td>'the man's wife'</td>
</tr>
</tbody>
</table>
It should come as no surprise at this point to find out that there is also a verbal derivative prefix n'y- to which it is not always possible to give very precise semantic content but which, in Yuma at least, has been identified by Halpern (1946:212) as occurring in conjunction with the suffix -v to form verbal derivatives with the meaning 'to be possessed of' thus providing overtly the needed semantic link with the possessed noun. Thus

Yu  ku'pet 'quiver'  n'yaku'petv 'to be equipped with a quiver'
    ?uti's 'bow'   n'uuti'sv 'to be equipped with a bow'
    xu'mar 'to be young'  n'axu'marv 'to have a child'

In addition, the prefix enters into the formation of the most common verb of possession which allows periphrastic constructions to indicate possession in competition with the formations discussed in this paper.

Yu  n'y'u'wic 'to own'
Mo  n'u'wic 'possession, belonging'
Di  n'y'wic 'to have'
Ki  n'y'i 'to have'

The cognates in the Pai subgroup all lack the n'y- prefix.

I therefore suggest that possessed nouns which are neither body parts nor kinterms are essentially verbs derived from the base nouns by the verbal prefix n'y- 'to be possessed of', an analysis which is supported by the actual occurrence of at least some instances of these forms as overt verbs. Thus, in Diegueno, it is clear that there is a verb n'y'axat 'to have a pet', derived from ?'axat 'dog, domestic four-legged animal, pet', as shown in the sentence

Di  ?'axat ?on'y'axats 'I have a pet dog.'

where the suffix -s identifies the word it is attached to as the verb.

Conclusion.

There are many aspects of possession in Yuman languages that have not been treated in this paper and which require detailed comparative attention. The possession markers I have dealt with here are clearly the most archaic layer of the syntax of possession in Yuman. I hope to have shown that there is evidence for identifying forms which have typologically been called possessed nouns as underlying verb forms inflected for subject (and object in the case of kinterms) in such a way that the possessor is the subject. This accounts elegantly for the formal identity of markers of possession and markers of subject pronominal reference.
Footnotes

1 A first version of this paper was presented at the Hokan-Yuman work-
shop held in San Diego in June 1976. The research on which this paper
is based was supported by NSF grant SOC 74-18043.

2 Language abbreviations used are: Yu = Yuma, Mo = Mojave, Ma = Maricopa,
Di = Diegueño, Co = Cocopa, Pa = Paipai, Ha = Havasupai, Ya = Yavapai,
Wa = Walapai, KI = Kiliwa. Sources of the data cited in this paper are
as follows: Yu: Halpern 1942, 1946, 1947; Mo: Munro 1976, Munro and Brown
1976; Di: Langdon 1970, Couro and Hutcheson 1973, Langdon 1976a; Co:
Crawford 1966; Pa: John 1966; Ha: Kozlowski 1972, Hinton 1977; Ya:

3 For a detailed discussion, see Halpern (1942:428).

4 Martha Kendall, personal communication.

5 Note that the position of the prefixes u- and i- is immediately
preceding the stressed root, i.e., in the first prefix position.

6 Halpern (1946:212) actually identifies nY- in these verbs as the
third person possessive marker of nouns. While I agree with the identi-
ty of the two elements, I consider the verbal function as primary.
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Occasional Papers On Linguistics


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Number 2
OCCASIONAL PAPERS ON LINGUISTICS

Number 2

PROCEEDINGS

OF THE

1977 HOKAN-YUMAN LANGUAGES WORKSHOP

James E. Redden, Editor

Held at

University of Utah, Salt Lake City

June 21-23, 1977

Department of Linguistics
Southern Illinois University
Carbondale, Illinois

Library of Congress Catalog

Number 73-66354
The first meeting of linguists working on Hokan and Yuman languages was held at the University of California, San Diego, in 1970 at the invitation of Margaret Langdon, who established the Yuman Languages Archives with the aid of a National Science Foundation grant. This meeting made it possible for various specialists working on these languages to get to know each other and to benefit from technical discussions of many problem points. Those attending this first meeting felt that the papers and discussions contributed so much to the advancement of the understanding of these languages that participants soon began asking when we would meet again. In 1975 Margaret Langdon again invited the Yumanists to meet at San Diego. It was felt that this and the previous meeting had contributed so much to the collective understanding of Hokan and Yuman that it was decided to meet every year if it could be arranged. In 1976 another workshop was held at UCSD, to which both Hokanists and Yumanists were invited. In 1977 Hokanists and Yumanists met at the University of Utah in Salt Lake City. In 1978 the meeting will again be at UCSD.

The participants of the 1977 Hokan-Yuman Languages Workshop gratefully acknowledge all the work done by Professor Mauricio Mixco and his assistants, which made the workshop run so smoothly and enjoyably.

Unfortunately, everyone who presented a paper at the 1976 Hokan-Yuman Languages Workshop was not able to prepare a final version for inclusion in this volume. All papers in this volume were presented in an earlier version at the 1977 workshop. The papers are arranged in the order that they appeared on the program at the workshop. The Yuman papers were given first, and papers from the other branches of Hokan followed.


The proceedings of the 1975 and 1976 workshops are now out of print, but copies may be obtained in microfiche or hard-bound copies from ERIC Clearinghouse on Languages and Linguistics, Center for Applied Linguistics, 1611 N. Kent Street, Arlington, VA 22209.

James E. Redden
Carbondale, May 1978
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