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The Evolution of Certain Cochimí Aspectuals and the Cochimí-Yuman Hypothesis
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The Cochimí and Yuman languages are neighbors on the linguistic map of Lower California. The former has been extinct since the beginning of the nineteenth century, the latter are still spoken in four major divisions: California-Delta, Pai, Kiliwa and River. Only the last of these is not found in the Lower California peninsula.

For some time scholars have been suggesting a genetic link between Yuman and Cochimí (see Troike, 1976). The existence of this relationship has been conclusively demonstrated in Mixco (1978). It is shown that Cochimí and Proto-Yuman are collateral descendants from a single Cochimí-Yuman proto-language.

Cochimí was not a homogenous entity but rather a family of dialects which can be grouped into two major divisions; Northern and Southern. The line of greatest dialect differentiation falls across the Central Desert of the peninsula near the now defunct Jesuit mission of San Ignacio at approximately the 28th parallel.

Until quite recently virtually all information on Cochimí came from the southern division of Cochimí dialects. Recent research in the manuscript collections of the Vatican and Jesuit Historical Institute Libraries has remedied this situation. An extremely valuable catechetical dialogue in a Northern Cochimí dialect has provided much of the data upon which this study will focus.¹ The object here is to compare the Northern and Southern dialects with Proto-Yuman with regard to one syntactic structure—the Cochimí Aspectuals. These reveal strong motivation for the proposed Cochimí-Yuman hypothesis.

Pamela Munro's Mojave Syntax (1976) made available to Yumanists the analysis of the predicate nominal construction which explained the presence of a -č 'subject' suffix not on the expected sentence-initial noun phrase but rather on the second or predicate nominal which immediately precedes the copular verb -idu: 'to be'. Munro explained this apparent aberrancy by proposing that the -č 'subject' marked not a nominal subject but rather a complement subject of which 'to be' was a higher predicate, as in figure 1.

Figure 1. Yuman Predicate Nominal Structure
This same structure can be found with only minor variation in all the Yuman languages making it a reconstructible syntactic structure of Proto-Yuman. It should be added that Munro also accounts for the pronominal agreement of the higher verb with NP₁ (the apparent "subject") as a transformational reanalysis based on the SOV structure of the Yuman languages. The pronominal prefixes are ?- 'first person', m- 'second person' and zero for 'third person' "subject" (i.e. NP₁).

The Be higher verb of the predicate nominal in Yuman is one of three "Copular" or "auxiliary" predicates that reflect the semantic character of the lower complement for Proto-Yuman. These would have been: *wi 'Do, Active'; ?i 'Say, Experiential' and finally *yu 'Be, Stative'.

Turning to Cochimí, we find many syntactic parallels with the Yuman structures just described. We again encounter the "copular" or "auxiliary" higher verbs, in this case: ?i 'Say, Be'; wi 'Do, Be', yi 'Be'. Likewise the pronominal prefixes of Cochimí are identical to those of Proto-Yuman: ?- 'first person', m- 'second person' and zero for 'third person'; these are exemplified below:

1. Kistiano pa-t m-yi-e 'Are you a Christian?' (Christian this-subj 2-Be-interr)
2. Kistiano pa-x'a wi 'This is a Christian' (Christian this-pat. Be)
3. Dios pa wi 'This is God' (God this Be)
4. Dios=ak ?i-m, wisay ?i-m Santo Espilitu 'There is god the Father, the Son and the Holy Spirit.' (God=Father Be-diff, son Be-diff Holy Spirit)
5. Pesonasi Komyek wi-m wi 'There are three persons' (Persons Three Be-diff Be)

It is instructive to note the -t 'subject' suffix (cognate with Proto-Yuman ± 'subject') occurring on what can be interpreted as a complement subject in example (1) as in the Yuman predicate nominals.

The cognition of Proto-Yuman ± 'subject' is with Cochimí t - l. The Southern dialects show -la as the nominal subject suffix while the northern dialects show -l (or the -t just exemplified). Before investigating the comparative repercussions for this etymology we must preface our remarks with a description of the phonological reduction of wi 'Be' to u 'Be' a process not alien to the Yuman languages. The following Cochimí sentences exemplify the alternation wi - u:

6. penayu nekena-pa ?imayuxup m-ya m-u 'Our Father you are in Heaven'
   (we Father-our heaven 2-1ie 2-Be) (Southern Cochimí; Lord's Prayer, line 1).
With the t/1 and wi/u variations in mind we can now turn to the following aspectual structures in Northern Cochimí which show the function of (h)u 'perfective':

(8) ibaŋ komyek-aŋ met awadip hu
    (day three-loc self arise perf.)
    'He arose on the third day'

(9) awadip hu-1-u-1 ?ña-aŋ we
    (arise perf-subj-Be-subj where-lie-loc go)
    'Having arisen, where did he go?'

While the synchronic status of hu 'perfective' may be that of a postclitic or particle it is quite plausible to internally reconstruct its source in an earlier subject complement with a subject suffix followed by *wi 'Be' which having reduced to a u has added an h-onset, a not infrequent rule in Yuman. The original *wi 'Be', a higher verb, would have been reanalyzed as a particle with subsequent loss of the -1 'subject' suffix after the verb awadip 'to arise'. The fact that hu is followed by -1-u-1 supports the analysis depicted in figure 2.

```
  S
  /\  
 /  \  
 S   φ
   /\  
  /  \  
 S  -(h)u-1
     /\  
    /  \  
   S     -hu-1
```

Figure 2. Northern Cochimí Perfective

This analysis for Northern Cochimí receives support from the Southern Cochimí perfective structure marked by -ta 'preterite' (Mixco, 1978). Recall that Southern Cochimí has -la 'subject', given the t/l variation in Cochimí it is not far-fetched to trace both -la 'subject' and -ta 'preterite' to an earlier *ta 'subject' which marked a subject complement of a higher verb *wi 'to be'.

Thus in each dialect we find a reanalysis of the original structure, as a consequence of phonological changes in Northern Cochimí an original *wi 'to Be' becomes (h)u 'perfective', with loss of the now irrelevant -1 'subject' immediately following the
verb. In Southern Cochimí we must suppose a massive syntactic simplification involving the loss of all traces of higher verbs and complement suffixes, leaving only the lowest -ta (*<ta 'subject') to be reanalyzed as the 'preterite' perfective suffix. Figure 3 recapitulates these stages:

![Diagram of Cochimí Perfectives]

There is evidence for an original *ta-wi sequence in the taká 'future' aspectual. However before discussing this form we must first discuss some relevant Yuman developments.

In Mohave Munro (1978) finds an intimate historical relation between such complex aspectuals as -k-m and -p-č and the earlier -k-idu:-m and -p-idu:-č respectively. Munro explains the loss of the verb -idu:- 'Be' (<P-Yu *yu 'Be') through the action of lenition rules that reduced the distinctiveness of the auxiliary until it totally disappeared. Munro finds support for this contention in a Yavapai dialect in which the k-yu-m/k-wi-m complex aspectual sequences of other dialects have been reduced to a-kem.

It should be clear how all this relates to taká 'future'. Even before the new Northern Cochimí data became available it was obvious that the future aspectual was morphemically complex. It was proposed (Mixco, 1978) that the first syllable -ta- was the -ta 'perfective', which would now have to be glossed 'non-present'; the remaining -ka was conveniently cognate with Proto-Yuman *xa
'irrealis' and could thus be analyzed as -ka 'irrealis'.

The Yuman aspectuals of Mohave and Yavapai are the clue to the historic source of taká 'future' in an earlier *ta-Aux-ka sequence. Loss of the Auxiliary lead to the formation of taká. The *ta morpheme was none other than *ta 'subject' (rather than 'non-present'). The missing Auxiliary is the supporting motivation for the earlier analysis of the Pre-Cochimi perfective in figure 3. Thus both aspects, 'perfective' and 'future' shared the sequence *ta-Aux... as they both involved subject complements of the higher Auxiliary (see figure 3).

This historic analysis, limited as it may be by the fragmentary data available, has strengthened the proposed link of Cochimi to Yuman. For even in these syntactic idiosyncrasies the languages give off resonant echoes one to the other.

In closing it is important to emphasize the reciprocity of grammatical motivation to be gained through the comparison of Cochimi and Yuman. Not only do Yuman data clarify Cochimi history but it seems fair to say that the opposite is also true. The occurrence of a Proto-Yuman *tɛ 'subject', Co *ta 'subject' on different types of subject complements leads us to conclude that there was a greater variety of syntactic contexts for this phenomenon than has been suspected by Yumanists up to now. It is clear that the proposed Cochimi-Yuman proto-language will become an important point of reference for the reconstruction of both Proto-Yuman and Pre-Cochimi.

NOTES

1 I gratefully acknowledge the financial support of the Faculty Research Committee of the University of Utah which facilitated acquisition of the materials for this study in Europe. The analysis offered will be incorporated in a lengthier comparative treatment of the Northern Cochimi data.

REFERENCES

