UTO-AZTECAN *ps (AND *sp, TOO?)[1]

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This paper is part of an ongoing effort (see Manaster Ramer 1984; 1986, 1991*a*; 1991*b*; 1992*a*; 1992*b*; 1992*c*; 1992*d*; in press; and to appear) to reconstruct the Proto-Uto-Aztecan (PUA) syllable-final phonology (stress, vowel length, and syllable-final consonants). These phenomena have remained elusive even as vowel qualities and syllable-initial consonants were being worked out by earlier investigators. Since syllable-final features are commonly less stable than initial and medial ones in the languages of the world, this state of affairs seems to be exactly as expected.

To be sure, the pioneers of PUA reconstruction, Sapir (1913–14; 1933) and Whorf (1934; 1935), did have very specific ideas in mind regarding the syllable-final features. However, some of the crucial work remained unpublished, and most of the proposals were never supported by an adequate set of etymologies.

Later, as new information about more and more individual UA languages became available, various difficulties became apparent. As a result, just as the accumulation of new data should have made further advances possible, it actually produced a retrenchment. The PUA reconstructions of Voegelin, Voegelin, and Hale (1962), Miller (1967), Langacker (1977), and Campbell and Langacker (1978) are much more cautious, and often deliberately noncommital, about most points of syllable-final phonology. As a result, these reconstructions have been quite imprecise when compared to those established for many other protolanguages.

So far, there seems to be compelling evidence for a large number of noun and verb stems ending in a variety of consonants as well as some evidence for stems with medial geminates and nasal-obstruent clusters (Manaster Ramer, to appear; in preparation *a*). In addition, there are indications of two other clusters appearing medially in PUA stems, *-*ʔc*- (Manaster Ramer 1992*b*) and *-*tw*- (Manaster Ramer 1991*b*).

In this paper, we would like to present the sparse, but to our mind compelling, evidence for at least one and perhaps two more clusters in PUA, viz.: **ps* and, less certainly, **sp*. For each of the three etyma that will be mentioned, we cite attestations from at least one Northern and one South-

[1] Thanks to Wick Miller for his careful comments.

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ern Uto-Aztecan (NUA and SUA) language, in order to assure the PUA provenience of the word itself. The evidence for the clusters is usually less widespread than the evidence for the etymon itself and is discussed after the data are presented.

Aside from the clusters under discussion, these etyma for the most part exhibit the regular correspondences that have been worked out for the languages involved, together with the kinds of irregularities that are also well known, e.g., the vacillation in the final vowel of (1), which is typical of many UA verb stems and which probably reflects an old layer of suffixal morphology. Any unexpected irregularities are commented on explicitly.

(1) PUA: **hapsi* 'arrive'
NUA:
Tubatulabal: *apsV-*
SUA:
O'odham: *aha* (← **asa*)
Mayo: *yepsa*
Guarijio: *asi-*
Eudeve: *hasé-n*
Nahuatl *ahsi*

The *ye-*, instead of expected **a-*, in the Mayo form cannot be explained at present, but the agreement between the Tubatulabal and Mayo forms with respect to the medial cluster points to a PUA prototype with a **ps* cluster, from which both the Mayo and the Tubatulabal forms must derive. It seems possible that the *hs* instead of a plain *s* in the Nahuatl is also a reflex of the cluster, since this language realizes certain other PUA consonant clusters as *h* + consonant as well (Manaster Ramer, in preparation *b*). The other two languages where we have so far found this word show a simple *s*, which may be assumed to be the regular reflex of this cluster.

(2) PUA: **kapsi* 'thigh'
NUA:
Hopi: *qa^{h}si*
Tubatulabal: *hapsi-l*
Luiseño: *qaaşi-l*
SUA:
O'odham: *kahi-o*
Guarijio: *kasí*

In this case, we unfortunately lack a Mayo (or even a Nahuatl) cognate. Only Tubatulabal provides clear evidence of the **ps* cluster. However, the *^{h}s* instead of a simple *s* in Hopi is consistent with the idea that Hopi realizes PUA consonant clusters as preaspirated consonants (Manaster

Ramer 1986). The simple *s* in Luiseño can be regarded as the regular reflex of the cluster.

We now turn to our third example, where the PUA cluster is harder to reconstruct:

(3) PUA:		**oCCi* 'teardrop'
NUA:		
	Tubatulabal	*opsi-*
	Serrano	*-öşp*
	Luiseño	*-es*
	Cupeño	*-is*
SUA:		
	O'odham	*oo-ʔog* (← **oo-ʔowV*)
	Mayo[2]	*op-wa-m*, *okş-a-m* (← **osp-wa-mV*)
	Guarijio	*oʔke-wa*

In this case, the alternation between the Mayo (SUA) *p* and the Luiseño/ Cupeño (NUA) *s* would, of course, by itself point to a cluster, but which one? Tubatulabal and Serrano both preserve the cluster, and, while one of the two languages must have metathesized it, it is still far from obvious which was the original one.

If we set aside the Guarijio form, we could get away with PUA **ps*. This would be the most economical solution, since we already have evidence for this cluster. In order to account for the attested forms, we would assume that this metathesized to **sp* in Serrano. Whether the metathesis was sporadic or regular, we cannot tell, because we possess no Serrano reflexes of **hapsi* or **kapsi*.

Turning now to the SUA reflexes, we see that both Mayo and O'odham have forms with a suffix **-wa*, before which the final vowel of **oCCi* has syncopated. This serves to obscure the picture considerably. Thus, in Mayo, we see a contrast between *ps* in *yepsa* and *p* (or *kş*) in *op-wa-m* (or *okş-a-m*), which might seem to argue for a distinction in the protolanguage.

However, it is possible that the distinct Mayo reflexes are due to conditioned changes. For example, the *p* in *op-wa-m* and the *kş* in *okş-a-m* could be the regular reflexes of *ps* before a syllable boundary. Of course, we would have to state a precise rule for the presumed syncope and to derive the presumed suffix, but the scenario is perfectly reasonable. We would simply assume that **opsi-wa-mV* went to **ops-wa-m* and then to *op-wa-m* or *okş-a-m*.

The O'odham forms are even less telling. While the contrast between *aha* vs. *oo?og* might seem to support the reconstruction of different clus-

[2] The second of the Mayo forms is only given by Miller (1987).

ters in these two words, it seems instead that the situation is similar to that in Mayo. O'odham *h* comes regularly from **s*, whereas **h* yields zero, so we can postulate **hapsV* → **asV* → **aha*. O'odham *g* derives regularly from **w*, so *oo-ʔog* represents **oo-ʔowV*, the reduplication of a hypothetical **owV*, which we would compare with the Mayo *op-wa-*. The *g* reflects the **w* of the presumed **-wa* suffix, and the whole cluster (whatever it was) has disappeared at the syllable boundary. The derivation would be something like this: **oo-ʔops-wa* → **oo-ʔo-wa* → *oo-ʔo-g*.

Thus, in the end, the only evidence for a PUA contrast between the cluster in *oCCi* and that in *hapsi* and *kapsi* comes from Guarijio, which appears to have *s* for **ps* as opposed to *ʔk* for **sp*. If this is correct, then we will assume that Serrano, rather than Tubatulabal, preserves the original cluster in PUA. In this case, **ps* gives Mayo *ps*, whereas **sp* gives Mayo *p* (or *ks*). The *s* in Luiseño and Cupeño as well as the *ps* in Tubatulabal would now be seen as regular reflexes of both PUA **sp* and **ps*.

However, there seems to be an unexplained discrepancy in the second vowel of Tubatulabal *opsi* and Guarijio *oʔke-*, which we cannot explain at the moment. More seriously, the idea that *ʔk* is the regular reflex of **sp* appears so implausible that, in the absence of examples in addition to the lone *oʔke-wa*, it is difficult to be sure that this is indeed the correct theory. One possible alternative is that *oCCi* did indeed have a cluster distinct from **ps*, but that this was not **sp* but rather some other combination, from which it would be easier to derive *ʔk* (for example **sk* or **sk*^{w}).

The trouble, of course, is that not enough words with these clusters are attested in enough languages. Yet until more relevant data come to light, many of the details must remain murky. But the existence of **ps* in two words of PUA (and the existence of SOME cluster in a third) seems to be established.

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