# Classifying Zuni

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Among various 20th century proposals for the affiliation of Zuni, the idea, presented in an unpublished note by John P. Harrington (cf. Campbell 1997: 78), that Zuni is related to Hokan, seems to be the most productive. Such a relation suggested itself again through the ASJP project of automated language comparison. In the similarity-based tree of the world's languages by Müller et al. (2009), meant to be exploratory and hypothesis-generating, Zuni emerged as a sister of Chimariko. In the later version of Müller et al. (2013), Zuni appears as a sister of Salinan. Taking these leads, Wichmann (2015) looked closer at the total evidence, using Hokan reconstructions by Kaufman (1989, n.d.). Seventy-seven possible Hokan-Zuni cognate sets are presented. They exhibit a number of regular correspondences and the semantic latitude allowed is minimal. Among the apparent cognates are some that might qualify as "individual-identifying evidence" in the sense of Nichols (1996), i.e. combinations of evidence that are highly unlikely to be coincidental. Thus, there are two possible cognates meaning 'louse', which is the fourth-most stable concept of the Swadesh list according to Wichmann and Holman (2023: Table 3): pHokan **imelʸa* 'flea, louse': Zuni *me* 'body louse' and pHokan **pélʸa* 'worm; flea/louse': Zuni *piłašo* 'rabbit louse'; and there are two cognates meaning 'to say', where one looks to be derived from the other through an element *i-*, namely pHokan **kʸa* : Zuni *kʷa* and pHokan **ikʸ'a* : Zuni *ʔikʷa*. Also strengthening the evidence is the fact that it tends to be the more stable rather than less stable meanings on the Swadesh list that recur in the possible cognate sets. It is interesting to compare this to the opposite case of Quechuan-Aymaran, where similarities increase as stability decreases, something which was used as an argument for contact rather than inheritance in that case in Heggarty (2010). The proposed cognates include representatives of 36.3% of the 40-item extra-stable subset of the Swadesh list of Holman et al. (2008). All this evidence together makes for an unusually strong argument for a long-distance relationship.

The present paper will review the evidence, attempt to retrieve the cognates underlying the reconstructions by Kaufman that were not included by Kaufman himself—he just presents the bare reconstructions—, add morphological comparisons, inspect relevant work by Harrington, and include discussion of the Hokan family proposal, which is in itself not uncontroversial.

**References**

Campbell, Lyle (1997), *American Indian Languages: The Historical Linguistics of Native America*, Oxford: Oxford University Press.

Heggarty, Paul (2010), Beyond Lexicostatistics: How to Get More out of "Word List" Comparisons, *Diachronica* 27, 301–324.

Holman, Eric W., Søren Wichmann, Cecil H. Brown, Viveka Velupillai, André Müller, and Dik Bakker (2008), Explorations in Automated Language Classification, *Folia Linguistica* 42(2), 331-354.

Kaufman, Terrence (1989), Some hypotheses regarding Proto-Hokan grammar. Paper presented at the Hokan-Penutian Workshop, July 4-5, 1989 (ms. in possession of the author).

Kaufman, Terrence (N.d.), A research program for reconstructing Proto-Hokan: First gropings (ms in possession of the author).

Müller, André, Viveka Velupillai, Søren Wichmann, Cecil H. Brown, Pamela Brown, Eric W. Holman, Dik Bakker, Oleg Belyaev, Dmitri Egorov, Robert Mailhammer, Anthony Grant, and Kofi Yakpo. (2009), ASJP world language tree: Version 1 (April 2009). https://asjp.clld.org/download

Müller, André, Viveka Velupillai, Søren Wichmann, Cecil H. Brown, Eric W. Holman, Sebastian Sauppe, Pamela Brown, Harald Hammarström, Oleg Belyaev, Johann-Mattis List, Dik Bakker, Dmitri Egorov, Matthias Urban, Robert Mailhammer, Matthew S. Dryer, Evgenia Korovina, David Beck, Helen Geyer, Pattie Epps, Anthony Grant, and Pilar Valenzuela (2013), ASJP world language trees of lexical similarity: Version 4 (October 2013). https://asjp.clld.org/download

Nichols, Johanna (1996), The comparative method as heuristic. In M. Durie, and M. Ross (eds), *The Comparative Method Reviewed: Regularity and Irregularity in Language Change*, Oxford: Oxford University Press, 39–71.

Wichmann, Søren (2015), Harrington was right: Zuni is Hokan. Paper presented at Societas Linguistica Europaea 48th Annual Meeting, Leiden, Sept. 2-5, 2015.

Wichmann, Søren and Eric W. Holman (2023), Cross-Linguistic Conditions on Word Length. *PLOS ONE* 18(1), e0281041.