

## Laryngeals in Guarijío (Uto-Aztecan): Synchrony and Diachrony

Laryngeal consonants, and especially the glottal stop, are notoriously problematic in the analysis of Uto-Aztecan (UA) languages, both in the synchronic description of individual languages and for the reconstruction of the sound system of the protolanguage (Proto-Uto-Aztecan; PUA). The presence of glottal stop was a notoriously difficult issue for early (i.e. 16<sup>th</sup> and 17<sup>th</sup> century) Spanish-speaking analysts of Classical Nahuatl (they referred to it as *saltillo*, i.e. ‘little skip’), and close attention must still be given to language-specific phonological organization in order to understand how glottal stop and /h/ function synchronically in each individual UA language. For example, while in some languages glottal stop is straightforwardly analyzed as a phonemic consonant (e.g. Yaqui; Dedrick and Casad 1999), in other languages glottal stop has been argued to be phonemic consonant while also occurring as a vowel feature in predictable phonological environments (Hagberg 2000). In Cahuilla, glottal stops serve to mark morpheme boundaries and are not themselves attributable to one morpheme or another (Seiler 1965).

This paper seeks to shed new light on the nature of glottal stop in the Southern Uto-Aztecan language Guarijío (ISO-639-3 var), which is spoken in Chihuahua and Sonora, Mexico. Previous work (e.g. Miller 1996, Félix Armendáriz 2005) has assigned phoneme status to glottal stop, and this assumption has also been adopted in historical linguistic works using Guarijío evidence in UA historical reconstructions. For example, crucial evidence involving the blocking of Manaster Ramer’s (1992) sound law of Northern Uto-Aztecan palatal lenition (i.e. \*-c- > -y- / V \_\_ V) has relied on the presence of glottal stop in Guarijío being evidence that glottal stop was also present in PUA (and thus \*-c- would not have been intervocalic and lenition would not have applied). In multiple cases, Guarijío data is presented as the only evidence for PUA glottal stop (see below).

With respect to the synchronic phonology of the Mountain dialect of Guarijío (as described by Miller 1996; henceforth, MG), several lines of argumentation lead to a conclusion that glottal stop may not actually be a phonemic consonant in the synchronic phonology of that variety of the language. (Miller 1994 describes some dialect differences between the Mountain dialect and River dialect, including differences in the distribution of glottal stop; Félix Armendáriz 2006 exclusively describes the River dialect). Macaulay and Salmon (1995) argue that glottal stop is an arbitrary floating feature of roots in another (non-UA) language of Latin America, Mixtec, rather than being a full-fledged phoneme with consonantal status in that language. I argue that a similar analysis best accounts for the distribution of glottal stop in the synchronic analysis of MG: specifically, I claim that certain MG roots carry an arbitrary morphological feature that triggers the insertion of a glottal stop in the first syllable of the word. There are multiple lines of evidence for this conclusion.

First, MG glottal stop is limited in distribution to one position in the word: after the first vowel, marking the coda of the first syllable, even in words without an onset to the second syllable (e.g. *ká?i* ‘perro/dog’). Comparatively speaking, it would be typologically odd to have a consonantal phoneme serving as a coda to an initial syllable with no other consonant forming an onset to the following syllable. Further, some phonological processes, e.g. vowel lengthening, lead to the loss of glottal stop. In addition, in some cases glottal stop is optional for individual roots, indicating some flexibility in its appearance; this occurs both with and without “echo vowels”: e.g. *ki.á.wa* or *ki?á.wa* ‘casi/almost’ and *sa?.pá* or *sa?.ǎpa*, ‘carne/meat’.

Morphologically, the limitation of glottal stop to the first syllable in MG also applies to prefixal reduplication: e.g. *mo?.i.ná* ‘s/he enters’ > *mo?.mo.i.na* ‘they enter’. Given the typological rarity of infixal reduplication, I argue that reduplication in RG is prefixal as in most

other Uto-Aztecan languages (cf. Haugen 2008). The loss of glottal stop in the base, were it a regular consonantal phoneme of the base, would also be odd (cf. Correspondence Theoretic constraints like  $\text{Max}_{10}$ ); “emergence of the unmarked” typically occur in reduplicants, not in bases. I argue that the root-oriented floating glottalic feature applies to the prosodic word that the glottal stop appears in, allowing it to appear to the left of the root (i.e. in the same syllable as the prefixal reduplicant) but still in the first syllable of the prosodic word in which the lexically-specified glottalic feature occurs.

Diachronically speaking, previous research (Manaster Ramer 1992) has successfully linked the presence of Guarijío /h/ to words which show clear reflexes in other UA languages, e.g. word-medial gemination in Mayo (although the Guarijío /h/ and Mayo gemination correspondence is not exceptionless). This probably results from a predictable prosodic environment in PUA and would be implicated in the stress system of PUA (Seiler 1965); Manaster Ramer (1992) argues that this correspondence is the result of second syllable stress in PUA, although the full details of historical changes in UA stress have yet to be fully worked out to the satisfaction of all.

Reconstruction of glottal stop using Guarijío evidence is more problematic, however. While most scholars (e.g. Manaster Ramer 1992, Dakin 1996) have assumed that Guarijío glottal stops can generally be reconstructed to PUA, there are a number of problems with this assumption which I argue follow from the synchronic status of glottal stop as a floating feature rather than being a full consonantal phoneme segment per se. First, there are some cases where glottal stops seem to have been retained in some languages but lost in Guarijío. Second, there cannot be a single historical origin for all glottal stops in Guarijío. For one thing, glottal stop appears in Spanish borrowings in various UA languages, and inconsistently so: e.g. closely related Tarahumara has it in some cases where Guarijío does not, and vice versa. While in many actual reconstructions, examples from Guarijío are provided as the sole evidence of glottal stop in PUA, the implication of this discussion is that Guarijío glottal stops must be used with caution in doing reconstructions for PUA.

Careful synchronic analyses are crucial for doing comparative and historical linguistic work. It is hoped that this discussion of laryngeals in Guarijío can lead to some better understandings of UA phonology which will be crucial for reconstructing the UA system of prominence and stress.

## **References**

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