

Glottalization features in some South American languages

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This paper discusses glottalization phenomena observed in some South American languages. These phenomena are very frequent in many languages spoken in South America and deserve careful examination because they are crucial for the historical reconstruction of some language families. A fine description of the features involved in glottalization phenomena will likely lead to a better understanding of sound change processes. A key component of this study is the introduction of the feature [± constricted epilaryngeal tube] or [±cet] proposed by Moisik & Esling (2011). This provides a new way to interpret glottal stops and accounts for the distinctive use of epilaryngeal sound sources. The laryngeal features proposed by Moisik & Esling allow more accurate and precise descriptions of sounds defined either as laryngalized or glottalized without much phonetic instrumental data. Moisik & Esling model claims that ventricular folds play a critical role in the production of glottal stop and creaky voice through ventricular incursion and abandons the traditional use of the [± constricted glottis feature]. The paper provides empirical evidence (experimental data) from several South American languages (Karitiana, Nasa Yuwe, Dâw, Pirahã, Kadiweu & Yudya) in support of this new model of laryngeal features. The constriction of the epilaryngeal tube constitutes an integral part of the laryngeal articulation. This epilaryngeal source posited by the model can be employed distinctively by phonologies.

Karitiana shows an interesting case of vowels having a sharp –closing- burst at the end accounting for an abrupt glottal constriction (Demolin & Storto 2015). This appears before voiceless stops and before pre-oral nasal consonants. Another frequent phenomena found in South American languages is the presence of sounds perceptually similar to glottal stops and glottalized phenomena between or around vowels. The clearest case is the creaky voiced character of vowels before or after glottal stops [ʔ̤, ʔ̥]. There are also occurrences of two consecutive vowels distinguished by the creaky character of the first or of the second, [ʔ̤V, Vʔ̥], the distinction often accounting for a syllabic boundary. The most complicated case to explain is when two identical vowels (or even two different vowels) are separated by a creaky transition or by a rapid falling/rising pattern in the source. The latter is realized between two consecutive pulses. In the South American languages that were examined, these sounds have sometimes been described as glottal stops but phonetically they are fully voiced sounds with a lower intensity and sometimes a creaky character. Stenzel (2007) proposes a [+ Glottal] suprasegmental feature to account for phonological aspects of glottalization/laryngalization features in Wanano. In Kotiria, Waikhana and Yudya spectral tilt, dips in amplitude and f₀ features have been proposed to account for these sounds. However, based on experimental data, it seems that these glottalized transitions between vowels marking a syllable onset are best described by a constriction of the epilaryngeal tube. This accounts in a natural way for the creaky character of these transitions and/or for the variable dip in amplitude and f₀ between two identical vowels separated by a syllabic onset.

References

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