Reconciling the debate about final obstruent voicing - the case of Lakota

According to phonological tradition, the cross-linguistic tendency for voiceless obstruents in wordfinal and/or syllable-position is due to rules or constraints that are related to 'markedness', and directly encoded in phonological grammars. This thinking rests on two assumptions, which are usually thought to go hand in hand.

- 1. Final position is weak and involves neutralization to the 'unmarked' member of a contrast
- 2. Voiced is 'marked' relative to voiceless

If both assumptions are accepted, a strong prediction ensues that final obstruent voicing should be unattested as a phonological process. For this reason, reports of final obstruent voicing in several languages, highlighted by Blevins (2004), have been met with skepticism. Notably, Kiparsky (2006) provides arguments against a final voicing analysis of the cases that Blevins cites. The Blevins-Kiparsky debate about final voicing has aroused a great deal of attention, since the empirical question is assumed to have far-reaching implications about how to approach phonology as a scientific field. Blevins advocates an Evolutionary approach in which markedness plays no role in phonological grammars, challenging phonological traditions espoused in the assumptions listed above.

In the most recent salvo in the debate, Blevins et al. (2020) provide acoustic phonetic data from Lakota, in which stops surface as voiced in coda and word-final position. The phonetic evidence, intended to counter Rood's (2016) phonological evidence that voiced stops in Lakota should be analyzed as sonorants, is quite clear: Lakota indeed has phonetically voiced stops in coda position. For Blevins et al, this phonetic evidence is claimed to support the Evolutionary approach, since final voicing constitutes a counter example to the predictions of the markedness-based assumptions.

In this presentation, we move past the Blevins-Kiparsky debate, accepting Assumption #1, but reconsidering the Assumption #2 concerning the 'markedness' of voiced obstruents. Recent work on laryngeal phonology (Blaho 2008, Iosad 2012, Cyran 2014, van der Hulst 2015, Schwartz 2017) has cast significant doubt upon the assumption that voicing is indeed a phonological feature with a consistent phonetic correlate. Rather, even 'voicing' languages according to VOT typology (Lisker & Abramson 1964) may be successfully analyzed in terms of a lenis-fortis distinction. From this perspective, final voicing in Lakota may be thought of as a weakening process, in accordance with Rood's phonological evidence, reconciling Blevins' and Kiparsky's seemingly irreconcilable positions.

This reconciliation may be implemented Aperture Theory (Steriade 1993), in which manner of articulation is represented structurally. In Aperture Theory, stops contain a sonorant component ( $A_{max}$ ) that is by default a voiced approximant. The loss of a [fortis] feature from the  $A_{max}$  node yields voicing. Additionally, Lakota shows a manner-based asymmetry by which final fricatives show devoicing instead of voicing. Since fricatives are structurally distinct from stops, comprised of only an  $A_f$  node and lacking  $A_{max}$ , the asymmetry is predicted. Thus, there is no phonological voicing process in Lakota. Rather, there is final weakening consisting of the loss of [fortis], which yields voiced stops (1) but voiceless fricatives (2).

## 486 words

(1) Final stop neutralization in Lakota, realized as voiced



(2) Final fricative neutralization in Lakota, realized as voiceless



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