Merion Hodgson, MA Student, University of Calgary
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Plains Cree VOT in a Single-series Typology

Though it is fairly uncontroversial that Voice Onset Time (VOT) is a salient indicator of voicing contrasts (eg. Kong et al., 2012), the patterns of VOT in single-series languages remains relatively unexplored. Markedness of voicing assumes that a single series of stops should be voiceless and unaspirated (eg. Jakobson & Halle, 1956), which predicts VOT from 0-25 milliseconds (ms)(Lisker & Abramson, 1964). Conversely, the very reason that there is no need to indicate a contrast in plosive suggest VOT "can and does vary in its implementation" (Vaux & Samuels, 2005:424). In an exploration of Plains Cree plosives /p t k/, the VOT appears consistent with the former prediction of single-series stops, yet alongside other single-series languages we see rich variation within this typology.

In the present acoustic study of a life-long fluent speaker, results indicate that /p/ (mean=11.6ms, sd=4.62ms) and /t/ (mean=15ms, sd=4.9ms) are steadfast short-lag stops in (most) environments. In contrast, /k/ displays more variance (mean=25.6ms, sd=9.59ms), becoming slightly aspirated in different contexts. Plains Cree seems to fit the traditional predictions of the typology based on markedness, while its place amongst the other single-series languages indicate there is no singular pattern; Arapaho has negative VOT in its bilabial, and slightly aspirated velar (Kakadelis, 2018), while both Western and Eastern Aleut stops are very aspirated (Taff et al, 2001). The question remains of what VOT buys single-series languages, but burgeoning analyses of languages like Plains Cree suggests without the need to distinguish homorganic stops, they constrain VOT for other reasons.

References

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