

WORD-BOUNDARY EFFECTS IN POLISH LARYNGEAL NEUTRALISATION

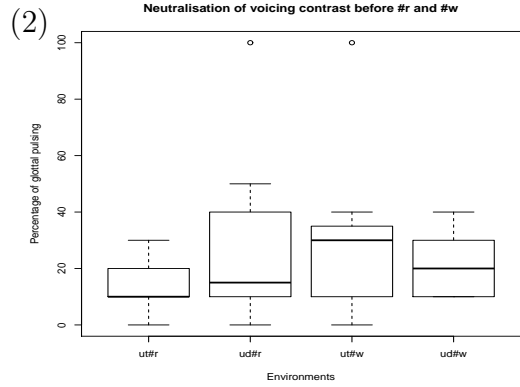
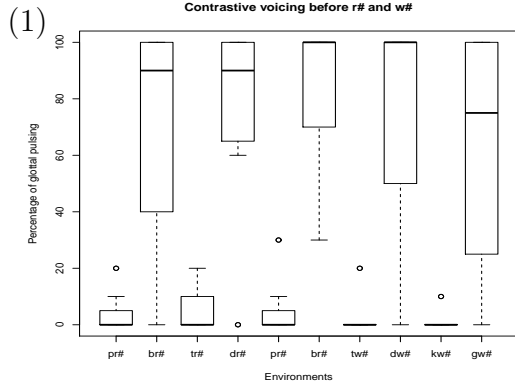
Patrycja Strycharczuk
University of Manchester

This paper reports on the results of an experimental study of laryngeal contrast in Polish stops. The findings are that stops in word-final stop-sonorant clusters in Polish do *not* undergo laryngeal neutralisation, contra claims found in the phonological literature. These results are shown to challenge a number of existing analyses of Polish voicing phenomena, and are argued to constitute evidence for a word-level effect in Polish final devoicing.

Polish displays the cross-linguistically frequent phenomenon of word-final (but not syllable-final) devoicing. Some early accounts (Booij and Rubach, 1987; Rubach, 1996) analyse final devoicing directly as a word-boundary effect. However, this view is rejected in a number of papers which argue for final devoicing being an epiphenomenon of either syllable structure and [voice] licensing (Lombardi, 1991; Gussmann, 1992; Lombardi, 1999), or markedness restrictions against voicing except in the privileged pre-vocalic environment (Rubach, 2008). This paper addresses approaches the discussion from an experimental perspective, by examining the laryngeal contrast in stops followed by sonorants, both word-finally and across word boundaries.

The study examined pairs of words with voiced vs. voiceless obstruents followed by a word-final /r/ or /w/, e.g. /sxud**w**#/ – /zm^hut**w**#/. The tokens were put in carrier sentences in the sentence-final position. Another set of tokens involved pairs of words with a final coronal followed by /r/ or /w/ across a word boundary, e.g. /zavud#**w**ovtsi/ – /deb^hut#**w**udzk^hego/, embedded in carrier sentences. The sentences were read by 6 subjects, all female native speakers, aged 20-25, born in and living in Warsaw. F0 measurements at 10 equidistant points in the stop revealed a significant difference in the presence of glottal pulsing in underlyingly voiced and underlyingly voiceless stops followed by a sonorant within the same word, as illustrated in (1). With the word boundary separating the stop and the sonorant, however, there was no significant difference in the amount of glottal pulsing present in the underlyingly voiced and underlyingly voiceless obstruents, as illustrated in (2).

The presence of a voicing contrast in word final stop-sonorant sequences goes against the generalisation that *all* word-final clusters are devoiced throughout (Gussmann, 1992; Rubach, 1996, 2008). The result is a serious challenge to the proposals by Gussmann (1992) and Lombardi (1991, 1999) that laryngeal features in Polish are preserved faithfully only in privileged, syllabically defined environments (word-final clusters *not* counting as privileged, whatever the particular theory of syllable structure). String-based accounts, along the lines of pre-sonorantal faithfulness (Rubach, 2008), fare no better, as the same segmental string behaves differently depending on the location of a prosodic boundary. The evidence points to the word boundary actively engaging in the presence vs. absence of the voicing contrast, and so the final devoicing is arguably best analysed as directly conditioned by the Prosodic Word boundary.



| Pair | Paired t-test results |
|-------------|-----------------------|
| ypr# ~ ubr# | p = 7.112e-05 |
| atr# ~ adr# | p = 2.885e-05 |
| epr# ~ obr# | p = 3.48e-07 |
| utw# ~ udw# | p = 4.577e-05 |
| ekw# ~ egw# | p = 0.0004912 |

| Pair | Paired t-test results |
|-------------|-----------------------|
| ut#r ~ ud#r | p = 0.06772 |
| ut#w ~ ud#w | p = 0.3966 |

References

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