

**Incomplete neutralization of final obstruent voicing:
which factors contribute to the maintenance of underlying contrast?**

Viktor Kharlamov
University of Ottawa, Canada
vkhar031@uottawa.ca

In languages such as Russian and German, word-final stops and fricatives are traditionally thought to be articulated as voiceless regardless of whether they are voiced or voiceless underlyingly (among many others, Lombardi 1991). However, a growing number of experimental studies have found that speakers may in fact maintain statistically significant durational differences between underlyingly voiced versus voiceless consonants and that listeners are often able to identify the intended voicing of final obstruents at above-chance level (e.g., Pye 1986 and Dmitrieva et al. 2010 for Russian, Slowiaczek & Szymanska 1989 for Polish, Piroth & Janker 2004 for German, Ernestus & Baayen 2007 for Dutch). This apparent preservation of the underlying voicing contrast in experimentally-elicited data has sometimes been attributed to the effect of task-dependent factors, such as subjects' exposure to orthographic forms or presence of minimal pairs among stimuli items (Fourakis & Iverson 1984, Warner et al. 2004, among others), yet the exact role of task-related biases and the potential contribution of factors related to the phonological properties of stimuli items remain to be explored.

The current poster will present the results of an acoustic production study that compared the results of multiple experimental procedures and conditions in order to specifically investigate the effects of phonological and task-related factors in the apparent preservation of the underlying voicing contrast in experimentally-elicited data, including a comparison of the results of wordlist-reading vs. word-guessing/picture-naming tasks; testing conditions that involve presence/absence of minimal pairs among stimuli items; coding the data according to place/manner of articulation of the final consonants, word length in syllables, lexical frequency, etc. Currently available results from a subset of participants (n=40) show a complex interplay of task-related and phonological factors. Exposure to orthographic forms and minimal pairs as well as awareness of the goal of the study lead to statistically significant durational differences between underlyingly voiced and voiceless obstruents (e.g., differences in closure duration for stops and frication duration for fricatives). Fewer differences are found when subjects name pictures or guess words, when no minimal pairs are present among stimuli items, or when participants fail to identify the true aim of the study. Finally, task-independent factors, including *consonant type* (stop vs. fricative), *place of articulation* (labial vs. coronal vs. velar), and *word length* (monosyllabic vs. disyllabic), come out as less significant or only marginally significant in statistical analyses. Together, these findings indicate that the apparent preservation of the underlying voicing contrast in experimentally-elicited production data is driven primarily by task-dependent factors/methodological biases and that the underlying voicing specification of final consonants and other task-independent factors based on the inherent phonological properties of stimuli items play only a limited role in the so-called 'incomplete neutralization effect'.

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