Is regressive voice assimilation a mirage? Geoff Schwartz (<u>geoff@amu.edu.pl</u>) – UAM Poznań

In languages such as Polish and Dutch, which have received a great deal of attention from both phoneticians and phonologists, we can observe a process that is typically described of as regressive voicing assimilation (RVA) in obstruent clusters, by which the entire cluster takes on the voicing specifications of its rightmost member. A classic example from Polish is the word *liczba* 'number', in which the  $/t_{\xi}/$  is said to voice under the influence of the following /b/, yielding [lidzba]. Textbook treatments of this process operate on the assumption that a feature [voice] 'spreads' from the /b/ to the preceding segment, rendering it voiced, as shown below in (1).

(1) Traditional representation of regressive voicing assimilation

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The textbook representation of regressive voicing implies a claim that [voice] spreads from rightto-left. In this talk, I will summarize phonetic evidence from 51 speakers of Polish that voicing in RVA contexts in fact spreads from left to right. That is, phonetically, voicing does not spread from C2, it bleeds (see Davidson 2016) off of the preceding vowel. An illustration from Polish *zbyt dlugo* [zbid dwugo] is shown below in Figure 1. It is clear in the figure that voicing in the cluster continues from the vowel, and that C1 is more voiced than C2, the purported source of voicing.

**Figure 1:** Acoustic illustration of regressive voicing in Polish zbyt długo [zbid dwugo] 'too long' (after Schwartz 2019). The top tier shows closures of final /t/ and initial /d/. The bottom tier shows the portions of those closures in which voicing is observed.



If we accept the textbook account in (1), we must assume that the phonogical [voice] feature moves from right to left, while phonetic voicing moves from left to right. Being somewhat uncomfortable with the claim that phonetic and phonological processes can move in opposite directions, I will offer an alternative explanation of the facts.