Phonetic similarity must be phonologically informed

In much of the literature describing L2/multilingual speech research, and in much of the theorizing about the results, scholars have a tendency to adopt certain assumptions about the relationship between phonology and phonetics, while research focuses on the effects of non-linguistic factors such as quality/frequency of L2 use, age of learning onset or arrival in L2 country, and third or additional languages studied. At the same time, one of the main reasons for studying L2 and multilingual speech in the first place is to better understand the linguistic structures underlying interacting phonological systems. In this endeavor, L2 and multilingual speech can thus serve as a testing ground for competing theories of phonological representation, which in turn can facilitate the development of more explicit predictions concerning cross-language interaction (CLI). In this presentation, I will discuss connections between phonological theory and L2/multilingual speech research, and emphasize the need for more fruitful communication among scholars working in the two areas.

In this connection, it is worth reconsidering data from initial voicing contrasts, and familiar interactions between aspiration and voicing languages. Measured in terms of voice onset time, there is little reason to expect any asymmetries in CLI between plain [p t k] and aspirated [p^h t^h k^h] as opposed to between pre-voiced [b d g] and [b̥ d̥ g̥] produced with short-lag VOT. However, a substantial body of research has shown (for a summary see Schwartz 2022) that the voiced series is in fact more susceptible to CLI than the voiceless series. Under the assumptions of the Speech Learning Model (Flege 1995; Flege & Bohn 2021), this suggests phonological equivalence in the former, but not the latter. This in turn suggests the need to revise traditional approaches to laryngeal phonology, which have been centered on a debate between those advocating binary [+/- voice] specifications, in which there is phonological equivalence in both series, and those advocating unary [voice] and [spread glottis] features, in which neither series is phonologically equivalent. An alternative phonological proposal (Schwartz 2022) explains the asymmetry.

In addition to laryngeal contrasts, this presentation will also consider case studies from vowel quality and phonotactics that point to the insights of phonological representation for research on phonetic CLI, and vice versa.

Word Count: 368

Keywords: L2 speech, Speech Learning Model, Phonological representation, Phonetic CLI, Phonetics