Linguistic Voice Quality

Voice quality, in its broadest sense, is defined as long-term features constantly present in a speaker's speech (Abercrombie, 1967; Esling, 2006). In a narrower sense, however, voice quality refers solely to "the types of phonation produced in the larynx" (Esling, 2013). In either sense, voice quality studies have taken center stage in phonetic research in recent years. The reason is that our laryngeal articulations are not only used as the source for the production of all speech sounds, but they are also used to mark the phrase boundary, convey contrastive lexical meaning, and indicate speaker-specific characteristics of speech (Garellek, 2022).

Since voice quality is a multidimensional concept that encompasses various perceptual and acoustic attributes of laryngeal articulation, numerous articulatory, acoustic, and perceptual methods have been implemented to study it. Advancements in technology such as acoustic analysis software and machine learning algorithms made the study of voice quality less subjective, less time-consuming, and more cost-effective.

In this presentation, I will talk about the difference between “voice” and “voice quality” and why it is important to study voice quality. Different phonation types and their acoustic correlates will be explained as well. In doing so, my focus will be on parameters that can be extracted using VoiceSauce (Shue et al., 2009) and specifically those parameters that Kreiman et al., (2014) proposed as “sufficient” and “necessary” to model the voice.

References:

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