

**The Department of Linguistics
is pleased to present**

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speaking on

Non-modal voicing has either little, or everything, to do with voicing:

Evidence from synchrony and diachrony

Friday, March 17, 2023

1:20 - 3:00 PM

in HUM 1 - 202

Abstract:

Models of non-modal phonation differ in many respects, but most assume only a single parameter at the level of the glottis: vocal fold spreading-constriction. Thus, breathy sounds are modeled as having increased spreading, and creaky ones as having increased constriction. In this talk, I argue that this single glottal parameter is insufficient.

During speech, vocal fold spreading and constriction are primarily used to inhibit voicing during voiceless obstruents. If spreading and constriction are involved in the production of non-modal voicing, then we should also expect non-modal vowels to have weakened voicing. Yet an acoustic analysis of non-modal vowels from 11 languages instead reveals that, according to voicing intensity, breathy and creaky vowels are broadly divided into two classes: those with *weakened* voicing, and those with *strong* voicing. Given these results, I propose a two-dimensional glottal model of breathy and creaky voice that is grounded in contemporary voice research. One dimension is *antagonistic* to voicing, whereas the other is intrinsically tied to voicing *maintenance*.

A two-dimensional glottal model is further supported by a meta-analysis of the historical development of non-modal vowels. Contrastive breathy and creaky vowels generally emerge via two distinct sound changes: one change involves glottal consonants, which require vocal fold spreading and constriction. The other sound change involves voiced obstruents and excludes sounds with spreading or constriction. Thus, both synchronic and diachronic patterns highlight the need for modeling different types of “breathy-voiced” and “creaky-voiced” sounds in relation to voicing.