

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

Rachel Walker

University of Southern California

speaking on

Segments Deconstructed

Wednesday, February 10, 2021

1:30 PM (PST) via Zoom

Zoom Information: Will be emailed on Tuesday, February 9, 2021

Abstract:

In phonological structure, the segment root node is classically the locus of temporal organization for subsegmental units, such as features, governing their sequencing and overlap (e.g. Clements 1985, Sagey 1986). Root nodes also classically figure in the calculation of weight-by-position, by which coda consonants are assigned a mora (Hayes 1989). In this talk, I discuss evidence that motivates encoding temporal relations directly among subsegmental elements, represented phonologically as gestures (Browman & Goldstein 1986, 1989). A case study of phonotactics in syllable rhymes of American English, supported by a real-time MRI study of speech articulation, provides evidence for a controlled sequence of articulations in coda liquids. This study finds support for phonological representations that include 1) sequencing of subsegments within a segment (within a liquid consonant), and 2) cross-segment partial overlap (between a liquid and preceding vowel). Further, the assignment of weight in the rhyme is sensitive to these configurations. To accommodate such scenarios, it is proposed that segments are represented as sets of gestures without a root node (Walker 2017, Smith 2018). This theory has the flexibility to reflect partial segment behavior in a fashion similar to that of feature class sets (Padgett 2002) but with a requisite component of temporal coordination at the subsegmental level. A revised version of weight-by-position is proposed that operates over subsegmental temporal structure. By contrast, the scenarios motivated by the phonotactics of rhymes with coda liquids are problematic for a theory in which sequencing is controlled at the level of root nodes. The set-based approach proposed here has implications for a range of phenomena classically considered to operate at the level of the segment. By predicting the potential for partial segment behavior and temporally coordinated subsegments, it paves the way for new inquiry in areas such as temporally complex segments, epenthesis, deletion, and metathesis.