

**Influences of phonological structure on temporal aspects of speech motor control**  
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The inclusion of temporal information and goals in phonological representation has historically been more controversial than spatial goals, particularly when timing is not a primary cue for contrast. There is plentiful evidence that speakers use auditory feedback to adjust spatial aspects of articulation, and have larger adaptive responses when auditory perturbations cross category boundaries, but considerably less work has been done on the role of auditory feedback for temporal aspects of speech motor control. In this talk I present two altered auditory feedback studies on English that examine the role of phonological and prosodic structure in speech motor control. In the first study, we show that the use of temporal auditory feedback is not "flat"; i.e. not all segments respond equally to perturbations of duration. This suggests that syllable structure, perhaps stemming from the coordinative relationships between gestures in a syllable, plays a role in the temporal adjustments that speakers can make. In a follow-up study, we examine this possibility, as well as the role of temporal categorical boundaries in shaping the motor response. Preliminary results indicate that both factors are at play. I will discuss the implications of these findings for motor representations of language.