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5:15 pm
Room Ross S 562

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Tracking and Imaging the Tongue: New insights into language-particular phonetic variability

Early articulatory phonetic research using static palatography and x-ray imaging was crucial to the development of phonetic and phonological theories, and provided important foundations for phonetic typology. For many decades, however, articulatory research has been limited to a small number of research labs, as it required costly equipment, extensive training, and labour-intensive data analysis. New methods of articulatory data collection and analysis are becoming increasingly available and gradually more affordable. This, combined with the discipline-wide growing interest in experimentation, is likely to provide a new impetus to the applied and theoretic phonetics/phonology research.

In this talk I will present results from two studies that are part of a larger effort to develop a cross-language corpus of articulatory data with the goal to explore the data's implications for applied and theoretical research. The first study employs electropalatography to examine the degree of linguopalatal contact for Japanese voiced, voiceless singleton, and voiceless geminate stops – the contrasts traditionally analyzed as involving voicing and length features. The results of the study show that the consonants differ in the relative tightness of the constriction, suggesting 'tenseness' as the primary distinguishing feature. The second study uses ultrasound to image the tongue during the production of retroflex consonants in Kannada. Retroflexes in Dravidian languages have been observed to involve substantial curling of the tongue tip towards the palate. Much less is known about the overall shape of the tongue and its dynamics during the retroflex production. The results of the study provide some insight into the process, potentially explaining facts of the retroflex patterning in phonology and acquisition.

Reception to follow in the DLLL lounge