Modelling Techniques in Advancing Speech Production and Perception Studies

Linguistics Seminars

Date: September 20, 2019 (Friday)
Time: 15:30 - 17:15
Venue: Room 214, Li Dak Sum Building, The Chinese University of Hong Kong

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Abstract

There is a recent shift towards quantitative approaches across multiple subfields of linguistics. This seminar addresses recent development of the quantitative trend in phonetic and phonological research. For phonetic processes, statistical modeling of acoustic data can help us test typological hypotheses, which could hardly be achieved without recent techniques. Statistical techniques also allow more complex designs of perceptual experiments, and further our understanding of the relationship between speech production and perception. For example, we may compare formulas of minimum duration required for producing and perceiving pitch directions. In addition, we can estimate the distributions of acoustic cues for the speech community, and model how listeners construct their mental representations through speech communication. For phonological processes such as tone sandhi, we have more powerful tools to describe them, to test hypotheses and understand non-native speakers’ acquisition of these processes. Furthermore, modeling may shed light on fundamental issues such as the debate on the relationship between phonetics and phonology. We can possibly separate phonetic and phonologised effects and offer better phonological representations based on modeling of acoustic data.

Speaker

Si Chen received her PhD in linguistics and her MS in statistics from the University of Florida in 2014. She works on statistical modeling of speech production, perception and their relationship, as well as applications in speech training and speech therapy. She has developed statistical models to solve challenging problems in phonology and simulate the human perception process in extracting linguistic information from varied speech signals of tones.

ALL ARE WELCOME

Enquiries
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