Towards Best Practices in Sociophonetics

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Convener

This workshop continues the discussion of best practices in sociophonetics begun at NWAV33. The ever-expanding range of knowledge necessary to do high quality work in the interdisciplinary field of sociophonetics demands that we provide quick access to the best methodological, technical, and procedural information to all researchers. This year the workshop presenters, **Tyler Kendall** *(University of Oregon)* and **Josef Fruehwald** *(University of Edinburgh)*, focus on describing and assessing the most readily available manual and automatic formant estimation methods for vowel analysis.

Workshop overview
The presentation of vowel data as points or vectors representing the major formants (F1 and F2 and sometimes F3) has been a staple of sociophonetic vowel research since well before the term "sociophonetics" came into use (e.g. Labov, Yaeger, & Steiner 1972). Recent years have seen increased focus on methodologies for acoustic vowel study (for a review see Di Paolo, Yaeger-Dror & Wassink 2011). Much work has focused explicitly on improving the reliability and validity of techniques for vowel analysis, such as through the development and evaluation of vowel normalization procedures (e.g., Thomas & Kendall 2007, Clopper 2009, Fabricius et al. 2009, Flynn 2011, Watt, Fabricius, & Kendall 2011), resulting in more rigorous methods. Perhaps the most "cutting edge" advances in vowel analysis now involve automatic formant extraction (Labov, Rosenfelder, & Fruehwald 2013).

The first part of this workshop focuses on automatic vowel measurement. We describe the rationale and design features of a robust automatic vowel extraction technique in general terms, outlining how such a technique works and the general pros and cons of automatic formant estimation. We then provide a tutorial on the Penn Forced-Alignment and Vowel Extraction (FAVE) suite.

The second part of the workshop considers the sources of error in formant estimation more generally and considers problems of inter-analyst agreement in traditional (i.e. manual) formant estimation in Praat. We review existing literature on the subject as well as the results of recent experiments. Finally, we return to the topic of automated formant estimation from the perspective of inter-analyst agreement and, ultimately, accuracy and precision in sociophonetic research.

As always, we will allow time for the workshop participants to engage in a question and answer dialogue with the presenters.