

## **ACOUSTICS2008/857**

### **The role of generalization in learning perceptual contrasts**

Meghan Sumner

Stanford University, Department of Linguistics, Margaret Jacks Hall, Stanford, CA 94305-2150, USA

Understanding spoken language is a difficult task. Variation caused by accents make this task even more daunting. This project examines the generalization of novel phonetic cues by listeners of non-native speech. Native speakers of English were trained on Korean-English pronunciations of minimal pairs with word-final contrasts (e.g., bed - bet). While native English speakers rely on vowel duration to cue a final voicing contrast, native Korean speakers of English do not produce a vowel duration contrast, but use a different distinguishing phonetic cue (e.g., voicing into closure duration). Listeners were trained on a subset of minimal pairs ending in final stops (bet - bed). Following successful training, listeners participated in an immediate or long-term form priming task. Four conditions included: Trained Identity (bet - bet), Trained Non-identity (bed - bet), Novel Non-identity, Trained Rime (wet - wed), and Novel Non-identity, Novel Rime (beat - bead). Preliminary results show episodic treatment of words in the immediate priming task, but generalization to novel forms in the long-term priming task. These data suggest that early learning is mediated by episodic representations - learning proceeds episodically until sufficient information is available to support a more abstract generalization.