

**ACOUSTICS2008/1544**  
**Clear speech intelligibility and accentedness ratings for native and non-native talkers and listeners**

Rajka Smiljanic and Ann Bradlow  
Northwestern University, Department of Linguistics, 2016 Sheridan Road, Evanston, IL 60208, USA

This study investigated how native language background (L1) interacts with speaking style in determining levels of speech intelligibility. In four experiments, we explored whether native and non-native hyper-articulation clear speech strategies provide similar intelligibility benefits for native and high proficiency non-native listeners. The sentence-in-noise perception results revealed that native speech was preferred over non-native speech by both listener groups even when non-native talkers and listeners shared the same L1. Clear speech was shown to be beneficial for both the native and fluent non-native listeners. However, non-native clear speech enhanced intelligibility less than native clear speech, supporting the hypothesis that clear speech production strategies involve enhancement of language-specific phonological contrasts. In order to assess the relationship between objective intelligibility measures and subjective accentedness ratings, we obtained accentedness ratings of native and non-native conversational and clear speech by native and non-native listeners. The results showed that objective intelligibility and subjective accentedness were independent. Overall, these results provide strong evidence that clear speech involves language-specific modifications. Nevertheless, native and high proficiency non-native clear speech modifications are generally helpful for both native and high proficiency non-native listeners even when the objective intelligibility and subjective accentedness levels diverged for various listener and talker groups.