Intelligibility, Comprehensibility, and Accentedness in L2 Speech Replication Study

Lindsi Burr[(1)]**, Frances Hina Goldsmith**[(2)]**, and McKenzie Cowan**[(3)]
[(1)]*University of Utah,* lindsiburr@yahoo.com
[(2)]*University of Utah,* hina.goldsmith@gmail.com
[(3)]*University of Utah,* mkscowan@gmail.com

ABSTRACT

Introduction: This is a replication study of Sara Kennedy and Pavel Trofimovich's *Intelligibility, Comprehensibility, and Accentedness in L2 Speech.* Kennedy and Trofimovich's research specifically looked at intelligibility, comprehensibility, and accentedness as communication that may be adversely affected by experience with L2 speech and semantic context. At the time, as part of our senior capstone class for our undergraduate degree, we were instructed to follow the methodology of the original study as closely as possible. This allowed for the results to be replicated and therefore reinforced, or questioned for further research.

Objectives: The purpose of this replication study was to attempt to research the following questions:
1. How do intelligibility and ratings of accentedness and comprehensibility of L2 speech differ for sentences that vary in the degree of semantic context available?
2. How do intelligibility and ratings of accentedness and comprehensibility of L2 speech differ as a function of listeners' experience with L2 speech?

Methods: From twenty four listeners, each was provided with three lists of English sentences spoken by twelve speakers, six mandarin and six native speakers of North American English: the first list was a bank of single-clause true–false (T-F) sentences which contained forty two sentences that were meaningful and had a known (real-world) context. The second list (containing twenty four sentences) were adapted from or modelled after Mack's lists of single-clause semantically meaningful, and the third list were adapted from or modelled after Mack's lists of single-clause semantically anomalous sentences.

Results: Semantic context affected all three dependent variables: intelligibility – listeners used real-world T/F values to make sense of L2 speech, comprehensibility – semantically anomalous sentences were the hardest to understand, and accentedness. Listener Experience affected intelligibility, as experienced listeners (ESL teachers) were significantly more accurate than inexperienced, experienced listeners understood more of L2 speech, and accentedness ratings do not seem to be influenced by listener experience.

Conclusions: The conclusion included results from semantic context and listener experience. The replicated data suggests that semantic context did affect intelligibility, comprehensibility, and

accentedness ratings for L2 speech. In terms of semantic context, it did not affect comprehensibility, nor accentedness for native speech. However, these results differed from Kennedy and Trofimovich, as the replicated results may suggest that semantic context did affect intelligibility of native speech. L2 Listeners' comprehensibility ratings were affected by semantic context.

Experience: Throughout this experience, we all learned incredibly valuable lessons, skills, and research ethics which include the following: carefully analyzing research articles, communication is vital to working as a team, planning and preparation, organization, dedication, learning how to use Qualtrics, and learning how to input and organize data. This took the entire semester, about four months, to complete. All three of us were able to successfully collaborate on this project, balancing the work between ourselves.