

(Trofimovich & Isaacs, 2012) and two-way immersion instruction may help children acquire comprehensible L2 speech.

The effect of listener proficiency on comprehension and intelligibility of accented speech

Oral Session I / South Room - 12:00-12:25

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Imposing an inner circle norm on users of World Englishes may be discriminatory against non-native English speakers in listening tests (Harding, 2012), but there has been little research on how listeners' proficiency affects their sensitivity to L2 accent within an assessment context. The current study examined the effect of test takers' English proficiency on their comprehension and intelligibility of accented speech in the TOEFL iBT listening test. Ten speakers from six countries with different L1 backgrounds (i.e., North American, British, Indian, South African, Chinese, and Spanish) with a varying degree of intelligibility provided speech samples. Ninety-two listeners from South Korea at three different proficiency (32 beginner, 30 intermediate, and 30 advanced) levels listened to speech stimuli and determined their comprehension of the content as well as the intelligibility of the speech. The intelligibility was measured with orthographic transcription of entire sentences. Listeners' vocabulary knowledge was initially controlled and tested. Results of a series of ANOVAs showed that high-proficiency listeners were most sensitive to accented speech followed by intermediate-level listeners, i.e., their scores were significantly different across speakers. However, high-proficiency listeners did not differ in their scores if speech stimuli were delivered by highly intelligible speakers, whereas intermediate-level listeners still performed differently. The performances of beginner-level listeners were low, showing no statistical difference in their scores, regardless of speaker's accent and the degree of intelligibility. Results suggest that listeners have varying sensitivities to English accents based on their proficiency levels. Findings help understand the nature of intelligible speech in global communication.

Golden Speaker Builder: An interactive online tool for L2 learners to build pronunciation models

Oral Session I / West Room - 10:30-10:55

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In 2002, researchers proposed that the best voice for learning L2 pronunciation was a voice that was similar to that of the learner, a so-called "golden speaker" [1]. In this presentation, we describe Golden Speaker Builder (GSB), an interactive online tool that allows L2 learners to build a personalized pronunciation model: their own

voice producing native-accented speech. To build a “golden speaker” model, L2 learners follow three steps: (1) they record a set of acoustic anchors (one anchor per phoneme) under the guidance of an instructor, (2) they record a longer text to capture pitch range, and (3) they select a source native speaker as a model. The process can be completed in less than an hour, and generates intelligible speech with the voice quality and pitch range of the L2 learner, and the prosody and segmental characteristics of the source native speaker. To achieve this, GSB represents a source utterance as a sparse weighted sum of anchors from the source speaker [2], then replaces the source anchors with those from the L2 learner collected in step 1. We report initial findings about how learners interacted with the golden speaker and their improvement in pronunciation accuracy and in judgments of intelligibility.

Non-native speech and recognition accuracy of two ASR applications: Dragon and Dictation

Oral Session I / West Room - 11:00-11:25

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Automatic Speech Recognition (ASR) has the potential for use in pronunciation learning. However, only a few studies have examined its capability for identifying non-native speech (Derwing, Munro, & Carbonaro, 2000; Kim, 2006). After a decade now, rapid advancement of technology necessitates reevaluation of and comparison between ASR applications in recognizing accented speech. This study examines two commercial ASR applications, Dragon Naturally Speaking and the Dictation feature of Mac OS X. Recognition scores were calculated for both applications based on their transcription of 15 sentences read aloud by 12 native speakers of Farsi, Korean, and Vietnamese with different proficiency levels in English. Three native speakers of English transcribed the same utterances for intelligibility scores and rated them for accentedness on a 9-point scale. Comparing each application’s recognition score with human intelligibility scores showed that while Dictation identified more non-native utterances than Dragon, they both had less accuracy than human listeners. Also, recognition accuracy of both applications decreased with an increase in accentedness, with Dragon showing a more drastic decrease than Dictation. Overall, while ASR applications have the potential to assist advanced level language learners in identifying their patterns of error in pronunciation, they are not yet prepared to provide lower level language learners with the same useful feedback.

Improving novice learners' L2 pronunciation: The method of iCPRs

Oral Session I / West Room - 11:30-11:55

Ines Martin, Pennsylvania State University

L2 pronunciation training is still frequently neglected in the foreign language classroom for reasons including the lack of classroom time or instructor skills to teach pronunciation. The current study addresses these concerns by investigating the method of innovative Cued Pronunciation Readings (iCPRs; based on Tanner and Landon, 2009), a homework-based, computer-delivered method of pronunciation instruction that does not require teacher feedback or in-class time. The current study was conducted over a time course of 14 weeks with 110 novice L2 learners recruited from six sections of first semester German classes divided into treatment, comparison and control groups of two sections each. The treatment group received pronunciation instruction on