

Session 5aSWb**Speech Workshop: Research and Applications to Second Language (L2) Speech Perception**

Susan G. Guion, Chair

*Dept. of Linguistics, Univ. of Oregon, Eugene, OR 97403-1290****Invited Papers*****10:30****5aSWb1. Accent and intelligibility from an applied perspective.** Murray J. Munro (Dept. of Linguist., Simon Fraser Univ., 8888 University Dr. Burnaby, BC V5A 1S6, Canada)

Listeners are remarkably sensitive to non-native patterns of speech, whether they are presented with full sentence productions, or with very short or severely degraded speech, including noisy, filtered, and temporally disrupted utterances. Furthermore, even phonetically unsophisticated listeners can reliably scale accents. From the standpoint of second language (L2) users, speaking with a detectable accent has important social consequences. One is that L2 speech is sometimes less intelligible or may require listeners to allocate more processing resources than does native speech. However, evidence also indicates that some salient phonological markers of L2 status have little or no impact on listener comprehension. Distinguishing these from accent features that reduce intelligibility is a critical concern in language pedagogy. Another consequence noted in empirical research is that accent stereotyping and negative social evaluation of accented speakers are linked to discrimination in remuneration, employment, and services. They may also be implicated in the exploitation of L2 speakers through questionable claims about the value of "accent reduction." This synthesis of previous and new research findings highlights a number of issues concerning methodology and interpretation in L2 speech research that are relevant to language teaching and assessment, and to human rights litigation. [Research supported by SSHRC]

11:05**5aSWb2. The role of linguistic experience in lexical recognition.** Andrea Weber (Max Planck Inst. for Psycholinguistics, Wundtlaan 1, 6525 XD Nijmegen, The Netherlands, andrea.weber@mpi.nl)

Lexical recognition is typically slower in L2 than in L1. Part of the difficulty comes from a not precise enough processing of L2 phonemes. Consequently, L2 listeners fail to eliminate candidate words that L1 listeners can exclude from competing for recognition. For instance, the inability to distinguish /r/ from /l/ in *rocket* and *locker* makes for Japanese listeners both words possible candidates when hearing their onset (e.g., Cutler, Weber, and Otake, 2006). The L2 disadvantage can, however, be dispelled: For L2 listeners, but not L1 listeners, L2 speech from a non-native talker with the same language background is known to be as intelligible as L2 speech from a native talker (e.g., Bent and Bradlow, 2003). A reason for this may be that L2 listeners have ample experience with segmental deviations that are characteristic for their own accent. On this account, only phonemic deviations that are typical for the listeners' own accent will cause spurious lexical activation in L2 listening (e.g., English *magic* pronounced as *megic* for Dutch listeners). In this talk, I will present evidence from cross-modal priming studies with a variety of L2 listener groups, showing how the processing of phonemic deviations is accent-specific but withstands fine phonetic differences.

11:40**5aSWb3. Designing the foreign language learning environment: From basic research towards product development.** Reiko Akahane-Yamada (ATR Learning Technol. Corp., 2-2-2, Hikaridai, Seika-cho, Soraku-gun, Kyoto, 619-0288, Japan, yamada@atr-lt.jp)

In order to examine the acquisition of English by native speakers of Japanese, a series of training studies were conducted under various environments, that is, in the laboratory, at schools, or in virtual spaces over the Internet, and learners of various ages participated. The results demonstrated that web-based training methods using computers can improve even adult learners' ability to perceive and produce L2, and that the acquisition of phonological categories plays an important role in the language learning. Based on these results, an L2 training system, dubbed ATR CALL BRIX, was developed by putting emphasis on speech learning. The system is a collection of training tools for speech perception, production, and comprehension. Each component focuses on the acoustic-phonetic, prosodic, lexical, or semantic decoding level of spoken language. Speech analysis and pronunciation evaluation tools are also provided. The target users vary from children to adults and from beginners to advanced learners. The content is designed with Learning Object concept and each component is adjustable on the learner characteristics and curricula. The system is already in the market. It is suggested that the cross-language and L2 acquisition studies are readily applicable to designing actual foreign language learning environment. [Work supported by JSPS.]