

0.78,  $p < 0.01$ ), while 13 significantly correlated for the male voices ( $R$ -squared = 0.57,  $p < 0.01$ ). Results for the other classes of speech materials will also be reported.

**1pSC36. Recognition of reduced speech and use of phonetic context in listeners with age-related hearing impairment.** Esther Janse (Utrecht Inst. of Linguist. OTS and Max Planck Inst. for Psycholinguistics Nijmegen, Jan-skerkhof 13, 3512 BL Utrecht, The Netherlands, esther.janse@mpi.nl) and Mirjam Ernestus (Radboud Univ. Nijmegen and Max Planck Inst. for Psycholinguistics, 6500 AH Nijmegen, The Netherlands)

This study investigated identification of reduced words (e.g., “onry” for “ordinary”) by young listeners, elderly listeners, and young listeners in whom we simulated a hearing impairment. The main question was whether elderly listeners benefit as much as young listeners from phonetic context in recovering reduced words and whether any context difference should be attributed to hearing loss or cognitive decline. Participants were presented with excerpts from a corpus of spontaneous Dutch, consisting of either the target word in isolation or in its sentential context. The sentence context was not highly semantically/syntactically constraining. As expected, elderly listeners and young listeners with a simulated hearing impairment showed lower accuracy scores than the normal-hearing young adults. More importantly, the two hearing-impaired listener groups benefited less from context than the normal-hearing young group. Within the elderly group, hearing sensitivity also predicted one’s amount of context benefit. Additionally, hearing sensitivity and age, but not a cognitive processing measure, predicted overall identification performance among the elderly listeners. In conclusion, our results suggest a double handicap for both young and old hearing-impaired listeners: they have more difficulty interpreting the acoustic signals of reduced words, and also benefit less from phonetic cues contained in surrounding words.

**1pSC37. Effect of priming on age-related differences in release from informational masking.** Payam Ezzatian (Dept. of Psychol., Univ. of Toronto, 3359 Mississauga Rd. North, Mississauga, ON, Canada L5L1C6, payam.ezzatian@utoronto.ca), Liang Li Kathy Pichora-Fuller, and Bruce Schneider (Univ. of Toronto, Mississauga, ON, Canada L5L1C6)

In a previous study, [Freyman *et al.* (2004)] showed that presenting listeners with all but the last word of a target nonsense sentence immediately prior to presenting the full sentence in a noisy background, produced a

greater release from masking when the masker was two-talker nonsense speech than when it was speech-spectrum noise, thereby demonstrating that an auditory prime could produce a release from informational masking. In Experiment 1 of this study we showed that auditory priming produced an equivalent amount of release from informational masking in good-hearing younger and older adults. To investigate the extent to which this release from informational masking was due to the semantic content of the prime, in Experiment 2 we noise-vocoded the prime (using three bands) to remove semantic content, while retaining the prime’s amplitude envelope. This manipulation eliminated any release from informational masking. In Experiment 3, when the speech masker, but not the prime was vocoded, the performance of both age groups improved equivalently. These results indicate that younger and older adults benefit equally from semantic priming, and that both age groups make equivalent use of amplitude fluctuations in a masker in an informational masking paradigm.

**1pSC38. Far field performance of an anechoic chamber used for speech and hearing research.** Richard Godfrey, Christopher Emrick, Allison Goff, Meghan Hiss, Anna Kiener, Katherine Lamoreau, Alexandra MacMeekin, Ashley Minton, Mallory Monjot, Heather Ridenour, Jennifer Sanders, and Dana Ullakovic (Dept. of Speech and Hearing Sci. The Ohio State Univ., 110 Carmack Rd., Columbus, OH 43210, godfrey.20@osu.edu)

The department has a 13×7×8 ft fully anechoic chamber whose commissioning records were misplaced. The graduate acoustics class measured the acoustics of the chamber from 250–2000 Hz in preparation for future research projects. The focus was on the far field and its limits (near field, and approach to wedge tips). Four groups of students made measurements along the same path. The difference in the levels at a location from that at a reference location was calculated. The mean and standard deviations of these differences were then calculated to compare these measurements with the inverse square law theory. Some measurements were also made in the near field, and closer than one-quarter wavelength from the wedge tips. The average of the means from 12–74 in. was 0.73 dB below theory. The average 95% confidence limits of these data in this range was  $\pm 1.1$  dB. These deviations compare favorably with the acceptance criteria in the ANSI standard. The near/far field guideline also appears to be reasonable. Measurements closer than one-quarter wavelength from the wedge tips may be possible. However, further extremes characterization is needed. Envelope noise reduction should also be measured.

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