

Effect of priming and amplitude fluctuations on age-related differences in release from informational masking

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Presenting listeners with all but the last word of a target nonsense sentence immediately prior to presenting the full sentence produces a greater release from two-talker speech masking than from speech-spectrum-noise masking, suggesting that an auditory prime can release speech from informational masking (Freyman et al. 2004; Yang et al. 2007). In Experiment 1 of the present study we showed that auditory priming produced an equivalent amount of release from informational masking in younger and older adults with clinically normal hearing. However, we also found that older adults suffered more from the presence of a two-talker speech masker in the background than did younger adults. In experiment 2, we noise-vocoded the speech masker, and presented target nonsense sentences to a new group of younger and older participants. Here, we found that release from masking was greater for younger than for older adults. These results indicate that both age groups benefit equally from auditory priming, and that younger adults can make better use of amplitude fluctuations in a speech masker than can older adults.

Freyman RL, Balakrishnan U, Helfer KS (2004). Effect of number of masking talkers and auditory priming on informational masking in speech recognition. *J Acoust Soc Am* 115: 2246-2256.

Yang ZG, Chen J, Huang Q, Wu XH, Wu YH, Schneider BA, Li L (2007). The effect of voice cuing on releasing Chinese speech from informational masking. *Speech Commun* 49: 892-904.