ACOUSTICS2008/1628 Both prime length and prime position affect the spatial release of nonsense speech from informational masking

Zhigang Yang^a, Jing Chen^b, Qiang Huang^b, Ying Huang^a, Xihong Wu^b, Yanhong Wu^a and Liang Li^a
^aDept. of Psychology, Peking Univ., 5 Yeheyuan Road, Haidian District, 100871 Beijing, China
^bDept. of Machine Intelligence, Speech and Hearing Research Center, 2 Science Building, Peking Univ., 5 Yeheyuan Road, Haidian District, 100871 Beijing, China

When masking speech is present, pre-presentation of early part of nonsense target speech improves recognition of the rest of target speech, indicating a content and/or voice priming effect (Freyman et al., 2004; Yang et al., 2007). Here, we examined both the prime-length effect and the prime-position effect on recognition of nonsense target speech with twelve syllables and three keywords. Target speech started 1 sec. after the onset of two-talker masking speech. The results show that a longer prime with 10 syllables (including the 1st and 2nd keywords) significantly improved recognition of the last (3rd) keyword in target speech. However, when the 1st four syllables (including the 1st keyword) were pre-presented, recognition of either the 2nd or 3rd keyword was not improved. Interestingly, when the 2nd four syllables (including the 2nd keyword) were pre-presented, recognition of the 1st but not the 3rd keyword was significantly improved. Thus under speech-on-speech masking conditions, both the prime length and the prime position in the sentence influence the priming effect on recognition of target speech, and listeners contribute more attentional resource to the initial part of target speech.

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