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# EFFECTS OF TALKER INTELLIGIBILITY AND NOISE ON JUDGMENTS OF ACCENTEDNESS

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The damaging effect of background noise on the intelligibility of foreign-accented speech has been well documented, but little is known about the effect of noise on listeners' subjective judgments of accents. Noise adds distortion to speech, which may cause it to sound more "foreign." On the other hand, noise may reduce perceived foreignness by masking cues to the accent. In this study, 40 native English speakers listened to 14 English-speaking native Mandarin speakers in four levels of noise: -4 dB, 0 dB, +4 dB, and quiet. Participants judged each speaker on a scale from 1 (native-like) to 9 (foreign). The results showed a significant decrease in perceived accentedness as noise level increased. They also showed a significant interaction between noise and talker intelligibility: intelligibility (which had been measured for the same talkers in a previous study) had the greatest effect on perceived accentedness in quiet, and a reduced effect with increasing noise levels. These findings indicate that listeners' decreased access to acoustic-phonetic cues in the presence of background noise also reduces their sensitivity to phonetic variation arising from foreign accents. Furthermore, the link between intelligibility and accentedness is weakened by the presence of noise.