

THE PERCEPTION OF CHINESE SPEECH SOUNDS IN MASKING NOISE
AND FREQUENCY DISTORTION

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Intelligibility tests of Chinese speech sounds were run under five masking conditions, namely white noise, pink noise, speech noise, meaningful speech interference, and reverberation masking in an auditorium, as well as in a quiet studio. To simulate the actual communication circumstances, the noise was introduced at input and output ends, respectively. The signal to noise ratios were 5, 0, -5, -10 dB with a fixed speech level about 80 dB at 1m from the loudspeaker. In addition, the speech and noise were processed with high pass, low pass, or band pass filtering except in the reverberation condition. A set of simplified but rather sensitive word lists were used, which were based on varying the initial consonants (initial consonants are more sensitive to masking than are final consonants). The effects of masking and frequency distortion on the perception of individual Chinese speech sounds will be presented in this report.