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**Speech segregation in rooms: Importance of the interferer
interaural coherence**

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When an interferer is present, reverberation degrades speech intelligibility not only by its direct effect on the target, but also by affecting the interferer [Lavandier & Culling, *J. Acoust. Soc. Am.*, 122 (3), 2007]. This latter effect occurs at lower levels of reverberation than the former intrinsic degradation of the target, and can be explained by a binaural mechanism. We show here that the interaural coherence of the interferer is the principal parameter predicting the resulting loss of intelligibility. Speech reception thresholds were measured under headphones, using running speech targets and speech-shaped noise interferers. The stimuli were created by considering a listener and a spatially-separated target and interferer in virtual rooms. The reverberation was varied by modifying the absorption coefficient of every room surfaces simultaneously. Different absorption coefficients were used for target and interferer. With the target anechoic, the interferer was tested in several configurations, in rooms with different sizes and absorptions, at different distances and azimuths from the listener. Several computations of coherence were compared, in order to reveal the one allowing the best prediction of intelligibility.