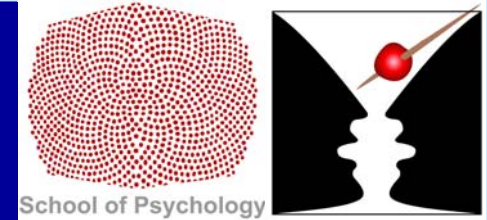


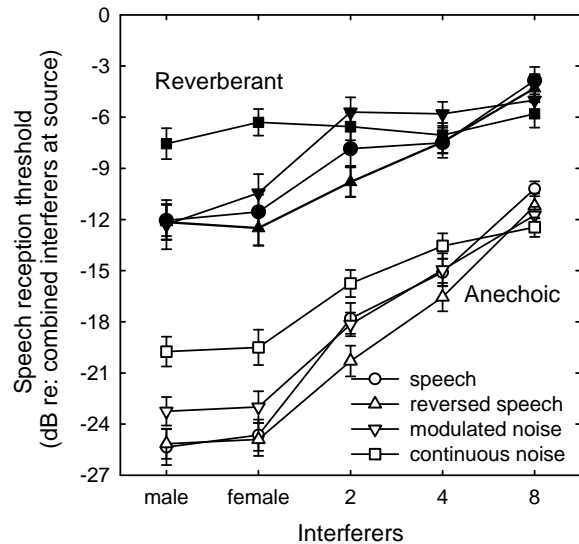
# Speech understanding in realistic conditions: effects of number and type of interferers, and of head orientation.

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In real life, interfering noise is frequently uninterrupted, multi-source spatially distributed and reverberant. Three experiments measured SRTs for IEEE sentences against uninterrupted interferers based on continuous discourse in different virtual environments.

Expt 1: Results for a 6.4-m-square virtual room ( $T_{60} = 0.35s$ ) with centrally located speaker and listener 75 cm apart as a function of number of interferers

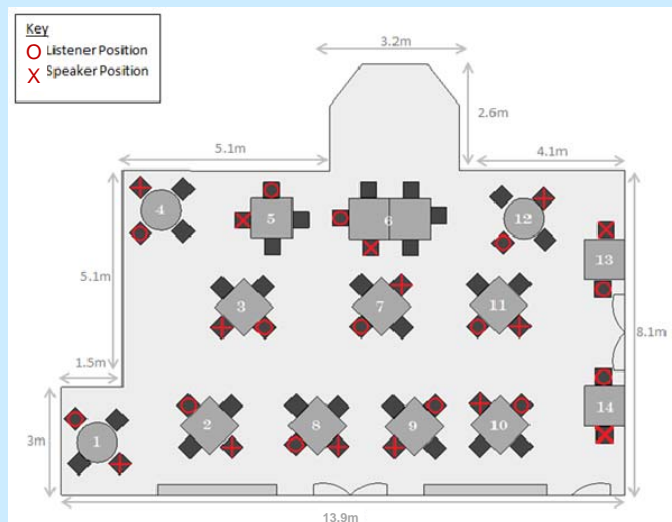


Expts 2 and 3 used binaural room impulse responses (BRIRs) recorded from a real room (Aberdare dining room, Cardiff University,  $T_{60} = 1s$ ) using acoustic manikins for source and receiver.

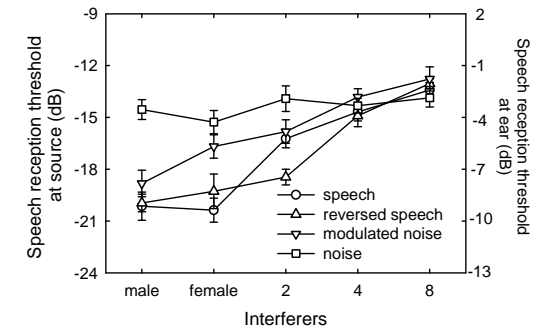


BRIRs were recorded from 14 speaker positions (X) to 14 listener positions (O), for each of 3 head orientations ( $-45^\circ, 0^\circ, 45^\circ$ ) with respect to the table

Room layout



Expt 2: Results as for Expt. 1, but using real reverberation with target speaker and listener at table 7.



Expt. 3: Results with 8 interferers and real reverberation for different head orientations ( $-45^\circ, 0^\circ, 45^\circ$ ).

