

Psychological and Physiological Acoustics: Pitch and Complex Sounds (Poster Session)

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Contributed Papers

All posters will be on display from 1:00 p.m. to 5:00 p.m. To allow contributors an opportunity to see other posters, authors of odd-numbered posters will be at their posters from 1:00 p.m. to 3:00 p.m. and authors of even-numbered posters will be at their posters from 3:00 p.m. to 5:00 p.m.

4pPP12. Effect of coherent frequency modulation on grouping the harmonics of a vowel. C. J. Darwin and Gregory Sandell (Lab. of Exp. Psychol., Univ. of Sussex, Brighton BN1 9QG, UK)

When a single harmonic close to the first formant frequency is mistuned by about 8%, that harmonic makes a reduced contribution to the vowel's first formant frequency as measured by a shift in the phoneme boundary along an $F1$ continuum between /I/ and /e/ [C. J. Darwin and R. B. Gardner, *J. Acoust. Soc. Am.* **79**, 838-845 (1986)]. In the present experiment phoneme boundaries along an /I/-/e/ continuum were measured for vowels differing in $F1$ whose fourth harmonic (500 Hz) was mistuned by 0, ± 3 , ± 6 or $\pm 9\%$. All the harmonics of a vowel (including the mistuned one) were given either no FM or coherent FM at a rate of 6 Hz and modulation depth $\pm 5\%$. The results replicated the previous findings, but found little evidence for coherent FM preventing the segregation of the mistuned harmonic from the vowel. [Work supported by SERC.]