

Wrong Notes in Melodies: Asymmetry in Response Time to Up vs. Down Alterations

W. Jay Dowling & Rachna Raman

The University of Texas at Dallas

We introduced wrong notes into familiar melodies, altering the pitches of arbitrarily selected notes by raising or lowering them by 1 or 2 ST, and leaving them in-key or moving them out-of-key. The alterations were completely counterbalanced and all occurred equally often. When we looked at the effects of the direction of the alteration (up or down) we found very small effects on detection of altered notes, but a significant interaction of direction by interval size. Whereas 2 ST alterations, up or down, were detected more accurately and quickly than 1 ST, for 1 ST alterations participants were slower in detecting down than up. We suggest this may reflect the prevalence of 1 ST deviations from main melody notes in such melodies as the chorus of The Stars and Stripes Forever and Tales from the Vienna Woods. This ornamentation with a semitone lower is much more prevalent than ornamentation with a semitone higher.