

Effects of Music Training and Familiarity on
the Time Course of Responses to Modulations in Classical Music

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We investigated listeners' responses to modulations in the first 2 min of the finale of Dvorak's "American" string quartet, op.96. Five groups (student orchestra members, music majors, expert musicians, moderate musicians, nonmusicians) continuously rated how well the 12 possible probe tones fit the music, for 12 trials, providing tonal hierarchy profiles for 5-s samples aligned with modulations throughout the excerpt. We correlated these profiles with the standard profiles of the keys involved. We manipulated familiarity strongly for orchestra members, who rated the piece before encountering it, again in the middle of rehearsals, and after performing the piece 3 months later. The other groups followed the same schedule but without studying the piece. The 3 highly trained musician groups responded analytically, accurately reflecting modulations throughout the 3 sessions. The less experienced listeners initially responded similarly, but responded more globally in Sessions 2 and 3. This contrasted with our earlier results (ICMPC, 2016).