

Recognizing music in short segments

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Previous research shows that people gain musical information from short (250 ms) clips of music. Based on the paradigm used by Evans and Treisman (2005), who presented a series of pictures to participants and were asked to detect animals, the current study sought to extend the previous findings by presenting segments of music in an auditory analog to the visual paradigm. This study extended previous findings in the music cognition literature by presenting shorter (100 ms) segments of popular music in rapid temporal arrays, a procedure similar to scanning through radio stations. Participants were presented with familiar and unfamiliar song segments, four songs at a time. Each trial contained a female or a male vocalist, or was purely instrumental. Participants were asked whether they heard a vocalist (Exp 1) or a female vocalist (Exp 2) in one of the four short segments. Vocalist detection in Exp 1 was well above chance for the shortest stimuli (100 ms), and performance was better in the familiar trials than the unfamiliar. When instructed in Exp 2 to detect a female vocalist, however, participants performed better with the unfamiliar trials than the familiar. As in the results with visual stimuli from Evans and Treisman, participants were able to detect specific features of music with limited temporal information, much sooner than previous literature suggests. People may be more likely to attend to stimuli with which they are familiar and these stimuli may be processed more effectively than unfamiliar stimuli. Together, these findings suggest that people utilize a more holistic processing framework for music with which they are familiar and in contrast a more featural processing framework for unfamiliar music.