

Abstract

Effects of long-term music training and 10-minute musical exposure on performance of spatial analysis, visual memory, and verbal memory were investigated and compared. Sixty female college undergraduates, 30 musicians and 30 non-musicians, were assessed with Benton Visual and Retention Test, Raven's Advanced Progressive Matrices--Set I, and a 16-word list that tested verbal learning and memory ability. Results suggested that subjects with long-term music training performed significantly better in the spatial analysis and the verbal learning and memory tasks, but not in the visual memory one. After listening to either 10-min Mozart Sonata (K448) or a silence tape, subjects were tested with Rey-Osterrieth Complex Figure, Raven's Advanced Progressive Matrices--Set II, and another 20-word list. Results showed that the short-term musical exposure helped to improve visual memory significantly, but not verbal memory nor spatial analysis. Such enhancement was revealed more obviously in musicians than non-musicians.