

Abstract

In an extension of research showing benefits of music training various kinds of cognitive function, the present study examined the effect of music training on visuospatial abilities in young adults. Musically trained ($N = 34$) and untrained ($N = 30$) undergraduate students were recruited from a university in Hong Kong. They were tested on spatial-temporal reasoning abilities and visuospatial memory. Musically trained students were found to do significantly better than untrained students on visuospatial memory test which allows verbal encoding but perform comparably on pure visuospatial memory test and mental rotation test. The discrepancy of test results was discussed with regard to the different nature of the tests, the influence of logographic writing and reading system on baseline visual memory of the samples and the factor of current practice behavior in the musically trained group. The findings suggested that music training may improve visuospatial abilities when the memory tests are mediated by verbal encoding in Asian population with logographic language system. Such beneficial effects of music training early in life can extend to early adulthood, with the greatest effect in individuals who are still practicing.