

Abstract

Motor theory of speech perception is well-documented in area of linguistics. It states listeners use implicit articulatory knowledge- knowledge about how sounds are produced- as an aid in perception. Despite its prominence in linguistics, its applicability to music production and perception was scarcely behaviorally examined. The present study aims to examine this applicability. The hypothesis is that participants receive motor training in playing on an instrument will perform better in pitch identification, compared to those do not. Thirty participants from the Chinese University of Hong Kong were recruited and randomly assigned into group evenly with motor training (practised piano pieces in a simulated keyboard) and group without motor training (only listened to music). The training lasted for five consecutive days, 15 minutes each day. Two tests were conducted before and after training respectively, to test participants' performance on pitch identification. A follow-up test was conducted after two weeks. Results indicated those receiving motor training performed better in pitch identification, compared to those did not. The improvement limited to the same timbre and pitches appeared the highest frequency in training, and it is constrained by time. These implied that pitch perception could be trained to some extent, with the aid from motor production. The linkage between music and language in production and perception is further strengthened. Regarding the parallels and non-parallels between music and language, there is a discussion of a variety of factors influencing the applicability of the theory to music.