

THE ABILITY OF ABSOLUTE TEMPO: A STUDY ON TEMPO PERCEPTION IN REPEATED MUSIC LISTENING

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Past research on stability of tempo perception reported that subjects have an accurate representation of tempo of songs and that they remember them at their original tempi. These studies were important because of their use of real musical stimuli with hardware that allowed subjects to have control over tempi. Nevertheless, they were limited in that they merely investigated well-known tunes, such as ballroom music or familiar popular songs. Moreover, these experiments were conducted solely with non-music major students. The present study was designed to determine whether adult, adolescent, and preadolescent listeners with both music and nonmusic background are capable of forming consistent right tempo judgments over an extended period of time, especially when they are presented with musical compositions chosen because they represent a wide range of musical styles, familiarity, and preference. Subjects heard the same musical examples on four separate occasions. Results indicated that the initial tempo of presentation significantly dominated subjects' judgments. However, a small number of adult musicians were remarkably consistent in their tempo judgments across all four trials. It appeared that these individuals possess an exceptional ability with respect to acute stability of large-scale timing in music that was labeled "absolute tempo." Interestingly enough, these subjects reported that they were surprised when they heard that their tempo choices were virtually identical across trials. Thus, it would seem that physical, psychological, and environmental factors (such as, fatigue, mood, or time of day) did not have an effect on their tempo judgments. One reason might be that music engages and programs psychobiological clocks or neural oscillations which function subconsciously but give conscious read-outs and thereby guide the listeners' choice of right tempo in an exact and stable manner. There was evidence that the degree of consistency in right tempo judgments gradually increased from preadolescence through adulthood. Findings strongly suggested that style, familiarity, and preference affected consistency of tempo judgments. Few statistically significant differences in tempo judgment consistency were found as a result of music background.