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Presentation Title: Exploring musical production and interaction in non-musically trained individuals

Abstract:

Humans are assumed to have a natural – universal – predisposition for making music and for musical interaction. Research in this domain is, however, typically conducted with musically trained individuals, and therefore confounded with expertise. Here we present a rediscovered and updated invention – the E-Music Box – that we establish as an empirical method to investigate musical production and interaction in everyone. The E-Music Box transforms rotatory cyclical movements into pre-programmable digital musical output, with tempo varying according to rotation speed. The user's movements are coded as continuous oscillatory data, which can be analyzed using linear or nonlinear analytical tools. In a series of experiments, we studied joint music making among individuals who never received musical training. We made a series of original observations indicating that non-musically trained individuals interact one another according to conventional musical practices such as leader/follower roles or low-pitch dominance. Furthermore, we show that certain personality traits that are normally enhanced in musicians are also higher in non-musicians that best coordinate with their partners during joint musical action. By bringing music making within everyone's reach, the E-Music Box opens novel pathways towards empirical research of the human predisposition for joint music making across developmental, cross-cultural and even therapeutic contexts.