

# Perceived musicality in an android increases positive social attributions

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## Abstract

Social robots increasingly mimic human traits. When a human-like robot (an android) seems to engage with music, a universal human behavior, how do people judge its social attributes? Musical engagement can enhance the android's perceived human-likeness, which may increase affinity but also trigger discomfort (the uncanny valley effect). In Experiment 1 (N =192), an android showed apparent musicality through movement-music synchronization (vs uncoordinated; or without music). In Experiment 2 (N=160), we manipulated musicality by adding (vs. not adding) headphones during movement – implying the presence of music participants could not hear. In both, participants rated the android with higher apparent musicality as warmer, more competent, and eliciting less discomfort (all  $p$ 's<0.01, measured by the RoSAS scale; Carpinella et al., 2017). These findings show that human perception of androids is impacted by cognitive schemas about and attribution of musicality, which can be inferred even without hearing music directly.