



A participant listening to Mozart while her mother listens to speech. Watch the video [here](#)

Forthcoming in [PNAS](#) and freely available [here](#), an article by [Marcel Zentner](#) and [Tuomas Eerola](#): "Rhythmic engagement with music in infancy"

Abstract: Humans have a unique ability to coordinate their motor movements to an external auditory stimulus, as in music-induced foot tapping or dancing. This behavior currently engages the attention of scholars across a number of disciplines. However, very little is known about its earliest manifestations. The aim of the current research was to examine whether preverbal infants engage in rhythmic behavior to music. To this end, we carried out two experiments in which we tested 120 infants (aged 5-24 months). Infants were exposed to various excerpts of musical and rhythmic stimuli.... Infants' rhythmic movements were assessed by multiple methods involving manual coding from video excerpts and innovative 3D motion-capture technology. The results show that (i) infants engage in significantly more rhythmic movement to music and other rhythmically regular sounds than to speech; (ii) infants exhibit tempo flexibility to some extent ...; and (iii) the degree of rhythmic coordination with music is positively related to displays of positive affect. The findings are suggestive of a predisposition for rhythmic movement in response to music and other metrically regular sounds.