

# Understanding how movement synchrony shapes infants' choices

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This research was conducted by **Bahar Tunçgenç, Emma Cohen** and **Christine Fawcett** at the **University of Oxford, UK** and **Uppsala University, Sweden**

## Summary

Although coordinated movements enable early social interactions, little is known about the effect of movement synchrony throughout human development. This paper reports on a study of infants' preferences for synchronous stimuli in a social and non-social context. It found that children at 12 months of age (though not at nine months) expressed a preference for synchronously moving toys when displayed in a social manner. The paper has important implications for using synchrony to enhance the lives of young children.

## Infants choose synchronous over non-synchronous movements from early in life

In the study, 40 children aged 12 months old took part in two sessions where they were sat in a chair and rocked to the same – or different – rhythm as two distinct video stimuli, each representing a type of toy: a teddy bear that talked and gestured (social stimulus) and a colourful box that made sounds and was lit up (non-social stimulus). After the rocking phase, they were shown each toy in sequence and encouraged to choose the one they liked best. The first toy the children reached for (and touched) was recorded as their preferred choice. In order to explore potential developmental patterns, a second identical experiment was conducted with 41 nine-month olds. Children in this experiment did not display a preference for synchronously moving toys in either the social (bear) or non-social (box) setting.

# Associations between movement synchrony and social behaviour warrant further investigation

Lack of preference in the younger infants could be explained by difficulties perceiving synchronicity, a preference not strong enough to be detected, or a misinterpretation of the social stimulus. Authors suggest that self-propelled movement and stimuli presented live – rather than through video – might in future have a more obvious effect on children's choices.

This summary is by **Anna Kolliakou, King's Knowledge Exchange Associate**

## Keywords

**experiment** **rhythm** **children**

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