

Insight into how infants learn to walk

December 14 2017



Credit: Lancaster University

Ten-week-old babies can learn from practising walking months before they begin walking themselves say researchers. They gave the infants experience at "reflex walking" which is a primitive instinct in babies which disappears around 12 weeks of age.

When held by an adult at a slightly forward angle, and with the soles of their feet touching a [flat surface](#), the infants will reflexively walk by placing one foot in front of the other.

Psychologists at Lancaster University gave this "[reflex walking](#)" experience to one half of a group of 10 week old infants, who took an average of 23 steps in 3 minutes. The other half of the group did not share in the experience of walking. The researchers showed film of human figures walking and crawling to both groups of infants as they sat on their mothers' laps in a dimly lit room.

They then measured how the infants responded to this [visual information](#) by recording electrical activity in their brains. Only the brains of the infants who had experienced "reflex walking" were able to recognise the same movement in the film of figures walking. Their response was more similar to that of older children learning to walk rather than babies from younger ages. The group of infants who had not practised "reflex walking" did not show this more mature brain activity but they may have recognised filmed crawling movement.

Psychologist Professor Vincent Reid said the research in *Neuropsychologia* showed a link between perceiving an action and carrying out that action even in early infancy. "This result strongly suggests that experience refines the [perception](#) of biological motion during early infancy.

"The act of walking has therefore shifted the percept of biological motion for those [infants](#) who had experienced self produced stepping behaviour.

"This suggests that the limited period of experience ... altered the infant's perception of walking, indicating a link between action perception and action production in early infancy."

More information: Vincent M. Reid et al. Links between action perception and action production in 10-week-old infants, *Neuropsychologia* (2017). [DOI: 10.1016/j.neuropsychologia.2017.11.005](https://doi.org/10.1016/j.neuropsychologia.2017.11.005)

Provided by Lancaster University

Citation: Insight into how infants learn to walk (2017, December 14) retrieved 25 April 2024 from <https://medicalxpress.com/news/2017-12-insight-infants.html>

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