

Robotic Assisted Locomotor Experience Leads to Enhanced Attention

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Five-month-old non-crawling infants were randomly assigned to a locomotor or non-locomotor condition to study the effects of goal-directed, self-guided locomotion on attention at seven-months of age. Both groups came for 12 play sessions over a period of two months. During these play sessions infants in the locomotor group were able to locomote to toys using a robotic device fitted out with a wii board designed by Larin, Dennis, and Stansfield (2012). The play sessions for the non-locomotor group were identical except that the toys were always within reach. At seven months of age infants in both groups were tested on a number of video vignettes that were designed to measure attention. Infants sat in a car seat and viewed the videos as their eye movements were tracked. Reported here are the infant responses to viewing a 15- second video of a cat puppet dancing to music; with 23 infants in each condition. The total time spent attending to the cat and the duration of fixations were measured and analyzed using an Independent Samples t-test. We found that the locomotor group showed significantly longer fixation durations while attending to the cat, $t(44) = 2.06$, $p = .01$.