

"You Are Only Looking for Attention": Look duration and attentional control in infants
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Research suggests that interaction with the environment through independent locomotion contributes to enhancement of executive functions in infants. Time spent looking at visual stimuli is presumed to reflect cognitive factors such as attentional control or patterns of information processing. This interdisciplinary study examined the relationship between independent locomotion and visual attention in infants. Five-month-old infants were randomly assigned to a locomotion or non-locomotion condition, and participated in 12 play sessions, during which the locomotor (but not the non-locomotor) group could move using a robotic assisted locomotion device (WeeBot). Prior to randomization, infants participated in a visual attention task, and the duration of looking to a visual stimulus (a puppet) was measured. At this point, there was no significant difference in peak look duration between the two groups. After the 12 play sessions, at 7 months of age, infants in both groups participated again in the visual attention task. The results showed that infants in the locomotion group significantly increased their looking duration, whereas infants in the non-locomotor group did not. These results suggest that the locomotor experience led to changes in infants' attention to the stimuli, possibly due to changes in their pattern of information processing or better attentional control. Based on previous literature, we believe that this increase could be attributable to higher regulatory abilities that have been enhanced by independent locomotion. This finding suggests that infants' visual attention can be improved if given opportunities to develop cognitive control by exploring the environment independently.