



Visual and Cognitive Development Project

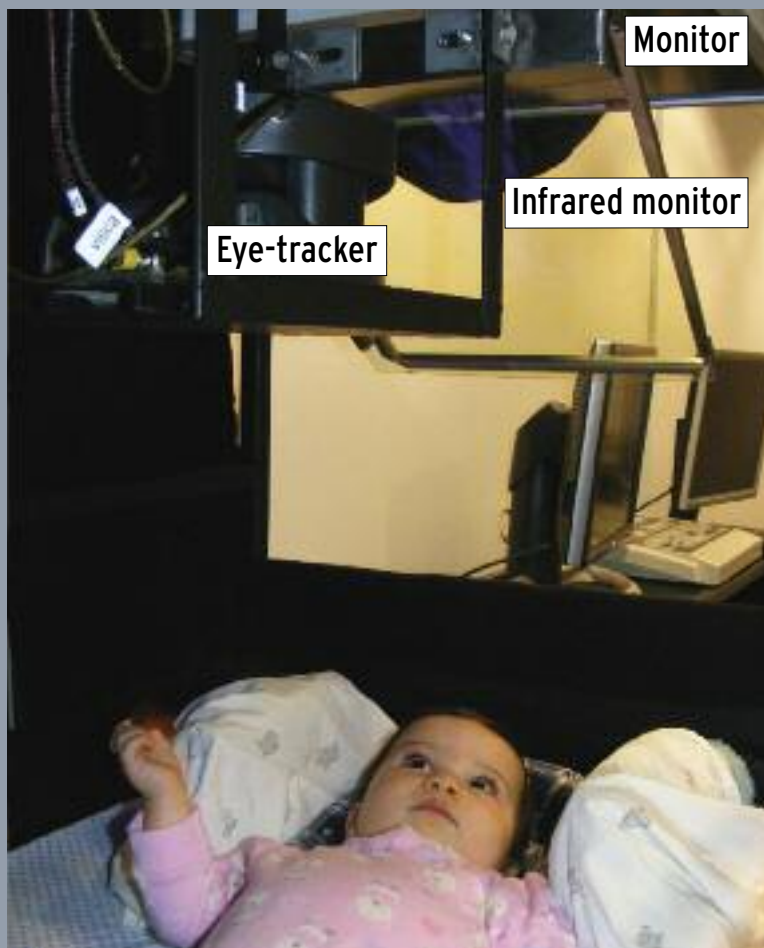
Centre for Vision Research

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The infant eyetracker equipment allows Adler's research group to investigate how infants develop the ability to selectively allocate their attention to particular objects, and how the infant uses that attention to anticipate future events. This research, funded by the National Institute of Health, continuously records infants' eye movements as arrays and sequences of stimulus objects are presented on a monitor above them. This research improves our understanding of normal development and developmental disorders such as Autistic Spectrum Disorders and Attention Deficit Disorder, which, at their core, likely have attention deficiencies.



Studies of the development of perceptual memory use the mobile conjugate reinforcement paradigm – in which infants learn to kick a crib mobile to make it move – to research the nature of the visual information stored in and retrieved from infants' long-term memory. This research explores how infants form a knowledge base about their world, the developmental nature of the cognitive processes that prevent humans from forming long-term memories before the age of three and has potential educational applications as evidenced by infants' toys that use the mobile paradigm.

