

Infants' peripheral vision blurry

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Our eyes are windows to the world, but what is the visual experience of infants? We know that infant vision tends to be blurrier than adults'. Now researchers from UC Davis, UC Berkeley and Stanford University have discovered that they also have much poorer peripheral vision.

Infants only perceive what they stare at, and they perceive a jumbled, tangled mass of features in their periphery," said Faraz Farzin, a postdoctoral researcher at Stanford University who conducted the work as a graduate student at the UC Davis Center for Mind and Brain.

At play is a phenomenon that brain scientists call "crowding," in which the clutter of images in the [peripheral vision](#) makes it difficult to recognize an individual object. Adults also suffer from crowding, but much less than infants, Farzin said.

The results were published online this month in the journal [Psychological Science](#).

Farzin and co-authors Susan Rivera, associate professor at the UC Davis Department of Psychology, Center for Mind and Brain and the MIND Institute; and David Whitney, associate professor of psychology at UC Berkeley and a research associate at the Center for Mind and Brain, used eye-tracking to find what babies will turn their eyes to look at in their periphery.

They showed the infants, six to 15 months of age, pairs of images of faces, one upright and one upside-down, with or without flanking images

around them. The [infants](#) could discriminate the upright face in their peripheral vision, but not when it was crowded by flanking images, they found.

The finding has both theoretical and practical value, Farzin said.

"Identifying and reaching for a specific toy in a pile is no easy feat for a baby," she said. Knowing the visual limits of a typically developing baby also helps psychologists to identify when visual development is lagging.

Provided by University of California

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