

Foetuses develop facial recognition in the womb

Babies' interest in faces develops in the womb, new research has suggested.

It is known that newborn babies are more interested in faces than any other object but until now scientists have not known when this trait develops. By projecting light into the womb, Lancaster University researchers found foetuses at 34 weeks' development turned their heads to look at images similar to a face more often than to other shapes. The findings are the first to show it is possible to explore visual perception and cognition before babies are born.

Vincent Reid, a professor of psychology and author of the study, which was published in the *Current Biology* journal, said: "We have shown the foetus can distinguish between different shapes, preferring to track face-like over non-face-like shapes."

The human foetus has the capacity to

process perceptual information in the third trimester, he said, but visual preferences in newborns are often attributed to innate mechanisms or to rapid imprinting.

Researchers used 4D ultrasound, with moving pictures, to monitor responses of 39 unborn babies to patterns representing a face both upright and upside down and found the foetuses turned their heads more often to the correctly oriented stimuli.

Professor Reid said: "There was the possibility that the foetus would find any shape interesting due to the novelty of the stimulus. If this was the case, we would have seen no difference in how they responded to the upright and upside-down versions of the stimuli."

Foetuses responded in a way similar to infants, he said, suggesting the preference for faces begins in the womb.

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