

When do babies develop a love of speech?

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Is the newborn preference for speech innate, developed in utero or acquired during the early days post-partum? McGill University psychologist Dr Athena Vouloumanos says she's broken the uterine sound barrier and filtered out speech from non-speech and established that newborns' preference for the sound of speech is at least partly innate.

"It's well established that neonates have a preference for speech above other sounds, but where does this come from? Is it something that's built in and there's something about the speech signal that they're tuned to listen to without the benefit of experience, or does it come from their prenatal experience in the womb? I think we've shown that there's an experience-independent component to newborns' preference for speech," says Dr Vouloumanos, an Assistant Professor in McGill's Department of

Psychology in Montreal, Canada.

In the study, which involved 20 newborns at Women's and Children's Hospital in British Columbia, the babies responded by sucking their pacifiers about 15-per cent more in response to human speech stimulus compared with other, non-speech sounds.

"What we found is that their sucking behaviour increased to hear speech and it decreased when the sucking would elicit the non-speech sounds," said Vouloumanos.

Dr Vouloumanos and colleagues developed a painstaking two-part experimental procedure to separate out in-utero familiarity from innate predisposition. It included a series of complex speech analogues designed to be as close to speech as possible, without being actual words. This provided a test for the newborns' ability to distinguish speech from other sounds.

Vouloumanos presented her latest findings at the American Association for the Advancement of Science annual meeting in St. Louis, February 17. The research has been accepted for publication in the journal *Developmental Science*.

Source: McGill University

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