

Why a foetus likes to curl up with a good book

The unborn child can develop distinct literary tastes, reports Robert Temple

CAN babies possibly learn things in the womb? In order to find out, 16 pregnant women earlier this year were asked to read the children's book *The Cat in the Hat* to their foetuses twice a day for the last six and a half weeks of their pregnancies. This method

that the foetuses would have heard the story for a total of about five hours each.

But how do you sample the opinions and preferences of a new-born baby? Even George Gallup would not have been able to figure that one out. How can you find out whether a baby has heard *The Cat in the Hat* so much that it likes it? The solution to this problem arose from a previous study to demonstrate that babies prefer their mothers' voices to any others.

In their earlier, pioneering study, an ingenious baby

opinion-sampling technique was worked out by Drs Anthony J. DeCasper and William P. Fifer, of the psychology department at the University of North Carolina. DeCasper and Fifer realised that there is one thing babies are really keen on: sucking nipples. So, nipples would have to be the medium for communication. Babies were given rubber nipples which were wired up so that the babies could exercise control over events simply by altering their sucking patterns. If they didn't like something,

they could stop sucking and shut it off. All this power in one so young!

It took about a day for a baby to get the hang of it. Each baby in the original study had headphones affixed to his ears. Various tape recordings were made available, and he could shut off the voices and move on to the next one by his "suck-control" apparatus. Invariably, the little tyke opted for the tape recording of his own mother's voice. This was in spite of the fact that the babies had been in contact

with their mothers for at most 12 hours between birth and testing.

However, DeCasper worried about this. As reported in *Science* magazine (July 20, 1984) he says: "I asked myself, 'Why do we come into the world like that?' Maybe we listen in the womb." So he set out to discover whether we do. Using his nipple-power hook-ups for the babies, he could find out what they liked. What he needed to do was expose them to something in the womb and then sample their opinions after

they were born. Hence *The Cat in the Hat*.

As soon as the 16 babies who had heard that book in the womb were born, DeCasper was ready with his psephological nipples and headphones. Two tapes were made available, both of children's books read by their mothers. But one tape was of the familiar *The Cat in the Hat*, while another was of the unfamiliar *The King, the Mice, and the Cheese*, which is quite different to listen to, apparently. The babies exercised nipple-control to choose

the book they knew and loved from their cosier days when they had been serenely floating in the amniotic fluid. For them, it was *The Cat in the Hat*, and to hell with novelty.

DeCasper checked babies' reactions to their fathers' voices, but newborns do not seem to recognise them. DeCasper says: "They hear their mother's stomach noises, her heart-beat, and her voice. What they don't hear well is their father talking in a normal conversational voice. It looked like

auditory preferences after birth are influenced by what is heard pre-natally."

This ties in with experiments some years ago, when tentative findings seemed to indicate that foetuses have favourite kinds of music; top of their pops is flute music by Vivaldi. At the time, this idea was ill-received because DeCasper had not yet brought the additional rigour to the investigations of babies' views. Now that infantile opinion-sampling is burgeoning, there seems to be no limit to what we could investigate.

Reader response, Guardian August 29, 1984:

Sir, — Robert Temple's "Why a foetus likes to curl up with a good book" (*Micro Guardian*, August 9) reminds me of a widespread belief and practice among many Vaishnav Hindus.

It is believed that reading aloud religious literature such as the *Shrimad Bhagvatam*, *Ramayana*, and *Mahabharata* throughout pregnancy influences the intelligence and moral character of the new-born child and makes it easier for him or her subsequently to learn the verses (or slokas) he or she has heard in-utero.

Relatives and neighbours often read religious literature — not fiction — aloud to the unborn baby. This has been practised from Vedic times — more than 5,000 years ago — and it is, therefore, refreshing to learn that modern science is proving its efficacy. — Yours sincerely,
H. N. Desai.

W. Bromwich, W. Midlands.