

## Language and cognition

**Twice blessed**

Apr 16th 2009

From The Economist print edition

**Bilingual babies are precocious decision-makers**

WHETHER to teach young children a second language is disputed among teachers, researchers and pushy parents. On the one hand, acquiring a new tongue is said to be far easier when young. On the other, teachers complain that children whose parents speak a language at home that is different from the one used in the classroom sometimes struggle in their lessons and are slower to reach linguistic milestones. Would 15-month-old Tarquin, they wonder, not be better off going to music classes?

A study just published in the *Proceedings of the National Academy of Sciences* may help resolve this question by getting to the nub of what is going on in a bilingual child's brain, how a second language affects the way he thinks, and thus in what circumstances being bilingual may be helpful. Agnes Kovacs and Jacques Mehler at the International School for Advanced Studies in Trieste say that some aspects of the cognitive development of infants raised in a bilingual household must be undergoing acceleration in order to manage which of the two languages they are dealing with.

The aspect of cognition in question is part of what is termed the brain's "executive function". This allows people to organise, plan, prioritise activity, shift their attention from one thing to another and suppress habitual responses. Bilingualism is common in Trieste which, though Italian, is almost surrounded by Slovenia. So Dr Kovacs and Dr Mehler looked at 40 "preverbal" seven-month-olds, half raised in monolingual and half in bilingual households, and compared their performances in a task that needs control of executive function.

First, the babies were trained to expect the appearance of a puppet on a screen after they had heard a set of meaningless words invented by the researchers. Then the words, and the location of the puppet, were changed. When this was done, the monoglot babies had difficulty overcoming their learnt response, even when the researchers gave them further clues that a switch had taken place. The bilingual babies, however, found it far easier to switch their attention—counteracting the previously learnt, but no longer useful response.

Monitoring languages and keeping them separate is part of the brain's executive function, so these findings suggest that even before a child can speak, a bilingual environment may speed up that function's development. Before rushing your offspring into Tongan for Toddlers, though, there are a few caveats. For one thing, these precocious cognitive benefits have been demonstrated so far only in "crib" bilinguals—those living in households where two languages are spoken routinely. The researchers speculate that it might be the fact of having to learn two languages in the same setting that requires greater use of executive function. So whether those benefits accrue to children who learn one language at home, and one at school, remains unclear.



Alamy

**Questo è il modo di farlo**