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Babies & Children's EXPO (Stand C24)  
24<sup>th</sup> – 26<sup>th</sup> June 2011  
and enter to win great prizes!

*The EXPO gives you as parents an opportunity to register your child/ren to take part in our fun and exciting research and also to find out more about the studies we conduct at The University of Queensland.*

## Recent Research Results

### June 2011 Newsletter

#### Does your baby copy you?

Have you poked your tongue out to a baby recently?

Preliminary results from our Longitudinal Neonatal Imitation Project reveal that infants at 9 weeks of age are very good at copying this gesture. In fact, this seems to be the only gesture (out of other facial expressions, hand gestures and sounds) that babies will reliably copy at this age. This is new information which contradicts the long-held idea that infant imitation begins to fade around this time.

Our findings to date suggest that this tongue protrusion response may be a social one (and not a reflexive one) as babies will poke their tongue out more to a human model protruding her tongue than to a physically similar inanimate moving object.

Our study has also revealed that at 9 weeks, girls are better imitators than boys, and difficult-tempered babies are better imitators than easy-tempered babies. We think difficult-tempered babies might find imitating others a rewarding way to interact as it helps them regulate their behaviour (which can often be erratic).

For easy-tempered babies, engaging in imitation may not be as important for them as they are more readily available for communication through other means.

We have had a busy start to the year, with Janine presenting these findings at conferences in Kyoto and Montreal. We're also having great fun testing the babies in the labs and almost 30 babies have finished testing up to 18 months. Siobhan is busy recruiting and testing babies at homes and in the labs and we now have nearly 50 babies in our study!



We thank you all for your continued participation, and we look forward to sharing more interesting results in the coming months!

#### ***The Unit becomes a "Centre"***

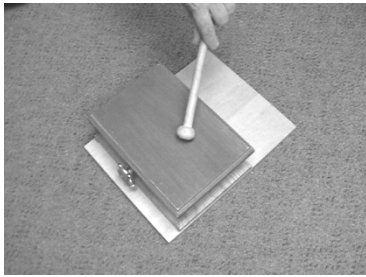
*Recently The Early Cognitive Development Unit has changed name and status to become The Early Cognitive Development Centre.*

*This is in recognition of the profile we have developed as one of Australia's premier child development groups and reflects a University commitment to support us as we continue our research aimed at better understanding the worlds of babies, infants and young children.*

*We look forward to welcoming you to the Centre at your next visit.*



## Do 4-year-olds copy even irrelevant actions from adults?



***“Research from our Centre has shown that even before infants can count by themselves, they know how counting should be done.”***

***Scientific publication:***  
Slaughter, V., Itakura, S., Kutsuki, A. & Siegal, M. (2010).  
*Learning to count begins in infancy: Evidence from 18-month-olds’ visual preferences.*  
Proceedings of the Royal Society B: Biological Sciences.



***Visit our new website to view:***

- *Past Newsletters*
- *Register on line to become a research participant at ECDC*
  - *Parents FAQ’s about participating in our studies*
- *Read recent Media coverage of our research findings*

Children will copy all of the actions an adult uses to bring about an outcome, even if those actions are clearly irrelevant and even if they actually interfere with producing the end result.

This phenomenon has come to be known as over-imitation. We have been recently investigating if children will over-imitate actions that are not explicitly demonstrated to them.

In our latest experiment we set up a scenario whereby 4-year-old children were given a set of toys to play with while an experimenter sat at a distance reading. Another experimenter then came in to the test room, oriented to the child, the first experimenter or no one in particular. She then

demonstrated how to open a box using irrelevant and causally related actions. We found that regardless of who the demonstration was directed at, children still employed each of the modeled actions when given opportunity to open the box – even the irrelevant ones.

Children do not need to be directly demonstrated to in order to learn. Moreover, we interpret these results to mean that over-imitation rests importantly on a social motivation to share experience with, and thereby affiliate with others. By imitating clearly irrelevant actions children are revealing their motivation to “enter into the club” of the cultural microcosm that had been set up by the two adults during the demonstration phase.

## Do babies like people who are like them?

They say “birds of a feather flock together” because we tend to be attracted to those who are similar to ourselves.

For instance, when adults are subtly imitated by a conversation partner who adopts similar gestures and mannerisms, they generally rate the conversation as a pleasant experience and the partner who imitated then as being particularly likeable.

We recently completed a study showing

a similar effect in 12 – 23 month old infants. The infants spent 3 minutes interacting with two adult experimenters, one of whom imitated everything the infant did.

Afterwards, when shown photos of both experimenters’ faces, the infants gazed longer at the experimenter who had imitated them. This suggests that infants came to prefer the imitating experimenter, just as we grown-ups tend to like those who are most similar to us.

## Can 3 – 5 year olds solve basic reasoning problems?

Research conducted in the Centre recently has shown that children aged 3 to 5 can solve basic reasoning problems that involve the mental manipulation of visual, auditory or verbal information (although the 3-year-olds had more difficulty using the auditory and verbal information than did the older children).

In the verbal task, the children were presented with two identical “twin” teddy bears and given a verbal clue about an unobservable characteristic of one of the animals.

They were then asked to indicate the correct animal, which could be deduced from the clue.

