



# **UNIVERSITY TORONTO**



MISSISSAUGA

# **Infant & Child Studies Newsletter**

2015 Newsletter

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### **About Us**

The Infant and Child Studies Lab at the University of Toronto Mississauga (UTM) was established in 1973 for the purpose of studying children's perception of speech and music. Every year since then, hundreds of families from the surrounding communities have visited the campus to participate in our studies. While infants and children engage in game-like tasks at our state-of-the-art facility, we gather information about the early development of listening skills. Over the past few years, our research has been presented at numerous prestigious conferences throughout North America and Europe.



### At the Infant & Child Studies Centre...

- Dr. Tina Malti has been elected the new Membership Secretary of the International Society for Research in Behavioural Development (ISSBD).
- We congratulate Dr. Ella Daniel, a former postdoctoral fellow in Dr. Tina Malti's lab, on becoming an Assistant Professor in the School of Education at Tel-Aviv University in
- Congratulations to Melissa Paquette-Smith, a Ph.D. student in Dr. Johnson's Speech and Language Lab, for being awarded the June and David Scott Award!
- Congratulations to Helen Buckler, a postdoctoral fellow in Dr. Johnson's Speech and Language Lab, for being awarded the Rubicon grant from the Netherlands Organisation for Scientific Research!
- · We welcome Dr. Natalie Fecher, who completed her Ph.D. in Forensic Speech Sciences at the University of York in the United Kingdom. She will be joining Dr. Johnson's Speech and Language Lab as a postdoctoral fellow in January of 2015.

### How do I participate?

For more information on how your child can become a junior scientist, call us at (905) 569 4859 or visit us online at:

www.utm.utoronto.ca/CLASS

## Daddy says 'Tomato', Mommy says 'Tomahto'

Numerous studies have shown that speaking more than one language can be beneficial to children's linguistic and cognitive development; by having to learn two different language-systems they are better prepared to keep track of multiple information sources and switch between the two. In a series of studies in Dr. Johnson's Infant Language and Speech Lab we are investigating whether "biaccentism" is a special kind of bilingualism that provides children with similar benefits. In one study we are testing whether 9-month-old infants who are regularly exposed to diverse accents find it easier to recognise words in an unfamiliar accent than infants who only hear one accent. We are asking whether their knowledge that "people speak differently and still mean the same thing" encourages them to be more accepting of unusual pronunciations.





### **Singing Toddlers**

Most scholars claim that children do not produce recognizable songs until they are 3 or 4 years of age. They are thought to learn the words first, speaking them rather than singing them. Later, as the story goes, they add rhythm and, eventually, they vary their pitch in ways that approximate the original song. That timetable does not match the experience of many parents, so we decided to check things out for ourselves. Dr. Trehub's Music Development Lab has been gathering parents' home recordings of songs from toddlers. To date, we have observed enormous variety in toddlers' singing. Their singing ability appears to be unrelated to their speech production ability. For example, some children who produce very few words are able to sing entire songs. Other children who produce full sentences sing in a monotone voice. Unlike the reports of experts, the songs of many 2-year-olds are easily recognized because the words, rhythms and pitch contours are close to those of the original songs.



### Peer Exclusion & Victimization: Children's Thoughts & Feelings

As the role of peer relations becomes more pronounced in children's social lives, so do the risks associated with peer exclusion and victimization, such as social withdrawal and depression. Dr. Malti's lab aims to understand why children exclude and victimize others by exploring how they think and feel while deciding to include or exclude others. Specifically, we are examining how their decisions to exclude (or include) and corresponding physiological activity heart rate) vary based (e.g., characteristics of other children, such as social behaviour or gender. A deeper understanding of why children exclude others may assist with efforts to facilitate positive peer relationships.

# Learning to Understand People from All Over the World

When an Australian pronounces the word "ball", it typically sounds much more like "bowl" than like "ball" Canadian English speakers. This makes understanding speakers of an unfamiliar variant of English a lot harder than you might initially think, especially for babies who are still in the early stages of learning their first language. In Dr. Johnson's Infant Language and Speech Lab, we have found that Canadian infants start developing the ability to recognize words produced in unfamiliar regional accents by about two years of age. We are now investigating when infants learn to understand foreign accented variants of English. So far, our results suggest that learning to recognize words in an unfamiliar foreign accent (e.g., a French accent) is no harder than learning to recognize words in an unfamiliar regional accent (e.g., an Australian accent).



### I don't like the tone of your voice!

Can babies tell the difference between someone who speaks in a positive or negative tone of voice? Findings from Dr. Johnson's Speech and Language Lab indicate that in at least some circumstances they can. We wanted to see if kids judge someone as being socially desirable or undesirable based on the emotional tone in their voice. We presented infants with a puppet show in which one puppet spoke in a happy tone of voice and another that spoke in a stressed tone of voice. When infants were allowed to select a puppet to play with they tended to pick the puppet that they had heard speaking in a nice tone



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## The Development of Children's **Emotions, Physiological Activity,** and Aggression

Do some children with aggressive behaviour lack quilt and sympathy after committing transgressions, whereas others have difficulty controlling and expressing such moral emotions in a positive way? While children report their emotions after hypothetically harming others. Dr. Malti's lab measures their physiological activity (e.g., heart rate) to determine the optimal levels of emotions and corresponding arousal that help them navigate social conflicts. Data will be collected annually from community and clinical samples of 4- and 8-yearolds. This project aims to inform treatment efforts targeting the regulation and optimal expression of emotions in children who are at risk of developing aggression.

### Thank You!

We thank all of the families that have participated in our studies! We also thank the Peel Regional Health Unit, Credit Valley Hospital, Trillium Hospital, and the Ontario Early Years Centres for helping us reach out to families in the local community. If you know anyone who would be interested in participating in our studies, please pass on this newsletter as we are always looking for more iunior scientists!

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