



Infant and Child Studies Center

ABOUT US

The Infant and Child Studies Centre at the University of Toronto Mississauga (UTM) was established in 1973 for the purpose of studying children's perception of speech, music, and social emotional development. 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 valuable information about early development. Over the past few years, our research has been presented at numerous conferences throughout North America and Europe.



DIRECTORS

Dr. Elizabeth Johnson
Dr. Sandra Trehub
Dr. Glenn Schellenberg
Dr. Tina Malti

POSTDOCTORAL FELLOWS

Dr. Helen Buckler
Dr. Natalie Fecher
Dr. Angela Cooper
Dr. Ju-Hyun Song
Dr. Laura Cirelli

GRADUATE STUDENTS

Michael Weiss
Melissa Paquette-Smith
Tyler Colassante
Sebastian Dys
Joanna Peplak

HOW DO I PARTICIPATE?

For more information on how your child can become a junior scientist call us at (905) 828 5446 or (905) 569 4859

NEWS & ANNOUNCEMENTS

- Dr. Tina Malti has been elected to Fellow status in the American Psychological Association (Division 7, Developmental Psychology).
- We congratulate Dr. Lixian Cui and Dr. Antonio Zuffiano, two former postdoctoral fellows in Dr. Tina Malti's lab, on becoming an Assistant Professor at New York University in Shanghai, and Lecturer (Assistant Professor) at Liverpool Hope University, respectively.
- Congratulations to Marieke van Heugten and Dena Kreiger, former Ph.D. students in Dr. Johnson's lab, for winning the Peter W. Jusczyk Best Paper of the year award for their paper published in Language, Learning & Development.

THAT'S NOT MY NAME!

Babies first show signs of recognizing their own name when they are around 6 months old, but what are they responding to? Do they really “know” the detail of their name, or are they responding to a general pattern, maybe a particular pitch pattern, that their parents use while smiling at them? This is the question at the center of an ongoing study in Dr. Johnson’s Language and Speech Lab. Do 6-month-olds notice if one sound in their name is changed? Infants are presented with two variants of their name, one correctly pronounced and the other altered, and we measure how long they listen to each. When a vowel is changed (e.g. *Henry* vs. *Hinry*), infants notice the difference, and listen longer to their name than the mispronunciation. Interestingly, a change to a consonant (e.g. *Henry* vs. *Senry*) goes largely unnoticed, raising the questions about how and why vowels and consonants behave differently in early language acquisition.



WHO IS SPEAKING?

Have you ever heard a cheerful voice on the phone saying ‘Hi, it’s me!’, but initially struggled to identify who is speaking? If so, you’re not alone. Recognizing

even well-known people only by the sound of their voice is more challenging than we might think. In Dr. Johnson’s Child Language and



Speech Studies Lab we are investigating when and how adult-like voice recognition skills develop. We have found, for example, that infants at 4 months of age can already successfully tell apart two similar-sounding female voices that they

encountered for the first time in our lab – quite remarkable! Furthermore, we have observed that 5- to 6-year-old children, like adults, can correctly recognize even unknown speakers by their voice, but only when these are speaking the child’s native language (here, English). We are currently testing 4- to 9-month-old infants to find out when this so-called ‘language familiarity effect’ on voice recognition first emerges.



HOW ARE CHILDREN'S MORAL EMOTIONS FORMED?

Why might one child feel good for committing a transgression, such as stealing a chocolate from another child, while another feels bad or guilty? Why might two children feel such different emotions in response to the same situation? One of the research questions Dr. Malti's lab examines is how moral emotions, such as sympathy and guilt, are formed in childhood and adolescence. More specifically, they investigate how children's

attention influences their feelings of sympathy and guilt. To do this, they observe the eye movements of 4-, 6-, and 8-year-olds during social conflict scenarios in relation to their emotional responses. Understanding children's patterns of attention during such scenarios will help us understand how to shift their focus in a way that promotes the development of moral emotions.



MORE SINGING TODDLERS

Music and especially songs are very present in the daily life of many Canadian children. Mothers and other caregivers sing to and with their children from a young age. Yet studies looking into the songs that young children produce have typically not focused on children younger than 3 or 4 years of age. Last year Dr. Trehub's Music Development Lab started gathering home recordings of singing 2-year olds. We found that there is much variety in what 2-year olds can do singing-wise. So, this year we are taking the singing toddler study into the lab! We're currently exploring some of the factors that might contribute to the differences in the way in which toddlers sing their songs.

FEELING SORRY FOR OTHERS

Understanding the development of bullying

Do children bully others because they lack guilt and sympathy? Or because they have trouble expressing their guilt and concern for others in positive ways? Dr. Malti's lab investigates children's physiological (i.e., bodily) responses to situations that involve bullying others. They want to understand if and how the regulation of arousal in these situations promotes feelings of guilt and sympathy that help children avoid bullying others. Malti's lab studies 4- and 8-year-olds on a yearly basis to understand these emotional skills as they change over time. This knowledge will help treatment efforts determine when and how to target these skills and reduce the risk of bullying as children develop.



We would like to 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 junior scientists!

Thank you to the National Sciences and Engineering Research Council of Canada (NSERC), the Canadian Institutes of Health Research (CIHR), the Social Sciences and Humanities Research Council of Canada (SSHRC), and the National Science Foundation in the US (NSF) for continued funding of our research.

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