



BABY LANGUAGE LAB

ANNUAL NEWSLETTER



- Director's Message -

This has been a year of renewals. Since May 2022, we have reopened our perceptual lab, and welcomed babies back into our behavioural testing room. We are so grateful to the many families who took the time to bring their children to us, especially during the lengthy training period last summer. A brand-new crop of student research assistants worked very hard to relearn lab practices after a multi-year pandemic hiatus, and with their help, we are now back in the swing of things collecting experimental data on infants' perception of speech sounds. We do have some new student research assistants being trained in the coming months, and we hope you will continue to support these crucial efforts in addition to participating in ongoing studies.

We also have two new 5-year grants, one received last year from the Social Sciences and Humanities Research Council of Canada to support our observational studies, and one this year from the Natural Sciences and Engineering Research Council of Canada. We are incredibly grateful for the ongoing grant funding support of the lab, which will ensure that we can remain vibrant in the coming years. These funds will support our ongoing work on infant preference for infant-directed speech, caregiver factors on language development such as maternal mental health, analyses of infant language experiences across cultures and contexts (including our most recent corpus of recordings from Iranian families), and a variety of other projects.

In addition, we are excited to tell you about a new initiative, the Healthy Human Development research group. This effort will bring together four laboratories from University of Manitoba who all study human development, at various ages from birth to adolescence. Our goal is to share resources to streamline our practices. One of our first initiatives will be a new participant database system that will have state-of-the-art software to better protect your information. We will be in touch in the coming months with more information for those of you interested in ongoing participation in our research.

Dr. Melanie Soderstrom
Professor
University of Manitoba



STUDIES IN THE LAB



MATERNAL MENTAL HEALTH AND LANGUAGE

How does maternal mental health impact their preschooler's emotional development and communication? (2-4-year-olds)

Doctoral student Megan Gornik is examining the impact of maternal depression and anxiety on mother-child interactions by analyzing aspects of their speech such as melody and rhythm. In her Masters work, she found that mothers who sounded happier in their speech had preschooler's who also sounded happier. Meanwhile, mothers who sounded more frustrated had children who sounded sadder in their speech. This was helpful in understanding that maternal affect has a notable impact on child vocal emotional expression.

INFANT PREFERENCE FOR INFANT-DIRECTED SPEECH

How are infants' preferences for the special properties of infant-directed speech different across cultures and languages? (6-12-month-olds)

We speak very differently to babies than we do to other adults - but this style of speaking varies across cultures and languages. In *ManyBabies 1*, we used North American English speech samples and found that infants in over a dozen countries around the world prefer to listen to infant-directed speech (IDS), though the strength of the preference varied. Currently, we are testing infants' preference for IDS samples from different languages to see how infants from different language backgrounds and ages respond to IDS in different languages.

INFANT RULE LEARNING

Can babies extract abstract patterns from speech? (5-12 month-olds)

In *ManyBabies 3*, the aim is to explore whether infants can extract patterns from syllable sequences; can babies tell the difference between familiar and new syllable patterns? Infants hear syllable sequences with a particular pattern like ABB or ABA and then are tested on new syllables sequences that follow the same or a different pattern. Like all *ManyBabies* projects, this is a large-scale study with labs all over the world participating.

- Lab Members -

Dr. Melanie Soderstrom (Lab Director)

Dr. Soderstrom is an expert in infant speech perception and the language-learning environment. In 2008, she started the Baby Language Lab at the University of Manitoba.

Sara Montazeri (Graduate Student)

Sara is a Ph.D. student in the U of M Developmental Psychology program. She joined the lab in the fall of 2019, and is currently examining the language environments of infants born in Iranian families.

Megan Gornik (Graduate Student)

Megan is a Ph.D. student in the U of M Clinical Psychology program. Her thesis focuses on the impact of maternal depression and anxiety on mother-infant interactions. She first joined the lab as a research assistant in 2018.

Trevor Sie (Lab Coordinator)

Trevor joined the lab in summer 2017 after being accepted into the Linguistics M.A. program at the U of M. He has worked for several years coordinating our annotation efforts studying the everyday language experiences of infants.

Isabelle Hadley (Research Assistant)

Isabelle joined the lab in summer 2022. She is working on her B.A. Honours in Psychology at the U of M, and will be starting her thesis work in the fall.

Rebeca Urizar (Research Assistant)

Rebeca joined the lab in November 2022. She is working on her B. Sc. Honours in Psychology at the U of M.



STUDIES IN THE LAB

TEST-RETEST RELIABILITY

How reliable are our measures of infant preference?

Most of our studies rely on measuring infant preferences across a group of babies. Because there are a lot of factors that influence what sounds a baby might want to listen to on a given day, we usually say that these findings are only meaningful across a large group of babies, and not for an individual baby. More recently, researchers have been trying to use individual babies' preferences to predict their later language development, like how quickly they learn new words. As an optional "add-on" study to ManyBabies 3, we will be bringing babies back to the lab to test them a second time, to see how similar their preferences are from one day to another.

INFANT-DIRECTED SPEECH IN FARSI

This study examines the linguistic environment of Farsi-learning infants in Iran. It explores the melody and rhythm of caregivers' speech in Iran, as well as the amount of speech Persian infants hear early in life. Doctoral student Sara Montazeri recently collected everyday recordings of dozens of Iranian families in Mashhad, Iran, and will be analyzing her findings in the coming year. Stay tuned!

INFANTS' SOCIAL EVALUATION

Do babies demonstrate social preferences? (5.5-10.5 months old)

The aim of this ongoing study is to explore if infants show preferences for nice characters or mean characters. Our laboratory is contributing to a larger worldwide project called ManyBabies 4. We will also be exploring different factors in a baby's experience that might influence their preferences.

Yejin Cha
(Research Assistant)

Yejin joined the lab in November 2022. She is working on her B.A. Honours in Psychology at the U of M, and will be starting her thesis work in the fall.

Chloe Walker
(Research Assistant)

Chloe joined the lab in February 2023 and is working on her B.A. Honours in Psychology and Linguistics.



RECRUITMENT

We are actively recruiting infants under 12 months for ongoing studies.

For more information, or to book an appointment, please call or email us!

Phone: (204) 474-8798

Email: babylanguagelab@umanitoba.ca

Facebook: www.facebook.com/BabyLanguageLab

Instagram: [@uofmbabylanguagelab](https://www.instagram.com/uofmbabylanguagelab)

Website: www.babylanguagelab.ca

CONGRATULATIONS

Karmen McDivitt on defending her PhD.

Cara Allardice and **Kiana Chubey** for graduating with their B.A. Honours in Psychology.

Cara Allardice on receiving a CPA certificate of excellence for outstanding honours thesis.

Rebeca Urizar on receiving an Undergraduate Research Award summer internship.

Isabelle Hadley on receiving a Children's Hospital Research Institute of Manitoba (CHRIM) summer studentship.

RECENT PUBLICATIONS

Visser, I., Bergmann, C., ... Soderstrom, M., ... & Zettersten, M. (2022). Improving the generalizability of infant psychological research: The ManyBabies model. Behavioral and Brain Sciences, 45, E35.

Beyak, A.A., Cadieux, O., Cook, M., Cressman, C., Jain, B., Joshi, J.A., Martin, S.L., Mielniczek, M., Montazeri, S., Sawatzky, J., Smith, B.C., Spear, J., Perera, E.I., Thompson, T., Trudel, D., Zeng, J., & Soderstrom, M. (2022). What can we perceive in infant vocalization?. Collabra: Psychology, 8 (1), 31977.

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Stienwandt, S.B., Cameron, E.E., Soderstrom, M., Casar, M., Le, C., & Roos, L.E., (2022). Family Factors Associated with Hands-On Play and Screen Time During the COVID-19 Pandemic. Child Youth Care Forum.

Soderstrom, M., Casillas, M., Gornik, M., Bouchard, M., MacEwan, S., Shokrkon, A., & Bunce, J. English-speaking Adults' Labeling of Child-and Adult-directed speech across languages and its relationship to perception of affect. Frontiers in Psychology, 12.

Soderstrom, M. (2021). Analysis of Children's Everyday Language Experiences Using Longform Audio: Promises and pitfalls. Journal for the Study of Education and Development (Infancia y Aprendizaje), 44(2), 477-501.

Soderstrom, M., Casillas, M., Bergelson, E., Rosemberg, C., Alam, F., Warlaumont, A., & Bunce, J. (2021). A cross-cultural annotation system and metacorpus for studying infants' real world language experience. Collabra: Psychology, 7(1), 23445.

Byers-Heinlein, K., Tsui, A. S. M., ... Soderstrom, M., ... & Wermelinger, S. (2021). A Multilab Study of Bilingual Infants: Exploring the Preference for Infant-Directed Speech. Advances in Methods and Practices in Psychological Science, 4(1), 2515245920974622.

Cristia, A., Lavechin, M., Scaff, C., Soderstrom, M., Rowland, C., Räsänen, O., Bunce, J., Warlaumont, A., Bergelson, E. (2021). A thorough evaluation of the Language Environment Analysis (LENATM) system. Behavior Research Methods, 53(2), 467-486.

Research in our lab is approved by the University of Manitoba Research Ethics Board 1.

We are grateful for funding from SSHRC (Social Sciences and Humanities Research Council) and NSERC (Natural Sciences and Engineering Research Council) as well as internal funding from the University of Manitoba.



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