



ANNUAL NEWSLETTER

☆☆☆ - Director's Message -

Much has happened since our last newsletter in 2020, in our personal lives and in the larger world. If we have learned one thing over the last two years, it is that community matters - whether in our neighbourhoods or on a global scale. While our perceptual studies laboratory has been shut down since March 2020, we have kept a vibrant “remote” lab focused on our work analyzing the language experiences of infants in different contexts. The initial ACLEW (Analyzing Child Language Experiences around the World) project annotating and transcribing audio recordings of infants’ everyday experiences is complete, and will soon be available for other researchers to use. Our early findings document both similarities (e.g. most speech heard by infants comes from women) and differences (e.g. the amount of speech from other children and overheard speech varies across communities). In ongoing work, we are collaborating with Dr. Ludivine Glas to develop a system for annotating different contexts in which the speech occurs (e.g. types of activities). We are also gearing up to collect new audio recordings in a sample of Iranian mothers and infants, in work by graduate student Sara Montazeri.

We have also been active with smaller projects. One innovative project began as a classroom research project examining adults’ ability to judge different aspects of infant vocalizations in different languages, and recently came out in a peer-reviewed journal with all 16 students as authors. Another recent study examined adults’ perception of child- and adult-directed speech in unfamiliar languages, and how it relates to their perception of emotions in the speech. Complex relationships were found between emotion, the language being tested, and the experience of the listener with the speech samples.

Our most exciting news is that we are gearing up to re-open the perceptual lab. There is a lot to do to get back up and running after so much time away. We will be running a number of experiments in the coming months as part of our ongoing commitments to the ManyBabies research consortium, and we are thrilled at the idea of having infants and their caregivers back in our lab. We hope that you will help us spread the word to any families you know with infants who might enjoy a trip to the lab. Stay safe, enjoy the warm weather, and thank you again for your past contributions to our research!

Dr. Melanie Soderstrom
Professor
University of Manitoba



STUDIES IN THE LAB



SMARTPHONE USAGE AND INFANT-PARENT INTERACTIONS

How does smartphone usage influence our verbal interactions with our infants? (6-9 and 12-15 months old)

Last year, graduate student **Mercedes Casar** completed our only ongoing data collection during the pandemic, looking at the relationship between mothers' smartphone usage and their infants' speech experiences. We did not find a strong relationship between mothers' smartphone usage and their speech to their infant, but we did find that more smartphone use was related to less infant babble. There was a wide range of how much mothers used their smartphones.

MATERNAL MENTAL HEALTH AND PRESCHOOLER DEVELOPMENT

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

For her Master's thesis, **Megan Gornik** used existing recordings from our sister lab, the *Hearts and Minds Lab*, to look at the relationship between symptoms of depression in mothers, and emotion-related measures of the mothers' and children language. We did not find a strong relationship between mothers' symptoms of depression and their speech to their preschooler, but we did find some interesting correlations. For example, we found a relationship between how happy a mother sounded and how happy her child sounded, and overall how emotionally expressive a mother sounded was related to how happy a child sounded.

YOUNG MOTHERS AND INFANT EXPERIENCE

What are the language environments of infants born to young mothers? (0-24 month olds)

There is relatively little research examining how a mother's age impacts the language environment and subsequent development of their child. We recruited 23 mother-child pairs with a focus on mothers between the ages of 15 and 25 years of age (adolescent and emerging-adulthood developmental stages). We are currently examining the recordings of young mothers' everyday interactions with their infants. Preliminary findings suggest young mothers are talking to their infants in quantities comparable to other mothers. We also found that the young mothers in our sample are using the specialized speech type, infant-directed speech (IDS), in a manner that is like non-young mother populations (of a western context) reported in the literature. The IDS type of speech is hypothesized to be important for early language learning, infant engagement, and responsiveness. These and future findings will help us know how to best support young mothers and their infants.

- 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.

Karmen McDivitt (Graduate Student)

Karmen is a Ph.D. student in the U of M Clinical Psychology program. Her dissertation work in the lab examines the language environments of infants born to young Winnipeg mothers. She first joined the lab in fall 2014.

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 will be examining the language environments of infants born in Iranian families.

Megan Gornik (Graduate Student)

Megan is a M.A. 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 is interested in the grammatical effects of gesture in speech. He is currently working on the ACLEW project in the lab.

Grace Zhou (Lab Coordinator - Perceptual)

Grace joined the lab in fall 2021 as the ManyBabies office assistant. She is currently helping to prepare for the lab's perceptual studies re-opening.

UPCOMING STUDIES

INFANT-DIRECTED SPEECH

How are infants' preferences for the special properties of infant-directed speech different across cultures and languages? (6-9 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 strength of the preference varied. Currently, we are testing infants' preference for IDS samples from different languages.

SOCIAL DEVELOPMENT STUDY

Do babies demonstrate social preferences? (5.5-10.5 month olds)

The aim of this study ([ManyBabies 4](#)) is to explore if infants show preferences for nice characters or mean characters. Some of you may have participated in the preliminary "pilot study" pre-COVID, the main study will be starting soon!

RULE LEARNING STUDY

Can babies extract 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? Like all ManyBabies projects, this will be a large-scale study with labs all over the world participating. Stay tuned for updates on this project!

Kiana Chubey
(Research Assistant)

Kiana joined the lab in summer 2019. She is currently working on her B.A. Honours in Psychology at the U of M.

Madison Hardman
(Research Assistant)

Madison completed her Honours Bachelor of Science from the University of Toronto and has been conducting psychology research at the U of M since 2019.

Cindy Le
(Research Assistant)

Cindy joined the lab in early 2020. She is currently studying Speech-Language Pathology at Western University.

Cara Allardice
(Research Assistant)

Cara joined the lab in fall 2021. She is working on her B.A. Honours in Psychology at the U of M.

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.

Mercedes Casar
(Recent Alum)

Mercedes completed her Master's in Developmental Psychology examining how smartphone use impacts the amount of language mothers use when their infants are present.

CONGRATULATIONS

Mercedes Casar, Megan Gornik,
and **Trevor Sie** for defending their
Master's theses!

Isabelle Hadley on receiving an
Undergraduate Research Award
summer internship.



LAB RE-OPENING!

**We are actively recruiting infants under
12 months for upcoming 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

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 metacorpora 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.

Byers-Heinlein, K., Tsui, R. K., ... Soderstrom, M., ... & Singh, L. (2020). The development of gaze following in monolingual and bilingual infants: A multi-lab study. Infancy, 26(1), 4-38.

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

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