Baby Language Lab Annual Newsletter 2019 – 2020

Director's Message

Pandemic has changed a lot of the things we are doing in the lab, but some things have not changed. In-person laboratory studies with infants are on hold, of course. We look forward to the time when we are told it is safe to start those back up. In the meantime, we meet over videoconference and work through secure remote access to our computer systems. I am impressed with our students' resilience in the face of a confusing time, their caring for each other, and their commitment to the ongoing work in the lab. Our lab is one built on daily personal interactions with each other and with our research participants, so we have had to rethink our mission a little over the last few months. You may have seen more activity on our social media, where we are focusing on communicating scientific advances related to child language research, and suggestions for fun activities and other advice for getting through these lonely and stressful times.

Speaking of stress, we are partnering with the Hearts and Minds lab on an online study they are conducting looking at the impact of parenting stress on families during the pandemic. So far, this study has collected responses from hundreds of parents both within and outside of Winnipeg. Some preliminary findings point to an increase in parent mental health concerns like depression and the potential consequences of this for children's home environments (and of course the parents themselves). I can tell you as a parent myself: This is hard. It's normal to be having trouble coping in these unusual times. These findings point to a need for organized social supports to help families cope. In the meantime, I encourage you all to reach out to your friends, relatives and neighbours to offer support if you can or seek it out if you're feeling down or out of control. With the weather warming up, it's easier to get out of the house, which will hopefully help all of us feel a little better.

Over the last few years, we have published a number of findings from both our perceptual laboratory studies and our observational, audiorecording-based work. We are particularly proud of the publication of our first largescale "ManyBabies" study. A listing can be found at the end of this newsletter. Many of these are available to the public – if you have trouble accessing one, you can always email us and we will send you a copy.

Dr. Melanie Soderstrom
Associate Head, Graduate Studies
University of Manitoba

Studies in the Lab

Young Mothers Study

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. Early findings suggest young mothers are talking to their infants at quantities comparable to other mothers. Also, the older mothers in our sample displayed more knowledge on infant development. Our next step involves exploring the type and quality of speech used by the mothers in our sample, with a focus on infant-directed speech (commonly known as baby talk). These and future findings will help us know how to best support young mothers and their infants.

The ACLEW Project

What are the language environments of children around the world? *(0-24 month olds)*
ACLEW is a project bringing together investigators from around the world to investigate the everyday language experiences of children in different communities. Our ongoing work on this project with our team of research assistants involves implementing the transcription system that we developed in the early phases of the project across the recordings from these different language communities. We are also collaborating with "machine learning" experts to develop tools to automate our analyses over the many thousands of hours of audio recording!

Dr. Melanie Soderstrom

(Lab Director)

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

Karmen McDivitt

(Graduate Student)

Karmen completed her Master of Arts degree in Clinical Psychology at the U of M, under the supervision of Dr. Melanie Soderstrom, in the Baby Language Lab. She is currently completing her Ph.D. 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.

Sara Montazeri

(Graduate Student)

Sara Montazeri is a Ph.D. student in Developmental Psychology at the U of M. She received her M.A. degree in Linguistics at the University of Tehran, Iran. She joined the lab in September 2019.

Mercedes Casar

(Graduate Student)

Mercedes joined the Baby Language Lab in 2016. She is currently working on her Master's in Developmental Psychology examining how smartphone use impacts the amount of language mothers use when their infants are present.

Studies in the Lab Continued...

Smartphone Usage and Infant-Parent Interactions

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

Smartphones are often used by caregivers of young children, however their influence on the home language environment has not yet been well explored. This study will examine recordings of mothers' everyday interactions with their infants together with information on the mothers' smartphone data usage. These findings will help us to understand the impact of maternal smartphone usage on the amount of language spoken in the household.

Infant-directed Speech Study

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 collaboration with dozens of laboratories around the world, we are examining how infants' preference for this style of speech varies in different circumstances, languages and infant age. Our first large-scale study, ManyBabies 1, found that infants in over a dozen countries around the world prefer to listen to infant-directed speech. Currently, we are exploring whether those preference are tied to later language development measures like vocabulary. We are also looking at potential differences in preference for infant-directed speech in different languages.

Social Development Study

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

The aim of this study was to explore if infants prefer those who are nice or mean to a third-party character. While studies have been conducted on infant social preferences in this context before, the results have not been consistently replicated. This year we conducted a small scale pilot study for a larger replication study. We look forward to further investigating these findings with a larger number of participants in the future.

Megan Gornik
(Honours Student)

Megan joined the lab in 2018 as a research assistant. She completed her B.A. Honours in Psychology this spring and is continuing at the U of M in the Clinical Psychology M.A. program under the supervision of Dr. Soderstrom. Her interests include the well-being of infants and youth, family dynamics, and mental health awareness.

Sarah MacEwan
(Lab Manager)

Sarah joined the lab in Summer 2017. After completing her undergraduate degree in cognitive science at Mount Allison University in spring 2019, she was hired full time as the lab coordinator/manager. Starting in Fall 2020, she will be doing a Masters of Audiology and Speech Sciences at UBC.

Annotators/Transcribers in the lab:

Reagan Campbell
Kiana Chubey
Megan Gornik
Sara Montazeri
Trevor Sie

Our wonderful Volunteers:

Sarah Ajao
Jillia Epp
Barbie Jain
Cindy Le
Zoë Zbirun

Congratulations To…

☐ Karmen McDivitt on receiving a placement with the University of Manitoba Clinical Internship, and on successfully defending her PhD dissertation proposal.

☐ Megan Gornik on her acceptance to University of Manitoba's Clinical Psychology Masters program.

☐ Sarah MacEwan on her acceptance to the University of British Colombia's Masters of Audiology and Speech Sciences program.

☐ Lab alumnus Kathryn Rollins for her acceptance to University of Western Ontario's MCISc/PhD program in Speech-Language Pathology.

☐ Kiana Chubey and Reagan Campbell on their Undergraduate Summer Research Awards 2019.

Special Thanks

If your child is over 24 months:
Your child has officially graduated from the Baby Language Lab – most of our studies are for infants under 24 months. We very much appreciate your past participation, and hope that you will consider letting us know if you have any new additions to your family!
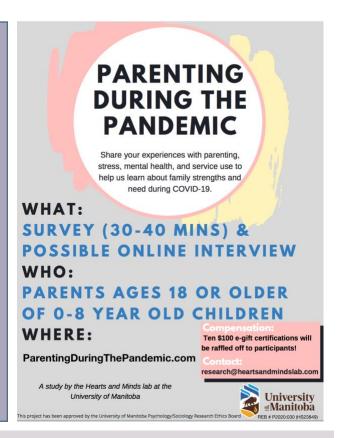
If you have participated in more than one study:
Every visit means a lot to us. We try to make your visits as enjoyable as possible so you will want to come back to visit us ☐. While even just one visit makes a big difference for our research, we want to extend a special thank you to those of you who have come to the lab for multiple visits!

If you have spread the word to your friends and family:
Participant recruitment is always our biggest challenge in the lab. If you know someone with a child under 24 months, it would be awesome if you helped spread the word about our lab! If you have already done so, thank you for helping us with this important part of our research!

We are still actively recruiting infants under 24 months for our studies. Although the lab is closed right now, we would be happy to take your information and contact you when we are "back in business". Most of our studies right now are for infants between the ages of 6 and 15 months.

PARENTING DURING THE PANDEMIC

Share your experiences with parenting, stress, mental health, and service use to help us learn about family strengths and need during COVID-19.

WHAT:
SURVEY (30-40 MINS) & POSSIBLE ONLINE INTERVIEW
WHO:
PARENTS AGES 18 OR OLDER OF 0-8 YEAR OLD CHILDREN
WHERE:
ParentingDuringThePandemic.com

Compensation:
Ten $100 e-gift certifications will be raffled off to participants!
Contact:
research@heartsandmindslab.com

A study by the Hearts and Minds lab at the University of Manitoba

This project has been approved by the University of Manitoba Psychology/Sociology Research Ethics Board   REB # P2020:030 (HS23849)

Our lab has been involved in a number of publications this year. If you would like a copy of any of the below papers, please feel free to contact the lab!

o The ManyBabies Consortium. (2020). Quantifying Sources of Variability in Infancy Research Using the Infant-Directed-Speech Preference. *Advances in Methods and Practices in Psychological Science*, *3*(1), 24–52. https://doi.org/10.1177/2515245919900809

o Henrikson, B., Seidl, A., & Soderstrom, M. (online FirstView Dec 2019). Perception of sibilant-liquid phonotactic frequency in full term and preterm infants. *Journal of Child Language.* doi:10.1017/S0305000919000825

o Cristia, A., Lavechin, M., Scaff, C., Soderstrom, M., Rowland, C., Räsänen, O., Bunce, J., Warlaumont, A., Bergelson, E. (in press). A thorough evaluation of the Language Environment Analysis (LENATM) system. *Behavior Research Methods.* *https://osf.io/czbym*

o Cychosz, M., Romeo, R., Soderstrom, M., … Cristia, A., Casillas, M., … (2020). Longform recordings of everyday life: Ethics for best practices. *Behavior Research Methods.* https://doi-org.uml.idm.oclc.org/10.3758/s13428-020-01365-9

o Byers-Heinlein, K., Bergmann, C., Davies C., … Soderstrom, M. (in press). Building a collaborative Psychological Science: Lessons from ManyBabies 1. *Canadian Psychology*.

o Räsänen, O., Seshadri, S., Karadayi, J., Riebling, E., Bunce, J., Cristia, A., Metze, F., Casillas, M. Rosemberg, C., Bergelson, E., Soderstrom, M. (2019). Automatic word count estimation from daylong child-centered recordings in various language environments using language-independent syllabification of speech. *Speech Communication, 113,* 63-80.

o Cristia, A., Dupoux, E., Bernstein Ratner, N., & Soderstrom, M. (2019). Segmentability differences between child-directed and adult-directed speech: A systematic test with an ecologically valid corpus. *Open Mind, 3,* 13-22. https://doi.org/10.1016/j.specom.2019.08.005

o Bergelson, E., Casillas, M., Soderstrom, M., Seidl, A., Warlaumont, A., Amatuni, A., (2019). What Do North American Babies Hear? A large-scale cross-corpus analysis. *Developmental Science,22(1),* e12724. https://doi.org/10.1111/desc.12724

For more information or to book an appointment contact us:

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Website: **www.babylanguagelab.ca**

youcantspoilababy.org

Due to COVID-19, we have temporarily stopped accepting donations for You Can't Spoil a Baby – a volunteer-operated project that delivers gifts of once-loved/new baby clothes and items to help Manitoba families in need with the first year of baby's life. If you have baby items you would like to donate, please contact them to see when donation bins will be open again.

University of Manitoba · Social Sciences and Humanities Research Council of Canada · Canada · Conseil de recherches en sciences humaines du Canada · NSERC CRSNG

If you would like to stop receiving this newsletter or change the form in which you receive it (email versus regular post), please contact the lab.

If it has been five years since your last appointment, this will be your last newsletter. If you would like to continue receiving a newsletter, please contact us!