

Mika Braginsky

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EDUCATION

Massachusetts Institute of Technology

Ph.D., Cognitive Science (2022)

Advisor: Edward Gibson

Committee: Edward Gibson, Michael Frank, Timothy O'Donnell, Joshua Tenenbaum, Laura Schulz

Thesis: *Language learning at scale: Data-driven and model-motivated analyses of lexical and morphological development*

Massachusetts Institute of Technology

B.S., Computer Science and Engineering & Brain and Cognitive Sciences (2014)

RESEARCH EXPERIENCE

Software Developer

Sep 2023 – Present

Language and Cognition Lab, Stanford University

PI: Michael Frank

Postdoctoral Scholar

Mar 2022 – Apr 2023

Quantitative Sciences Unit, Stanford University

PI: Maya Mathur

Graduate Student Researcher

Sep 2016 – Jan 2022

TedLab, MIT (PI: Edward Gibson)

Computational Psycholinguistics Lab, MIT (PI: Roger Levy)

Research Assistant

Sep 2014 – June 2016

Language and Cognition Lab, Stanford University

PI: Michael Frank

Undergraduate Researcher

Sep 2013 – Aug 2014

Computational Cognitive Science Group, MIT

PI: Joshua Tenenbaum

Research and Development Intern

June 2013 – Aug 2013

Research and Development Team, Basis Technology

AWARDS AND FELLOWSHIPS

- Walle Nauta Award for Continuing Dedication to Teaching by a Graduate Student (2020, 2021, 2022)
- Angus MacDonald Award for Excellence in Undergraduate Teaching (2019)
- Henry E. Singleton Fellowship, MIT (2017–2018)
- Society for Language Development Student Award (2016)
- **National Science Foundation Graduate Research Fellowship** (2016–2021)

BOOKS

- Frank, M. C., **Braginsky, M.**, Cachia, J., Coles, N., Hardwicke, T., Hawkins, R., Mathur, M., and Williams, R. (in prep). Experimentology: An Open Science Approach to Experimental Psychology Methods. MIT Press. langcog.github.io/experimentology
- Frank, M. C., **Braginsky, M.**, Marchman, V. A., and Yurovsky, D. (2021). Variability and Consistency in Early Language Learning: The Wordbank Project. MIT Press. wordbank-book.stanford.edu

BOOK CHAPTERS

- Mahowald, K., Dautriche, I., **Braginsky, M.**, and Gibson, E. (2022). Efficient communication and the organization of the lexicon. In *Oxford Handbook of the Mental Lexicon*. Oxford University Press.

JOURNAL ARTICLES

- Domingue, B. W., Kanopka, K., **Braginsky, M.**, Zhang, L., Caffrey-Maffei, L. A., Kapoor, R., Liu, Y., Zhang, S., & Frank, M. C. (in prep). The Item Response Warehouse (IRW), Version 4.0.
- Yuen, F, Kline, M., Zettersten, M, Kosie, J., **Braginsky, M**, Frank, M. C. (in prep). ShinyValidator: A user-friendly shiny application for validating data standards.
- Voški, A., **Braginsky, M.**, Zhang, A., Bertoldo, J., Egan, S., Levig, L.A., Mueller Ihrig, M., & Mathur, M. B. (under review). Effect of a default portion-size reduction on meat consumption and diner satisfaction: Controlled experiments in Stanford University dining halls.
- Pimentel, T., Ryskina, M., Ambridge, B., Anastasopoulos, A., Anderson, N., Arora, A., Bonami, O., **Braginsky, M.**, et al (under review). Sint vs Sinded: Do Machines Inflect Nonce Words Similar to Humans? ACL Rolling Review.
- Poliak, M., Ryskin, R., **Braginsky, M.**, Gibson, E. (2023). It’s not what you say but how you say it: Evidence from Russian shows robust effects of the structural prior on noisy channel inferences. *Journal of Experimental Psychology: Learning, Memory, and Cognition*.
- Zettersten, M., Yurovsky, D., Xu, T., Uner, S., Tsui, A., ... **Braginsky, M.**, ... Frank, M. C. (2023). Peekbank: An open, large-scale repository for developmental eye-tracking data of children’s word recognition. *Behavior Research Methods*.
- DeMayo, B., Kellier, D., **Braginsky, M.**, Bergmann, C., Hendriks, C., Rowland, C. F., Frank, M. C., & Marchman, V. (2021). Web-CDI: A system for online administration of the MacArthur-Bates Communicative Development Inventories. *Language Development Research*.
- **Braginsky, M.**, Yurovsky, D., Marchman, V. A., and Frank, M. C. (2019). Consistency and variability in children’s word learning across languages. *OpenMind: Discoveries in Cognitive Science*.
- Sanchez, A., Meylan, S. C., **Braginsky, M.**, MacDonald, K. E., Yurovsky, D., and Frank, M. C. (2019). childes-db: a flexible and reproducible interface to the Child Language Data Exchange System. *Behavioral Research Methods*.
- Bergmann, C., Tsuji, S., Piccinini, P., Lewis, M., **Braginsky, M.**, Frank, M. C., and Cristia, A. (2018). Promoting replicability in developmental research through meta-analyses: Insights from language acquisition research. *Child Development*.
- Frank, M. C., **Braginsky, M.**, Yurovsky, D., and Marchman, V. A. (2016). Wordbank: An open repository for developmental vocabulary data. *Journal of Child Language*.

PEER-REVIEWED CONFERENCE PROCEEDINGS

- Ambridge, B., Anastasopoulos, A., Anderson, N., Arora, A., Bonami, O., **Braginsky, M.**, et al (2021). A pipeline for generating plausible wug words in many languages. *Proceedings of the 18th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology*.
- Zettersten, M., Bergey, C., Bhatt, N., Boyce, V., **Braginsky, M.**, Carstensen, A., ... & Frank, M. C. (2021). Peekbank: Exploring children’s word recognition through an open, large-scale repository for developmental eye-tracking data. In *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society*.
- Tenenbaum, A., **Braginsky, M.**, and Levy, R. (2020). Integrating semantics into developmental models of morphology learning. In *Proceedings of the 42nd Annual Meeting of the Cognitive Science Society*.

- **Braginsky, M.**, Yurovsky, D., Marchman, V. A., and Frank, M. C. (2016). From *uh-oh* to *tomorrow*: Predicting age of acquisition for early words across languages. In *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*.
- **Braginsky, M.**, Yurovsky, D., Marchman, V. A., and Frank, M. C. (2015). Developmental changes in the relationship between grammar and the lexicon. In *Proceedings of the 37th Annual Meeting of the Cognitive Science Society*.

CONFERENCE PRESENTATIONS

- **Braginsky, M.**, and Mathur, M. (Mar 2023). Tools for accounting for within-study and across-study biases in meta-analysis. Talk presented at Evidence Synthesis and Meta-Analysis in R Conference 2023.
- Loukatou, G., Tan, A., **Braginsky, M.**, Mankewitz, J. and Frank, M. C. (November 2022). Typological variation in predicting early word learning across languages. Poster presented by Alvin Tan at the 47th Annual Boston University Conference on Language Development.
- Zettersten, M., Bergey, C., Bhatt, N., Boyce, V., **Braginsky, M.**, Carstensen, A., ... & Frank, M. C. (October 2022). Peekbank: Exploring children’s word recognition through an open, large-scale repository for developmental eye-tracking data. Talk presented by Martin Zettersten at the 2022 Big Team Science Conference.
- Zettersten, M., Saleh, A., Bhatt, N., Yurovsky, D., Xu, T. L., ..., **Braginsky, M.**, ..., and Frank, M. C. (November 2021). Increases in speed and accuracy of children’s online word recognition measured via a large-scale, open database of developmental eye-tracking data. Talk presented by Martin Zettersten at the 46th Annual Boston University Conference on Language Development.
- Watt, M., **Braginsky, M.**, and O’Donnell, T. (July 2021). Processing differences among irregular inflection classes. Poster presented by Maya Watt at the 43rd Annual Meeting of the Cognitive Science Society.
- Zettersten, M., Bergey, C., Bhatt, N., Boyce, V., **Braginsky, M.**, Carstensen, A., ... & Frank, M. C. (July 2021). Peekbank: Exploring children’s word recognition through an open, large-scale repository for developmental eye-tracking data. Poster presented by Martin Zettersten at the 43rd Annual Meeting of the Cognitive Science Society.
- **Braginsky, M.**, Marchman, V. A., and Frank, M. C. (July 2020). Characterizing the relationship between lexical and morphological development. Poster presented at the 42nd Annual Meeting of the Cognitive Science Society.
- Tenenbaum, A., **Braginsky, M.**, and Levy, R. (July 2020). Integrating semantics into developmental models of morphology learning. Poster presented by Abigail Tenenbaum at the 42nd Annual Meeting of the Cognitive Science Society.
- **Braginsky, M.**, Marchman, V. A., and Frank, M. C. (July 2020). Characterizing the relationship between lexical and morphological development. Talk presented at the XXII Biennial International Congress of Infant Studies.
- Meylan, S, **Braginsky, M.**, deMayo, B., Sanchez, A., Schonberg, C., Srinivasan, M., Vlach, H., Lupyan, G., Griffiths, T., Frank, M. C. (November 2019). Wordful: Tracking early productive vocabulary growth with smartphones. Talk presented by Stephan Meylan at the 44th Annual Boston University Conference on Language Development.
- **Braginsky, M.**, Marchman, V. A., and Frank, M. C. (March 2019). Demographic effects on the composition of children’s early vocabulary. Talk presented at the 2019 Society for Research in Child Development Biennial Meeting.
- **Braginsky, M.**, Levy, R., and O’Donnell, T. (July 2018). Evaluating models of productivity in language acquisition. Poster presented at the 40th Annual Meeting of the Cognitive Science Society.
- Tsuji, S., Bergmann, C., Lewis, M., **Braginsky, M.**, Piccinini, P., Frank, M. C., and Cristia, A. (August 2017). MetaLab: A repository for meta-analyses on language development, and more. Talk presented by Sho Tsuji at Interspeech 2017.

- **Braginsky, M.**, Yurovsky, D., Meylan, S., Marchman, V. A., and Frank, M. C. (April 2017). Building quantitative theories of early language using large-scale parent report data. Talk presented at the 2017 Society for Research in Child Development Biennial Meeting.
- **Braginsky, M.**, Yurovsky, D., Meylan, S., Marchman, V. A., and Frank, M. C. (November 2016). Gender differences in lexical input and acquisition. Talk presented at the 41th Annual Boston University Conference on Language Development.
- **Braginsky, M.**, Yurovsky, D., Marchman, V. A., and Frank, M. C. (August 2016). From *uh-oh* to *tomorrow*: Predicting age of acquisition for early words across languages. Talk presented at the 38th Annual Meeting of the Cognitive Science Society.
- **Braginsky, M.**, Yurovsky, D., Marchman, V. A., and Frank, M. C. (May 2016). Predicting age of acquisition for early words across languages. Talk presented at the XX Biennial International Congress of Infant Studies.
- **Braginsky, M.** (January 2016). Using Shiny for exploration of Wordbank. RStudio Shiny Developer Conference.
- Tsuji, S., Bergmann, C., Cristia, A., Lewis, M., **Braginsky, M.**, and Frank, M. C. (January 2016). MetaLab: Power analysis and experimental planning in developmental research made easy. Poster presented by Sho Tsuji at the 2015 Budapest CEU Conference on Cognitive Development.
- **Braginsky, M.**, Yurovsky, D., Marchman, V. A., and Frank, M. C. (December 2015). Predicting age of acquisition for early words across languages. Talk presented at the Studying Language Learning Workshop.
- **Braginsky, M.**, Yurovsky, D., Marchman, V. A., and Frank, M. C. (November 2015). Developmental trajectories of vocabulary composition across languages. Poster presented at the 40th Annual Boston University Conference on Language Development.
- Lewis, M., **Braginsky, M.**, Bergmann, C., Tsuji, S., Cristia, A., and Frank, M. C. (November 2015). MetaLab: A tool for power analysis and experimental planning in developmental research. Talk presented by Molly Lewis at the 40th Annual Boston University Conference on Language Development.
- **Braginsky, M.**, Yurovsky, D., Marchman, V. A., and Frank, M. C. (July 2015). Developmental changes in the relationship between grammar and the lexicon. Poster presented at the 37th Annual Meeting of the Cognitive Science Society.
- Frank, M. C., Yurovsky, D., Schneider, R., **Braginsky, M.**, and Marchman, V. A. (March 2015). Studying children’s vocabulary development at scale. Talk presented by Michael Frank at the 2015 Society for Research in Child Development Biennial Meeting.
- Frank, M. C., Yurovsky, D., Krishna, R., **Braginsky, M.**, and Marchman, V. A. (November 2014). Wordbank: An open repository for developmental vocabulary data. Poster presented by Michael Frank at the 39th Annual Boston University Conference on Language Development. Boston, MA.

DEPARTMENTAL PRESENTATIONS

- **Braginsky, M.** (October 2022). Tools for fitting generalized linear mixed-effects models in Julia from R. Research Methods Seminar, Quantitative Sciences Unit, Stanford University.
- **Braginsky, M.**, Marchman, V. A., and Frank, M. C. (November 2019). Characterizing the relationship between lexical and morphological development. Emerging Scholars of Psychological Science, Princeton University.
- **Braginsky, M.** (October 2018). Understanding productivity inferences in children and models. CogLunch, Department of Brain and Cognitive Sciences, MIT.
- **Braginsky, M.**, Levy, R., and O’Donnell, T. (October 2017). Bayesian models of productivity in acquisition. CogLunch, Department of Brain and Cognitive Sciences, MIT.

TEACHING

Teaching Assistant

Spring 2021, Spring 2020, Spring 2019, Spring 2018

Laboratory in Psycholinguistics, MIT
Instructor: Edward Gibson

Workshop Instructor

July 2019

Large-scale data tools in child language acquisition
Linguistic Society of America 2019 Linguistic Institute
Co-instructor: Michael Frank

Advanced Learning Assistant

Fall 2011

Introduction to Electrical Engineering and Computer Science I

SERVICE

- Ad-hoc reviewer for Journal of Child Language, Language Development Research, Cognitive Science Society
- Co-organizer of weekly CogLunch talk series in MIT BCS department Sep 2017 – May 2018

SOFTWARE

metabias (co-creator and former maintainer) metabias.io

R packages for bias-corrections for meta-analysis (multibiasmeta, phacking, PublicationBias)
Interactive visualizations and tools

Wordbank (co-creator and maintainer)

wordbank.stanford.edu

Open repository of parent-report data on children's early language learning
Interactive visualizations and tools
R package for data access and manipulation (wordbankr)

chilides-db (co-creator and maintainer)

chilides-db.stanford.edu

Flexible and reproducible interface to CHILDES, a corpus of child language transcripts
R package for data access (chilidesr)

Peekbank (co-creator and maintainer)

peekbank.stanford.edu

Flexible and reproducible interface to developmental eyetracking datasets
R package for data access (peekbankr)

Wordful (co-creator and former maintainer)

wordfulapp.com

Smartphone app for tracking early vocabulary growth

MetaLab (co-creator and former maintainer)

metabias.stanford.edu

Interactive tools for community-augmented meta-analysis in cognitive development research

rwebppl (co-creator and former maintainer)

github.com/mhtess/rwebppl

R interface to the WebPPL probabilistic programming language

jglmm (creator and maintainer)

github.com/mikabr/jglmm

R package for fitting generalized linear fixed effects models in Julia

ggpirate (creator and maintainer)

github.com/mikabr/ggpirate

R package for making plots of data with categorical independent variables

tidyboot (co-creator and maintainer)

github.com/langcog/tidyboot

R package for doing tidyverse-compatible bootstrapping

Last updated: 2024-06-06