

Federica Bulgarelli, Ph.D.
Curriculum Vitae

University at Buffalo
Psychology
Learning and Instruction
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Buffalo, NY 14260

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OSF: osf.io/kzs4a

EMPLOYMENT AND EDUCATION

- 2022- **Assistant Professor**
 University at Buffalo
 Department of Psychology
 Department of Learning and Instruction
- 2018-2022 **Postdoctoral Scholar**
 Duke University
 Department of Psychology and Neuroscience
 Advisor: Dr. Erika Bergelson
- 2013-2018 **Ph.D. in Cognitive Psychology and Language Science**
 Pennsylvania State University
 Dissertation: Talker Variability as a Desirable Difficulty for Language Learning
 Committee: Dr. Daniel Weiss (advisor), Dr. Judith Kroll, Dr. Janet van Hell, Dr. Matt Carlson, Dr. Koralay Perez-Edgar
- 2013-2015 **M.S. in Cognitive Psychology**
 Pennsylvania State University
 Thesis: Tracking Multiple Inputs: An Investigation of the Primacy Effect in Monolinguals and Bilinguals
 Committee: Dr. Daniel Weiss (advisor), Dr. Judith Kroll, Dr. Paola Dussias
- 2009-2013 **Bachelor of Science in Human Development and Family Studies**
 Bachelor of Arts in Linguistics
 University of Wisconsin – Madison

OTHER APPOINTMENTS

- 2023- present **Fellow**, Center for Health Equity Research Institute, University at Buffalo
2023- present **Founding Member**, Institute for Learning Sciences, University at Buffalo
2023- present **Member**, Center for Cognitive Science, University at Buffalo

RESEARCH SUPPORT

Current

- 2024-2026** **NICHD R21 (Bulgarelli, PI)**
The Influence of Child-Produced Speech on Infant Language Development
NIH (\$275,000 direct costs)
- 2024-2025** **Early Career Research Grant (Bulgarelli, PI)**
Searching for variability: The role of listener choice on learning new words
Language Learning (\$10,000 direct costs)
- 2024-2025** **Grow AI in Health Research (Bulgarelli, PI; Hendricks & Nwogu, Co-PIs)**
Leveraging AI to Identify Naturally Protective Factors for Children who are Late Talkers
UB Vice President for Economic Research (\$50,000)
- 2024-2025** **UB Research and Creative Activities for Undergrads (Bulgarelli, PI)**
Infant language learning from older siblings
UB Experiential Learning Network (\$9750, funding for undergraduate research)
- 2024-2027** **Graduate Assistance in Areas of National Need(Kearny, PI; Bulgarelli, Co-PI)**
Institute in Developing Research and Educational Excellence in Multilingual Education
Department of Education (\$616,561)

Pending

- 2025-2027** National Science Foundation Standard Grant (Bulgarelli, PI, Kosie Co-PI)
Collaborative research: Optimizing naturalistic recordings to examine links between bilingual language input and language development
National Science Foundation (\$224,342/609,214 total to UB)

Completed

- 2019-2022** **Ruth Kirschstein Postdoctoral Fellowship (Bulgarelli, PI)**
Within- and between- talker variability and word learning
NIH-NRSA (\$183,000 direct costs)
- 2020-2021** **Charles Lafitte Foundation (Bulgarelli, PI)**
Extending our reach: recruiting bilingual families to examine flexibility in early word learning
Duke Charles Lafitte Foundation (\$4,200 direct costs)
- 2018** **Dissertation Grant (Bulgarelli, PI)**
Talker variability as a desirable difficulty for language learning
Language Learning (\$2000 direct costs)

2016 **Partnerships for International Research and Education Fellowship**
Understanding the bilingual mind and brain
National Science Foundation

2015-2018 **Graduate Research Fellowship (Bulgarelli, PI)**
Know when to fold 'em: Overcoming the stationarity bias
National Science Foundation (\$102,000 direct costs)

AWARDS

2019 **Charles Lafitte Foundation Travel Award**

2018 **Boston University Conference on Language Development Student Award**

2017 **PSU Global Programs Graduate Student Travel Grant**

2012, 2013 **AmeriCorps Education Award**

PUBLICATIONS

n=21; 2 under review, 19 published

+denotes joint first authorship, *indicates mentee

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1. Kalenkovich, E., Koorathota, S., Tor, S., Amatuni, A., Egan-Dailey, S., Moore, C., Laing, M., Garrison, H., Baudet, G., **Bulgarelli, F.**, Uner, S., Righter, L., Bergelson, E., (under review). A year of nouns from English-learning infants' daily lives: the SEEDLingS-Nouns Dataset.
 2. *Samimifar, M., **Bulgarelli, F.** (under review). Adult processing of child-produced speech.
 3. **Bulgarelli, F.**, *Barry, S., Bergelson, E. (2024). Attending to talker characteristics: word learning and recognition in monolingually- and multilingually-raised infants. *Cognitive Development, 72, 101508*.
 4. **Bulgarelli, F.**, Bergelson, E. (2024). Linking acoustic variability in the infants' input to their early word production. *Developmental Science*
 5. **Bulgarelli, F.** (2024). Connecting environmental and genetic explanations for nonlinear language development in infancy and toddlerhood. *Biological Psychiatry*.
 6. **Bulgarelli, F.**, Potter, C.E. (2024). Stability and change in young children's linguistic experience during the COVID-19 pandemic in the United States. *Multilingua*
 7. **Bulgarelli, F.**, Bergelson, E. (2023). Talker variability is not always the right noise. 14-month-olds struggle to learn dissimilar word-object pairs under talker variability conditions. *Journal of Experimental Child Psychology*

8. **Bulgarelli, F.,** Bergelson, E., (2022). Talker variability shapes early word representations in 8-month-olds. *Infancy*.
9. **Bulgarelli, F.,** Mielke, J., Bergelson, E., (2021). Quantifying talker variability in North-American infants' daily input. *Cognitive Science*. 46(1), e13075
10. **Bulgarelli, F.,** Weiss, D. J. (2021). Desirable difficulties in statistical learning? How talker variability impacts artificial grammar learning. *Language Learning*
11. **Bulgarelli, F.,** Weiss, D. J., Dennis, N. A. (2020) Cross-situational statistical learning in younger and older adults. *Aging, Neuropsychology, and Cognition*, 1-12
12. Koranda, M. J., **Bulgarelli, F.,** Weiss, D. J., MacDonald, M. C. (2020). Is language production planning emergent from action planning? A preliminary investigation. *Frontiers in Psychology* 11, 1193
13. Cristia, A., **Bulgarelli, F.,** & Bergelson, E. (2020). Accuracy of the Language Environment Analysis System Segmentation and Metrics: A Systematic Review. *Journal of Speech, Language, and Hearing Research*, 63(4), 1093-1105.
14. +Benitez, V. L., +**Bulgarelli, F.,** Byers-Heinlein, K., Saffran, J. R., & Weiss, D. J. (2020). Statistical learning of multiple speech streams: A challenge for monolingual infants. *Developmental Science*, 23(2), e12896.
15. **Bulgarelli, F.,** & Bergelson, E. (2019). Look who's talking: A comparison of automated and human-generated speaker tags in naturalistic day-long recordings. *Behavior Research Methods*, 1-13.
16. George, N. R., **Bulgarelli, F.,** Roe, M., & Weiss, D. J. (2019). Stacking the evidence: Parents' use of acoustic packaging with preschoolers. *Cognition*, 191, 103956.
17. **Bulgarelli, F.,** Bosch, L., Weiss, D. J. (2019). Simultaneous visual statistical learning in monolinguals and bilinguals. *Frontiers in psychology*, 10.
18. **Bulgarelli, F.,** Lebkuecher, A. L., & Weiss, D. J. (2018). Statistical learning and bilingualism. *Language, speech, and hearing services in schools*, 49(3S), 740-753.
19. Weiss, D. J., **Bulgarelli, F.,** Navarro-Torres, C., & Morales, J., (2017). Translating research to practice in the language sciences. *Translational Issues in Psychological Science*, 3(1), 1.
20. **Bulgarelli, F.,** & Weiss, D. J. (2016). Anchors Aweigh: The Impact of Overlearning on Entrenchment Effects in Statistical Learning. *Journal of Experimental Psychology: Learning, Memory, and Cognition*.

21. Karuza, E., Li, P., Weiss, D.J., **Bulgarelli, F.**, Zinszer, B., Aslin, R.N. (2016) Sampling over Non-uniform Distributions: A Neural Efficiency Account of the Primacy Effect in Statistical Learning. *Journal of Cognitive Neuroscience*.

WORKS IN PROGRESS

Bulgarelli, F., Bergelson, E. (in prep). Useful properties for predicting child productive vocabulary.

Bulgarelli, F., *Rabideau, M., (in prep). Effects of talker variability on word learning.

CONFERENCE PROCEEDINGS

1. **Bulgarelli, F.**, Weiss, D. J. (2019) The more the merrier? The impact of talker variability on artificial grammar learning in preschoolers and adults. *Proceedings of the 43rd Boston University Conference on Language Development*.
2. **Bulgarelli, F.**, Benitez, V., Saffran, J., Byers-Heinlein, K., Weiss, D. J. (2017). Statistical Learning of Multiple Structures by 8-month-old Infants. *Proceedings of the 41st Boston University Conference on Language Development*.

CONFERENCE TALKS *Indicates mentee

Bulgarelli, F., & *Rabideau, M (2025). Preschoolers and adults seek out talker variability during word learning. Talk to be presented at the 2025 Society for Research in Child Development Conference.

Bulgarelli, F. (2024). *Infants' preference for and comprehension of child-produced speech*. Talk to be presented at the 49th Boston University Conference on Language Development (<20% acceptance rate)

Beech, C., **Bulgarelli, F.**, Bergelson, E., Swingley, D., (2024). *Relating properties of parents' speech to infants' referential world*. Talk presented at the 2024 International Congress on Infant Studies, Glasgow, Scotland.

Bulgarelli, F., Bergelson, E (2022). *Linking acoustic variability in everyday input to early word productions*. Talk presented at the 47th Boston University Conference on Language Development. (<20% acceptance rate)

Dailey, S., **Bulgarelli, F.**, Bergelson, E. (2021) *Links Between Language Input in Infancy and Vocabulary in Childhood*. Talk presented at the 2021 Society for Research in Child Development Conference.

Bulgarelli, F., Bergelson, E. (2019). *Who says it and what does it sound like? Quantifying within- and between- talker variability in infants' naturalistic input*. Talk presented at the

44th Boston University Conference on Language Development. Boston, MA. (<20% acceptance rate)

Bulgarelli, F., Weiss, D.J. (2019). *Limited talker variability differentially impacts artificial grammar learning in preschoolers and adults*. Talk presented at the 2019 Society for Research in Child Development Meeting. Baltimore, MD.

Bulgarelli, F., Weiss, D. J. (2018). *The more the merrier? The impact of talker variability on artificial grammar learning in preschoolers and adults*. Talk presented at the 43rd Boston University Conference on Language Development. Boston, MA.

Bulgarelli, F. George, N. R., Roe, M. D., Weiss, D. J. (2017). *Bottom-up cues to event segmentation: The use of audiovisual synchrony in speech to preschoolers*. Talk presented at the 42nd Boston University Conference on Language Development. Boston, MA.

Bulgarelli, F., George, N. R., Weiss, D. J. (2017). *Stacking Evidence: Parents' Use of Acoustic Packaging Continues into the Preschool Years*. Talk presented at the 2017 Society for Research in Child Development Meeting. Austin, TX

Weiss, D.J., **Bulgarelli, F.,** Poepsel, T. (2015) *The one that got away: Statistical learning of multiple inputs*. Talk presented at the 2015 Interdisciplinary Advances in Statistical Learning Conference. San Sebastian, Spain.

Bulgarelli, F., Weiss, D. J. (2014) *Multi-Stream Statistical Learning in Monolinguals and Bilinguals*. Talk presented at the 2014 UIC Bilingualism Forum. Chicago, IL.

Bulgarelli, F., Weiss, D. J. (2014) *Tracking Multiple Structures in Statistical Learning*. Talk presented at the 2014 APA Annual Convention. Washington, D.C.

Lew-Williams, C., **Bulgarelli, F.,** & Saffran, J. R. (2013). *Infants' tracking of statistical regularities across multiple talkers: A cautionary tale*. Talk presented at the Symposium on Research in Child Language Disorders. Madison, WI

CONFERENCE POSTERS *Indicates mentee

*Filipski, G., *Rabideau, M., **Bulgarelli, F.** (2025). Who are you looking at? Infant and preschool-aged sibling's locus of attention during play sessions. Poster to be presented at the 2025 Society for Research in Child Development Conference.

*Samimifar, M., **Bulgarelli, F.** (2025). Toddlers' processing of child-produced speech in silence and background noise. Poster to be presented at the 2025 Society for Research in Child Development Conference.

*Samimifar, M., **Bulgarelli, F.** (2024). Adult processing of child-produced speech with and

without background noise. Poster to be presented at the 2024 Psychonomic Society Meeting.

Bulgarelli, F. (2024). Infants' comprehension of speech produced by children. Poster presented at the 2024 International Congress of Infant Studies, Glasgow, Scotland.

*Rabideau, M., **Bulgarelli, F.** (2024). Effects of talker variability on learning similar and dissimilar novel words in 17-month-olds. Poster presented at the 2024 Cognitive Development Society Meeting.

Bulgarelli, F. (2023). Characterizing input from older children in North-American daylong recordings. Poster presented at the 2023 Many Paths to Language conference.

Bulgarelli, F., *Barry, S., Bergelson, E. (2023). Word learning and recognition in monolingually- and multilingually-raised infants. Poster presented at the 47th Boston University Conference on Language Development

Bulgarelli, F., Potter, C.E. (2022). *Investigating changes in daycare arrangements and English exposure during the COVID-19 Pandemic.* Poster presented at the 2022 International Congress on Infant Studies.

Bulgarelli, F., Bergelson, E (2022) *Social and referential cues shape 8-month-old's processing of talker variability during word learning.* Poster presented at the 2022 Cognitive Development Society Meeting.

Bulgarelli, F., Bergelson, E. (2020) *The Role of Within- and Between-Talker Variability in Early Word Learning.* Poster to be presented at the 45th Boston University Conference on Language Development

Bacon, D., **Bulgarelli, F.,** Benitez, V., Byers-Heinlein, K., Saffran, J., Weiss, D. J. (2020). *Social cues and statistical learning of multiple structures by infants.* Poster presented at the 2020 International Congress of Infant Studies.

*Levin, H., **Bulgarelli, F.,** Bergelson, E. (2019) *Single and multiple talker acoustic variation in relation to object presence.* Poster presented at the 2019 State of North Carolina Undergraduate Research and Creativity Symposium. Durham, NC

Bulgarelli, F., Weiss, D. J., Dennis, N. A. (2018). *The effect of healthy aging on cross situational statistical word learning.* Poster presented at the 2018 Cognitive Aging Conference. Atlanta, GA.

Bulgarelli, F., Bosch, L., Weiss, D. J. (2017) *Simultaneous visual statistical learning in monolinguals and bilinguals.* Poster presented at the 2017 Interdisciplinary Advances in Statistical Learning Conference. Bilbao, Spain.

Bulgarelli, F., Benitez, V., Saffran, J., Byers-Heinlein, K., Weiss, D. J. (2016). *Statistical Learning of Multiple Structures by 8-month-old Infants*. Poster presented at the 41st Boston University Conference on Language Development. Boston, MA.

Bulgarelli, F., Bosch, L., Weiss, D. J. (2016). *Comparing Monolingual and Bilingual Learner's Performance on a Multi-Level Statistical Learning Task*. Poster presented at the 2016 Meeting of the Psychonomics Society. Boston, MA

George, N. R., **Bulgarelli, F.,** *Theoret, C., Weiss, D. J. (2016). *Dancing with Words: The Acoustic Packaging of Events in Adult-Directed Speech*. Poster presented at the 2016 Meeting of the Psychonomics Society. Boston, MA

Koranda, M. J., **Bulgarelli, F.,** Weiss, D. J., MacDonald, M. C. (2016) *Parallels between Action Priming and Syntactic Priming*. Poster presented at the Ninth International Workshop on Language Production. San Diego, CA.

*Theoret, C., **Bulgarelli, F.,** George, N. R. & Weiss, D. J. (2016). *What to say about ballet? How the timing of language can be instructive*. Poster presented at the 2016 Undergraduate Exhibition. University Park, PA

Bulgarelli, F., Weiss, D.J. (2015) *Individual Differences in Tracking Multiple Structures: Investigating the Primacy Effect*. Poster presented at the 2015 Learning Sciences/Science of Learning Poster Conference. University Park, PA

Bulgarelli, F., Weiss, D.J. (2015) *Enough is Enough: Anchoring Effects in Statistical Learning*. Poster presented at the 2015 Interdisciplinary Advances in Statistical Learning Conference. San Sebastian, Spain.

Bulgarelli, F., Weiss, D.J. (2015) *Individual Differences in Tracking Multiple Structures: Investigating the Primacy Effect*. Poster presented at the 2015 Society for Research in Child Development. Philadelphia, CA

Bulgarelli, F., Weiss, D.J. (2014) *Tracking Multiple Structures: An Insight into the Primacy Effect*. Poster presented at the 2014 Psychonomics Annual Meeting. Long Beach, CA.

Bulgarelli, F., Weiss, D. J. (2014) *Tracking multiple inputs: Investigating the time course of statistical learning*. Poster presented at Young Scholar Speaker Series, CLS. University Park, PA.

INVITED TALKS

2024 - Lunch with Leaders, International Congress on Infant Studies, Glasgow Scotland

2024 - Invited talk presented at the Department of Psychology, University of Waterloo.

2023 - Invited talk presented at the Linguistics Colloquium, University at Buffalo

2022 - Invited talk presented at the Center for Cognitive Science Talk Series, University at Buffalo

- 2022 - Invited talk presented at the University of Texas-El Paso.
- 2022 - Invited talk presented at the University of Iowa.
- 2020 - Invited talk presented at Princeton University.
- 2019 - Invited talk presented at UNC-Chapel Hill
- 2019 - Invited talk presented at the Center for Cognitive Neuroscience Colloquium Series, Duke University
- 2014 - Invited talk presented at the Pennsylvania State University Center for Language Science Speaker Series.

COMMUNITY ENGAGEMENT

2024 – Invited Professional Development with the Youth Service Group, Buffalo and Erie County Public Libraries

TEACHING EXPERIENCE

University at Buffalo

Bilingualism and Cognition (LAI688), Fall 2024
 Cognitive Development (PSY457), Fall 2022, Spring 2023, Spring 2024
 Introduction to Cognitive Science (PSY575), Fall 2023, Fall 2024

Pennsylvania State University

Research Methods (PSY301W), Instructor, Summer 2018
 Advanced Cognitive Psychology, Teaching Assistant Spring 2015
 Multicultural Psychology, Teaching Assistant, Fall 2014
 Neural Bases of Human Behavior, Teaching Assistant, Fall 2014
 Leadership in the Work Setting, Teaching Assistant, Fall 2013

Certificates

Graduate Online Teaching Certificate, *Pennsylvania State University*, 2017

Guest Lectures

2024 How Languages are Learned, *Dartmouth College*
2021 Language Development, *Duke University*
2021 Education Neuroscience, *Duke University*
2019 Language Development, *Duke University*
2017 The ABCs of Bilingualism: Acquisition, Brain and Community, *Pennsylvania State University*
2015 Advanced Cognitive Psychology, *Pennsylvania State University*
2014 Multicultural Psychology, *Pennsylvania State University*

MENTORING AND ADVISING

University at Buffalo

Graduate students

Marzieh Samimifar (Cognitive Psychology, 2023-)

Ph.D. Committee Member

Chihiro Honda (Cognitive Psychology, 2022-)

Individualized Mentorship Committee Member

Sarah MacDougall (Cognitive Psychology, 2024-)

Adwoa Ampiah-Bonney (Cognitive Psychology, 2023-)

Undergraduate Honors Thesis Committee Member

Bidushi Bhowmik (2024)

Elizabeth Goldstein (2024)

Mythili Thamilchelvam (2023)

Duke University

Sophie Barry, Graduation with Distinction student (2021)

Halden Levin, NCSSM Summer Research Intern (2019)

Pennsylvania State University

Melina Pinamonti, Honors senior thesis (2018)

Ashley Keltz, Honors senior thesis (2018)

Cara Theoret, Senior project (2016)

ADDITIONAL RESEARCH EXPERIENCE

2012-2013 Undergraduate research assistant
 Infant Learning Lab, *University of Wisconsin – Madison*, P.I. Dr. Jenny Saffran

SERVICE

Professional Service

DARCLE: Daylong Audio Recordings of Children’s Linguistic Environments

- Member (2019-present)
- Secretary (2023-2025)

Grant reviewer

- NSF Developmental Science, ad-hoc (2022-present)
- NSF Graduate Research Fellowship Program Panelist (2022; 2023)
- Israel Science Foundation (2023-present)
- NSF Panel (2024)

Application Statement Feedback Program (asfp.io)

- Editor (2021-present)

Ad-hoc reviewer (journal articles)

- Developmental Science
- Memory and Cognition
- Child Development
- Language Learning and Development
- Laboratory Phonology
- Bilingualism; Language and Cognition
- Journal of Experimental Psychology: Language, Memory and Cognition
- Journal of Neurolinguistics
- Journal of Experimental Child Psychology
- Cognitive Processing
- Infancy
- Language Development Research
- Brain and Language
- Psychonomic Bulletin and Review
- First Language
- Aging, Neuropsychology and Cognition
- American Journal on Intellectual and Developmental Disabilities
- Journal of Child Language
- Developmental Psychology
- Cognition
- Language Learning

Editorial experience

- Translational Issues in Psychological Science: Translating Research to Practice in the Language, graduate student editor (2015-2017)

Conference reviewer

- ICIS (2019-present)
- BUCLD (2023-present)
- MPAL (2023-present)
- CDS (2023-present)
- WILD(2024-present)

Symposia

- *Contending with talker variability across development.* Co-chaired with Dr. Chris Potter at the 2019 Society for Research in Child Development Meeting.
- *Investigating the role of active learning across language development.* Chaired symposium at the 2025 Society for Research in Child Development Meeting.

Bilingualism Matters at Penn State (2014-2018)

AXONS: Academic eXperimental Organization for Neuroscience Students (2014-2018)

Departmental Service

- University at Buffalo, Graduate Studies Committee (2023-2024)
- University at Buffalo, Search Committee for DEI Cluster Hire (2023)
- University at Buffalo, Awards and Recognition Committee (2022-2024)
- University at Buffalo, Graduate Admissions Committee (2022-2023)
- University at Buffalo, Grievance Committee (2022-2023)
- Pennsylvania State University, Search Committee for Cognitive Psychology Faculty Search (2017-2018)