Stanford



Heidi Baumgartner

Social Science Research Scholar, Psychology

NIH Biosketch available Online Curriculum Vitae available Online

Bio

BIO

Dr. Heidi Baumgartner is a Research Scholar at Stanford University, the co-director of the Stanford Big Team Science Lab, the Managing Editor of the Open Encyclopedia of Cognitive Science, and the Executive Director of ManyBabies, an international collaborative network in developmental psychology research. Heidi completed a PhD in Developmental Psychology at the University of California, Davis, and spent three years as a postdoctoral research associate at Brown University. She is passionate about transparency and openness in big team science.

ACADEMIC APPOINTMENTS

- Social Science Research Scholar, Psychology

ADMINISTRATIVE APPOINTMENTS

- Executive Director, ManyBabies, (2021- present)
- Managing Editor, Open Encyclopedia of Cognitive Science, MIT Press, (2024- present)
- Co-Director, Big Team Science Lab, (2022- present)
- Co-Organizer, Big Team Science Conference, (2022- present)

PROFESSIONAL EDUCATION

- PhD, University of California, Davis , Psychology (2014)
- MA, University of California, Davis , Psychology (2010)
- BA, Stanford University , Psychology (2005)

LINKS

- ManyBabies: https://manybabies.org/
- Open Encyclopedia of Cognitive Science: https://oecs.mit.edu/
- Big Team Science Lab: https://bigteamsciencelab.github.io
- Big Team Science Conference: https://bigteamscienceconference.github.io

Research & Scholarship

RESEARCH INTERESTS

- Child Development
- Early Childhood
- Psychology

- Research Methods
- Science Education

CURRENT RESEARCH AND SCHOLARLY INTERESTS

As the executive director of the ManyBabies global consortium (manybabies.org), I am interested in facilitating Big Team Science practices to address difficult outstanding theoretical and methodological questions about the nature of early development and how it is studied.

Publications

PUBLICATIONS

- **ManyBabies 3: A Multi-Lab Study of Infant Algebraic Rule Learning.** *Developmental science*
  Visser, I., Geambasu, A., Kachergis, G., Oliveira, C. M., Rocha-Hidalgo, J., Zettersten, M., Ahamat, T., Alessandroni, N., Althaus, N., Arunachalam, S., Aussems, S., Axelsson, E. L., Aydin, et al
  2026; 29 (6): e70259
- **What 5000 babies can tell us about developing minds and how to study them.** *Communications psychology*
  McMillan, B. T., Baumgartner, H. A., Bergmann, C., Frank, M. C., Hamlin, J. K., Kampis, D., Kline Struhl, M., Ko, E. S., Kosie, J. E., Lew-Williams, C., Lucca, K., Schuwerk, T., Soderstrom, et al
  2026; 4 (1)
- **Learning Variability Network Exchange (LEVANTE): A Global Framework for Measuring Children's Learning Variability Through Collaborative Data Sharing.** *Child development*
  Frank, M. C., Baumgartner, H. A., Braginsky, M., Kachergis, G., Lightbody, A. A., Sparks, R. Z., Zhu, R., Carlson, S. M., Graham, S., Lipina, S. J., Newcombe, N. S., Odgers, C. L., Pianta, et al
  2025
- **Infants' Social Evaluation of Helpers and Hinderers: A Large-Scale, Multi-Lab, Coordinated Replication Study.** *Developmental science*
  Lucca, K., Yuen, F., Wang, Y., Alessandroni, N., Allison, O., Alvarez, M., Axelsson, E. L., Baumer, J., Baumgartner, H. A., Bertels, J., Bhavsar, M., Byers-Heinlein, K., Capelier-Mourguy, et al
  2025; 28 (1): e13581
- **Challenges and promises of big team comparative cognition.** *Nature human behaviour*
  Alessandroni, N., Altschul, D., Baumgartner, H. A., Bazhydai, M., Brosnan, S. F., Byers-Heinlein, K., Call, J., Chittka, L., Elsherif, M., Espinosa, J., Freeman, M. S., Gjoneska, B., Güntürkün, et al
  2024
- **Tools of the Trade: A Guide to Sociodemographic Reporting for Researchers, Reviewers, and Editors** *JOURNAL OF COGNITION AND DEVELOPMENT*
  Singh, L., Barokova, M., Bazhydai, M., Baumgartner, H. A., Franchin, L., Kosie, J. E., Lew-Williams, C., Okyere Omane, P., Reinelt, T., Schuwerk, T., Sheskin, M., Soderstrom, M., Wu, et al
  2024
- **A unified approach to demographic data collection for research with young children across diverse cultures.** *Developmental psychology*
  Singh, L., Barokova, M. D., Baumgartner, H. A., Lopera-Perez, D. C., Omane, P. O., Sheskin, M., Yuen, F. L., Wu, Y., Alcock, K. J., Altmann, E. C., Bazhydai, M., Carstensen, A., Chan, et al
  2023
- **How to build up big team science: a practical guide for large-scale collaborations.** *Royal Society open science*
  Baumgartner, H. A., Alessandroni, N., Byers-Heinlein, K., Frank, M. C., Hamlin, J. K., Soderstrom, M., Voelkel, J. G., Willer, R., Yuen, F., Coles, N. A.
  2023; 10 (6): 230235
- **'Big team' science challenges us to reconsider authorship.** *Nature human behaviour*
  Coles, N. A., DeBruine, L. M., Azevedo, F., Baumgartner, H. A., Frank, M. C.
  2023
- **ManyBabies 5: A large-scale investigation of the proposed shift from familiarity preference to novelty preference in infant looking time**
  Kosie, J. E., Zettersten, M., Abu-Zhaya, R., Amso, D., Babineau, M., Baumgartner, H. A., et al
  PsyArXiv.

2023

- **ManyBabies3:A multi-lab study of infant algebraic rule learning**
  Visser, I., Geambasu, A., Baumgartner, H. A., et al
  PsyArXiv.
  2022

- **The origins of cortical multisensory dynamics: Evidence from human infants** *DEVELOPMENTAL COGNITIVE NEUROSCIENCE*
  Werchan, D. M., Baumgartner, H. A., Lewkowicz, D. J., Amso, D.
  2018; 34: 75-81

- **An Eye Tracking Investigation of Color-Location Binding in Infants' Visual Short-Term Memory** *INFANCY*
  Oakes, L. M., Baumgartner, H. A., Kanjlia, S., Luck, S. J.
  2017; 22 (5): 584-607

- **Investigating the Relation Between Infants' Manual Activity With Objects and Their Perception of Dynamic Events** *INFANCY*
  Baumgartner, H. A., Oakes, L. M.
  2013; 18 (6): 983-1006

- **Developmental changes in visual short-term memory in infancy: evidence from eye-tracking** *FRONTIERS IN PSYCHOLOGY*
  Oakes, L. M., Baumgartner, H. A., Barrett, F. S., Messenger, I. M., Luck, S. J.
  2013; 4: 697

- **Using infrared eye-tracking to explore ordinal numerical processing in toddlers with Fragile X Syndrome** *JOURNAL OF NEURODEVELOPMENTAL DISORDERS*
  Owen, E. R., Baumgartner, H. A., Rivera, S. M.
  2013; 5: 1

- **Manual object exploration and learning about object features in human infants**
  Oakes, L. M., Baumgartner, H. A., IEEE
  IEEE.2012

- **The Feasibility of Detecting Neuropsychologic and Neuroanatomic Effects of Type 1 Diabetes in Young Children** *DIABETES CARE*
  Aye, T., Reiss, A. L., Kesler, S., Hoang, S., Drobny, J., Park, Y., Schleifer, K., Baumgartner, H., Wilson, D. M., Buckingham, B. A.
  2011; 34 (7): 1458-1462

- **Infants' Developing Sensitivity to Object Function: Attention to Features and Feature Correlations** *JOURNAL OF COGNITION AND DEVELOPMENT*
  Baumgartner, H. A., Oakes, L. M.
  2011; 12 (3): 275-298

- **Longitudinal Brain Volume Changes in Preterm and Term Control Subjects During Late Childhood and Adolescence** *PEDIATRICS*
  Ment, L. R., Kesler, S., Vohr, B., Katz, K. H., Baumgartner, H., Schneider, K. C., Delancy, S., Silbereis, J., Duncan, C. C., Constable, R. T., Makuch, R. W., Reiss, A. L.
  2009; 123 (2): 503-511

- **Children's developing ability to interpret adjective-noun combinations** *30th Annual Boston-University Conference on Language Development*
  Thorpe, K., Baumgartner, H., Fernald, A.
  CASCADILLA PRESS.2006: 631–642