# Martin C. Zettersten
Postdoctoral Research Associate
Department of Psychology
Princeton University

## Contact

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## Academic Appointments

2020-       Postdoctoral Research Associate, Princeton University
            Advisor: Casey Lew-Williams

## Education

2013-2020   Ph.D., University of Wisconsin-Madison, Psychology
            Advisors: Jenny Saffran and Gary Lupyan

2007-2013   1st Staatsexamen, University of Heidelberg, Mathematics,
            English Language and Linguistics, and Psychology
            Advisors: Stefanie Hoehl and Sabine Pauen

## Research

language and cognitive development, word learning, statistical learning,
active learning, social cognition

## Fellowships, Awards

2021        Data-Driven Social Science Grant, Princeton University (role:
            PI), "Building a large-scale, cross-cultural dataset to advance
            theory and methods in infant cognition" ($48,000)
2019        Mission Award, ManyBabies1 Collaboration (role:
            contributor), Society for the Improvement of
            Psychological Science
2018        Poster Prize, Evolang XII, Torun
2017        Fellow, Kavli Summer Institute in Cognitive Neuroscience
2015-2018   NSF Graduate Research Fellowship
2015-2019   Hertz Travel Award, UW-Madison
2015        SRCD Student Travel Award
2013; 2018  University Fellowship, UW-Madison
2009-2010   Erasmus scholarship, University of Edinburgh

2007-2013    Scholarship from the German National Scholarship Foundation for academic excellence ("Studienstiftung des Deutschen Volkes")

## Publications

Zettersten, M., Bergey, C. A., Bhatt, N., Boyce, V., Braginsky, M., Carstensen, A., deMayo, B., Kachergiis, G., Lewis, M., Long, B., MacDonald, K., Mankewitz, J., Meylan, S. C., Saleh, A. N., Schneider, R. M., Tsui, A., Uner, S., Xu, T. L., Yurovsky, D., & Frank, M.C. (2021). Peekbank: Exploring children's word recognition through an open, large-scale repository for developmental eye-tracking data. *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*.

Visser, I., Bergmann, C., Byers-Heinlein, K., Dal Ben, R., Duch, W., Forbes, S., Franchin, L., Frank, M. C., Geraci, A., Hamlin, J. K., Kaldy, Z., Kulke, L., Laverty, C., Lew-Williams, C., Mateu, V., Mayor, J., Moreau, D., Nomikou, I., Schuwerk, T., Simpson, E. A., Singh, L., Soderstrom, M., Sullivan, J., van den Heuvel, M. I., Westermann, G., Yamada, Y., Zaadnoordijk, L., Zettersten, M. (in press). Improving the generalizability of infant psychological research: The ManyBabies model. *Behavioral and Brain Sciences.* [commentary on The Generalizability Crisis, by Tal Yarkoni] https://psyarxiv.com/8vwbf

Lupyan, G., & Zettersten, M. (in press). Does vocabulary help structure the mind? In Sera, M., & Koenig, M (Eds.). 40th Minnesota Symposium on Child Psychology. Preprint available at https://psyarxiv.com/b74u9

Santolin, C., Garcia-Castro, G., Zettersten, M., Sebastian-Galles, N., & Saffran, J. (2021). Experience with research paradigms relates to infants' direction of preference. *Infancy*. doi: 10.1111/infa.12372

Zettersten, M., & Saffran, J. (2021). Sampling to learn words: Adults and children sample words that reduce referential ambiguity. *Developmental Science, 24*, e13064. doi: 10.1111/desc.13064

Byers-Heinlein, K., Bergmann, C., Davies, C., Frank, M. C., Hamlin, K., Kline, M., …, Zettersten, M., & Soderstrom, M. (2020). Building a collaborative Psychological Science: Lessons from ManyBabies 1. *Canadian Psychology, 61*(4), 349-363. doi: 10.1037/cap0000216

Benitez, V., Zettersten, M., & Wojcik, E. (2020). The temporal structure of naming events differentially affects children's and adults' statistical word-referent learning. *Journal of Experimental Child Psychology, 200,* 104961. doi: 10.1016/j.jecp.2020.104961

Zettersten, M., Suffill, E., & Lupyan, G. (2020). Nameability predicts subjective and objective measures of visual similarity. *Proceedings of the 42nd Annual Conference of the Cognitive Science Society.* Austin, TX: Cognitive Science Society.

Zettersten, M., Potter, C., & Saffran, J. (2020). Tuning in to non-adjacencies: Exposure to learnable patterns supports discovering otherwise difficult structures. *Cognition, 202,* 104283. doi: 10.1016/j.cognition.2020.104283

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. doi: 10.1177/2515245919900809

Zettersten, M., Schonberg, C., & Lupyan, G. (2020). What does a radical exemplar view not predict? A commentary on Ambridge (2020). *First Language.* doi: 10.1177/0142723720903895

Zettersten, M., & Lupyan, G. (2020). Finding categories through words: More nameable features improve category learning. *Cognition, 196*, 104135. doi: 10.1016/j.cognition.2019.104135

Zettersten, M. (2019). Learning by predicting: How predictive processing informs language development. In Busse, B., & Moehlig-Falke, R. (Eds.). *Patterns in Language and Linguistics: New Perspectives on a Ubiquitous Concept* (pp. 255-288). Berlin: Mouton de Gruyter. doi: 10.1515/9783110596656-010

Lewis, M., Zettersten, M., & Lupyan, G. (2019). Distributional semantics as a source of visual knowledge. *Proceedings of the National Academy of Sciences, 116*(39), 19237-19238. doi: 10.1073/pnas.1910148116

Zettersten, M., & Saffran, J. (2019). Sampling to learn words: Adults and children sample words that reduce referential ambiguity. *Proceedings of the 41st*

*Annual Conference of the Cognitive Science Society.* Austin, TX: Cognitive Science Society.

Koranda, M.*, Zettersten, M.*, & McDonald, M. (2018). Word frequency can affect what you choose to say. Proceedings of the 40th Annual Conference of the Cognitive Science Society. Austin, TX: Cognitive Science Society. *equal authorship contribution

Zettersten, M., Potter, C., & Saffran, J. (2018). Tuning in to non-adjacent dependencies: How experience with learnable patterns supports learning novel regularities. *Proceedings of the 40th Annual Conference of the Cognitive Science Society.* Austin, TX: Cognitive Science Society.

Zettersten, M., Wojcik, E. W., Benitez, V., & Saffran, J. R. (2018). The company objects keep: Linking referents together during cross-situational word learning. *Journal of Memory & Language*, *99*, 62-73. doi: 10.1016/j.jml.2017.11.001

Zettersten, M., & Lupyan, G. (2018). Using language to discover categories: more nameable features improve category learning. In C. Cuskley, M. Flaherty, H. Little, Luke McCrohon, A. Ravignani, & T. Verhoef (Eds.), *The Evolution of Language: Proceedings of the 12th International Conference (EVOLANGXII).* NCU Press.

Hoehl, S., Zettersten, M., Schleihauf, H., Graetz, S., & Pauen, S. (2014). The role of social interaction and pedagogical cues for eliciting and reducing overimitation in preschoolers. *Journal of Experimental Child Psychology.* *122*, 122-133. doi: 10.1016/j.jecp.2013.12.012

**Manuscripts in preparation or under review**

Zettersten, M.*, Weaver, H.*, & Saffran, J. (Stage 1 registered report, revise and resubmit). Becoming word meaning experts: Infants' processing of familiar words in the context of typical and atypical exemplars. *equal authorship contribution

Koranda, M., Zettersten, M., & McDonald, M. (revise and resubmit). Good-enough production: Selecting easier words instead of more accurate ones.

Woodard, K., Zettersten, M., & Pollak, S.D. (revise and resubmit). Developmental changes in children's knowledge of facial configurations.

Wojcik, E., Zettersten, M., &  Benitez, V. (under review). The map trap: Why and how word learning research should move beyond mapping.

Zettersten, M., Bredemann, C., Kaul, M., Vlach, H., Kirkorian, H., & Lupyan, G. (in prep). Nameability supports rule-based category learning in children and adults.

Zettersten, M., Choi, K., Kirkorian, H., & Saffran, J. (in prep). Children actively select input tuned to past experience in service of learning new words.

**Invited Talks**
Goldstone Lab Meeting, Indiana University, 2021
Bergelson Lab Meeting, Duke University, 2020
Cognitive Area Meeting, Lehigh University, 2020
Baby BRAIN Group meeting, Donders Institute, 2020
Departmental Colloquium, University of Wisconsin-Madison, 2019
Language Brownbag, University of Illinois Urbana-Champaign, 2019
Princeton Baby Lab Meeting, Princeton University, 2019
Developmental Brownbag, University of Chicago, 2017

**Conference Presentations**
Zettersten, M., Saleh, A., Bhatt, N., Yurovsky, D., Xu, T. L., Uner, S., Tsui, A., Schneider, R. M., Meylan, S. C., Marchman, V., Mankewitz, J., MacDonald, K., Long, B., Lewis, M., Kachergis, G., deMayo, B., Carstensen, A., Braginsky, M., Boyce, V., Bergey, C., & Frank, M. C. (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 at BUCLD 46.

Zettersten, M., Bergey, C. A., Bhatt, N., Boyce, V., Braginsky, M., Carstensen, A., deMayo, B., Kachergis, G., Lewis, M., Long, B., MacDonald, K., Mankewitz, J., Meylan, S. C., Saleh, A. N., Schneider, R. M., Tsui, A., Uner, S., Xu, T. L., Yurovsky, D., & Frank, M.C. (2021). Peekbank: Exploring children's word recognition through an open, large-scale repository for developmental eye-tracking data. Poster presented at 43rd Annual Meeting of the Cognitive Science Society.

Zettersten, M., Choi, K., Kirkorian, H., & Saffran, J. (2021). Children actively sample information in support of learning new words. Talk presented at the Biennial Meeting of the Society for Research in Child Development. Virtual conference.

Kosie, J.*, Zettersten, M.*, & the ManyBabies5 team (2021). ManyBabies5: A large-scale, collaborative investigation of the Hunter & Ames model of infant looking preference. Talk presented at the Biennial Meeting of the Society for Research in Child Development. Virtual conference. *co-presenters.

Benitez, V., Zettersten, M., & Wojcik, E. (2021). Developmental differences in the role of temporal structure in ambiguous word learning. Talk presented at the Biennial Meeting of the Society for Research in Child Development. Virtual conference.

Campbell, E., Zettersten, M., Lewis, M., & Bergelson, E. (2021). Early language in blind, deaf/hard-of-hearing, and typically-developing infants. Talk presented at the Biennial Meeting of the Society for Research in Child Development. Virtual conference.

Woodard, K., Zettersten, M., & Pollak, S.D. (2021). How is emotion knowledge represented across development? Talk presented at the Biennial Meeting of the Society for Research in Child Development. Virtual conference.

Schonberg, C., Valentyn, E., Yang, R., Masters, M., & Zettersten, M. (2021). Characterizing the practices of reporting sex differences in infancy research. Poster presented at the Biennial Meeting of the Society for Research in Child Development. Virtual conference.

Anderson, L., Hwang, H., Kamhout, S., Gilliat, S., Lundwall, R., Black, A., Kartushina, N., Kosie, J., Tsui, A., Zettersten, M., & Bergmann, C. (2021). A fresh look at infant-directed speech preference through an updated meta-analysis. Poster presented at the Biennial Meeting of the Society for Research in Child Development. Virtual conference.

Zettersten, M., Black, A., Bergmann, C., Bacon, D., Weaver, H., & Saffran, J. (2020). Investigating the relationship between infant learning and measured effect size in preferential looking paradigms. Poster presented at the Many Paths to Language (MPaL) virtual workshop.

Zettersten, M., Suffill, E., & Lupyan, G. (2020). Nameability predicts subjective and objective measures of visual similarity. Talk presented at 42nd Annual Meeting of the Cognitive Science Society.

Woodard, K., Zettersten, M., & Pollak, S.D. (2020). Developmental changes in children's knowledge of facial configurations. Poster presented at 42nd Annual Meeting of the Cognitive Science Society.

Zettersten, M., Black, A., Bergmann, C., Bacon, D., Weaver, H., & Saffran, J. (2020). Investigating the relationship between infant learning and measured effect size in preferential looking paradigms. Poster presented at the Biennial International Congress of Infant Studies (vICIS). Virtual conference.

Schreiner, M., Lippold, M., & ManyBabies Consortium Test-Retest (2020). Assessing test-retest reliability of the infant preference measures. Poster presented at the Biennial International Congress of Infant Studies (vICIS). Virtual conference.

Santolin, C., Garcia-Castro, G., Zettersten, M., Sebastian-Galles, N., & Saffran, J. (2020). Prior experience with the Headturn Preference Procedure relates to infants' direction of preference in learning studies. Poster presented at the Biennial International Congress of Infant Studies (vICIS). Virtual conference.

Woodard, K., Zettersten, M., & Pollak, S.D. (2020). Developmental changes in children's knowledge of facial configurations. Paper presented in the symposium "Bridging Developmental and Affective Science in the Study of Emotion Understanding" at the Annual Conference of the Society for Affective Science*, San Francisco, CA. (*cancelled due to COVID-19)

Benitez, V., Zettersten, M., & Saffran, J. (2019). Preschooler's remembering and learning from predictable and unpredictable events. Talk presented at the 11th Biennial Meeting of the Cognitive Development Society. Louisville, KY.

Zettersten, M., Choi, K., Kirkorian, H., & Saffran, J. (2019). How does active sampling support learning new words? Poster presented at the 11th Biennial Meeting of the Cognitive Development Society. Louisville, KY.

Zettersten, M., & Saffran, J. (2019). Sampling to learn words: Adults and children sample words that reduce referential ambiguity. Talk presented at the 41st Annual Conference of the Cognitive Science Society. Montreal, CA.

Zettersten, M., Bredemann, C., Kaul, M., Vlach, H., Kirkorian, H., & Lupyan, G. (2019). Verbal labels support rule-based category learning in children. Poster presented at the Biennial Meeting of the Society for Research in Child Development. Baltimore, MD.

Zettersten, M., & Saffran, J. (2018). How do infants sample novel object-label associations? Symposium Talk presented at the XXI Biennial International Congress of Infant Studies. Philadelphia, PA.

Koranda, M., Zettersten, M., & McDonald, M. (2018). Word frequency can affect what you choose to say. Talk presented at 40th Annual Meeting of the Cognitive Science Society. Madison, WI.

Zettersten, M., Potter, C., & Saffran, J. (2018). Tuning in to non-adjacent dependencies: How experience with learnable patterns supports learning novel regularities. Poster presented at 40th Annual Meeting of the Cognitive Science Society. Madison, WI.

Hopman, E. & Zettersten, M. (2018). Immediate feedback is critical for learning from your own productions. Poster to be presented at Psycholinguistics in Flanders. Ghent, Belgium

Zettersten, M., & Lupyan, G. (2018). Using language to discover categories: More nameable features improve category learning. Poster presented at EvoLang XII. Torun, Poland.

Zettersten, M., & Saffran, J. (2017). Choosing words wisely: How infants strategically seek information when learning novel words. Poster presented at the 10th Biennial Meeting of the Cognitive Development Society. Portland, OR.

Zettersten, M., Potter, C., & Saffran, J. (2017). Tuning in to non-adjacent dependencies. Poster presented at the International Conference on Interdisciplinary Advances in Statistical Learning. Bilbao, Spain.

Zettersten, M., Benitez, V., & Saffran, J. (2017). When prediction violation boosts memory: 5-year-olds remember images involved in unexpected events better. Poster presented at the Biennial Meeting of the Society for Research in Child Development. Austin, TX.

Zettersten, M., & Saffran, J. (2016). Choosing words wisely: How infants strategically seek information when learning novel words. Talk presented at the XX Biennial International Congress of Infant Studies. New Orleans, LA.

Zettersten, M., & Lupyan, G. (2015). The role of language in categorical statistical learning. Poster presented at the 56th Annual Meeting of the Psychonomic Society. Chicago, IL.

Zettersten, M., Paul, J., & Lupyan, G. (2015). Language augments relational reasoning. Talk presented at the 9th Biennial Meeting of the Cognitive Development Society. Columbus, OH.

Zettersten, M., Wojcik, E., Benitez, V., & Saffran, J. (2015). Learning multiple kinds of associations during cross-situational word learning. Poster presented at the 37th Annual Conference of the Cognitive Science Society. Pasadena, CA.

Zettersten, M., Paul, J., & Lupyan, G. (2015). Language augments relational reasoning: The effect of late exposure to a standardized language. Poster presented at the Biennial Meeting of the Society for Research in Child Development. Philadelphia, PA.

Schleihauf, H., Zettersten, M., Pauen, S., & Hoehl, S. (2015). Both causal and social reasoning underlies overimitation in five-year-olds. Poster presented at the Biennial Meeting of the Society for Research in Child Development. Philadelphia, PA.

Pleyer, M. & Zettersten, M. (2012). From cognition to corpus, from corpus to cognition: How corpus research in child language can benefit from research in developmental psychology, and vice versa. Poster presented to the 11th Biannual Meeting of the German Cognitive Science Society. Bamberg, Germany.

**Teaching & Mentoring Experience**

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| 2019 | Guest Lecturer, Psychology 711: "Language Acquisition in Infancy and Early Childhood" |
| 2019 | Lecturer, Psychology 601 (Capstone) seminar: "Developing babies, building robots" |

| 2019 | Guest Instructor, Psychology Department: Design & Analysis of Psychological Experiments |
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| 2018 | Guest Lecturer, Psychology 601 (Capstone) seminar: "Language Development" |
| 2018 | Wellton research apprenticeship mentor, a UW program to provide sophomores with summer research experience<br><u>Student:</u> Andrew Kressin |
| 2016 – 2017 | Teaching assistant, Psychology Department: Design & Analysis of Psychological Experiments (2-semester graduate statistics course; weekly lab sections) |
| 2015 | Mentor in the NSF-funded PREP summer research program, Department of Psychology, UW-Madison<br><u>Student:</u> Nicholas Baird |
| 2015 | Guest Lecturer, Psych 521: The Structure of Human Thought |
| 2014-2015 | DELTA teacher training program: Informal Science Education. Designed and taught weekly science classes in elementary school classrooms. |
| 2012-2013 | Teaching Assistant, English Department, University of Heidelberg: Introduction to Linguistics (1 semester – discussion sections) |
| 2010-2012 | Teaching Assistant, English Department, University of Heidelberg: Introduction to English Literature (3 semesters – discussion sections) |
| 2010-2011 | Teaching Assistant, Mathematics Department, University of Heidelberg: Linear Algebra I (1 semester – discussion sections) |

## Professional Activities

| 2018 | Local Arrangements Chair, 40th Annual Meeting of the Cognitive Science Society in Madison |
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| 2016 - 2017 | President, Psychology Colloquium Series Committee, UW-Madison |
| 2013-2018 | Member, Psychology Colloquium Series Committee, UW-Madison |
| 2016 | Co-Creator and Organizer, Psychology Department Writing Workshop |
| 2014 - 2015 | Young Science Scholar volunteer in kindergarten science classes as part of the Adult Role Models in Science program at UW-Madison |

2013 -      Treasurer and committee member, Psychology Colloquium
            Series Committee, UW-Madison
2013 - 2015  Session Organizer, Expanding Your Horizons event for girls
            exploring math and science careers, UW-Madison
2013        Organizing Committee, 3rd Linguistic Conference for
            Doctoral Students ("Sprachwissenschaftliche Tagung fuer
            Promotionsstudierende"), Heidelberg, Germany
2009        Summer Internship, Neurocognition of Language Processing
            Research Group, Max Planck for Human Brain and
            Cognitive Sciences (Angela Friederici)