### 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, concept learning, social cognition

### Fellowships, Awards

2021	Finalist, Einstein Foundation Early Career Award for
	Promoting Quality in Research
2021	Data-Driven Social Science Grant, Princeton University (role:
	co-PI), "Building a large-scale, cross-cultural dataset to
	advance theory and methods in infant cognition" (\$48,000)
2019	Mission Award, ManyBabies1 (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**

- Woodard, K., <u>Zettersten, M.</u>, & Pollak, S.D. (accepted). The representation of emotion knowledge across development. *Child Development*.
- 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. *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*. <a href="https://psyarxiv.com/ep693/">https://psyarxiv.com/ep693/</a>
- 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. (2021). Does vocabulary help structure the mind? In Sera, M., & Koenig, M (Eds.). *Minnesota Symposia on Child Psychology: Human Communication: Origins, Mechanisms, and Functions, Volume 40* (pp. 160-199). Hoboken, NJ: John Wiley & Sons. doi: <a href="https://psyarxiv.com/b74u9">10.1002/9781119684527.ch6</a>. Preprint: <a href="https://psyarxiv.com/b74u9">https://psyarxiv.com/b74u9</a>
- Santolin, C., Garcia-Castro, G., <u>Zettersten, M.</u>, Sebastian-Galles, N., & Saffran, J. (2021). Experience with research paradigms relates to infants' direction of preference. *Infancy*. doi: <u>10.1111/infa.12372</u>
- 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., <u>Zettersten, M.</u>, & 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: <a href="https://doi.org/10.1016/j.cognition.2019.104135">10.1016/j.cognition.2019.104135</a>
- 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.\*, <u>Zettersten, M.\*</u>, & 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., <u>Zettersten, M.</u>, 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. *Child Development*.

\*equal authorship contribution

- Koranda, M., <u>Zettersten, M.</u>, & McDonald, M. (revise and resubmit). Goodenough production: Selecting easier words instead of more accurate ones. *Psychological Science*. Preprint: <a href="https://psyarxiv.com/q2h9d">https://psyarxiv.com/q2h9d</a>
- Wojcik, E., <u>Zettersten, M.</u>, & Benitez, V. (revise and resubmit). The map trap: Why and how word learning research should move beyond mapping. WIREs Cognitive Science.
- 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

Cognitive Development and Learning Lab Meeting, UC Berkeley, 2021 Language & Cognitive Development Lab Meeting, UC Berkeley, 2021 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.\*, <u>Zettersten, M.</u>\*, & 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. \*copresenters.
- Benitez, V., <u>Zettersten, M.</u>, & 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., <u>Zettersten, M.</u>, 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., <u>Zettersten, M.</u>, & 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., & <u>Zettersten, M.</u> (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., <u>Zettersten, M.</u>, & 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., <u>Zettersten, M.</u>, 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., <u>Zettersten, M.</u>, & McDonald, M. (2018). Word frequency can affect what you choose to say. Talk presented at 40<sup>th</sup> 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 40<sup>th</sup> 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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	2021	Instructor, global L+ International Summer/ Winter School on Janguage acquisition "Programming experiments with
		language acquisition, "Programming experiments with PsychoPy"
	2021	Mentor in the Princeton ReMatch+ summer research
		experience program
		Student: Molly Lewis
	2019	Guest Lecturer, Psychology 711: "Language Acquisition in
		Infancy and Early Childhood"
	2019	Lecturer, Psychology 601 (Capstone) seminar: "Developing
	0040	babies, building robots"
	2019	Guest Instructor, Psychology Department: Design & Analysis of Psychological Experiments
	2018	
	2010	Guest Lecturer, Psychology 601 (Capstone) seminar: "Language Development"
	2018	Wellton research apprenticeship mentor, a UW program to
	2010	provide sophomores with summer research experience
		Student: 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
		Student: 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**

2021	Session Organizer, Young Women's Conference in STEM,
2021	Princeton, NJ
2018	Local Arrangements Chair, 40th Annual Meeting of the
	Cognitive Science Society in Madison
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)