

# Jessica L. Montag

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Assistant Professor  
Department of Psychology  
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## Education

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- 2013            University of Wisconsin-Madison  
                  Ph.D., Psychology  
                  *Dissertation:* Production of complex sentences: Studies across languages and development  
                  *Supervisor:* Dr. Maryellen C. MacDonald
- 2008            University of Wisconsin-Madison  
                  M.S., Psychology
- 2006            University of California-Berkeley  
                  B.A., Psychology, Linguistics; Minor: Japanese Language

## Professional Experience

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- 2018-present    Assistant Professor. Department of Psychology, University of Illinois, Urbana-Champaign
- 2015-2018      Assistant Research Psychologist. Department of Psychology, University of California, Riverside
- 2014-2015      Post-Doctoral Trainee. Department of Psychological and Brain Sciences, Indiana University  
                  *Supervisors:* Dr. Linda B. Smith
- 2013-2014      Post-Doctoral Trainee. Department of Psychological and Brain Sciences, Indiana University  
                  *Supervisors:* Dr. David B. Pisoni; Dr. Michael N. Jones
- 2011-2013      Ph.D. Student. Department of Psychology, University of Wisconsin-Madison  
                  *Supervisor:* Dr. Maryellen C. MacDonald
- 2007-2011      Graduate Trainee. Department of Psychology, University of Wisconsin-Madison  
                  *Supervisor:* Dr. Maryellen C. MacDonald
- 2004-2007      Research Assistant. Olfactory Neuroscience Lab. Department of Psychology, University of California, Berkeley  
                  *Supervisor:* Dr. Noam Sobel

## External Funding

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### Active Support

#### **Picture book reading: Investigating a key source of linguistic input for language development**

National Science Foundation, 1749594 **PI: Jessica L. Montag**  
09/2018 - 08/2021  
Total Costs: \$405,421

#### **Measurement and analysis of early language environments**

National Institutes of Health (R03), 12505876; **PI: Jessica L. Montag**  
09/2018 - 08/2020  
Total Costs: \$154,980

#### **Understanding early language environments: Analytic techniques and outcome predictions**

James S. McDonnell Foundation, Scholar Award; **PI: Jessica L. Montag**  
09/2018 – 08/2024  
Annual Total Costs: \$100,000

### Funding for Students & Post-Docs

#### **The consequences of early language experience and literacy for adult learning and brain structure**

National Science Foundation SBE Postdoctoral Research Fellowship, 1714925  
Fellow: Natsuki Atagi  
**Co-mentors: Judith Kroll, Christine Chiarello and Jessica L. Montag**  
2017-2019  
Total Costs: \$138,000

## Peer-Reviewed Publications

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\*Author is a student or post-doc I directly supervised

Macbeth, A., Bruni, M., De La Cruz, B., \*Erens, J. A., Atagi, N., Robbins, M. L., Chiarello, C., **Montag, J. L.** (in review). Using the Electronically Activated Recorder (EAR) to capture the day-to-day linguistic experiences of young adults.

**Montag, J. L.** (2021). Limited evidence for probability matching as a strategy in probability learning tasks. *Psychology of Learning and Motivation, 74*.

\*Sarkis, J. T. & **Montag, J. L.** (2021). The effect of lexical accessibility on Spanish-English intra-sentential codeswitching, *Memory & Cognition, 49*, 163-180.

**Montag, J. L.** (2020). New insights from daylong audio transcripts of children's language environments. In S. Denison, M. Mack, Y. Xu & B. Armstrong (Eds.), *Proceedings of the 42nd Annual Conference of the Cognitive Science Society (pp. 3005-3011)*. Toronto, ON, Canada: Cognitive Science Society.

**Montag, J. L.** (2019). Differences in sentence complexity in the text of children's picture books and child-directed speech. *First Language, 39*, 527-546.

**Montag, J. L.**, Jones, M. N., & Smith, L. B. (2018). Quantity and diversity: Simulating early word learning environments. *Cognitive Science, 42*, 1-38.

- Montag, J. L.**, Matsuki, K., Kim, J. & MacDonald, M. C. (2017). The effects of word order on sentence structure choice in language production: A multi-clause and multi-language investigation. *Collabra: Psychology*, 3, 20.
- MacDonald, M. C., **Montag, J. L.**, & Gennari, S. P. (2016). Are there really syntactic complexity effects in sentence production?: A reply to Scontras et al. *Cognitive Science*, 40, 513-518.
- Montag, J. L.**, Jones, M. N., & Smith, L. B. (2015). The words children hear: Picture books and the statistics of language learning. *Psychological Science*, 26, 1489-1496.
- Montag, J. L.** & MacDonald, M. C. (2015). Text exposure predicts spoken production of complex sentences in 8- and 12- year old children and adults. *Journal of Experimental Psychology: General*, 144, 447-468.
- Montag, J. L.**, AuBuchon, A. M., Pisoni, D. B. & Kronenberger, W. G. (2014). Speech intelligibility in early-implanted deaf children after long-term cochlear implant use. *Journal of Speech, Language and Hearing Research*, 57, 2332-2343.
- Montag, J. L.** & MacDonald, M. C. (2014). Visual salience modulates structure choice in relative clause production. *Language and Speech*, 57, 163-180.
- Montag, J. L.** & MacDonald, M. C. (2014). Effects of text exposure on spoken sentence production. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Conference of the Cognitive Science Society* (pp. 1030-1035). Austin, TX: Cognitive Science Society.
- Montag, J. L.** & MacDonald, M. C. (2013). Choice of referring expression subject to visual context, linguistic context and competition. In A. Gatt, R. van Gompel, E. G. Bard, E. Krahmer, & D. van Deemter (Eds.) *Proceedings of PRE-Cogsci 2023: Production of Referring Expressions: Bridging the gap between cognitive and computational approaches to reference* (online). Berlin, Germany.
- Montag, J. L.** & MacDonald, M. C. (2009). Word order doesn't matter: Relative clause production in English and Japanese. In N.A. Taatgen & H. van Rijn (Eds.), *Proceedings of the 31th Annual Meeting of the Cognitive Science Society* (pp. 2594-2599). Austin, TX: Cognitive Science Society.
- Zelano, C., **Montag, J.**, Khan, R., & Sobel, N. (2009). A specialized odor memory buffer in primary olfactory cortex. *PloS one*, 4, e4965.
- Zelano, C., **Montag, J.**, Johnson, B., Khan, R., & Sobel, N. (2007). Dissociated representations of irritation and valence in human primary olfactory cortex. *Journal of Neurophysiology*, 97, 1969-1976.

## Professional Presentations

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- Montag, J. L. (2021). Temporal dynamics of words in daylong audio recordings. In symposium: Reorienting the study of language learning using naturalistic data. Talk presented at the Society for Research in Child Development 2021 Virtual Biennial Meeting (Online).
- Stoops, A. A. & Montag, J. L. (2020). The effect of book syntactic complexity on caregiver and child language profile during shared book reading. Poster presented at the 42nd Annual Meeting of the Cognitive Science Society, Toronto, Canada (Online).

- Macbeth, A., De La Cruz, B., Bruni, M., Atagi, N., Montag, J., & Chiarello, C. Predicting real-world language use from language history questionnaires and laboratory assessments of vocabulary and proficiency. (October 2020). Poster presented at the Society for the Neurobiology of Language 2020 Annual Meeting (Online).
- Flores, A. Z., Montag, J. L., & Willits, J. A. (2019). Using known words to learn more words: A distributional analysis of child vocabulary development. Poster presented at the 11th Biennial Meeting of the Cognitive Development Society, Louisville, KY.
- Flores, A. Z., Montag, J. L., & Willits, J. A. (2019). Using known words to learn more words: A distributional analysis of child vocabulary development. Poster presented at the 41th Annual Cognitive Science Society Meeting, Montreal, Canada.
- Chiarello, C., Macbeth, A., Bruni, M., Atagi, N., Mech, E. N., Sarkis, J., Montag, J., Karan, A., & Robbins, M. Lend me your EAR: An experience sampling method to investigate natural speech. (November 2018). Spoken talk given at the 59<sup>th</sup> Annual Meeting of the *Psychonomic Society*. New Orleans, LA.
- Atagi, N., Mech, E. N., Macbeth, A., Bruni, M., Sarkis, J., Montag, J. L., Karan, A., Robbins, M., & Chiarello, C. (2018). The effects of literacy experiences on bilinguals' everyday speech. Poster presented at the 59th Psychonomic Society Annual Meeting, New Orleans, Louisiana.
- Bruni, M., MacBeth, A., Atagi, N., Mech, E. N., Sarkis, J., Montag, J. L., Karan, A., Robbins, M., & Chiarello, C. (2018). Does self-report predict bilingual language use? Poster presented at the 59th Psychonomic Society Annual Meeting, New Orleans, Louisiana.
- Montag, J. L. (2018). Assessing reading experience in heritage Spanish-speaking undergraduates. Talk presented at the 3rd International Conference on Heritage/Community Languages, Los Angeles, CA.
- Mech, E. N., Montag, J.L., Kroll, J. F. (2018). The consequences of bilingualism for category learning. Poster presented at the 2018 International Conference on Learning and Memory, Huntington Beach, California.
- Sarkis, J. T., Montag, J. L., & Kroll, J. F. (2018). The effect of lexical accessibility on Spanish-English codeswitching. Poster presented at the 30th Annual CUNY Conference on Human Sentence Processing, Davis, CA.
- Mech, E. N., Montag, J. L., & Kroll, J. F. (2017). The consequences of second language experience for new category learning. Poster presented at the 58h Annual Meeting of the Psychonomic Society, Vancouver, Canada.
- Sarkis, J. T., Montag, J. L., & Kroll, J. F. (2017). The effect of lexical accessibility on Spanish-English codeswitching. Poster presented at the 58h Annual Meeting of the Psychonomic Society, Vancouver, Canada.
- Willits, J. A., Montag, J. L., & Yang, S. (2017). What words do children learn first? Using known words to bootstrap the acquisition of new words. Talk presented at the 42th Annual Boston University Conference on Language Development, Boston, MA.
- Montag, J. L., Jones, M. N., & Smith, L. B. (2017). Simulations of early word learning language environments: Insights into sampling, analysis and sources of individual differences. Poster presented at the 10th Biennial Meeting of the Cognitive Development Society, Portland, OR.

- Montag, J. L. & Smith, L. B. (2017). Picture book reading in the lives of 18-30 month old children: A diary study. Poster presented at the 39th Annual Cognitive Science Society Meeting, London, UK.
- Montag, J. L., Jones, M. N. & Smith, L. B. (2017). Simulations of early word learning environments: Implications for sampling methodology and data interpretation. Poster presented at the Psychonomic Society's Leading Edge Workshop, Beyond the Lab: Using Big Data to Discover Principles of Cognition, Madison, WI.
- Mech, E. N., Montag, J. L., & Kroll, J. F. (2017). The consequences of second language experience for language learning. Poster presented at the 11th Annual International Symposium on Bilingualism, Limerick, Ireland.
- Montag, J. L. (2016). How differences between child-directed spoken and written language may have consequences for early language production. Poster presented at the 7th Annual International Workshop on Language Production, San Diego, CA.
- Montag, J. L. & MacDonald, M. C. (2016). Semantic interference in sentence production in three languages. Poster presented at the 28th Annual CUNY Conference on Human Sentence Processing, Gainesville, FL.
- Montag, J. L., Jones, M. N. & Smith, L. B. (2015). Important differences between child-directed speech and children's picture books. Poster presented at the 9th Biennial Meeting of the Cognitive Development Society, Columbus, OH.
- Montag, J. L., Jones, M. N. & Smith, L. B. (2015). Language input from child-directed speech and children's picture books are different. Poster presented at the 37th Annual Cognitive Science Society Meeting, Pasadena, CA.
- Montag, J. L. & MacDonald, M. C. (2014). Effects of text exposure on spoken sentence production. Talk presented at the 36th Annual Cognitive Science Society Meeting, Quebec City, Canada.
- Montag, J. L. & MacDonald, M. C. (2014). Text exposure may affect relative clause use in children and adults. Poster presented at the 27th Annual CUNY Conference on Human Sentence Processing, Columbus, OH.
- Montag, J. L. & MacDonald, M. C. (2013). Emergence of literacy predicts children's productions of relative clauses. Poster presented at the 38th Annual Boston University Conference on Language Development, Boston, MA.
- Montag, J. L. & MacDonald, M. C. (2013). Choice of referring expression subject to visual context, linguistic context and competition. Talk presented at PRE-CogSci 2013 – Bridging the gap between cognitive and computational approaches to reference, Berlin, Germany.
- Montag, J. L. & MacDonald, M. C. (2013). Production of complex sentences across development: A possible role for emerging literacy. Talk presented at the 20th Annual Summer Interdisciplinary Conference, Cortina d'Ampezzo, Italy.
- Montag, J. L. & MacDonald, M. C. (2012). Long-term learning and immediate demands affect sentence production. Poster presented at the 7th Annual International Workshop on Language Production, New York, NY.

- Montag, J. L. & MacDonald, M. C. (2011). How visual salience affects structure choice: Implications for audience design. Poster presented at the 24th Annual CUNY Conference on Human Sentence Processing, Stanford, CA.
- Montag, J. L. & MacDonald, M. C. (2010). Grammatical role assignment, not word order, drives structure choice in English, Japanese and Korean. Talk presented at Conference on Mental Architecture for Processing and Learning of Language 2010, Tokyo, Japan.
- Montag, J. L. & MacDonald, M. C. (2010). The role of grammatical role assignment in production in three languages. Poster presented at the 23rd Annual CUNY Conference on Human Sentence Processing, New York, New York.
- Montag, J. L. & MacDonald, M. C. (2010). The interaction of structure and plausibility in comprehension in two languages. Poster presented at the 23rd Annual CUNY Conference on Human Sentence Processing, New York, New York.
- Montag, J. L. & MacDonald, M. C. (2009). Word order doesn't matter: Relative clause production in English and Japanese. Talk presented at the 31st Annual Cognitive Science Society Meeting, Amsterdam, Netherlands.
- Montag, J. L. & MacDonald, M. C. (2009). Measuring production difficulty in object relative clauses. Poster presented at the 22nd Annual CUNY Conference on Human Sentence Processing, Davis, California.

## Awards and Honors

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2020	Montag (2019) was included in <i>First Language's</i> 40 <sup>th</sup> Anniversary Virtual Special issue in which one paper from each of the last 40 years was selected for an open-access online special issue.
2014 - 2015	Postdoctoral Trainee, NICHD T32 HD-07475—Developmental Training Grant
2013 - 2014	Postdoctoral Trainee, NIDCD T32 HD-000012—Training Grant in Speech, Hearing and Sensory Communication
2011- 2012	Marian Schwartz Fellowship, University of Wisconsin-Madison
2007-2010	Predocotrual Trainee, NICHD T32 HD-049899 – Training in Language: Acquisition and Adult Performance
2010	NSF East Asian and Pacific Summer Institutes fellowship
2002-2006	Regents' and Chancellor's Scholar, University of California, Berkeley

## Invited Talks

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### 2019

How language production constraints affect language structure. Northwestern University, Cognitive Science Program, Workshop on Learning Construction Grammar. Chicago, IL

## **2018**

Reading's impact on spoken language development. University of Chicago, Psychology Department, Development Brown Bag. Chicago, IL.

Why people say what they say. University of Illinois, Linguistics Department, Linguistics Series Seminar Talk. Champaign-Urbana, IL.

The consequences of reading for language development. University California, Riverside, Psychology Department Colloquium. Riverside, CA.

## **2017**

The consequences of reading for language development. University of Nevada, Las Vegas, Psychology Department Colloquium. Las Vegas, NV.

Reading's impact on spoken language. Florida State University, Psychology Department Colloquium. Tallahassee, FL.

Reading's impact on spoken language. Georgia State University Language and Literacy Institute Colloquium. Atlanta, GA.

## **2016**

How reading (and being read to) affects spoken language development. University of Iowa Psychology Department Colloquium. Iowa City, IA.

Why people say what they say. UCR Comparative Literature Talk Series. Riverside, CA.

Reading as a distinct source of linguistic input. UCLA Developmental Forum. Los Angeles, CA.

The science behind reading to children. Opening Minds USA. Chicago, IL.

## **2014**

Effects of literacy on children's productions of complex sentences. Indiana University Speech and Hearing Sciences Colloquium Series. Bloomington, IN.

Effects of literacy on children's productions of complex sentences. UIUC Language Processing Brownbag. Champaign-Urbana, IL.

Effects of literacy on children's productions of complex sentences. UCSD Center for Research in Language Brownbag. San Diego, CA.

## **2011**

Probability learning in humans and animals. UW-Madison Human Animal and Machine Learning: Experiment and Theory talk series. Madison, WI.

A Cross-linguistic Investigation of the Production-Distribution-Comprehension Account of Language Comprehension Difficulty. Haskins Laboratories, New Haven, CT.

## **2010**

Linking Production and Comprehension. 68th Kagamiyama Linguistics Colloquium, Hiroshima, Japan.

## Teaching Experience

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Psychology of Language (Psychology 425), University of Illinois  
Cognitive Lab (Psychology 331), University of Illinois  
Language Production, Graduate Seminar, University of Illinois  
Reading, Language & Cognition, Graduate Seminar, University of Illinois  
Psycholinguistics (Psychology 135), University of California, Riverside  
Psychological Methods: Statistical Procedures (Psychology 11), University of California, Riverside

## Graduate Students Advised

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2020-present Zeynep Marasli  
2019-present Jacqueline Erens  
2016-2018 Emily Mech (co-advised with Dr. Judith Kroll)  
2016-2018 Justin Sarkis (co-advised with Dr. Judith Kroll)

## Selected Media Attention

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Washington Parent (5/20) *Learning That Sticks: How to Use a Post-it to Build Language Skills*  
The Confident Teacher (1/27/18) *The Early Vocabulary Advantage*  
Nautilus Magazine (11/16/17) *The Rise and Fall of the English Sentence*  
NPR Science Friday (9/11/15) *The Science of Story Time*  
Yahoo Parenting (8/24/15) *The Science of How Bedtime Stories Help Kids*  
The New York Times (8/17/15) Well Blog: *Bedtime Stories for Young Brains*

## Professional Service and Membership

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*Panelist*, NSF Developmental Sciences  
*Review Editor*, Frontiers in Developmental Psychology  
*Ad-hoc reviewer for funding agencies*: NSF (Developmental Sciences, Perception, Action & Cognition (PAC), and Linguistics), UIUC Research board  
*Ad-hoc reviewer for journals*: Advances in Methods and Practices in Psychological Science, Behavioral Research Methods, Cognition, Cognitive Psychology, Cognitive Science, Early Childhood Research Quarterly, Frontiers in Psychology, Journal of Child Language, Journal of Experimental Child Psychology, Journal of Experimental Psychology: Learning, Memory and Cognition, Journal of Memory and Language, Journal of Experimental Psychology: General, Language Learning and Development, Memory & Cognition, Topics in Cognitive Science, PLOS one, The Volta Review  
*Memberships*: Cognitive Science Society, Cognitive Development Society, Psychonomic Society, Women in Cognitive Science