Rachel A. Ryskin

43 Vassar St., 46-3037, Cambridge, MA 02139
ryskin@mit.edu | *847.915.0965* | `http://web.mit.edu/ryskin/www/`

Positions

Assistant Professor. Cognitive and Information Sciences | *starting Summer 2020*
University of California, Merced

Postdoctoral Associate. Brain and Cognitive Sciences | *current*
Massachusetts Institute of Technology. Advisor: Ev Fedorenko

Postdoctoral Fellow. Brain and Cognitive Sciences | 2016-2019
Massachusetts Institute of Technology. Advisor: Ted Gibson

Visiting Researcher. Speech, Language, and Hearing Sciences. | 2016-*current*
Boston University . Advisor: Swathi Kiran

Education

Ph.D. in Cognitive Psychology. University of Illinois at Urbana-Champaign | 2016
Thesis: Efficient language processing: The role of visuo-spatial context and memory
Committee: Sarah Brown-Schmidt, Aaron Benjamin, Gary Dell, Kara Federmeier, Frances Wang

M.A. in Cognitive Psychology. University of Illinois at Urbana-Champaign | 2012

B.A. in Cognitive Science. Northwestern University | 2010

Fellowships & awards

NIH/NIDCD Ruth L. Kirschstein National Research Service Award | 2016-2019
F32 Grant. Role: PI (Co-sponsors: Ted Gibson, Swathi Kiran)
Title: *Mechanisms of adaptation in (healthy and aphasic) noisy-channel comprehension*

Preregistration Challenge Prize | Center for Open Science | 2018

Sarah C. Mangelsdorf Award | Psychology, University of Illinois at Urbana-Champaign | 2016

Alumni Advisory Board Graduate Student Travel Award | Psychology, University of Illinois at Urbana-Champaign | 2016

Cognitive Science / Artificial Intelligence Award | Beckman Institute for Advanced Science and Technology | 2015

William Brewer Teaching Award | Psychology, University of Illinois at Urbana-Champaign | 2015

Nancy Hirschberg Memorial Award | Psychology, University of Illinois at Urbana-Champaign | 2015

University Fellowship | Psychology, University of Illinois at Urbana-Champaign | 2012

Undergraduate Summer Research Fellowship | Cognitive Science, Northwestern University | 2009

Grant funding

Submitted | NIH/NIA Pathway to Independence career development award
K99-R00 Grant. Role: PI (Co-sponsors: Roger Levy, Ev Fedorenko)
Title: *Prediction in language across the lifespan*

Publications

Ryskin, R. A., Kurumada, C., & Brown-Schmidt, S. (in press). Information integration in the modulation of pragmatic inferences. *Cognitive Science.*

Ryskin, R. A., Ng, S., Mimnaugh, K., Brown-Schmidt, S., & Federmeier, K. D. (in press). Talker-specific predictions during language processing. *Language, Cognition, & Neuroscience.*

Ryskin, R. A., Futrell, R., Kiran, S. & Gibson, E. (2018). Comprehenders model the nature of noise in the environment. *Cognition, 181.* 141-150. *Awarded Center for Open Science Prereg Challenge Prize*

Ryskin, R. A., Qi, Z., Covington, N., Duff, M., & Brown-Schmidt, S. (2018). Knowledge and learning of verb bias in amnesia. *Brain and Language, 180-182.* 62-83.

Ryskin, R. A. & Brown-Schmidt, S. (2017). The malleability of linguistic representations poses a challenge to the priming-based experimental approach. *Behavioral and Brain Sciences, 40*, E309. Commentary on target article: *An Experimental Approach to Linguistic Representation.*

Ryskin, R. A., Qi, Z., Duff, M., & Brown-Schmidt, S. (2017). Verb biases are shaped through lifelong learning. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 43*, 781-794.

Ryskin, R. A., Wang, R. F., & Brown-Schmidt, S. (2016). Listeners use speaker identity to access representations of spatial perspective during online language comprehension. *Cognition, 147*, 75-84.

Ryskin, R. A., Benjamin, A. S., Tullis, J., & Brown-Schmidt, S. (2015). Perspective-taking in comprehension, production, and memory: an individual differences approach. *Journal of Experimental Psychology:General, 144*, 898-915.

Ryskin, R. A., Yoon, S., & Brown-Schmidt, S. (2015). Language, memory, and perspectives, in *Emerging Trends in the Social and Behavioral Sciences* (eds.) Robert Scott and Stephen Kosslyn, Hoboken, NJ: John Wiley and Sons

Brown-Schmidt, S., Yoon, S., & Ryskin, R. A.(2015). People as contexts in conversation. In B. H. Ross (Ed.), *Psychology of Learning and Motivation*, Vol. 62. San Diego, CA: Elsevier Academic Press.

Ryskin, R. A., Brown-Schmidt, S., Canseco-Gonzalez, E., Yiu, L., & Nguyen, E. (2014). Visuospatial perspective-taking in conversation and the role of bilingual experience. *Journal of Memory and Language*, 74, 46-76.

Ryskin, R. A. & Brown-Schmidt, S. (2014). Do adults show a curse of knowledge in false-belief reasoning? A robust estimate of the true effect size. *PLoS ONE*, 9(3): e92406.

Rapp, D.N., Hinze, S.R., Kohlhepp, K., & Ryskin, R.A. (2014). Reducing reliance on inaccurate information. *Memory and Cognition*, 42, 11-26.

Ryskin, R. A. & Brown-Schmidt, S. (2011). The impact of gender and bilingualism on cognition: the case of spatial perspective-taking. *Proceedings of the 15th annual workshop on the semantics and pragmatics of dialogue (SemDial)*, Los Angeles, CA.

Manuscripts (available upon request)

Ryskin, R. A.*, Astengo, F.*, Sayid, N., Mineroff, Z., Bendris, W., Graff, P., Balewski, Z. & Fedorenko, E. (in revision). Fast talkers are fast comprehenders.

Ryskin, R., Levy, R., & Fedorenko, E. (in revision). The neural basis of linguistic prediction: the *how* rather than the *where*

Bergen, L., Ryskin, R. A., & Gibson, E. (submitted). Syntactic agreement as rational inference over a noisy-channel.

* co-first authors

Presentations

Conference Talks

Liu, Y.[†], Ryskin, R., Futrell, R., & Gibson, E. (2019). Verb Frequency Explains the Unacceptability of Factive and Manner-of-speaking Islands in English. To be presented at the 41st Annual Meeting of the Cognitive Science Society, Montréal, Canada.

Ricciardi, G.[†], Gibson, E., & Ryskin, R. A. (January, 2019). Experiment on epistemic must. Presented at the 93rd Annual Meeting of the Linguistic Society of America. New York, NY

Ryskin, R. A., Gibson, E., & Kiran, S. (October, 2018). Adaptation to the noise in aphasic sentence comprehension. Academy of Aphasia 56th Annual Meeting, Montréal, Canada.

Ryskin, R. A., Qi, Z., Duff, M., & Brown-Schmidt, S. (March, 2018). The effects of aging on verb bias use and learning. 31st Annual CUNY Conference on Human Sentence Processing, Davis, CA.

Ryskin, R. A., Futrell, R., & Gibson, E. (July, 2017). Comprehenders model the nature of noise in the environment. 39th Annual Meeting of the Cognitive Science Society, London, UK.

Ryskin, R. A., Qi, Z., Duff, M., & Brown-Schmidt, S. (March, 2017). Syntactic variability between and within speakers: When to adapt, when to generalize? 30th Annual CUNY Conference on Human Sentence Processing, Cambridge, MA.

Ryskin, R. A., Kurumada, C., & Brown-Schmidt, S. (March, 2016). Bottom-up adaptation of online pragmatic inferences to variability of speakers. 29th Annual CUNY Conference on Human Sentence Processing, Gainesville, FL.

Ryskin, R.A., Brown-Schmidt, S., Tullis, J., & Benjamin, A. (March, 2015). Perspective-taking: a domain-general cognitive ability? 28th Annual CUNY Conference on Human Sentence Processing, Los Angeles, CA.

Ryskin, R. A. & Brown-Schmidt, S. (November, 2012). A bilingual disadvantage in linguistic perspective adjustment. 53rd annual meeting of the Psychonomic Society, Minneapolis, MN.

Ryskin, R. A. & Brown-Schmidt, S. (October, 2012). Contributions of gender and bilingualism to spatial perspective-taking. 3rd annual UIC Bilingualism Forum, Chicago, IL

Rapp, D.N. & Ryskin, R. (November, 2010). Proofreading fosters resistance to the effects of inaccurate information. 51st annual meeting of the Psychonomic Society, St. Louis, MO.

† undergraduate or graduate advisee

Invited/Colloquium Talks

Lifelong Learning of Linguistic Representations. *Computational Linguistics Lab*. University of Pisa. May, 2019.

Lifelong Learning of Linguistic Representations. *Computation and Language Discussion Group*. MIT. May, 2019.

Error-correction in language comprehension: Implications for aphasia. *Speech, Language, and Hearing Sciences Colloquium*, Boston University. February, 2018.

Syntactic processing is shaped by learning: The role of context and memory systems. *Language & Cognition Meeting*, Harvard University. April, 2017.

Aphasia as rational inference over a noisy channel: Is the noise model malleable? *Language Processing and Recovery in Aphasia Symposium*. Center for Research in Sensory Communication and Emerging Neural Technology (CRESCENT), Boston University. April, 2017.

Language comprehension in context. *Spring Cross-Program Gathering of the Sargent College Committee Enhancing Research and Collaboration in Health & Rehabilitation*, Boston University. March, 2017.

Learning about how other people talk: The case of syntax. *Aphasia Research Mini-Symposium*, Department of Speech, Language, and Hearing Sciences, Boston University. September, 2016.

Learning about how other people talk: The case of syntax. *Cognitive division talk series*, Department of Psychology, University of Illinois at Urbana-Champaign. March, 2016.

Reproducibility in psycholinguistics. *Language processing talk series*. University of Illinois at Urbana-Champaign. September, 2015.

Perspective-taking: a domain-general cognitive ability? *Cognitive division talk series*, Department of Psychology, University of Illinois at Urbana-Champaign. December, 2014.

How do listeners encode spatial perspectives? *Language processing talk series*, Beckman Institute, University of Illinois at Urbana-Champaign. September, 2014.

The impact of gender and bilingualism on cognition: the case of spatial perspective-taking. *Cognitive division talk series*, Department of Psychology, University of Illinois at Urbana-Champaign. September, 2011.

Conference Posters

Ryskin, R., Futrell, R. Kiran, S., & Gibson, E. (2019). Comprehenders aggregate over speakers when adapting to the noise in the input. To be presented at Architectures and Mechanisms of Language Processing, Moscow, RU.

Ryskin, R., Salinas, M.[†], Piantadosi, S., Rubio-Fernandez, P. & Gibson, E. (2019). Pragmatic inferences are modulated by informativity across cultures. 32nd Annual CUNY Conference on Human Sentence Processing, Boulder, CO.

Ryskin, R., Gibson, E., & Kiran, S. (2019). Noisy-channel sentence comprehension in aphasia: the role of noise in the context. 32nd Annual CUNY Conference on Human Sentence Processing, Boulder, CO.

Liu, Y.[†], Ryskin, R., Futrell, R., & Gibson, E. (2019). Factive and manner-of-speaking islands are an artifact of non-linearity in the acceptability judgment task. 32nd Annual CUNY Conference on Human Sentence Processing, Boulder, CO.

Campbell, R.[†], Ryskin, R. & Kiran, S. (October, 2018). A novel eye tracking paradigm for assessing semantic and phonologic activation in aphasia. Academy of Aphasia 56th Annual Meeting, Montréal, Canada.

Nathaniel, S.[†], Ryskin, R. A., & Gibson, E. (March, 2018). Investigating the effect of context on sentence comprehension. 31st Annual CUNY Conference on Human Sentence Processing, Davis, CA.

Ryskin, R. A., Fine, A., & Brown-Schmidt, S. (March, 2017). Do listeners learn speaker/accent-specific syntactic biases? 30th Annual CUNY Conference on Human Sentence Processing, Cambridge, MA.

Ryskin, R. A., Qi, Z., Covington, N., Duff, M., & Brown-Schmidt, S. (March, 2017). Knowledge and learning of verb biases in amnesia. 30th Annual CUNY Conference on Human Sentence Processing, Cambridge, MA.

Ryskin, R. A., Ng, S., Mimnaugh, K., Brown-Schmidt, S., & Federmeier, K. (March, 2017). Speaker-specific predictions about category membership during language comprehension. Cognitive Neuroscience Society 24th annual meeting, San Francisco, CA.

Ryskin, R. A., Kurumada, C., & Brown-Schmidt, S. (November, 2016). Information integration in online modulation of pragmatic inferences during language comprehension. 57th annual meeting of the Psychonomic Society, Boston, MA.

Ryskin, R. A., Qi, Z., Duff, M. & Brown-Schmidt, S. (March, 2016). Constraints on adaptation to syntactic variability between and within speakers. 29th Annual CUNY Conference on Human Sentence Processing, Gainesville, FL.

Ryskin, R. A., Qi, Z., & Brown-Schmidt, S. (November, 2015). Rapid learning of verb bias. 56th annual meeting of the Psychonomic Society, Chicago, IL.

Ryskin, R. A., Brown-Schmidt, S., & Kurumada, C. (March, 2015). Adaptation of pragmatic inferences transfers across contrastive domains. 28th Annual CUNY Conference on Human Sentence Processing, Los Angeles, CA.

Ryskin, R. A., Wang, R.F., & Brown-Schmidt, S. (November, 2014). How do listeners encode spatial perspectives? 55th annual meeting of the Psychonomic Society, Long Beach, CA.

Ryskin, R. A. & Brown-Schmidt, S. (November, 2013). Do adults show a curse of knowledge in false-belief reasoning? A robust estimate of the true effect size. 54th annual meeting of the Psychonomic Society, Toronto, Canada.

Ryskin, R. A., Canseco-Gonzalez, E, Yiu, L., Nguyen, E., Lopez, L., Hammond-Oakley, C. B., & Brown-Schmidt, S. (May, 2013). A bilingual disadvantage in linguistic perspective adjustment. International Workshop for Bilingualism and Cognitive Control, Krakow, Poland.

Ryskin, R. A. & Brown-Schmidt, S. (May, 2012). Contributions of gender and bilingualism to spatial perspective-taking. 2nd Annual Midwest Cognitive Science Conference, Bloomington, IN.

Ryskin, R. A. & Brown-Schmidt, S. (September, 2011). The impact of gender and bilingualism on cognition: The case of spatial perspective-taking. 15th annual workshop on the semantics and pragmatics of dialogue (SemDial), Los Angeles, CA.

Kohlhepp, K., Ryskin R., & Rapp, D.N. (May, 2011). Editing what's wrong to avoid learning it: Proofreading as intervention. Midwestern Psychological Association, Chicago, IL.

Teaching experience

Spring 2017 | Psycholinguistics Lab. Co-Instructor. *Quality of Teaching Rated: 6.9/7*
Massachusetts Institute of Technology

Fall 2013 | Introduction to Psychology. Instructor.
University of Illinois at Urbana-Champaign

Spring 2011 | Learning and Memory. Teaching Assistant.
University of Illinois at Urbana-Champaign

Professional service

Ad hoc reviewing

Journals

Acta Psychologica. Applied Psycholinguistics. Bilingualism: Language and Cognition. Cognition. Cognitive Science. Dialogue & Discourse. Frontiers in Human Neuroscience. Human Brain Mapping. Journal of Experimental Psychology: General. Journal of Experimental Psychology: Learning, Memory, and Cognition. Journal of Memory and Language. Language, Cognition, and Neuroscience. Memory & Cognition. NeuroImage. PLoS One. Psychological Science. Social, Cognitive, and Affective Neuroscience. Visual Cognition.

Grants

PRELUDIUM pre-doctoral grant, National Science Center, Poland.

Conferences

CogSci Conference 2016, 2017, 2018, 2019.
CUNY Conference on Human Sentence Processing 2016, 2017, 2018, 2019.

Conference organization

CUNY 2017 Conference on Human Sentence Processing at MIT. Organizing Committee

Media coverage

Is Perspective-Taking a Skill? Psychology Today, October 22, 2015
www.psychologytoday.com/blog/ulterior-motives/201510/is-perspective-taking-skill