

# Joshua K. HARTSHORNE

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## APPOINTMENTS

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- 2016-*Current* Assistant Professor of Psychology  
*Boston College*
- 2015-2015 Post-Doctoral Associate  
*Massachusetts Institute of Technology*  
Advisor: Josh Tenenbaum
- 2012-2015 Post-Doctoral Fellow  
RUTH L. KIRSCHSTEIN NRSA INDIVIDUAL FELLOWSHIP  
*Massachusetts Institute of Technology*  
Advisor: Josh Tenenbaum

## EDUCATION

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- 2012 Ph.D. in PSYCHOLOGY, **Harvard University** / Cambridge, MA  
Advisor: Jesse Snedeker
- 2009 A.M. in PSYCHOLOGY, **Harvard University** / Cambridge, MA  
Advisor: Jesse Snedeker
- 2002 B.A. in MATHEMATICS, **Oberlin College** / Oberlin, OH  
Advisor: James Walsh

## GRANTS, AWARDS, & SCHOLARSHIPS

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### External Grants

- 2019-2022 “RR: COMPCOG: A CHALLENGE SUITE FOR STATISTICAL WORD SEGMENTATION”  
National Science Foundation  
PI: Joshua Hartshorne. Total Costs: \$706,549
- 2019-2022 “SUPPLEMENT: COMPCOG: LARGE-SCALE, EMPIRICALLY BASED, PUBLICLY ACCESSIBLE DATABASE OF ARGUMENT STRUCTURE TO SUPPORT EXPERIMENTAL AND COMPUTATIONAL RESEARCH”  
National Science Foundation  
PI: Joshua Hartshorne. Total Costs: \$50,484
- 2019-2022 “REU SUPPLEMENT: COMPCOG: LEARNING VERBS: LARGE-SCALE EMPIRICALLY BASED, PUBLICLY ACCESSIBLE DATABASE OF ARGUMENT STRUCTURE TO SUPPORT EXPERIMENTAL AND COMPUTATIONAL RESEARCH”  
National Science Foundation  
PI: Joshua Hartshorne. Total Costs: \$8,910
- 2019-2021 “CONNECTIVITY-BASED BAYESIAN NONPARAMETRIC MODELING OF INDIVIDUAL VARIABILITY IN AUTISM”  
Simons Foundation Autism Research Initiative (SFARI)  
PIs: Joshua Hartshorne & Stefano Anzellotti. Total Costs: \$300,000
- 2019-2019 “APA SUMMER UNDERGRADUATE PSYCHOLOGY RESEARCH EXPERIENCE”  
PI: Joshua Hartshorne. Co-PIs: Sara Cordes & Katherine McAuliffe. Total Costs: \$25,836
- 2016-2019 “CompCog: Large-scale, empirically based, publicly accessible database of argument

- structure to support experimental and computational research”  
 NATIONAL SCIENCE FOUNDATION  
 PI: Joshua Hartshorne. Total Costs: \$383,079
- 2018-2018 “APA SUMMER UNDERGRADUATE PSYCHOLOGY RESEARCH EXPERIENCE”  
 PI: Sara Cordes. Co-PIs: Joshua Hartshorne & Katherine McAuliffe. Total Costs: \$20,723
- 2016-2017 “Intensive summer program in psychology for exceptional high school students:  
 A pilot program”  
 ESTHER ROSEN KATZ FUND, AMERICAN PSYCHOLOGICAL FOUNDATION  
 PI: Joshua Hartshorne. Co-PI: Katherine McAuliffe. Total Costs: \$18,000
- 2016 “Workshop on Events in Language and Cognition”  
 NATIONAL SCIENCE FOUNDATION  
 PI: Joshua Hartshorne. Total Costs: \$6,491
- 2012-2015 Ruth L. Kirschstein National Research Service Award (Individual)
- 2008-2012 National Science Foundation Graduate Fellowship
- 2008-2011 National Defense Science and Engineering Graduate Fellowship
- 2007 North American Society of Adlerian Psychology Conference Scholarship
- 2000 - 2001 Research Experience for Undergraduates Supplement  
 NATIONAL SCIENCE FOUNDATION  
 PI: Michael Ullman. Total costs: \$4,282. Hartshorne Percent Effort: 100%

## Internal Grants

- 2018-2020 Aging Research Incentive Grant (Boston College)  
 Total Costs: \$68,976
- 2017-2019 Academic Technology Innovation Grant (Boston College)  
 Total Costs: \$35,000
- 2017 Teaching, Advising, & Mentoring Expense Grant (Boston College)  
 Total Costs: \$2,000
- 2012 Elsie Hopestill Stimson Fund (Harvard University)  
 Total Costs: \$500  
 Harvard Graduate Student Council Travel Grant (Harvard University)  
 Total Costs: \$127.10
- 2011 Elsie Hopestill Stimson Fund (Harvard University)  
 Total Costs: \$500
- 2010 Elsie Hopestill Stimson Fund (Harvard University)  
 Total Costs: \$500
- 2009 Gordon W. Allport Memorial Fund (Harvard University)  
 “What makes puns funny? Homographic processing in typical  
 and atypical populations.” Total Costs: \$3,500  
 Mind, Brain, & Behavior Initiative Graduate Student Award (Harvard University)  
 Total Costs: \$1,368
- 2009 John B. Knox Bequest (Harvard University)  
 “Constraints of the mapping from semantic to syntax:  
 A cross-linguistic investigation.” Total Costs: \$3,500  
 Gordon W. Allport Memorial Fund (Harvard University)  
 Total Costs: \$500
- 2008 Gordon W. Allport Memorial Fund (Harvard University)  
 “Pragmatic processing in adult humans: Behavioral and  
 neurophysiological measures.” Total Costs: \$3,500

2007 Elsie Hopestill Stimson Fund (Harvard University)  
Total Costs: \$500

## Awards

2011 Jean Berko Gleason Award, BUCLD 2011, Best Student Presentation

2002 Dahl Essay Prize in Philosophy, Oberlin College

1998-2002 John Frederick Oberlin Scholarship, Oberlin College

1998 National Merit Scholar  
Kansas Honor Scholar

## PUBLICATIONS

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### Books

Goodman, Noah D., Joshua B. Tenenbaum, & The ProbMods Contributors (2016). Probabilistic Models of Cognition (2nd ed.). <https://probmods.org>

### Journal articles \* denotes student

Hartshorne, Joshua K., \*William Ades, \*Tianhu Chen, \*Rachel Duquette, \*Cora Ives, & \*David Kocen. (in prep) A semi-parametric Bayesian approach to comparing lifespan curves.

\*Chen, T., & Joshua K. Hartshorne. (under revision). More evidence that the ability to learn syntax declines precipitously in late adolescence.

Hartshorne, J. K., \*Vidal, J., & Pinker, S. (under revision). The search for s: Individual difference and developmental evidence for a common component in linguistic and nonlinguistic social cognition.

Ebersole, C. R., Mathur, M. B., Baranski, E., Bart-Plange, D.-J., Buttrick, N. R., Chartier, C. R., Corker, K. S., Corley, M., **Hartshorne, J. K.**, Ijzerman, H., Lazarevic, L. B., Rabagliati, H., Ropvik, I., et al. (provisional acceptance). Many Labs 5: Testing pre-data collection peer review as an intervention to increase replicability.

\*Skorb, L., Aczel, B., Bakos, B., Christ, O., Fedor, A., Feinberg, L., Hałas, E., Jiménez-Leal, W., Kauff, M., Kovacs, M., Krasuska, K., Kuchno, K., Manfredi, D., Muda, R., Nave, G., Pękala, E., Pieńkosz, D., \*Ravid, J., Rentzsch, K., Salamon, J., Schultze, T., Sioma, B., & **Hartshorne, J. K.** (in press). Many Labs 5: Replication Report for Van Dijk, Van Kleef, Steinel, & Van Beest (2008). A social functional approach to emotions in bargaining: When communicating anger pays and when it backfires. *Journal of Personality and Social Psychology*, 94(4), 600-614. *Advances in Methods and Practices in Psychological Science*.

Mehr, S. A., Singh, M., Knox, D., Ketter, D. M., Pickens-Jones, D., Atwood, S., Lucas, C., Egner, A., Jacoby, N., Hopkins, E. J., Howard, R. M., **Hartshorne, J. K.**, \*Jennings, M. V., Simson, J., Bainbridge, C. M., Pinker, S., O'Donnell, T. J., Krasnow, M. M., & Glowacki, L. (2019). A natural history of song. *Science*, 366(6468), eaax0868, DOI: 10.1126/science.aax0868.

Hartshorne, Joshua K. & Tal Makovski (2019). The effect of working memory on long-term memory acquisition and its relationship to vocabulary acquisition. *Memory and Cognition*, 47(4), 749-763.

Feiman, Roman, Joshua K. Hartshorne, & David Barner (2019). Contrast and entailment: Abstract logical relations constrain how 2- and 3-year-old children interpret known numbers. *Cognition*, 183, 192-207.

Hartshorne, Joshua K., Joshua de Leeuw, Noah Goodman, \*Mariela Jennings, & Timothy J. O'Donnell. (2019). A thousand studies for the price of one: Accelerating psychological science with Pushkin. *Behavior Research Methods*.

Hartshorne, Joshua K., \*Lauren Skorb, \*Sven L. Dietz, \*Caitlin R. Garcia, \*Gina L. Iozzo, \*Katie E. Lamirato, \*James R. Ledoux, \*Jesse Mu, \*Kara N. Murdock, \*Jon Ravid, \*Alyssa A. Savery, \*James E. Spizzirro, \*Kelsey A. Trimm, \*Kendall D. van Horne, & \*Jiliani Vidal. (2019). The meta-science of adult statistical word segmentation: Part 1. *Collabra: Psychology*, 5(1), 1. DOI: <http://doi.org/10.1525/collabra.181>

- Hartshorne, Joshua K. Joshua B. Tenenbaum, & Steven Pinker. (2018). A critical period for second language acquisition: Evidence from 2/3 million English speakers. *Cognition*, 117, 263-277.
- Hartshorne, Joshua K. & Eva Wittenberg. (2018). Review of Radvansky & Zacks (2014). Event Cognition. *Language and Cognition*, 10(2), 382-389.
- Hartshorne, Joshua K., Timothy J. O'Donnell, Yasutada Sudo, Miki Uruwashi, Miseon Lee, & Jesse Snedeker (2016). Psych verbs, the linking problem, and the acquisition of language. *Cognition*, 157, 268-288.
- Hartshorne, Joshua K. (2016). Comment: Acquiring metaphors. *Emotion Review*, 8(3), 280-282.
- Anderson, C. J., Bahnik, S., Barnett-Cowan, M., Bosco, F. A., Chandler, J., Chartier, C. R., Cheung, F., Christopherson, C. D., Cordes, A., Cremata, E. J., Penna, N. D., Estel, V., Fedor, A., Fitneva, S. A., Frank, M. C., Grange, J. A., **Hartshorne, J. K.**, Hasselman, F., Henninger, F., van der Hulst, M., Jonas, K. J., Lai, C. K., Levitan, C. A., Miller, J. K., Moore, K. S., Meixner, J. M., Munafo, M. R., Neijenhuijs, K. I., Nilsonne, G., Nosek, B. A., Plessow, F., Prenoveau, J. M., Ricker, A. A., Schmidt, K., Spies, J. R., Stieger, S., Strohminger, N., Sullivan, G. B., van Aert, R. C. M., van Assen, M. A. L. M., Vanpaemel, W., Vianello, M., Voracek, M., Zuni, K. (2016). Response to comment on "Estimating the reproducibility of psychological science." *Science*, 351(6277), p. 1037.
- Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, 349(6251), 943.
- Hartshorne, Joshua K., & Laura T. Germine. (2015). When does cognitive functioning peak? The asynchronous rise and fall of different cognitive abilities across the lifespan. *Psychological Science*, 26(4), 433-443.
- Hartshorne, Joshua K., \*Amanda Pogue, and Jesse Snedeker (2015). Love is hard to understand: The relationship between transitivity and caused events in the acquisition of emotion verbs. *Journal of Child Language*, 42, 467-504.
- Hartshorne, Joshua K., Rebecca Nappa, & Jesse Snedeker. (2015). Development of the first-mention bias. *Journal of Child Language*, 42(2), 423-446.
- Hartshorne, Joshua K., Timothy J. O'Donnell, & Joshua B. Tenenbaum. (2015). The causes and consequences explicit in verbs. *Language, Cognition, & Neuroscience*, 30(6), 716-734.
- Hartshorne, Joshua K., Jesse Snedeker, Stephanie Yun-Mun Liem Azar, and Albert Kim. (2015). The neural computation of scalar implicature. *Language, Cognition, & Neuroscience*, 30(5), 620-634.
- Hartshorne, Joshua K. (2014). What is Implicit Causality? *Language, Cognition, and Neuroscience*, 29(7), 804-824.
- Hartshorne, Joshua K., Yasutada Sudo & Miki Uruwashi (2013). Are implicit causality pronoun resolution biases consistent across languages and cultures? *Experimental Psychology*, 60(3), 179-196.
- Hartshorne, Joshua K. & Jesse Snedeker (2013). Verb argument structure predicts implicit causality: The advantages of finer-grained semantics. *Language and Cognitive Processes*, 28(10), 1474-1508.
- Open Science Collaboration (2012). An open, large-scale, collaborative effort to estimate the reproducibility of psychological science. *Perspectives in Psychological Science*, 7, 657-660.
- Hartshorne, Joshua K. & Adena Schachner (2012). Tracking replicability as a method of post-publication open evaluation. *Frontiers in Computational Neuroscience*, 6:8. Doi:10.3389/fncom.2012.00008
- Hartshorne, Joshua K. & Adena Schachner. (2012). Where's the data? *The Psychologist*, 25(5), 355.
- Hartshorne, Joshua K., Nancy Salem-Hartshorne, & Timothy S. Hartshorne (2009). Birth order and group self-organization. *Journal of Individual Psychology*, 65(2).
- Hartshorne, Joshua K. (2008) Working memory capacity and proactive interference. *PLoS ONE* 3(7): e2716.
- Hartshorne, Joshua K., and Michael T. Ullman. (2006) Why girls say 'holded' more than boys. *Developmental Science*, 9, 21-32.

## Book chapters

- Open Science Collaboration (2014). The Reproducibility Project: A model of large-scale collaboration for empirical

research on reproducibility. In V. Stodden, F. Leisch, & R. Peng (Eds.), *Implementing Reproducible Computational Research* (A Volume in the R Series). New York, NY: Taylor & Francis.

Salem-Hartshorne, Nancy, Blake, Kim, & Hartshorne, Joshua K. (2010) Changes during the life cycle: Teenage. In, Hartshorne, T. S., Hefner, M. A., Davenport, S. L. H. & Thelin, J. W. (Eds.). *CHARGE Syndrome*. Plural Publishing, San Diego, CA., pp. 223-249.

## Proceedings

Mu, Jesse, Joshua K. Hartshorne, & Timothy O'Donnell. (2017). Evaluating hierarchies of verb argument structure with hierarchical clustering. Empirical Methods in Natural Language Processing, Copenhagen, Denmark.

Niemi, Laura, Joshua Hartshorne, Tobias Gerstenberg, & Liane Young. (2016). Implicit measurement of motivated causal attribution. Proceedings of the Thirty-Sixth Annual Conference of the Cognitive Science Society.

Hartshorne, Joshua K., Claire Bonial, & Martha Palmer. (2014). The VerbCorner Project: Findings from Phase 1 of crowd-sourcing a semantic decomposition of verbs. Proceedings of the Association of Computational Linguistics (ACL).

Hartshorne, Joshua K., Claire Bonial, & Martha Palmer. (2013). The VerbCorner Project: Toward an empirically-based semantic decomposition of verbs. Proceedings of Empirical Methods in Natural Language Processing (EMNLP).

Hartshorne, Joshua K., Jesse Snedeker, & Albert Kim. (2013). The neural computation of scalar implicature. In Proceedings of the Thirty-Fifth Annual Conference of the Cognitive Science Society.

Hartshorne, Joshua K., Rebecca Nappa & Jesse Snedeker (2011). Ambiguous pronoun processing development: Probably not U-Shaped. Proceedings of the Boston University Conference on Language Development 35.

Hartshorne, Joshua K., Timothy J. O'Donnell, Yasutada Sudo, Miki Uruwashii & Jesse Snedeker (2010). Linking meaning to language: Linguistic universals and variation. In Proceedings of the Thirty-Second Annual Conference of the Cognitive Science Society.

## General public (selected)

The video game engine in your head. (April 1, 2014). Scientific American.

Calling all amateur scientists. (Jan-Feb. 2014). Scientific American Mind.

Citizen scientists decode meaning, memory and laughter. (Sep. 23, 2013). Scientific American.

How to understand the deep structures of language. (Sep. 17. 2013). Scientific American.

Where are all the talking robots? (March 2011). Scientific American Mind.

Fantasy TV in the service of science: An open letter to HBO about 'Dothraki'. Scientific American.

How birth order affects your personality. (Jan. 2010). Scientific American Mind.

Does language shape what we think. Scientific American.

Why don't babies talk like adults? (Feb. 2009). Scientific American.

Every child is a genius. (Jan. 2007). Odyssey Magazine. (w. Sheila Berenson)

Magical mistakes. (Jan. 2007). Odyssey Magazine. (w. Sheila Berenson)

## PRESENTATIONS

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**Juried Talks** (for talks with proceedings, see above)

Hartshorne, Joshua K. (2019). Automaticity of reading continues to develop into adulthood. Cognitive Development Society, Louisville, KY.

- Hartshorne, Joshua K. (2019). Teaching science by doing science. Workshop on using replication studies to teach research methods in cognitive science, Annual Meeting of the Cognitive Science Society, Montreal, CA.
- Chen, Tianhu & Joshua K. Hartshorne. (2019). Revisiting a critical period for syntax in a second language: New analyses provide the same results. CUNY Conference on Human Sentence Processing, Boulder, CO.
- Niemi, L., Hartshorne, J. K., Gerstenberg, T., & Young, L. (2016). The moral dimension of implicit verb causality. CUNY Conference on Human Sentence Processing, Gainesville, FL.
- Niemi, L., Hartshorne, J., Gerstenberg, T., & Young, L. (2015). Implicit causality and moral inference. Workshop on expressive language: Semantics, pragmatics, and origins, Mansfield, CT.
- Hartshorne, Joshua K. (2015). Achieving human-level performance on (some) Winograd Schema via a model of common sense. Language & Common Sense Workshop, Annual Meeting of the Cognitive Science Society.
- Hartshorne, Joshua K. (2015). How our minds change over our lifetimes: New insights from Internet studies. Frontiers of Brain Science: The Kavli science journalism workshop.
- Hartshorne, Joshua K., Tobias Gerstenberg, Timothy J. O'Donnell, & Joshua B. Tenenbaum. (2014). Language understanding & common sense reasoning. Architectures and Mechanisms in Language Processing (AMLaP), Edinburgh, UK.
- Hartshorne, Joshua K. (2014). Implicit causality and novel verbs. International Association for the Study of Child Language, Amsterdam, Netherlands.
- Hartshorne, Joshua K. & Jesse Snedeker. (2014). Learning non-causal transitive verbs. International Association for the Study of Child Language, Amsterdam, Netherlands.
- Hartshorne, Joshua K. (2014). Project in action: Achievements, advice, & asks (panel). Games & Crowds, Washington, DC.
- Hartshorne, Joshua K. (2014). Crowdsourcing actionable data with games (panel). Games & Crowds, Washington, DC.
- Hartshorne, Joshua K. (2014). Taking research out into the wild (panel). SXSWedu, Austin, TX.
- Hartshorne, Joshua K. & Jesse Snedeker. (2013). Emotion verbs and the problem of overgeneralization. BUCLD 38, Boston, MA \*Lunchtime plenary symposium, with Ben Ambridge, Adele Goldberg, and Steven Pinker
- Hartshorne, Joshua K. (2013). Three myths about re-mention biases. Discourse Expectations: Theoretical, Experimental & Computational Perspectives, Tübingen, Germany.
- Hartshorne, Joshua K. (2013). Three puzzles about quantifiers & their acquisition. Society for Research in Child Development, Seattle, WA
- Germine, L., Hartshorne, J., Wilmer, J., Chabris, C., Chatterjee, G., & Nakayama, K. (2013). Heterogeneity in cognitive maturation and aging: Why there is no such thing as an adult control. Vision Sciences Society, Naples, Florida.
- Hartshorne, Joshua K., Timothy O'Donnell, Yasutada Sudo, Miki Uruwashi & Jesse Snedeker. (2012). Linking event structure to language: Linguistic universals and variation. Maryland's First Annual Interdisciplinary Research Symposium on //Events//.
- Wilmer, Jeremy B., Laura Germine, Ryan Ly, Joshua K. Hartshorne, Holum Kwok, Mark A. Williams & Justin Halberda. (2012). The heritability and specificity of change detection ability. Vision Sciences Society, Naples, Florida.
- Hartshorne, Joshua K. & David Barner. (2011). How do children interpret number words before learning their exact meanings? BUCLD 36, Boston, MA **Winner of the Jean Berko Gleason Award for top-ranked student presentation.**
- Hartshorne, Joshua K. (2011). Implicit causality and pronouns: Lexically-encoded meaning, not world knowledge. 24th Annual Meeting of the CUNY Conference on Human Sentence Processing, Palo Alto, CA.

- Hartshorne, Joshua K. & Jesse Snedeker (2011). Cues to pronoun resolution. International Association for the Study of Child Language, Montreal, Canada.
- Nappa, Rebecca, Joshua K. Hartshorne & Jesse Snedeker (2011). Him or him: Pronoun comprehension in ASD. International Association for the Study of Child Language, Montreal, Canada.
- Hartshorne, Joshua K., Manizeh Khan & Jesse Snedeker (2010). Predictability in the visual world. Architectures and Mechanisms in Language Processing (AMLaP) conference, York, UK.
- Hartshorne, Joshua K. and Jesse Snedeker. (2009). Integration of discourse and semantic structure in children's resolution of ambiguous pronouns. BUCLD 34, Boston, MA.
- Hartshorne, Joshua K. and Jesse Snedeker. (2009). Grammatical context affects online scalar implicature computation. Architectures and mechanisms in Language Processing (AMLaP) conference, Barcelona, Spain.
- Vickery, Timothy J., Joshua K. Hartshorne & Yuhong V. Jiang. (2007) Learning to form new perceptual groups. Paper presented at the 15th Annual Object Perception, Attention & Memory meeting.
- Monahan, John S., and Joshua K. Hartshorne. (April 9, 1998) Search task, not field size, affects pop-out search speed. Paper presented at the 90th Annual Meeting of the Southern Society for Philosophy and Psychology, New Orleans.

### Conference posters

- Chen, Tianhu and Joshua K. Hartshorne (2019). More evidence that the critical period for syntax ends at 17. Boston University Conference on Language Development, Boston, MA.
- Hartshorne, Joshua K. (2019). Birth-order effects on vocabulary persist throughout the lifespan. Boston University Conference on Language Development, Boston, MA.
- Hartshorne, Joshua K. (2019). Birth-order effects on vocabulary persist throughout the lifespan. Cognitive Development Society, Louisville, KY.
- Hartshorne, Joshua K., Mariela Jennings, Tobias Gerstenberg, & Joshua B. Tenenbaum. (2019). When circumstances change, update your pronouns. Cognitive Science Society, Montreal, CA.
- Hartshorne, Joshua K., Mariela Jennings, Tobias Gerstenberg, & Joshua B. Tenenbaum. (2019). When circumstances change, update your pronouns. CUNY Conference on Human Sentence Processing, Boulder, CO.
- Jennings, Mariela, Martha Palmer, & Joshua K. Hartshorne. (2019). How much does verb semantics determine verb syntax? CUNY Conference on Human Sentence Processing, Boulder, CO.
- Jennings, Mariela, Martha Palmer, & Joshua K. Hartshorne. (2018). How much does verb semantics determine verb syntax? Architectures and Mechanisms in Language Processing, Berlin, Germany.
- Jennings, Mariela & Joshua K. Hartshorne. (2018). Pushkin: An open-source engine for social science at scale. Architectures and Mechanisms in Language Processing, Berlin, Germany.
- Eisape, Tiwalayo, Merrill, Will, Hartshorne, Joshua K., and Dietz, Sven (2018). Grammatical accents: Using Machine Learning to Understand Transfer from First Language to Second Language. In Proceedings of the Fortieth Annual Conference of the Cognitive Science Society, Madison, WI.
- Mu, J., Hartshorne, J. K., & O'Donnell, T. J. (2018). Learning and evaluating hierarchies of verb argument structure. Abstract presented at the Learning Language in Humans and Machines 2018 Conference, Paris, France, July 5-6.
- Skorb, Lauren and Joshua K. Hartshorne. (2018). Segmenting sentences: Robustness of the statistical word segmentation literature. Annual Meeting of the CUNY Conference on Human Sentence Processing, Davis, CA.
- Özge, Duygu, Joshua K. Hartshorne, & Jesse Snedeker. (2017). Salience of experiencer versus stimulus in Turkish psych verbs: A pronoun resolution study. 30th Annual Meeting of the CUNY Conference on Human Sentence Processing, Cambridge, MA.
- Hartshorne, Joshua K., Joshua Tenenbaum, & Steven Pinker. (2016). A critical period for acquisition of second

- language syntax: Evidence from 669,498 English speakers. Boston University Conference on Language Development, Boston, MA.
- Hartshorne, Joshua K., Jesse Mu, Timothy J. O'Donnell, & Martha Palmer. (2016). The relationship between semantics and verb argument structure is highly regular: A large-scale, crowd-sourced investigation. Poster presented at Architectures and Mechanisms in Language Processing, Bilbao, Spain.
- Mu, Jesse, Timothy J. O'Donnell, & Joshua K. Hartshorne. (2016). Unsupervised learning of VerbNet argument structure. Annual Meeting of the Cognitive Science Society.
- Hartshorne, Joshua K., & Palmer, Martha. (2016). VerbCorner: Testing theories of argument structure through crowdsourcing. Workshop on Events in Language, Gainesville, FL.
- Hartshorne, Joshua K., Gerstenberg, T., O'Donnell, T. J., & Tenenbaum, J. B. (2014). Language understanding & common sense reasoning. Psychonomic Society, Long Beach, CA.
- Shetreet E., Hartshorne J., & Kuperberg G. (2014). Fearing and loving: verb category matters in processing implicit causality. 6th Society for Neurobiology of Language Conference, Amsterdam, The Netherlands.
- Hartshorne, Joshua K. & Steven Pinker. (2013). Evidence for common mechanisms in pragmatics and social cognition. Architectures and Mechanisms in Language Processing, Marseille, France.
- Hartshorne, Joshua K. (2013). Not all pronouns are resolved rapidly. Discourse Expectations: Theoretical, Experimental & Computational Perspectives, Tübingen, Germany.
- Hartshorne, Joshua K., Jesse Snedeker & Albert Kim. (2012). The neural computation of scalar implicature. Architectures and Mechanisms in Language Processing (AMLaP), Riva del Garda, Italy.
- Hartshorne, Joshua K., Rebecca Nappa & Jesse Snedeker. (2011). Steady – not u-shaped – development in ambiguous pronoun processing. 24th Annual Meeting of the CUNY Conference on Human Sentence Processing, Palo Alto, CA.
- Hartshorne, Joshua K. & Jesse Snedeker. (2011). Not all pronouns are resolved rapidly online. 24th Annual Meeting of the CUNY Conference on Human Sentence Processing, Palo Alto, CA.
- Nappa, Rebecca, Joshua K. Hartshorne & Jesse Snedeker. (2011). Steady – not u-shaped – development in ambiguous pronoun processing. 24th Annual Meeting of the CUNY Conference on Human Sentence Processing, Palo Alto, CA.
- Nappa, Rebecca, Joshua K. Hartshorne & Jesse Snedeker. (2011). She and her: Online and offline pronoun comprehension in children with ASD. BUCLD 36, Boston, MA
- Hartshorne, Joshua K. & Jesse Snedeker. (2010). Pronoun resolution, cue frequency, and cue reliability. Architectures and Mechanisms in Language Processing (AMLaP) conference, York, UK.
- Khan, Manizheh, Joshua Hartshorne & Jesse Snedeker. (2009). Can listeners modulate rapid pragmatic inferences based on knowledge about the speaker? Architectures and Mechanisms in Language Processing (AMLaP) conference, Barcelona, Spain.
- Hartshorne, Joshua, Manizheh Khan and Jesse Snedeker. (2009). Do listeners model speakers in on-line sentence comprehension? Architectures and Mechanisms in Language Processing (AMLaP) conference, Barcelona, Spain.
- Hartshorne, Joshua K., Pogue, Amanda, & Snedeker, Jesse. (2009). Fear and loathing in discourse coherence: children use argument structure in pronoun interpretation. Poster presented at Experimental Pragmatics, Lyon, France.
- Pogue, Amanda, Hartshorne, Joshua K., & Snedeker, Jesse. (2009). Evidence for a distinction between canonical and non-canonical syntax-semantics mappings. Poster presented at the Annual Meeting of the Cognitive Science Society, Amsterdam.
- Hartshorne, Joshua K. & Snedeker, Jesse. (2009). Grammatical context affects online scalar implicature computation. Poster presented at the 22nd Annual Meeting of the CUNY Conference on Human Sentence Processing, Davis, CA.
- Hartshorne, Joshua K. & Snedeker, J. (2009). Rapid online effects of verb argument structure on pronoun resolution. Poster presented at the 22nd Annual Meeting of the CUNY Conference on Human Sentence Processing, Davis, CA.



Hartshorne, Joshua K., Pogue, Amanda, & Snedeker, Jesse. (2009). Who is she and why is she so scary? Psych verbs and the mapping from semantics to syntax. Poster presented at the Society for Research Development Biennial Meeting, Denver, CO.

Salem-Hartshorne, Nancy, & Hartshorne, Joshua K. (2007) Development in CHARGE Syndrome: Results of a longitudinal study. Poster presented at the 8th International CHARGE Syndrome Foundation Conference for Families, Anaheim, CA.

Hartshorne, Joshua, Timothy Vickery & Yuhong Jiang. (2007) Knowledge about target category: a dissociation between categorization and search. Poster presented at the Vision Sciences Society Annual Meeting, Sarasota, FL.

Hartshorne, Joshua K., Claudia J. Bonin & Michael T. Ullman. (2007) The procedural deficit hypothesis of dyslexia. Poster presented at the 14th annual meeting of the Cognitive Neuroscience Society, New York.

Hartshorne, Joshua K., Nancy Salem-Hartshorne & Timothy S. Hartshorne. (2007) Birth order effects in group self-organization. Poster presented at the 55th annual meeting of the North American Society of Adlerian Psychology, Vancouver.

Bonin, Claudia J., Joshua K. Hartshorne & Michael T. Ullman. (2006) The procedural deficit hypothesis of dyslexia. Poster presented at the 25th Rodin Remediation Academy Conference, Washington, D.C.

Hartshorne, Joshua K., Mathew Walenski, & Michael T. Ullman. (2003) An investigation of the role of the declarative and procedural memory systems in language using a dual-task paradigm. Poster presented at the 10th annual meeting of the Cognitive Neuroscience Society, New York.

Ullman, Michael, Ivy V. Estabrooke, Karsten Steinhauer, Matthew Walenski, Claudia Brovotto, Roumyana Pancheva, Kaori Ozawa, Joshua K. Hartshorne, Kristen Mordecai, & Pauline Maki. (March 30 – April 1, 2003) Sex differences and the role of estrogen in the neurocognition of language. Poster presented at the 10th annual meeting of the Cognitive Neuroscience Society, New York.

## Invited talks

- 2019 Speech, Language, and Hearing Sciences Spring 2019 Seminar Series, Boston University  
Rutgers University Undergraduate Linguistics Club, Rutgers University (New Brunswick)  
Language & Cognition Seminar, Harvard University  
Language Group, Princeton University  
Guest lecture for “Plasticity, Variability and Age in Second Language Acquisition”, UT-Austin  
CompLang, Massachusetts Institute of Technology  
Cognition, Brain, & Behavior series, Harvard University  
LingLangLunch seminar, Brown University  
Learning and the Brain conference, Boston, MA
- 2018 Universals Seminar, Harvard University
- 2017 MIT Critical Data Course, MIT  
**Keynote**, Discourse Expectations: Theoretical, Experimental, and Computational Perspectives (DETEC)
- 2016 The VerbCorner Workshop, Boston College  
MIT Critical Data Course, MIT  
Developmental Colloquium, University of Massachusetts-Amherst
- 2015 Oxford Global Languages Symposium, Oxford University  
Science on the Screen, Coolidge Corner Theater, Boston, MA
- 2014 Ad hoc lecture, Georgetown University
- 2013 Concepts Seminar, Harvard University  
Ad hoc lecture, National Chiao Tung University, Taiwan  
Ad hoc lecture, National Chiao Tung University, Taiwan  
Ad hoc lecture, National Taiwan University, Taiwan  
Linguistics Lunch, Brown University  
Language & Cognition Seminar, Harvard University

- 2012 Ad hoc lecture, Oberlin College  
Math Lunch, Oberlin College  
Laboratory for Developmental Studies Seminar, Harvard University
- 2011 Stanford Psychology of Language Tea (SPLaT), Stanford University
- 2010 The Role of Social Cognition in Language Processing Summer Workshop, Harvard University  
Scalar Implicature Summer Workshop, Harvard University
- 2003 Linguistic for Language Students course, Oberlin College  
Ad hoc lecture, Central Michigan University  
Ad hoc lecture, Saint Petersburg State University, Russia
- 2002 Introduction to Archaeology course, Oberlin College

## TEACHING

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### Courses Taught

- 2019 “How Extraterrestrials Think,” Boston College / Boston, MA
- 2018 “Language Acquisition and Development,” Boston College / Boston, MA  
“Computational Models of Cognition,” Boston College / Boston, MA  
“Language Acquisition and Development,” Boston College / Boston, MA  
“Computational Models of Cognition,” Boston College / Boston, MA
- 2017 “Language Acquisition and Development,” Boston College / Boston, MA
- 2004 “Intro to Psycholinguistics,” Irkutsk State University of Linguistics / Irkutsk, Russia  
“Intro to Neurolinguistics,” Irkutsk State University of Linguistics / Irkutsk, Russia
- 2001 “Advanced English Conversation” Russian International Academy of Tourism / Irkutsk, Russia  
“Robert Jordan’s *Wheel of Time*,” Oberlin College / Oberlin, OH
- 2000 “Swing Dancing (advanced),” Oberlin College / Oberlin, OH  
“Swing Dancing (beginning),” Oberlin College / Oberlin, OH

### Teaching Assistant

- 2011-2013 “Science of Living Systems 20: Psychological Science,” Harvard University, Cambridge, MA  
Taught weekly discussion section. Head teaching fellow in 2013. Course head: Steven Pinker.
- 2006 “King Chavez Parks Extended College Day Program”, Cental Michigan University / Mount Pleasant, MI  
Four-day psychology course for high-achieving inner city students

### Seminars (Non-Credit)

- 2016 Argument Structure. Massachusetts Institute of Technology / Cambridge, MA  
Weekly meeting for students, post-docs, and faculty
- 2015 Events Reading Group. Massachusetts Institute of Technology / Cambridge, MA  
Weekly meeting for students, post-docs, and faculty
- 2013-2014 Computational Psycholinguistics. Massachusetts Institute of Technology / Cambridge, MA  
Research assistant meeting & discussion group
- 2013 An Introduction to Language: Syntax, Semantics, & Pragmatics.  
Massachusetts Institute of Technology / Cambridge, MA  
Weekly summer seminar on psycholinguistics
- 2011-2012 Verbs & Events. Massachusetts Institute of Technology / Cambridge, MA  
Weekly working & discussion group for graduate students and post-doctoral fellows
- 2012 Language Acquisition Seminar. Massachusetts Institute of Technology / Cambridge, MA  
Weekly summer seminar on language acquisition

- 2007-2011 Language & Cognition. Harvard University / Cambridge, MA  
 Weekly talk series. Students & faculty from psychology and linguistics from Boston area.  
 Co-organizers: Jacopo Romoli (2007-2009), Timothy O'Donnell (2008-2009), and Manizeh Khan (2009-2011).  
 Funding: Harvard University Graduate School of Arts and Sciences Research Workshops.
- 2009 Social Cognition & Language. Harvard University / Cambridge, MA  
 Research assistant meeting & discussion group. Co-organizer: Rebecca Nappa

## Workshops Organized

- Dec. 16-18, 2019 Scaling Cognitive Science (Princeton University)  
 Co-Organizers: Tom Griffiths, Jordan Suchow  
 Invited Speakers: Lucy Fortson, Yoav Bar-Anon, Sam Mehr, Todd Gureckis, Alex Paxton, Mayank Agrawal, Mike Frank, Mark Steyvers, Ben Stenhaus, Grant Buckles, Josh de Leeuw, Abdullah Almaatouq, Grant Miller, Bri Cho, Diana Tamir, Jason Radford, Sam Blazek, Steve Cambria
- July 25, 2018 Massive Online Experiments in Cognitive Science (CogSci 2018)  
 Co-Organizers & Presenters: Joshua De Leeuw, Joshua Hartshorne, Laura Germine, Katharina Reinecke, Mariela V. Jennings
- Dec. 19-20, 2017 The Pushkin Developers' Workshop. Boston College / Chestnut Hill, MA  
 Presenters: Joshua De Leeuw, Joshua Hartshorne, Mariela Jennings
- Oct. 19-20, 2016 The VerbCorner Workshop. Boston College / Chestnut Hill, MA  
 Invited Speakers: Beth Levin, Ben Ambridge, Martha Palmer, Tim O'Donnell, Joshua Hartshorne
- Aug. 10, 2016 Learning to talk about events: Grounding language acquisition in intuitive theories and event cognition (CogSci 2016).  
 Co-organized with Melissa Kline & Ev Wittenberg  
 Invited Speakers: Dare Baldwin, Gergely Csibra, Cynthia Fisher, Noah Goodman, Joshua Hartshorne, Melissa Kline, Beth Levin, Josh Tenenbaum, Barbara Tversky, Eva Wittenberg, Jeffrey Zacks
- Mar. 2, 2016 Events in Language and Cognition (CUNY 2016 pre-conference workshop)  
 Co-organized with Melissa Kline and Eva Wittenberg. Invited Speakers: Jesse Snedeker, Elsi Kaiser
- July 22, 2015 Language and Common Sense (CogSci 2015)  
 Co-organizer: Joshua Tenenbaum  
 Invited Speakers: Joshua Hartshorne, Joshua Tenenbaum, Jeffrey Siskind, Noah Goodman, Andrew Kehler, Percy Liang, Nancy Chang, Charles Ortiz, Jr., Tobias Gerstenberg, Elsi Kaiser
- July 13, 2010 The Role of Social Cognition in Language Processing Summer Workshop  
 Harvard University / Cambridge, MA  
 Invited Speakers: Joshua Hartshorne, Rebecca Nappa, Jill De Villiers, Peter De Villiers, Lisa Edelson, Evalina Fedorenko, Manizeh Khan, Adrianna Jenkins, James Lee, Kyle Thomas, Kate Harrigan
- June 17, 2010 Scalar Implicature Summer Workshop  
 Harvard University / Cambridge, MA  
 Invited Speakers: Joshua Hartshorne, Danny Fox, Noah Goodman, Gina Kuperberg, Manizeh Khan, Hazel Pearson, Gennaro Chierchia, Jacopo Romoli, Jesse Snedeker

## Students Supervised

- Post-Doctoral Fellows Sven Dietz (2017), Aidas Aglinskas (2019—...)
- Graduate Students Mariela Jennings (2019—...)
- Thesis Committees Sophie Savelkoul (Master's, BC), Jesse Mu (undergraduate, BC), Lily Feinberg (undergraduate, BC), Juliani Vidal (undergraduate, BC), Tiwalayo Eisape (undergraduate, BC), Tony Chen (undergraduate, BC), William Pyle (undergraduate, BC), Rachel Duquette (undergraduate, BC), Katherine Karafotas (undergraduate, BC), Jocelyn Hui Yan Chan (undergraduate, BC).
- McNair Scholars Tiwa Eisape, Juliani Vidal

Post-Bac RAs	Jon Ravid, Lauren Skorb, Mariela Jennings, Miguel Mejia, Wesley Ricketts.
Coop Students	Anna Petti, Jianxu Wang, Rui Han, Eric Gu, Zeen Naeem, Hayley Greenough, Parker Robbins.
Undergraduate RAs	Alejandra Sanchez, Briana Ruiz, Joyasha Johnson, Wendy Uelk, Alice Lim, Everett Kim, Shaan Bijwadia, Claudio Reino, Katherine Karafotas, Madelein McCann, Sarah Al-Mayahi, Christian Ramirez, Eric Echeandia, David Kocen, Rachel Duquette, Seung Kim, William Pyle, Taylor Martinez, Kate Roberts, Rudmila Rashid, Jacob Bennett, Han Xiang Choong, Lily Feinberg, Zachary Barker, Juliani Vidal, Kayley Okst, Nicola Roux, Eric Seferian, Clinton Tak, Tiwalayo Eisape, Alexa Dudley, Casey Nicastrì, Tony Chen, Olivia Eastwood, Julie Hong, Shikun (Jason) Wang, Katherine Montas, Marissa Russell, Camille Phaneuf, William Merrill, Ernesto Gutierrez, Affy Wu, JungHo Lee, Cora Ives, Maria Jose Valdivia Cox, Varun Nambikrishnan, William Ades, Liana Llado, Jesse Mu, Arthi Vezhavendan, Mika Braginsky, Gabriel Hege, Jose Velarde, Michelle Namkoong, Lauren Bush, Kareem Itani, Stephanie McHugh, Samuel Thacker, Tanya Ivonchik, Brandon Benson, Christopher Delgado, Hayley Song, Kristen Jorgenson, Nchinda Nchinda, Allison Kozol, Briana Chen, Gabriel Frattallone, Sruthi Narayan, Lindsay Peterman, Daniel Tassone, Stephanie Liem, David Batuner, Lauren Grenzig, Yunqian Wang, Meera Kanabar, Claire Huang (with Manizeh Khan), Callie Sae Her, Sarah Goodloe, Allison Song, Rebecca Levitan, Chen Chen, Rebecca Podell, Miki Uruwashii, Maria Blokh, Mark Nasef Ragheb (with Manizeh Khan), Steve Faulkner, Yelyzaveta Ryabkina, Amanda Pogue, Meghan Sheridan.
High School RAs	Yena Kim, Mark Seong Hun Yu

## MEDIA COVERAGE (SELECTED)

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### Print

Science can explain why some songs are universal. *The Wall Street Journal*. Nov. 21, 2019.

Scientists confirm music is universal, and it is used in 'strikingly similar ways' across the globe. *Newsweek*. Nov. 21, 2019.

What makes a song? It's the same recipe in every culture. *Scientific American*. Nov. 21, 2019.

Why it's so hard to learn French in middle age. *The New York Times*, April 30, 2019.

To master a language, start learning it early. *The Economist*, May 10, 2018.

Why language fluency depends on starting to learn in childhood. *BBC Newshour*. May 1, 2018.

Why it's so hard to learn another language after childhood. *Time*, May 2, 2018.

At what age does our ability to learn a new language like a native speaker disappear? *Scientific American*, May 4, 2018.

How easily distracted are you? Here, distract yourself with this game to find out. *New York Magazine*, February 2, 2016.

Many psychology findings not as strong as claimed, study says. *New York Times*, August 27, 2015.

Trouble for science. *XKCD*, No. 1574.

Science isn't broken. *FiveThirtyEight*, August 19, 2015.

Older and wiser? Some brain functions improve as we age. *Boston Globe*, March 6, 2015.

Older really can mean wiser. *New York Times*, March 16, 2015.

How intelligence shifts with age. *Wall Street Journal*, June 29, 2015.

The smartest age. *The Atlantic*. March 17, 2015.

Serious games. *Economist*, June 19, 2014.

Knowing your place. Sydney Morning Herald, February 3, 2014.

How many memories fit in your brain? New York Times, June 22, 2007.

## TV/Radio

Innovation Hub (NPR), When It Comes to Learning Language, Age Isn't Just A Number, Jan. 4, 2019

Living Lab (NPR), The language learning window, May 14, 2018.

BBC World Service, Why language fluency depends on starting to learn in childhood, May 1, 2018.

Fox 25 News, Research shows first born children garner most success, November 19, 2013.

## SERVICE

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Editorial Boards	Language Development Research
Grant Reviewing (Panel)	National Defense Science and Engineering Graduate Fellowship (2013-2014), National Science Foundation Graduate Research Fellowship Program (2015)
Grant Reviewing ( <i>ad hoc</i> )	German-Israeli Foundation for Scientific Research and Development (1), National Science Foundation Linguistics (1)
Journal Reviewing ( <i>ad hoc</i> )	see <a href="#">Publons</a>
Conference Reviewing	Architectures and Mechanisms in Language Processing (2014-2015), Boston University Conference on Language Development (2015), Cognitive Science Society (2011-2013, 2015-2017), CUNY Human Sentence Processing (2014, 2018), Discourse Expectations: Theoretical, Experimental, and Computational Perspectives (2013, 2017), Society for Philosophy and Psychology (2016)
Institutional	Technological and Methodological Training Committee, Psych Dep., BC (2016— current; chair 2016-2018) Diversity and Inclusion Committee, Psych Dep., BC (2018—current) Faculty Search Committee, Psych Dep., BC (2018), Future Directions Committee, Psych Dep., BC (2016—2018), Study Pool Committee, Harvard University (2008—2009)