

Joshua K. HARTSHORNE

learning mechanisms; critical periods; co-development of language & thought
AI for science; massive online experiments; computational models

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CITATIONS: 15,709
H-INDEX: 27
I10-INDEX: 38

APPOINTMENTS

- 2024-*current* Research Associate Professor of Communication Sciences & Disorders
MGH Institute of Health Professions
- 2016-2024 Assistant Professor of Psychology
Boston College
- FALL 2022 Visiting Scholar, Institute of Linguistics
Academia Sinica, Taiwan
- 2015-2015 Post-Doctoral Associate, Brain & Cognitive Sciences
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

- 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

AWARDS

- 2023 NSF CAREER
- 2012 Ruth L. Kirschstein National Research Service Award (NRSA)
- 2011 Jean Berko Gleason Award, BUCLD 2011, Best Student Presentation
- 2008 National Science Foundation Graduate Fellowship (NSF GRFP)
- 2008 National Defense Science and Engineering Graduate Fellowship (NDSEG)

Research

- 2025-2026 “VISION-LANGUAGE INTEGRATION”
Office of Naval Research
PI: Joshua Tenenbaum
Total Hartshorne Costs: \$40,000
- 2023-2026 “BOOTSTRAPPING A CORPUS OF ENDANGERED LANGUAGES”
National Science Foundation
PI: Joshua Hartshorne, co-PIs: Emily Prud’hommeaux, Li-May Sung
Total Hartshorne Costs: \$335,834
- 2023-2028 “CAREER: HOW MANY INTUITIVE PHYSICS SYSTEMS ARE THERE, AND WHAT DO THEY MEAN FOR PHYSICS EDUCATION?”
National Science Foundation
PI: Joshua Hartshorne. Total Costs: \$1,562,735
- 2020-2024 “COLLABORATIVE RESEARCH: NSF2026: EAGER: A PLAYGROUND AND PROPOSAL FOR GROWING AN AGI”
National Science Foundation
co-PIs: Joshua Hartshorne, James Pustejovsky. Total Hartshorne Costs: \$198,663
- 2019-2024 “RR: COMPCOG: A CHALLENGE SUITE FOR STATISTICAL WORD SEGMENTATION”
National Science Foundation
PI: Joshua Hartshorne. Total Costs: \$706,549
- 2020-2022 “RAPID: COLLABORATIVE RESEARCH: A “CITIZEN SCIENCE” APPROACH TO COVID-19 SOCIAL DISTANCING EFFECTS ON CHILDREN’S LANGUAGE DEVELOPMENT”
National Science Foundation
co-PIs: Joshua Hartshorne, Yi Ting Huang. Total Hartshorne Costs: \$151,942
- 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: \$299,258
- 2016-2023 “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: \$442,473
(*Numbers include 2 supplements*)
- 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

Training

- 2021-2024 “REU SITE: DEVELOPING SOCIAL MINDS”
National Science Foundation
Senior Personnel (PI: Katherine McAuliffe). Total Hartshorne Costs: \$330,331
This program is run jointly by 4 labs, but NSF regulations allow only 1 PI & 1 co-PI
- 2019-2019 “APA SUMMER UNDERGRADUATE PSYCHOLOGY RESEARCH EXPERIENCE”
PI: Joshua Hartshorne. Co-PIs: Sara Cordes & Katherine McAuliffe. Total Costs: \$25,836
- 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

Other

- 2024-2026 “POSE: PHASE II: AN OPEN-SOURCE ECOSYSTEM FOR BEHAVIORAL EXPERIMENTS”
National Science Foundation
PI: Joshua de Leeuw. Total Hartshorne Costs: \$266,035
- 2023-2025 “HNDS-I: PUSHKIN: ENABLING LARGE-SCALE CITIZEN SCIENCE DATA COLLECTION FOR THE SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES”
National Science Foundation
PI: Joshua Hartshorne. Total Hartshorne Costs: \$499,594
- 2022-2024 “POSE: PHASE I: AN OPEN-SOURCE ECOSYSTEM FOR MASSIVE ONLINE EXPERIMENTS AND CITIZEN SCIENCE”
National Science Foundation
PI: Joshua Hartshorne. Total Hartshorne Costs: \$296,162
- 2020-2021 “COLLABORATIVE RESEARCH: A VIRTUAL WORKSHOP ON CONDUCTING LANGUAGE RESEARCH ONLINE: ENHANCING THE RESILIENCE OF THE LANGUAGE SCIENCES IN A TIME OF SOCIAL DISTANCING”
National Science Foundation
co-PIs: Joshua Hartshorne, Joshua de Leeuw. Total BC Costs: \$33,880
- 2016 “WORKSHOP ON EVENTS IN LANGUAGE AND COGNITION”
National Science Foundation
PI: Joshua Hartshorne. Total Costs: \$6,491
- 2007 North American Society of Adlerian Psychology Conference Scholarship

PUBLICATIONS

* denotes student/trainee; ◇ indicates equal effort.

prep & submitted ◇**Hartshorne, Joshua K.** & ◇Jesse Snedeker. (*in prep*). Conceptual Nativism: The origins of language are in the structure of thought.

Hartshorne, Joshua K. (*submitted*). Just give them healthcare: The COVID-19 pandemic as a natural experiment in parenting practices.

in press **Hartshorne, Joshua K.** and *Mengguo Jing (*in press*). Evaluating the Costs of School and Daycare Closure on Family Wellbeing and Child Development. *The COVID Information Commons - Research Insights from the Coronavirus*

Hartshorne, Joshua K. and Peng, Hwei-Ci. (*in press*). What is the best way to teach the endangered languages of Taiwan? A call for quantitative research on language revitalization. *Foreign Language Studies*.

Sarisoy, Duygu, Ebru Evcen, & **Joshua K. Hartshorne** (*in press*). Referential Form, Word Order, and Implicit Causality in Turkish Emotion Verbs. *Proceedings of the Cognitive Science Society*

Liu, Zoey, Haiyin Yang, *Wenshuo Qin, & **Joshua K. Hartshorne** (*in press*). Studying Cross-linguistic Structural Transfer in Second Language Learning. *Proceedings of the Cognitive Science Society*

*Li, Wei, *Samantha Gutierrez, & **Joshua K. Hartshorne** (*in press*). How many factors underlie cognitive mechanics? *Proceedings of the Cognitive Science Society*

2025 **Hartshorne, Joshua K.** and *Mengguo Jing (2025). An integrated review of cognitive mechanics across disciplines. *Nature Reviews Psychology*.

- *Scheppat, Hunter, **Joshua K. Hartshorne**, Dyan Leddy, Éric Le Ferrand, & Emily Prud'hommeaux. (2025). Integrating diverse corpora for training endangered language machine translation systems. *Proceedings of the Use of Computational Methods in the Study of Endangered Languages (ComputEL)*.
- 2024 **Hartshorne, Joshua K.** (2024). No evidence that age affects different bilingual learner groups differently: Rebuttal to van der Slik, Schepens, Bongaerts, and van Hout (2021). *Language Development Research*, 4, doi.org/10.34842/y8sz-4q83.
- Allen, K., Brändle, F., Botvinick, M., Fan, J. E., Gershman, S. J., Gopnik, A., Griffiths, T. L., **Hartshorne, J. K.**, Hauser, T. U., Ho, M. K., de Leeuw, J. R., Ma, W. J., Murayama, K., Rutledge, R. B., Sherson, J., Simsek, Ö., Spiers, H., Summerfield, C., Thalmann, M., Vélez, N., Watrous, A. J., Tenenbaum, J. B., & Schulz, E. (2024). Using games to understand the mind. *Nature Human Behavior*, 8, 1035–1043, 10.1038/s41562-024-01878-9.
- *Li, Wei, Laura T. Germine, Samuel Mehr, Mahesh Srinivasan, & **Joshua K. Hartshorne**. (2024). Developmental psychologists should adopt citizen science to improve generalization and reproducibility. *Infant and Child Development*, 33(1), e2348. doi.org/10.1002/icd.2348
- *Li, Wei & **Joshua K. Hartshorne**. (2024). Commentary: Don't let Perfect be the enemy of Better: In defense of unparameterized mega-studies. *Brain and Behavioral Sciences*, 47. doi.org/10.1017/S0140525X23002121
- Oved, Iris, Nikhil Krishnaswamy, James Pustejovsky, & **Joshua K. Hartshorne**. Computational thought experiments for a more rigorous philosophy and science of the mind. (2024) *Annual Meeting of the Cognitive Science Society*, Rotterdam, Netherlands.
- 2023 Erb, Christopher D., Laura T. Germine, and **Joshua K. Hartshorne**. (2023). Cognitive control across the lifespan: Congruency effects reveal divergent developmental trajectories. *Journal of Experimental Psychology: General*, 152(11), 3285-3291. <https://doi.org/10.1037/xge0001429>
- Hartshorne, Joshua K.**, *Yujing Huang, & *Lauren Skorb. (2023). Some puzzling findings regarding the acquisition of verbs. *Language Development Research*, 3, 1, doi.org/10.34842/2023.535
- Yun, Heesu, Wei Li, Zonggui Li, & **Joshua K. Hartshorne** (2023). Will children learn English faster if their native language is similar to English? *Proceedings of the Cognitive Science Society*.
- Oved, Iris, Nikhil Krishnaswamy, James Pustejovsky, & **Joshua K. Hartshorne**. (2023). Commentary: Neither Neural Networks nor the Language of Thought alone Make a Complete Game. *Brain and Behavioral Sciences*, 46, e285.
- 2022 *Li, Wei & **Joshua K. Hartshorne**. (2022). Even simultaneous bilinguals do not reach monolingual levels of proficiency in syntax. *Languages*, 7(4), 293. <https://doi.org/10.3390/languages7040293>.
- *Aglinskas, Aidas, **Joshua K. Hartshorne**, & Stefano Anzellotti. (2022). Contrastive AI reveals the structure of individual variation in Autism Spectrum Disorder. *Science*, 376(6597), 1070-1074.
- *Chan, Jocelyn & **Joshua K. Hartshorne**. (2022). Is it easier for children to learn English if their native language is similar to English? *Proceedings of the Boston University Conference on Language Development*.
- *Liu, Zoey, *Tiwa Eisape, Emily Prud'hommeaux, and **Joshua K. Hartshorne**. (2022) Data-driven crosslinguistic syntactic transfer in second language learning. *Proceedings of the Annual Meeting of the Cognitive Science Society*.
- Erb, Christopher D., Laura T. Germine, and **Joshua K. Hartshorne**. (2022). Revisiting the inverted-U: Congruency tasks reveal divergent developmental trajectories. *Proceedings of the Annual Meeting of the Cognitive Science Society*.
- Hartshorne, Joshua K.** (2022). When do children lose the language instinct? A critical review of the critical periods literature. *Annual Review of Linguistics*, 8, 143-51.
- *Li, Wei, Laura T. Germine, Samuel Mehr, Mahesh Srinivasan, & **Joshua K. Hartshorne**. (2022). Developmental psychologists should adopt citizen science to improve generalization and reproducibility. *Infant and Child Development*. doi.org/10.1002/icd.2348
- Hartshorne, Joshua K.** Politics is not a spectator sport: On the role of psycholinguists in a global crisis. Editor's introduction to special issue. (2022). *East European Journal of Psycholinguistics*, 9(2).

- *Ricketts, Wesley and **Joshua K. Hartshorne**. (2022). Evaluating unsupervised word segmentation in adults: a meta-analysis. *Proceedings of the Annual Meeting of the Cognitive Science Society*.
- 2021 *Chen, Tianhu & **Joshua K. Hartshorne**. (2021). More evidence from over 1.1 million subjects that the critical period for syntax closes in late adolescence. *Cognition*, 214, 104706.
- Hartshorne, Joshua K.**, Yi Ting Huang, Pablo Martín Lucio Paredes Aulestia, Kathleen Oppenheimer, *Parker T. Robbins, & María Daniela Velasco Molina. (2021). Screen time as an index of family distress. *Current Research in the Behavioral Sciences*, 2, 100023.
- Almaatouq, Abdullah, Joshua A Becker, Michael S Bernstein, Robert Botto, Eric Bradlow, Ekaterina Damer, Angela L Duckworth, Tom Griffiths, **Joshua K Hartshorne**, David Lazer, Edith Law, Min Liu, J. N Matias, David G Rand, Matthew J Salganik, Emma Satlof-Bedrick, Maurice Schweitzer, Hirokazu Shirado, Jordan W Suchow, Siddharth Suri, Milena Tsvetkova, Duncan J Watts, Mark E Whiting, and Ming Yin. (2021). Scaling up experimental social, behavioral, and economic science. *OSF Preprint*. <https://doi.org/10.17605/OSF.IO/KNVJS>
- 2020 Niemi, Laura, **Joshua Hartshorne**, Tobias Gerstenberg, Matthew Stanley, & Liane Young. (2020). Moral values reveal the causality implicit in verb meaning. *Cognitive Science*, 44(6), e12838.
- Hartshorne, Joshua K.** (2020). How massive online studies (MOEs) can illuminate critical and sensitive periods in development. *Current Opinion in Behavioral Sciences*, 36, 135-143.
- Hartshorne, Joshua K.** (2020). The many blessings of abstraction: A commentary on Ambridge (2020). *First Language*, 40, 581-584.
- 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. (2020). Many Labs 5: Testing pre-data collection peer review as an intervention to increase replicability. *Advances in Methods and Practices in Psychological Science*, September, 3, 309-331.
- *Skorb, L., Aczel, B., Bakos, B., *Feinberg, L., Hałasa, E., Kauff, M., Kovacs, M., Krasuska, K., Kuchno, K., Manfredi, D., Montealegre, A., Pękala, E., Pieńkosz, D., *Ravid, J., Rentzsch, K., Szaszi, B., Schulz-Hardt, S., Sioma, B., Szecsi, P., Szuts, A., Szöke, O., Christ, O., Fedor, A., Jiménez-Leal, W., Muda, R., Nave, G., Salamon, J., Schultze, T., & **Hartshorne, J. K.** (2020). 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*, 3, 418-428.
- 2019 **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.
- 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.**, 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*, 51(4), 1782—1803.
- 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, & *Juliani 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>
- 2018 **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.

- 2017 *Mu, Jesse, **Joshua K. Hartshorne**, & Timothy O'Donnell. (2017). Evaluating hierarchies of verb argument structure with hierarchical clustering. *Proceedings of Empirical Methods in Natural Language Processing*, Copenhagen, Denmark.
- 2016 **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.
- 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.** (2016). Comment: Acquiring metaphors. *Emotion Review*, 8(3), 280-282.
- Anderson, C. J., Bahník, 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., Munafò, M. R., Neijenhuijs, K. I., Nilsson, 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.
- 2015 **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.**, & 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.
- Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, 349(6251), 943.
- 2014 **Hartshorne, Joshua K.** (2014). What is Implicit Causality? *Language, Cognition, and Neuroscience*, 29(7), 804-824.
- 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)*.
- 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.
- 2013 **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.
- 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*.

- 2012 & earlier **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.
- 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.**, 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.
- 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.
- 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 Uruwashi & Jesse Snedeker (2010). Linking meaning to language: Linguistic universals and variation. In *Proceedings of the Thirty-Second Annual Conference of the Cognitive Science Society*.

Textbook

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

PRESENTATIONS

Invited talks

- planned Computational Cognitive Science Seminar
2025 Emergentism, Ecosystem, & Expertise Talk Series
Language & Cognition Seminar, Harvard University
Physical Reasoning Group, MIT
Guest speaker for "Plasticity, Variability and Age in Second Language Acquisition", UT-Austin
- 2024 Highlights in the Language Sciences Conference, Nijmegen
American Psychological Society
Cognitive Development Society
Workshop on AI and Indigenous Languages, Taipei, Taiwan
Institute of Linguistics, Academia Sinica, Taipei, Taiwan
- 2023 Psychology Colloquium, University of Southern California
Laboratory for Developmental Studies Colloquium, Harvard University
Computational Linguistics, Brandeis University
Developmental Psychology Brown Bag, UCSD
Language Development Department, Max Planck Institute for Psycholinguistics
War in Words, PROLang, University College London
Rutgers Center for Cognitive Science Colloquium, Rutgers University
Cognitive Colloquium, University of Delaware
Institute of Linguistics, Academia Sinica, Taipei, Taiwan
Department of English, National Taiwan Normal University, Taipei, Taiwan

- Language & Cognition Lab, University of Pennsylvania
 Language Group, Princeton University
 Language & Cognition Lab, Stanford University
 Bilingualism and Mind Brainlab, UC-Irvine
 Language & Mind Lab, Northeastern University
 Cognitive & Neural Computation Lab, Yale University
 Computational Cognitive Science Lab, Massachusetts Institute of Technology
- 2022 Reading/Tromso joint bilingualism meeting
 Language & Brain, University of Florida
 Brain & Language Lab, Georgetown University
 Research Lightening Talks, COVID Information Commons
 Institute of Linguistics, National Taiwan University (1/2)
 Institute of Linguistics, National Taiwan University (2/2)
 Institute of Linguistics, Academia Sinica, Taiwan
 Institute of Linguistics, National Tsing Hua University, Taiwan
 Taiwan Institute of Language Research & Teaching, National Tsing Hua University, Taiwan
 Institute of Linguistics, National Chengchi University, Taiwan
- 2021 Simons Center for the Social Brain Colloquium, MIT
 Bilingualism and Mind Brainlab, UC-Irvine
 Invited Symposium, Eastern Psychological Association
 Guest speaker for “Developmental Psychology in Practice”, UNC-Greensboro
 Guest speaker for “Plasticity, Variability and Age in Second Language Acquisition”, UT-Austin
 Language and Cognition Seminar, Harvard University
 UCLA Developmental Psychology Forum, UCLA
- 2020 Guest lecture, Evolution and Origins of Cognition course, Harvard University
 Current Works, Department of Psychology, Yale University
 Experimental Psychology Society
- 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 speaker 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 Discourse Expectations: Theoretical, Experimental, and Computational Perspectives (DETEC)
 MIT Critical Data Course, MIT
- 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
 The Kavli science journalism workshop.
- 2014 Laboratory for Brain & Language, Georgetown University
- 2013 Concepts Seminar, Harvard University
 National Chiao Tung University, Taiwan
 National Chiao Tung University, Taiwan
 National Taiwan University, Taiwan
 Linguistics Lunch, Brown University
 Language & Cognition Seminar, Harvard University
- 2012 Psychology Department, 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

Juried Podium Talks & Posters (*For presentations based on proceedings papers, see “Papers”*)

- 2025 *Tall, Omar, Éric Le Ferrand, **Hartshorne, Joshua K.**, & Emily Prud’hommeaux. (2025). Reclaiming archival texts with user-friendly OCR, *Poster presented at the International Conference on Language Documentation & Conservation (ICLDC9)*.
- *Li, W., Zhao, A., de Wynter, A., Chen, S.-Q., Karimov, P., & **Hartshorne, J. K.** (2025). Does using LLMs in daily life help or hinder learning a second language? *Poster presented at the Annual Meeting of the Cognitive Science Society, San Francisco, CA, USA.*
- 2024 **Hartshorne, Joshua K.** (2024). Natural constraints on natural language: What computational constraints tell us about alien languages, *Xenolinguistics: Next Steps (Xeno2025)*.
- Joshua K. Hartshorne**, Emily Prud’hommeaux, Li-May Sung, *Eric Le Ferrand. (2024). Rapidly building the missing infrastructure for language science: A case study with Formosan languages. *Poster presented at Crosslinguistic Perspectives on Processing and Learning (X-PPL)*
- *Varvella Vicente, Thomas, *Ethan Amato, & **Joshua K. Hartshorne** (2024). Do noun classes have a semantic basis? A multilingual analysis with machine learning. *Poster presented at Architectures and Mechanisms in Language Processing (AMLaP)*.
- Hartshorne, Joshua K.**, *Eric Le Ferrand, Li-May Sung, & Emily Prud’hommeaux. (2024). FormosanBank and why you should use it. *Poster presented at Architectures and Mechanisms in Language Processing (AMLaP)*.
- *Li, Wei, *Wenshuo Qin, Zoey Liu, & **Joshua K. Hartshorne**. (2024). What can machine learning tell us about second language acquisition? *Poster presented at Architectures and Mechanisms in Language Processing (AMLaP)*.
- *Li, Tianyi, *Mengguo Jing, *Zakir Makhani, Iris Oved, Nikhil Krishnaswamy, James Pustejovsky & **Joshua K. Hartshorne** (2024). Modeling the development of intuitive mechanics. *Poster presented at the Annual Meeting of the Cognitive Science Society, Rotterdam, Netherlands.*
- *Li, Wei & **Joshua K. Hartshorne** (2024). Latent Structure of Intuitive Physics. *Poster presented at the Annual Meeting of the Cognitive Science Society, Rotterdam, Netherlands.*
- *Li, Wei, *Yun, Heesu, & **Joshua K. Hartshorne** (2024). Why do older children learn second languages faster than younger children? Poster presented at the Cognitive Development Society, Pasadena.
- Joshua K. Hartshorne** (2024). Robust heterogeneity in cognitive development: A large-scale investigation. Poster presented at the Cognitive Development Society, Pasadena.
- 2023 Liu, Zoey, Emily Prud’hommeaux, & **Joshua K. Hartshorne** (2023). Uncovering cross-linguistic morphosyntactic transfer in second language learning. Boston University Conference on Language Development, Boston.
- *Yun, Heesu, *Wei Li, & **Joshua K. Hartshorne**. (2023). Why do older children learn second languages faster than younger children? Poster presented at the Boston University Conference on Language Development, Boston.
- *Li, Wei, *Aidas Aglinskas, & **Joshua K. Hartshorne**. (2023). Contrastive neural networks reveal the structure of neuroanatomical variation within bilingualism. Poster presented at the Boston University Conference on Language Development, Boston.
- Liu, Zoey, Emily Prud’hommeaux, & **Joshua K. Hartshorne** (2023). Uncovering cross-linguistic morphosyntactic transfer in second language learning. Many Paths to Language, Nijmegen, Netherlands.
- *Yun, Heesu, *Wei Li, & **Joshua K. Hartshorne**. (2023). Why do older children learn second languages faster than younger children? Many Paths to Language, Nijmegen, Netherlands.
- *Li, Wei, *Aidas Aglinskas, & **Joshua K. Hartshorne**. (2023). Contrastive neural networks reveal the structure of neuroanatomical variation within bilingualism. Poster presented at Many Paths to Language, Nijmegen, Netherlands.
- *Yun, Heesu, *Wei Li, & **Joshua K. Hartshorne**. (2023). Cross-linguistic transfer between native language and English as a second language. Poster presented at Architectures and Mechanisms in Language Processing, San Sebastian, Spain.

- *Li, Wei, *Aidas Aglinskas, & **Joshua K. Hartshorne**. (2023). Contrastive neural network reveals the structure of neuroanatomical variation within bilingualism. Poster presented at Architectures and Mechanisms in Language Processing, San Sebastian, Spain.
- Oved, Iris, Carlos Montemayor, Nikhil Krishnaswamy, James Pustejovsky, & **Joshua K. Hartshorne**. (2023). The view from outside the Matrix: Doing philosophy of mind and cognitive science with virtual worlds. The Science of Consciousness Conference.
- Krishnaswamy, Nikhil, Iris Oved, **Joshua K. Hartshorne**, & James Pustejovsky. (2023). Meaning to mean: A precondition for sentience and understanding in large language models. The Science of Consciousness Conference.
- *Li, Wei, *Aidas Aglinskas, & **Joshua K. Hartshorne**. (2023). Contrastive neural network reveals the structure of neuroanatomical variation within bilingualism. *Poster presented at the Annual Meeting of the Cognitive Science Society*, Sydney, Australia.
- 2022 James, Ariel, Rachel A. Ryskin, **Joshua K. Hartshorne**, Haylee Backs, Nandeeta Bala, Laila Barcenas-Meade, Samata Bhattarai, Tessa Charles, Gerasimos Copoulos, Claire Coss, Alexander Eisert, Elena Furuhashi, Keara Ginel, Anna Guttman-McCabe, Chaz Harrison, Laura Hoba, William Hwang, Claire Iannetta, Kristen Koenig, Chauncey Lo, Victoria Palone, Gina Pepitone, Margaret Ritzau, Yi Hua Sung, Orcun Tasdemir, Lauren Thompson, Joshua R. de Leeuw. (2022). What paradigms can webcam eye-tracking be used for? Attempted replications of 5 “classic” cognitive science experiments. Cognitive Development Society, Madison, WI.
- Özge, Duygu, Ebru Evcen and **Joshua K. Hartshorne** (2022). Implicit causality biases in Turkish psychological state events. 3rd International Conference ‘Prominence in Language’, Cologne, Germany.
- Hartshorne, Joshua K.** & *Wesley Ricketts. (2022). Evaluating unsupervised word segmentation in adults: A meta-analysis. Poster presented at Interdisciplinary advances in statistical learning, San Sebastian, Spain, June 1-3.
- Liu, Zoey, *Tiwa Eisape, Emily Prud’hommeaux, and **Joshua K. Hartshorne**. (2022). Uncovering crosslinguistic morphosyntactic transfer in second language learning. Poster presented at Architectures & Mechanisms in Language Processing (AMLaP), York, UK.
- Levari, Tanya, Stefano Anzellotti, *Aidas Aglinskas, Albert Kim, Emily Prud’hommeaux, & **Joshua K. Hartshorne**. (2022). Developmental continuity in neural semantic representations, Poster presented at Architectures & Mechanisms in Language Processing (AMLaP), York, UK.
- Kim, Albert, Tanya Levari, Stefano Anzellotti, & **Joshua K. Hartshorne**. (2022). Developmental continuity in neural semantic representations, Poster presented at Society for the Neurobiology of Language (SNL), Philadelphia, PA.
- 2021 *Li, Wei & **Joshua K. Hartshorne**. (2021). Even simultaneous bilinguals do not quite reach monolingual levels of proficiency in syntax. Asia-Pacific Babylab Constellation (ABC) Conference, Hong Kong.
- *Hua, Yining & **Joshua K. Hartshorne**. (2021). Quantifying the bilingual (dis)advantage in vocabulary acquisition. Asia-Pacific Babylab Constellation (ABC) Conference, Hong Kong.
- *Huang, Yujing & **Hartshorne, J. K.** (2021). Limitations of linking rules: Why are some verbs learned earlier than others? Asia-Pacific Babylab Constellation (ABC) Conference, Hong Kong.
- Hartshorne, J. K.** & J. R. de Leeuw. (2021). Experiments subjects want. Workshop on Using Games to Understand Intelligence. CogSci 2021.
- *Chen, Tianhu, Timothy J. O’Donnell, & **Joshua Hartshorne**. (2021). Verb-argument structure and semantics in contextual word embeddings. DUCOG: Annual meeting of the Central European Cognitive Science Association, Dubrovnik.
- *Li, Wei & **Joshua K. Hartshorne**. (2021). Even simultaneous bilinguals do not quite reach monolingual levels of proficiency in syntax. Poster presented at Boston University Conference on Language Development.
- *Aglinskas, Aidas, **Joshua K. Hartshorne**, & Stefano Anzellotti. (2021). Contrastive AI reveals the structure of individual variation in Autism Spectrum Disorder. Poster presented at Society for Neuroscience, Chicago, IL, Nov. 13-16.

- 2020 *Robbins, P. T., Huang, Y. T., Lucio Paredes Aulestia, P. M., Oppenheimer, K., Velasco Molina, M. D., & **Hartshorne, J. K.** (2020, October 29–30). Metrics and causes of family distress during the COVID-19 pandemic [Conference presentation]. University of Southern California Center for Economic and Social Research COVID-19 Work in Progress Conference, Los Angeles, CA.
- *Eisape, Tiwalayo, *William Merrill, *Sven Dietz, & **Joshua K. Hartshorne.** (2020). Computationally investigating L1 influence on L2 production. Poster presented at CUNY Conference on Human Sentence Processing, Amherst, MA.
- Özge, Duygu, Ebru Evcen and **Joshua K. Hartshorne** (2020). Referential form, word order, and emotional valence in Turkish pronoun resolution. Poster presented at CUNY Conference on Human Sentence Processing, Amherst, MA.
- 2019 **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.
- *Chen, Tianhu and **Joshua K. Hartshorne** (2019). More evidence that the critical period for syntax ends at 17. Poster presented at Boston University Conference on Language Development, Boston, MA.
- Hartshorne, Joshua K.** (2019). Birth-order effects on vocabulary persist throughout the lifespan. Poster presented at Boston University Conference on Language Development, Boston, MA.
- Hartshorne, Joshua K.** (2019). Birth-order effects on vocabulary persist throughout the lifespan. Poster presented at Cognitive Development Society, Louisville, KY.
- Hartshorne, Joshua K.,** *Mariela Jennings, Tobias Gerstenberg, & Joshua B. Tenenbaum. (2019). When circumstances change, update your pronouns. Poster presented at Cognitive Science Society, Montreal, CA.
- Hartshorne, Joshua K.,** *Mariela Jennings, Tobias Gerstenberg, & Joshua B. Tenenbaum. (2019). When circumstances change, update your pronouns. Poster presented at CUNY Conference on Human Sentence Processing, Boulder, CO.
- *Jennings, Mariela, Martha Palmer, & **Joshua K. Hartshorne.** (2019). How much does verb semantics determine verb syntax? Poster presented at CUNY Conference on Human Sentence Processing, Boulder, CO.
- 2018 *Jennings, Mariela, Martha Palmer, & **Joshua K. Hartshorne.** (2018). How much does verb semantics determine verb syntax? Poster presented at Architectures and Mechanisms in Language Processing, Berlin, Germany.
- *Jennings, Mariela & **Joshua K. Hartshorne.** (2018). Pushkin: An open-source engine for social science at scale. Poster presented at 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. Poster presented at 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. Poster presented at the Learning Language in Humans and Machines 2018 Conference, Paris, France, July 5-6.
- *Skorb, Lauren and **Joshua K. Hartshorne.** (2018). The Meta-Science of Adults Statistical Word Segmentation: Part 1. Poster presented at Annual Meeting of the CUNY Conference on Human Sentence Processing, Davis, CA
- 2017 Özge, Duygu, **Joshua K. Hartshorne,** & Jesse Snedeker. (2017). Salience of experiencer versus stimulus in Turkish psych verbs: A pronoun resolution study. Poster presented at 30th Annual Meeting of the CUNY Conference on Human Sentence Processing, Cambridge, MA.

- 2016 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.
- Hartshorne, Joshua K.**, Joshua Tenenbaum, & Steven Pinker. (2016). A critical period for acquisition of second language syntax: Evidence from 669,498 English speakers. Poster presented at 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. Poster presented at Annual Meeting of the Cognitive Science Society.
- Hartshorne, Joshua K.**, & Palmer, Martha. (2016). VerbCorner: Testing theories of argument structure through crowdsourcing. Poster presented at Workshop on Events in Language, Gainesville, FL.
- 2015 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.
- 2014 **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.**, Gerstenberg, T., O'Donnell, T. J., & Tenenbaum, J. B. (2014). Language understanding & common sense reasoning. Poster presented at Psychonomic Society, Long Beach, CA.
- Shetreet E., **Hartshorne Joshua K.**, & Kuperberg G. (2014). Fearing and loving: verb category matters in processing implicit causality. Poster presented at 6th Society for Neurobiology of Language Conference, Amsterdam, The Netherlands.
- 2013 **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.** & Steven Pinker. (2013). Evidence for common mechanisms in pragmatics and social cognition. Poster presented at Architectures and Mechanisms in Language Processing, Marseille, France.

- Hartshorne, Joshua K.** (2013). Not all pronouns are resolved rapidly. Poster presented at Discourse Expectations: Theoretical, Experimental & Computational Perspectives, Tübingen, Germany.
- 2012 **Hartshorne, Joshua K.**, Timothy O'Donnell, Yasutada Sudo, *Miki Uruwashiki & 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.**, Jesse Snedeker & Albert Kim. (2012). The neural computation of scalar implicature. Poster presented at Architectures and Mechanisms in Language Processing (AMLaP), Riva del Garda, Italy.
- 2011 **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.**, Rebecca Nappa & Jesse Snedeker. (2011). Steady — not u-shaped — development in ambiguous pronoun processing. 2Poster presented at 4th 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. Poster presented at 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. Poster presented at BUCLD 36, Boston, MA
- 2010 & earlier **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.** & Jesse Snedeker. (2010). Pronoun resolution, cue frequency, and cue reliability. Poster presented at 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.
- Khan, Manizeh, **Joshua Hartshorne** & Jesse Snedeker. (2009). Can listeners modulate rapid pragmatic inferences based on knowledge about the speaker? Poster presented at Architectures and Mechanisms in Language Processing (AMLaP) conference, Barcelona, Spain.
- Hartshorne, Joshua**, Manizeh Khan and Jesse Snedeker. (2009). Do listeners model speakers in on-line sentence comprehension? Poster presented at 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 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.

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.

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) Word superiority in visual search for multiple possible targets. 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.

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.

WORKSHOPS ORGANIZED

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|-------------------|---|
| July, 26, 2023 | Towards broader adoption of massive online experiments (CogSci 20234)
Speakers: Joshua K. Hartshorne, Bill Thompson, Nigini Oliveira, Raja Marjeh, Nori Jacoby, Courtney B. Hilton |
| June, 26-28, 2023 | Advanced Pushkin Hackathon (Boston College) |
| Nov. 18, 2021 | Virtual Workshop on Virtual Eyetracking (Virtual)
Speakers: Josh Hartshorne, Josh de Leeuw, Rachel Ryskin, Ariel James, Ian Krajbich, Anthony Yacovone, Mieke Slim, Shari Liu, Maggie Kandel |
| Summer, 2020 | Moving Research Online (Virtual)
Co-Organizer: Joshua R. de Leeuw
Speakers: Joshua K. Hartshorne, Joshua R. de Leeuw, Rebecca Gilbert |
| July 29, 2020 | Workshop on Scaling Cognitive Science (CogSci 2020) |

- Co-Organizers: Thomas L. Griffiths, Jordan Suchow
Speakers: Thomas L. Griffiths, Joshua K. Hartshorne, Mayank Agrawal, Andrea Simenstead, Jordan Suchow, Todd Gureckis, Lauren Rutter, James Houghton
- Dec. 16-18, 2019 Scaling Cognitive Science (Princeton University)
Co-Organizers: Thomas L. 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 & Eva 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

TEACHING

Students Supervised

- Post-Doctoral Fellows Jesse Storbeck (2023–2025), Aidas Aglinskas (2019—2022), Mengguo Jing (2021—2022), Yuting Huang (2020—2021), Sven Dietz (2017),
- Graduate Students Tianyi Li (2023–*current*), Wei Li (2020—*current*), Amir Soltani (2022—2023), Mariela Jennings (2019—2020)
- Lab Managers/Techs Jon Ravid, Lauren Skorb, Mariela Jennings, Miguel Mejia, Wesley Ricketts, Parker Robbins, Wael Mohammed, Samantha Gutierrez.
- McNair Scholars Tiwalayo Eisape, Juliani Vidal
- Gabelli Scholars Duy-Tan Dao
- Thesis Committees Hamed Kerdabadi (Ph.D., BC), Sophie Savelkouls (Master's, BC), Alicia Bergeron (undergraduate, BC), Juliana Pijar (undergraduate, BC), Jia Yan (undergraduate, BC).
- Coop Students Zakir Makhani, Myles Bandel, Jeremiah Isaac, Megan Rest, Alex Ichimura, Anna Petti, Jianxu Wang, Rui Han, Eric Gu, Zeen Naem, Hayley Greenough, Parker Robbins.
- Master's RAs Alejandra Tejo, Juliani Vidal, Mington Li, Justin Feng, Ning Hua, Hao Zeng, Allie Janineh

Undergraduate Theses	Jesse Mu (undergraduate, BC), Lily Feinberg (undergraduate, BC), Juliani Vidal (undergraduate, BC), Tiwalayo Eisape (undergraduate, BC), Tony Chen (undergraduate, BC), Wenshuo Qin (undergraduate, BC), William Pyle (undergraduate, BC), Jocelyn Hui Yan Chan (undergraduate, BC), Ethan Amato (undergraduate, BC), Heesu Yun (undergraduate, BC), Thomas Varvella Vicente (undergraduate, BC).
Undergraduate RAs	Abigail Choi, Adam Yang, Alejandra Sanchez, Ning Duan, Affy Wu, Alexa Dudley, Alexa Rivas, Alice Lim, Allison Song, Allison Kozol, Amanda Pogue, Amelia Fineberg, Andrew Chough, Annabel Lee, Annie Liu, Anushka Fernandes, Arthi Vezhavendan, Asher Kang, Audrey Veator, Avery Gu, Brandon Benson, Briana Chen, Briana Ruiz, Caitlin Garcia, Camila Cruz, Camille Phaneuf, Callie Sae Her, Casey Nicastrri, Chris Mitchell, Christian Ramirez, Claire Huang (with Manizeh Khan), Claudia Reino, Clinton Tak, Chen Chen, Christopher Delgado, Cora Ives, Daniel Tassone, David Batuner, David Kocen, Deena Mohamed, Duncan Wang, Elena Negrón Reichard, Eric Echeandia, Eric Seferian, Ernesto Gutiérrez, Ethan Amato, Everett Kim, Ezekiel (Zeke) Coleman, Gabriel Frattallone, Gabriel Hege, Halit Ozgur, Han Choong, Hannah Yoon, Hayley Song, Heesu Yun, Heleni Singer, Hunter Scheppat, Imaan Salimi, Inés Martinez Velasco, Irene Yi, Jacob Bennett, Jesse Mu, Jocelyn Chan, Joel Iglesias Lopez, Jose Velarde, Joy Johnson, Judeline Joseph, Juliani Vidal, Julie Hong, JungHo Lee, Kareem Itani, Kate Sindt (née Roberts), Katherine Karafotas, Katherine Montas, Kayley Okst, Kristen Jorgenson, Lauren Bush, Lauren Grenzige, Le You, Liana Llado, Lilia McGee-Harris, Lily Feinberg, Lindsay Peterman, Madeleine McCann, Maria Blokh, Maria Jose Valdivia Cox, Marissa Russell, Mark Chudnovsky, Mark Nasef Ragheb (with Manizeh Khan), Maryanna Valencia, Meera Kanabar, Meghan Sheridan, Michelle Namkoong, Mika Braginsky, Miki Uruwashi, Moeka Koyama, Nchinda Nchinda, Nicola Roux, Olivia Eastwood, Oluwaseun (Seun) Eisape, Phúc (Philip) Huynh Lê, Rachel Duquette, Rebecca Levitan, Rebecca Podell, Regina Herrero Ampudia, Rudmila Rashid, Ruoshan Zhou, Samuel Thacker, Sara Bufi, Sarah Al-Mayahi, Sarah Goodloe, Sebastian (Alex) Clendenning-Jimenez, Seung Kim, Shaan Bijwadia, Shikun (Jason) Wang, Siva Zhou, Stephanie Liem, Steve Faulkner, Sruthi Narayan, Stephanie McHugh, Sunny Yeo, Tanya Ivonchuk, Taylor Martinez, Thomas Dickson, Thomas Varvella Vicente, Tianhu (Tony) Chen, Timuade McClish, Tiwalayo Eisape, Varun Nambikrishnan, Wendy Uelk, Wenshuo Qin, Will Ades, William (Jaq) Pyle, William Merrill, Yelyzaveta Ryabkina, Yining Hua, Yunqian Wang, Zach Barker, Ziyue (Suzie) Su.
High School RAs	Yena Kim, Mark Seong Hun Yu, Akash Kumar, Zoe Elizee, Jay Garg, Heather Krasner, Praharshitha Allam, Riya Shukla, Ivy Wang, Salma Hazimeh, Seth Lockwood, Kira (Fangze) Tian, Mark Seong Hun Yu
McNair Exploratory Scholars	Wenshuo Qin, Shemar Joseph, Kyra Trimm, Anh Nguyen, Bilal Wahid

Courses Taught

2024	“Documenting and Preserving Indigenous Languages with Data Science,” Boston College “BabyTalk,” Boston College
2023	“Computational Models of Cognition,” Boston College “How Extraterrestrials Think,” Boston College
2022	“BabyTalk,” Boston College “How Extraterrestrials Think,” Boston College
2021	“BabyTalk,” Boston College “How Extraterrestrials Think,” Boston College
2019	“How Extraterrestrials Think,” Boston College
2018	“Language Acquisition and Development,” Boston College “Computational Models of Cognition,” Boston College “Language Acquisition and Development,” Boston College “Computational Models of Cognition,” Boston College
2017	“Language Acquisition and Development,” Boston College

Seminars (Non-Credit)

I often organize reading groups & seminars that draw trainees and faculty from surrounding institutions as well as my home institution.

- 2022 Bootstrapping Language Reading Group. Boston College / Chestnut Hill, MA
Twice-monthly intensive summer reading group
- 2021 Concepts Reading Group. Boston College / Chestnut Hill, MA
Weekly summer reading group
- 2016-2017 Monday Methods Meetings. Boston College / Chestnut Hill, MA
Monthly methods discussion group for students, post-docs, and faculty
- 2016 Argument Structure. Massachusetts Institute of Technology / Cambridge, MA
Weekly reading/research meeting
- 2015 Events Reading Group. Massachusetts Institute of Technology / Cambridge, MA
Weekly meeting
- 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
- 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. Co-founded by me and continues to present day.
Co-organizers: Jacopo Romoli (2007-2009), Timothy O'Donnell (2008-2009), and Manizheh Khan (2009-2011).
Funding: Harvard University Graduate School of Arts and Sciences¹ Research Workshops.
- 2009 Social Cognition & Language. Harvard University / Cambridge, MA
Research assistant meeting & discussion group. Co-organizer: Rebecca Nappa

MEDIA COVERAGE & APPEARANCES (SELECTED)

- Boston Globe Stressed about your kids' screen time? Don't be, 12/18/20
Older and wiser? Some brain functions improve as we age, 3/6/15
- Daily Mail Want to be fluent in a language? 5/1/18
Growing old can actually BOOST your brainpower, 3/11/15
- Daily Beast AI reveals how the brain's anatomy changes with Autism. 6/2/22
- El País La música sigue patrones universales, 11/21/19
- New York Times Do you live in a 'tight' state or a 'loose' one? Turns out it matters quite a bit, 3/29/23
In quarantine, kids pick up parents' mother tongues, 9/10/20
Why it's so hard to learn French in middle age, 4/30/19
Many psychology findings not as strong as claimed, study says, 8/17/15
Older really can mean wiser, 3/16/15
How many memories fit in your brain, 6/22/07
- Seattle Times Seattle-area parents want rules about screen time, but experts say off-screen interactions matter more, 10/13/20

Sydney Morning Herald Knowing your place, 2/3/14

The Telegraph Want to learn a foreign language fluently? Start before 10, study finds, 5/1/18

Wall Street Journal Here's when we hit our physical and mental peaks, 7/4/23
 Science can explain why some songs are universal, 11/21/19
 It's never too late to start a brilliant career, 5/3/19
 How intelligence shifts with age, 6/29/15

Washington Post Many scientific studies can't be replicated. That's a problem, 8/27/15

Public Radio *Forum* (KQED/NPR), Parlez-vous Duolingo? 8/2/23
BBC Mundo, ¿A qué edad alcanzamos el punto máximo de inteligencia? 3/16/19
NPR's Innovation Hub, When It Comes to Learning Language, Age Isn't Just A #, 1/4/19
Living Lab (NPR), The language learning window, 5/14/18
BBC Newshour, Why language fluency depends on starting to learn in childhood, 5/1/18
BBC World Service, Why language fluency depends on starting to learn in childhood, 5/1/18
NPR Morning Edition, Scientific Findings Often Fail To Be Replicated, 8/28/15
WBUR Radio Boston, MIT, MGH research says not all cognitive abilities decline as you age, 3/9/15

The Atlantic The smartest age, 5/17/15

Business Insider The ages you're the smartest at everything throughout your life, 7/31/17
 Social intelligence peaks in your 40s, 8/5/15
 Several types of intelligence peak at age 50, 3/31/15
 Incredible chart shows how intelligence changes as we age, 3/17/15

The Economist Heart attacks, strokes, dementia – can Biden and Trump beat the odds?, 1/9/24
 To master a language, start learning it early, 5/10/18
 Try again, 8/27/15
 Serious games, 6/19/14

Forbes New study shows that your brain's powers change as you age – Some Peaking In Your 70s, 3/23/15

Newsweek Scientists confirm music is universal, and it is used in 'strikingly similar ways' across the globe, 11/21/19
 Scientists pinpoint best age to learn a second language. Newsweek, 5/1/18

New York Magazine How easily distracted are you? Here, distract yourself with this game to find out, 2/2/16

New York Post This the exact age when your brain power peaks, 8/1/17

National Geographic Why it's never too late to learn a language as an adult, 6/21/24.

Politico Is Donald Trump too old to be president? 2/28/16

Scientific American What makes a song? It's the same recipe in every culture, 11/21/19
 When does intelligence peak? 2/28/19
 At what age does our ability to learn a new language like a native speaker disappear? 5/4/18
 Massive International Project Raises Questions about the Validity of Psychology Research, 8/27/15
 Get Involved in Citizen Science of the Mind, 1/1/14
 Citizen scientists decode meaning, memory and laughter, 9/23/13

Slate That Amazeballs Scientific Study You Just Shared on Facebook Is Probably Wrong, Study Says. 8/27/15

Time Why it's so hard to learn another language after childhood, 5/2/18
IFLScience This is the best age to learn a second language, 5/2/18

SERVICE

Action Editor	Language Development Research, 2025-2029
Editorial Boards	Language Development Research Psycholinguistics (Ukrainian journal)
Editing	Special issue on "Language & War", <i>East European Journal of Psycholinguistics</i>
Grant Reviewing (Panel)	National Defense Science and Engineering Graduate Fellowship (2013-2014) National Science Foundation Graduate Research Fellowship Program (2015) EHR Core Research (ECR) program, National Science Foundation (2022)
Grant Reviewing (<i>ad hoc</i>)	German-Israeli Foundation for Scientific Research and Development (1), U.S.-Israel Binational Science Foundation (1) National Science Foundation (6) Max Plank Institute (1)
Journal Reviewing (<i>ad hoc</i>)	see Publons
Conference Reviewing	Architectures and Mechanisms in Language Processing, Boston University Conference on Language Development, Cognitive Science Society, CUNY Human Sentence Processing, Discourse Expectations: Theoretical, Experimental, & Computational Perspectives, Society for Philosophy and Psychology
Institutional	Technological and Methodological Training Committee, Psych Dep., BC (2016—2024; chair 2016-2018) Outreach Committee, Psych Dep., BC (2021—2024) Diversity and Inclusion Committee, Psych Dep., BC (2018—2024) Faculty Search Committee, Psych Dep., BC (2018), Future Directions Committee, Psych Dep., BC (2016—2018), Study Pool Committee, Harvard University (2008—2009)