

Alon Hafri

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RESEARCH AREAS

Language and Thought, Psycholinguistics, Visual Perception, Cognitive Neuroscience

ACADEMIC APPOINTMENTS

- August 2022 Assistant Professor, Department of Linguistics & Cognitive Science
University of Delaware
- 2021–present NSF Social, Behavioral, and Economic Sciences (SBE) Postdoctoral Research Fellow
Johns Hopkins University
- 2019–present Postdoctoral Research Fellow, Department of Psychological & Brain Sciences,
Department of Cognitive Science
Mentors: Chaz Firestone, Michael F. Bonner, and Barbara Landau
Johns Hopkins University

EDUCATION

- 2019 Ph.D., Psychology, University of Pennsylvania
Mentors: John Trueswell, Russell Epstein
Additional Committee Members: Nicole Rust (chair), Konrad Kording
Dissertation: Event structure in vision and language
Certificates:
- IGERT Traineeship in Complex Scene Perception (PIs: David Brainard, Kostas Daniilidis)
 - Teaching Certificate (Center for Teaching and Learning)
- 2015 M.A., Psychology, University of Pennsylvania
- 2007 B.A., Music, Wesleyan University

OTHER RESEARCH POSITIONS

- 2012–2013 Research Assistant, Department of Psychology
Russell Epstein’s Lab
University of Pennsylvania
- 2009–2012 Lab Manager, Department of Psychology
John Trueswell’s Language Processing & Development Lab
University of Pennsylvania
- 2007–2008 Research Assistant (Volunteer), Department of Psychology
Kathy Hirsh-Pasek’s Infant & Child Lab
Temple University

GRANTS & FELLOWSHIPS

- 2021–2023 NSF Social, Behavioral, and Economic Sciences (SBE) Postdoctoral \$138,000
Research Fellowship
Title: [Neural mechanisms of relational perception](#)
Co-PIs: Michael F. Bonner, Chaz Firestone, and Barbara Landau
- 2016–2019 NSF Graduate Research Fellowship
- 2015–2016 NIH T32 Institutional Predoctoral Research Training Grant in Vision Research
PI: Diego Contreras
- 2015 National Defense Science & Engineering Graduate Fellowship [declined the award]

AWARDS

- 2019 NEI Postdoctoral Travel Award for Vision Sciences Society Meeting
- 2015 Graduate Student Travel Award for Vision Sciences Society Meeting

PUBLICATIONS

Preprints

1. **Hafri, A.**, Landau, B., Bonner, M.F., & Firestone, C. (under review). [A phone in a basket looks like a knife in a cup: The perception of abstract relations](#). *PsyArXiv*.
2. **Hafri, A.**, Gleitman, L.R., Landau, B., & Trueswell, J.C. (under review). [When word and world meet: Language and vision share an abstract representation of symmetry](#). *PsyArXiv*.

Journal Articles

3. **Hafri, A.**, Wadhwa, S., Bonner, M.F. (in press). Perceived distance alters memory for scene boundaries. *Psychological Science*.
4. **Hafri, A.***, Boger, T.*, & Firestone, C. (in press). Melting ice with your mind: Representational momentum for physical states. *Psychological Science*. * co-first authors
5. **Hafri, A.**, & Firestone, C. (2021). The perception of relations. *Trends in Cognitive Sciences*, 25(6), 475–492.
* This paper was featured on the cover for the corresponding issue.
6. Caplan, S., **Hafri, A.**, Trueswell, J.C. (2021). Now you hear me, later you don't: The immediacy of linguistic computation and the representation of speech. *Psychological Science*, 32(3), 410–423.
7. **Hafri, A.**, Trueswell, J.C., & Strickland, B. (2018). Encoding of event roles from visual scenes is rapid, spontaneous, and interacts with higher-level visual processing. *Cognition*, 175, 336–352.
8. **Hafri, A.**, Trueswell, J.C., & Epstein, R.A. (2017). Neural representations of observed actions generalize across static and dynamic visual input. *The Journal of Neuroscience*, 37(11), 3056–3071.
9. **Hafri, A.**, Papafragou, A., & Trueswell, J.C. (2013). Getting the gist of events: Recognition of two-participant actions from brief displays. *Journal of Experimental Psychology: General*, 142(3), 880–905.
10. Trueswell, J.C., Medina, T.N., **Hafri, A.**, & Gleitman, L.R. (2013). Propose but verify: Fast mapping meets cross-situational word learning. *Cognitive Psychology*, 66(1), 126–156.

Refereed Conference Proceedings

11. **Hafri, A.**, Gleitman, L.R., Landau, B., & Trueswell, J.C. (2021). When word and world meet: Intuitive correspondence between visual and linguistic symmetry. In *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*. Vienna, Austria.
12. Caplan, S., **Hafri, A.**, Trueswell, J.C. (2019). Speech processing does not involve acoustic maintenance. In *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. Montreal, Canada.
13. Wehry, J., **Hafri, A.**, Trueswell, J.C. (2019). The end's in plain sight: Implicit association of visual and conceptual boundedness. In *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. Montreal, Canada.

14. **Hafri, A.**, Trueswell, J. C., & Strickland, B. (2016). Extraction of event roles from visual scenes is rapid, automatic, and interacts with higher-level visual processing. In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*. Philadelphia, PA.
15. Trueswell, J.C., Kaufman, D., **Hafri, A.**, & Lidz, J. (2012). [Development of parsing abilities interacts with grammar learning: Evidence from Tagalog and Kannada](#). In *Proceedings of the 36th Annual Boston University Conference on Language Development*. Somerville, MA: Cascadilla Press.

WORKS IN PROGRESS

1. **Hafri, A.**, Bonner, M.F., Trueswell, J.C., & Epstein, R.A. A model of semantic structure predicts cortical responses to verbs in naturalistic language.
2. De Freitas, J.*, **Hafri, A.***, Alvarez, G.A. Moral thin-slicing. * co-first authors

INVITED COLLOQUIA

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| 2022 April | University of Nevada, Reno | <i>Early Career Colloquium</i> |
| 2021 August | Tel Aviv University | <i>Mudrik Lab (PI: Liad Mudrik)</i> |
| 2021 May | University of Maryland | <i>Linguistics Department</i> |
| 2021 April | UCSD | <i>Language Comprehension Lab (PI: Eva Wittenberg)</i> |
| 2021 March | Harvard University | <i>Cognitive Neuropsychology Lab (PI: Alfonso Caramazza)</i> |
| 2021 March | Sorbonne University | <i>LaPsyDÉ</i> |
| 2021 February | University of Florida | <i>PAC/SCANN Labs (PIs: Brian Odegaard, Steven Weisberg)</i> |
| 2018 February | Johns Hopkins University | <i>Vision Science Seminar</i> |

INVITED CONFERENCE TALKS, WORKSHOPS, & SYMPOSIA

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| 2022 September | Event role biases in language and cognition, Workshop, <i>Joint Conference on Language Evolution</i> , Kanazawa, Japan & Online. | |
| 2022 May | Beyond objects and features: High-level relations in visual perception, Symposium, 22 nd Annual Meeting of the <i>Vision Sciences Society</i> . * Organized and chaired symposium (with C. Firestone) | |
| 2021 June | Real versus imagined in visual memory (with C. Firestone), Symposium, 24 th Meeting of the <i>Association for the Scientific Study of Consciousness (ASSC)</i> . | |
| 2017 July | Extraction of morally relevant information from visual scenes, <i>Morality, Language, and Thought Workshop</i> , Institut Jean Nicod, Paris, France (organizers: Laura Niemi and Brent Strickland). | |

CONTRIBUTED CONFERENCE PRESENTATIONS

- 2022 May Sequential construction of visual relations (with C. Firestone). Poster presentation, 22nd Annual Meeting of the *Vision Sciences Society (VSS)*.
- 2021 July When word and world meet: Intuitive correspondence between visual and linguistic symmetry (with L.R. Gleitman, B. Landau, & J.C. Trueswell). Oral presentation, 43rd Annual Conference of the *Cognitive Science Society*.
- 2021 May Melting ice with your mind: Representational momentum in state-space (with T. Boger [co-presenter] & C. Firestone). Oral presentation, 21st Annual Meeting of the *Vision Sciences Society*.
- 2021 May “Honey, I shrunk the scene”: Changing perceived distance alters memory for scene boundaries (with S. Wadhwa [co-presenter] & M.F. Bonner). Oral presentation, 21st Annual Meeting of the *Vision Sciences Society*.
- 2021 May When word and world meet: Intuitive correspondence between visual and linguistic symmetry (with L.R. Gleitman, B. Landau, & J.C. Trueswell). Oral presentation, 12th Annual *Dubrovnik Conference on Cognitive Science*.
- 2020 November Melting ice with your mind: Representational momentum in state-space (with T. Boger [co-presenter] & C. Firestone). Oral presentation, 28th Annual *Object Perception, visual Attention, and visual Memory (OPAM) Conference*.
- 2020 November “Honey, I shrunk the scene”: Perceived spatial scale alters memory for scene boundaries (with S. Wadhwa [presenter] & M.F. Bonner). Poster presentation, 28th Annual *Object Perception, visual Attention, and visual Memory (OPAM) Conference*.
- 2020 May Visual predictions from physical relations (with M.F. Bonner & C. Firestone). Poster presentation, 20th Annual Meeting of the *Vision Sciences Society*.
- 2020 May Possible objects count: Perceived numerosity is altered by representations of possibility (with C. Guan [presenter], D. Schwitzgebel, & C. Firestone). Poster presentation, 20th Annual Meeting of the *Vision Sciences Society*.
- 2019 July Speech processing does not involve acoustic maintenance (with S. Caplan [presenter] & J.C. Trueswell). Oral presentation, 41st Annual Conference of the *Cognitive Science Society*, Montreal, Canada.
- 2019 July The end’s in plain sight: Implicit association of visual and conceptual boundedness (with J. Wehry [presenter] & J.C. Trueswell). Oral presentation, 41st Annual Conference of the *Cognitive Science Society*, Montreal, Canada.
- 2019 May When a phone in a basket looks like a knife in a cup: Perception and abstraction of visual-spatial relations between objects (with B. Landau, M.F. Bonner, & C. Firestone). Poster presentation, 19th Annual Meeting of the *Vision Sciences Society*, St. Pete Beach, Florida.

- 2018 November Brains on books: Event-structure semantics predict cortical responses to naturalistic language (with M.F. Bonner, J.C. Trueswell, & R.A. Epstein). Poster presentation, Annual Meeting of the *Society for Neuroscience (SfN)*, San Diego, California.
- 2018 May From pixels to moral judgment: Extracting morally relevant information in minds and machines (with J. De Freitas [co-presenter], D.L.K. Yamins, & G.A. Alvarez). Poster presentation, 18th Annual Meeting of the *Vision Sciences Society*, St. Pete Beach, Florida.
- 2017 November Rapid and spontaneous encoding of event structure from visual scenes: Implications for language acquisition (with J.C. Trueswell [presenter], B. Strickland, & A. Papafragou). Oral presentation, 42nd Annual *Boston University Conference on Language Development (BUCLD)*, Boston, Massachusetts.
- 2017 May Extraction of event roles from visual scenes is rapid, automatic, and interacts with higher-level visual processing (with J.C. Trueswell & B. Strickland). Oral presentation, 17th Annual Meeting of the *Vision Sciences Society*, St. Pete Beach, Florida.
- 2017 May Neural representations of observed actions generalize across static and dynamic visual input (with J.C. Trueswell & R.A. Epstein). Poster presentation, *Rovereto Workshop on Concepts, Actions, Objects (CAOs)*, Rovereto, Italy.
- 2016 July Extraction of event roles from visual scenes is rapid, automatic, and interacts with higher-level visual processing (with J.C. Trueswell & B. Strickland). Oral presentation, 38th Annual Conference of the *Cognitive Science Society*, Philadelphia, Pennsylvania.
- 2016 May Format-independent cortical representations of interactive events (with J.C. Trueswell & R.A. Epstein). Poster presentation, 16th Annual Meeting of the *Vision Sciences Society*, St. Pete Beach, Florida.
- 2015 May Neural representations of human interactions (with J.C. Trueswell & R.A. Epstein). Poster presentation, 15th Annual Meeting of the *Vision Sciences Society*, St. Pete Beach, Florida.
- 2014 November Neural representations of human interactions (with J.C. Trueswell & R.A. Epstein). Poster presentation, Annual Meeting of the *Society for Neuroscience (SfN)*, Washington, D.C.
- 2012 November Propose but verify: Fast mapping meets cross-situational word learning (with J.C. Trueswell [presenter], T.N. Medina, & L.R. Gleitman). Oral presentation, *Psychonomic Society Annual Meeting*, Minneapolis, Minnesota.
- 2012 November Getting the gist of events: Recognition of two-participant actions from brief displays (with J.C. Trueswell & A. Papafragou). Poster presentation, *Psychonomic Society Annual Meeting*, Minneapolis, Minnesota.

- 2011 November Development of parsing abilities interacts with grammar learning: Evidence from Tagalog and Kannada (with J.C. Trueswell [presenter], D. Kaufman, & J. Lidz). Oral presentation, 36th Annual *Boston University Conference on Language Development (BUCLD)*, Boston, Massachusetts.
- 2011 March The gist of events: Implications for language production and scene description (with J.C. Trueswell & A. Papafragou). Poster presentation, 24th Annual *CUNY Conference on Human Sentence Processing*, Stanford, CA.
- 2010 November Propose but verify: Fast mapping meets cross-situational word learning. Poster presentation (with T.N. Medina [co-presenter], J.C. Trueswell, & L.R. Gleitman). 35th Annual *Boston University Conference on Language Development (BUCLD)*, Boston, Massachusetts.
- 2009 April How do preschoolers express cause in gesture and speech? (with T. Göksun [presenter], K. Hirsh-Pasek, R.M. Golinkoff, W.L. Shallcross, & Y. Misyris). Poster presentation, *Society for Research on Child Development (SRCD)*, Denver, Colorado.

MENTORING

- 2021–present Christiana Liu (undergraduate, Johns Hopkins)
Independent research, Cognitive Science (co-mentored with B. Landau)
- 2020–2021 Tal Boger (undergraduate, Johns Hopkins [visiting from Yale University])
Independent research, Psychology (co-mentored with C. Firestone)
Resulted in a [high-impact co-first-authored publication in *Psychological Science*](#)
Co-delivered conference talks (OPAM 2020, VSS 2021)
- 2019–present Shreya Wadhwa (undergraduate, Johns Hopkins)
Independent research, Cognitive Science (co-mentored with M.F. Bonner)
Resulted in co-authorship on a [manuscript invited for revision in *Psychological Science*](#)
Co-delivered conference talk (VSS 2021)
- 2019–2020 David Schwitzgebel (undergraduate, Johns Hopkins [visiting from Vassar College])
Vision Sciences summer internship (co-mentored with C. Guan & C. Firestone)
Resulted in a poster presentation (VSS 2020)
Started a PhD program (2021) at the Institut Jean Nicod (PI: Brent Strickland)
- 2017–2018 Jon Wehry (undergraduate, University of Pennsylvania)
Psychology honors thesis (co-mentored with J.C. Trueswell)
Resulted in a refereed conference submission and conference talk (CogSci 2019)

TEACHING

Johns Hopkins University (Instructor)

2022 January The Richness of Perception (enrollment: 19 [virtual])
 * **Including full curriculum development**

University of Pennsylvania (Instructor)

2016 Fall Introduction to Matlab
 2016 Spring Introduction to Matlab
 2015 Fall Introduction to Matlab

University of Pennsylvania (Teaching Assistant)

2015 Spring Introduction to Perception (Johannes Burge)
 2014 Fall Introduction to Cognitive Science (David Brainard and Lyle Ungar)
 2012 Fall Introduction to Psychology (Caroline Connolly)

SERVICE TO THE PROFESSION

Justice, Equity, Diversity, & Inclusion

2020–present Postdoctoral Representative, *Diversity & Representation Committee (DRC)*, Department of Cognitive Science, Johns Hopkins University
 2020–present Co-organizer of Early Career Colloquium Series, Department of Cognitive Science, Johns Hopkins University
 2020–present Member of the Department Climate Committee, Department of Cognitive Science, Johns Hopkins University
 2020–present Mentor to first-generation and international Ph.D. applicants to the Cognitive Science graduate program

Ad Hoc Reviewer

Psychology: *Cognition; Cognitive Research: Principles and Implications; Cognitive Science; Journal of Experimental Psychology: Human Perception and Performance; Journal of Experimental Psychology: General; Psychological Science; Visual Cognition*

Neuroscience: *Brain and Cognition; Cerebral Cortex; eLife; Journal of Neuroscience; Language, Cognition, and Neuroscience*

Conferences: *Cognitive Sciences Society*

Public Engagement

2014 August Experiment Leader, *Community Science Carnival*, Philadelphia, Pennsylvania
2014 July Journal Club Leader, *Penn Neuroscience Boot Camp*, University of Pennsylvania
2014 July Activity Leader, *Science After Hours*, Franklin Institute, Philadelphia, Pennsylvania

PROFESSIONAL MEMBERSHIPS

Vision Sciences Society (VSS)
Cognitive Sciences Society (CSS)
Psychonomic Society

PROFESSIONAL DEVELOPMENT

2018 Summer Trainee, Genetics & Neurobiology of Language Course, Cold Spring Harbor
Laboratory

LANGUAGES & SOFTWARE

English (native speaker), Hebrew (proficient), Italian (proficient), Spanish (basic)
Python, R, HTML/CSS/JavaScript, MATLAB, Blender