

# Jae-Young Son

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## Appointments

2024 - Present Postdoctoral fellow, Brown University  
Dept. of Cognitive & Psychological Sciences  
Supervisor: Serra E. Favila

## Education

2018 - 2024 Ph.D. Psychology, Brown University  
Supervisor: Oriol FeldmanHall

2012 - 2016 B.A. Psychology, Stanford University

## Publications

1. **Son, J.\***, Vives, M-L.\*, Bhandari, A., & FeldmanHall, O. (2024). Replay shapes abstract cognitive maps for efficient social navigation. *Nature Human Behaviour*.  
\* Co-first author.  
[Online](#) | [PDF](#) | [Data & Code](#)
2. **Son, J.**, Bhandari, A., & FeldmanHall, O. (2023). Abstract cognitive maps of social network structure aid adaptive inference. *Proceedings of the National Academy of Sciences*.  
[Online](#) | [PDF](#) | [Data & Code](#)
3. **Son, J.**, Bhandari, A., & FeldmanHall, O. (2021). Cognitive maps of social features enable flexible inference in social networks. *Proceedings of the National Academy of Sciences*.  
[Online](#) | [PDF](#) | [Data & Code](#)
4. Heffner, J., **Son, J.**, & FeldmanHall, O. (2021). Emotion prediction errors guide socially adaptive behaviour. *Nature Human Behaviour*.  
[Online](#) | [PDF](#) | [Data & Code](#)
5. **Son, J.**, Bhandari, A., & FeldmanHall, O. (2019). Crowdsourcing punishment: Individuals reference group preferences to inform their own punitive decisions. *Scientific Reports*.  
[Online](#) | [PDF](#) | [Data & Code](#)
6. FeldmanHall, O., **Son, J.**, & Heffner, J. (2018). Norms and the flexibility of moral action. *Personality Neuroscience*.  
[Online](#) | [PDF](#)

## Unpublished Work

7. Williams, W.C., Leong, Y.C., Collier, E.A., Nook, E.C., **Son, J.**, & Zaki, J. (preprint). Communicating emotion through facial expressions: Social consequences and neural correlates. *PsyArXiv*.  
[Online](#)

## Grants & Fellowships

- 2023 - 2024 Carney Institute for Brain Science Graduate Award (\$68,000)  
2022 - 2023 Betty R.H. and James M. Pickett Endowed Fellowship in Psychology  
2019 - 2022 National Science Foundation Graduate Research Fellowship Program  
(\$138,000, award #2040433)

## Awards & Honors

- 2022 Presidential Award for Excellence in Teaching, Brown University  
2016 Undergraduate Departmental Honors, Stanford University

## Chaired Symposia

- 2024 16<sup>th</sup> Annual Meeting of the Social & Affective Neuroscience Society, Toronto, Canada.  
Presenter and symposium co-chair: Neural, network, and neural network approaches for social relational representation.

## Talks

- 2024 Lab meeting (PI Nico Schuck), Max Planck Institute for Human Development, Berlin, Germany.  
2024 Lab meeting (PIs Matthew Apps, Romy Froemer, Arkady Konovalov, Patricia Lockwood, & Lei Zhang), University of Birmingham, Birmingham, UK.  
2024 Social Cognitive Seminar, Brown University, Providence, RI.  
2024 Lab meeting (PI Jon Freeman), Columbia University, New York, NY.  
2024 Lab meeting (PI Rebecca Saxe), Massachusetts Institute of Technology (MIT), Cambridge, MA.  
2023 Lab meeting (PI Juliet Davidow), Northeastern University, Boston, MA.  
2023 New England Research on Decision-Making, Cambridge, MA.  
2023 Lab meeting (PIs Fiery Cushman, Mina Cikara, & Joshua Greene), Harvard University, Cambridge, MA.  
2023 Lab meeting (PI Rebecca Saxe), Massachusetts Institute of Technology (MIT), Cambridge, MA.  
2022 Emerging Scholars of Psychological Science, Princeton University, Princeton, NJ.  
2022 Lab meeting (PI Soyoung Park), Decisional Neuroscience and Nutrition at the German Institute of Human Nutrition (DIfE), Potsdam, Germany.  
2022 Social Minds Reading Group, Center for Adaptive Rationality at the Max Planck Institute for Human Development, Berlin, Germany.  
2021 Lab meeting (co-PIs Amit Goldenberg and Jillian Jordan), Harvard Business School, Cambridge, MA.  
2021 Lab meeting (PI Daphna Buchsbaum), Brown University, Providence, RI.  
2021 Seminar, Indian Institute of Technology (IIT) Gandhinagar, Gujarat, India.  
2021 Social Cognitive Seminar, Brown University, Providence, RI.  
2021 Seminar, University of Limerick, Limerick, Ireland.

- 2021 Lab meeting (PI Matthew Nassar), Brown University, Providence, RI.  
2021 Lab meeting (PI Hyowon Gweon), Stanford, CA.  
2021 Lab meeting (PI Yuko Munakata), UC Davis, Davis, CA.  
2019 Social Cognitive Seminar, Brown University, Providence, RI.  
2019 New England Research on Decision-Making, Cambridge, MA.  
2018 Lab meeting (PI Liane Young), Boston College, Boston, MA.  
2017 New England Research on Decision-Making, Providence, RI.

## **Selected Posters & Conference Abstracts**

Teoh, Y.Y., **Son, J.**, Xia, A., Aslarus, I., Bhandari, A., & FeldmanHall, O. (2024). Hippocampal encoding of abstract cognitive maps supports navigation in a real-world social network. Presented at the 7<sup>th</sup> Annual Conference on Cognitive Computational Neuroscience, Cambridge, MA.

[Conference paper](#)

**Son, J.**, Vives, M.L., Bhandari, A., & FeldmanHall, O. (2024). Replay shapes abstract cognitive maps for efficient social navigation. Presented at the 7<sup>th</sup> Annual Conference on Cognitive Computational Neuroscience, Cambridge, MA.

[Conference paper](#)

Aslarus, I., **Son, J.**, Xia, A., & FeldmanHall, O. (2024). Mental representation of network structure drives later network position in real-world social networks. Presented at the 16<sup>th</sup> Annual Meeting of the Social & Affective Neuroscience Society, Toronto, Canada.

Aslarus, I., **Son, J.**, & FeldmanHall, O. (2023). Network position biases mental representations of real-world social networks. Presented at the 21<sup>st</sup> Annual Conference of the Society for NeuroEconomics, Vancouver, Canada.

**Son, J.**, Bhandari, A., & FeldmanHall, O. (2022). The Successor Representation explains how people infer unobserved relationships in social networks. Presented at the 5<sup>th</sup> Multidisciplinary Conference on Reinforcement Learning and Decision Making, Providence, RI.

*Recognized as a 'spotlight' poster*

**Son, J.**, Bhandari, A., & FeldmanHall, O. (2020). Structural knowledge adaptively shapes the representation of social networks. Presented at the 18<sup>th</sup> Annual Meeting of the Society for NeuroEconomics (virtual).

**Son, J.**, Bhandari, A., & FeldmanHall, O. (2019). Crowdsourcing punishment: Individuals reference group preferences to inform their own punitive decisions. Presented at the 6<sup>th</sup> Annual Meeting of the Society for Affective Science, Boston, MA.

**Son, J.**, & FeldmanHall, O. (2017). A tipping-point conformity effect for justice: Group choice shifts preferences for punishment. Presented at the 29<sup>th</sup> Annual Meeting of the Association for Psychological Science, Boston, MA.

Williams, W.C., Leong, Y.C., **Son, J.**, Alqueza, K., & Zaki, J. (2016). Facial expressions track brain regions associated with affective salience and theory of mind. Presented at the 9<sup>th</sup> Annual Meeting of the Social & Affective Neuroscience Society, New York, NY.

Williams, W.C., Nook, E., **Son, J.**, & Zaki, J. (2014). Audiences enhance the expression and communication but not the experience of emotion. Presented at the 7<sup>th</sup> Annual Meeting of the Social & Affective Neuroscience Society, Denver, CO.

## Teaching

- 2021 Guest Instructor, Computational Psychiatry Course Zurich. Translational Neuromodeling Unit, Zurich, Switzerland.  
Delivered introductory lecture on drift diffusion modeling (DDM) to an audience of 400+ attendees. Taught hands-on tutorial for using the HDDM package.
- 2021 Teaching Assistant, CLPS 0010: Mind, Brain, and Behavior: An Interdisciplinary Approach. Brown University, Providence, RI. Supervisor: Dr. Elena Festa.  
Taught in Summer 2021 and Fall 2021. Weekly sections in an introductory lecture course with an enrollment of 200 students. Delivered solo guest lecture on social psychology.
- 2019 - 2021 Guest Instructor, Computational Modeling Workshop. Carney Institute for Brain Science, Brown University, Providence, RI. Delivered hands-on workshop for using the HDDM package.
- 2020 Teaching Assistant, CLPS 0700: Social Psychology. Brown University, Providence, RI. Supervisor: Dr. Oriel FeldmanHall.  
Introductory lecture course with an enrollment of 300 students. Delivered solo guest lecture on attribution.
- 2019 Teaching Assistant, CLPS 1790: Personality and Clinical Assessment. Brown University, Providence, RI. Supervisor: Dr. Jack Wright.  
Upper-level lab course with capped enrollment of 24 students.
- 2019 Workshop Instructor, Data Science Using R. Brown University, Providence, RI. Primary instructor.  
Weekly undergraduate-level workshop. Covered data wrangling, visualization, and mixed-effects regression.
- 2019 Guest Lecturer, Summer @ Brown. Brown University, Providence, RI.  
Delivered a lecture entitled "Social Preferences and the Brain" for the class "Neuroeconomics: The science of decision-making", which was part of the "Summer @ Brown" summer school for high school students.
- 2018 Workshop Instructor, Programming Psychology Experiments. Brown University, Providence, RI. Primary instructor.  
Three-part workshop teaching the fundamentals of programming computerized psychology experiments using PsychToolbox in Matlab.
- 2014 - 2016 Teaching Fellow, Psych One: Introduction to Psychology. Stanford University, Stanford, CA. Supervisors: Drs. Bridgette Martin-Hard, James Gross, Jamil Zaki, & Greg Walton.  
Taught weekly sections (13-15 students each) in F14, W15, W16, and S16.

## Scientific & Community Outreach

- 2023 Volunteer, College Day at Brown.  
Led interactive demos with high schoolers interested in neuroscience and social decision making.
- 2023 Volunteer, Brown Brain Fair.  
Helped design materials to introduce community members (primarily children) to the science of affect, emotion, and social decision making. Delivered a “flash talk” on the neuroscience of cognitive maps.
- 2020 - 2021 Study Group Mentor, Leadership Alliance.  
Provided mentorship for undergraduate students (the Carney Brain Science cohort) participating in Leadership Alliance, an organization that provides research opportunities to students from historically underrepresented and marginalized groups.
- 2021 Lesson Plan Designer, Brain Week Rhode Island.  
Helped design a lesson plan and multimedia materials to introduce Rhode Island students to the brain sciences, specifically to the science of intergroup cognition.
- 2019 Guest Workshop Instructor, Leadership Alliance.  
Delivered workshop to students participating in Leadership Alliance, an organization that provides research opportunities to students from historically underrepresented and marginalized groups. Discussed and practiced the principles of effective scientific writing and communication.
- 2016 Co-organizer, Stanford Undergraduate Psychology Conference.  
An entirely undergraduate-organized conference hosted at Stanford University, featuring research from undergraduates from around the U.S. and internationally.
- 2014 - 2016 Organizer, Stanford Undergraduate Psychology Association.  
Helped organized events for undergraduate students and community members to learn about (and engage in) psychological science. Primary organizer for a discussion with Dr. Albert Bandura regarding his newly-published book, *Moral Disengagement*. Co-organizer for a screening of the film *The Stanford Prison Experiment*, and a panel discussion with Dr. Philip Zimbardo afterwards.



**Left:** Facilitating a discussion with Dr. Bandura about his newly-published book, *Moral Disengagement*.  
**Right:** SUPA event organizers with Dr. Zimbardo following a special screening of the *Stanford Prison Experiment* movie and subsequent panel discussion.

## Professional & Departmental Service

- 2020 - 2022 Graduate council, Carney Institute for Brain Science  
CLPS graduate student representative

2020 - 2022	Diversity & Inclusion Action Plan (DIAP) committee Member of "Hiring & Recruitment" sub-committee
2020 - 2022	Social cognitive seminar series, Brown Dept. of CLPS Co-organizer
2019 - 2021	Student Committee, Society for Affective Science (SAS) Member of "Diversity & Innovation" sub-committee
2019 - 2020	Personality Neuroscience, Cambridge University Press Social media editor
2019 - 2020	Brown Dept. of CLPS Graduate student representative
2018 - 2019	Brown Dept. of CLPS Co-chair, social events planning
2017	New England Research on Decision-Making (NERD) Co-organizer

### **Ad Hoc Review**

- Cognition
- Cognitive Science
- eLife
- Journal of Experimental Psychology: General (JEPG)
- Psychonomic Bulletin & Review
- Royal Society Open Science
- Social, Cognitive, and Affective Neuroscience (SCAN)
- Social Neuroscience

### **Popular Science Writing**

Carney Institute for Brain Science

2021: [Cognitive maps play decisive role in helping people learn social information, study finds](#)

2019: [What is love? Here's what brain science can tell us.](#)

### **Media Coverage**

Carney Institute for Brain Science

2021: [The next generation of scientists on the future of brain science.](#)

Brown Daily Herald

2021: [U. researchers find that cognitive maps are used to navigate social networks](#)

2018: [FeldmanHall Lab demystifies human behavior](#)

2017: [New lab studies emotional decision-making](#)