### Jae-Young Son - Curriculum Vitae

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### **Education**

### Ph.D. Brown University

Dept. of Cognitive, Linguistic, & Psychological Sciences (CLPS)

2018 - 2023 (expected) Advisor: Oriel FeldmanHall

### B.A. Stanford University

2012 - 2016

Psychology major advisor: Jamil Zaki

Neuroscience concentration advisor: Samuel McClure

## **Employment**

## 2016 - 2018 Lab Manager

**Brown University** 

Dept. of Cognitive, Linguistic, & Psychological Sciences (CLPS)

Supervisor: Oriel FeldmanHall

### 2013 - 2016 Research Assistant

Stanford University
Dept. of Psychology

Supervisors: Jamil Zaki & W. Craig Williams

#### **Publications**

1. Heffner, J., **Son, J.**, & FeldmanHall, O. (2021). Emotion prediction errors guide socially adaptive behaviour. *Nature Human Behaviour*.

Online | PDF | Data & Code

2. **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

3. **Son, J.**, Bhandari, A., & FeldmanHall, O. (2019). Crowdsourcing punishment: Individuals reference group preferences to inform their own punitive decisions. *Scientific Reports*.

Online (open access) | PDF | Data & Code

 FeldmanHall, O., Son, J., & Heffner, J. (2018). Norms and the flexibility of moral action. Personality Neuroscience. Online (open access) | PDF

### **Unpublished Work**

- 5. 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 (preprint)
- 6. **Son, J.** & FeldmanHall, O. (in prep). Abstraction underlies learning of social network structure.

#### **Talks**

- 1. Son, J. (May 2022). Journal Club, Decisional Neuroscience and Nutrition at the German Institute of Human Nutrition (DIfE), Potsdam, Germany.
- 2. Son, J. (May 2022). Social Minds Reading Group, Center for Adaptive Rationality at the Max Planck Institute for Human Development, Berlin, Germany.
- 3. Son, J. (November 2021). Lab meeting (co-Pls Amit Goldenberg and Jillian Jordan), Harvard Business School, Cambridge, MA.
- 4. Son, J. (October 2021). Computational Cognitive Development & Brown Dog Labs (Pl Daphna Buchsbaum), Brown University, Providence, Rl.
- 5. Son, J. (October 2021). Seminar, Indian Institute of Technology (IIT) Gandhinagar, Gujarat, India.
- 6. Son, J. (October 2021). Social Cognitive Seminar, Brown University, Providence, RI.
- 7. Son, J. (September 2021). Seminar, University of Limerick, Limerick, Ireland.
- 8. Son, J. (August 2021). Learning Memory & Decision Lab (Pl Matthew Nassar), Brown University, Providence, Rl.
- 9. Son, J. (August 2021). Social Learning Lab (PI Hyowon Gweon), Stanford, CA.
- 10. Son, J. (May 2021). Cognition in Context Lab (PI Yuko Munakata), UC Davis, Davis, CA.
- 11. Son, J. (December 2019). Social Cognitive Seminar, Brown University, Providence, RI.
- 12. Son, J. (June 2019). Structure learning in social networks. Presented at the 3<sup>rd</sup> Annual Meeting of New England Research on Decision-Making, Cambridge, MA.

- 13. Son, J. (March 2018). Morality Lab (Pl Liane Young), Boston College, Boston, MA.
- 14. Son, J., & FeldmanHall, O. (May 2017). A tipping-point conformity effect for justice: Group choice shifts preferences for punishment. Presented at the 1<sup>st</sup> Annual Meeting of New England Research on Decision-Making, Providence, RI.
- 15. Son, J., Tamir, D.I., Williams, W.C., & Zaki, J. (June 2016). Preferences for gathering and sharing social information about the self and friends: Disclosure target and directionality predict disclosure choice. Presented at the Annual Stanford Psychology Honors Colloquium, Stanford, CA.

### **Posters & Conference Abstracts** \* Indicates mentored student.

- 1. **Son, J.**, Bhandari, A., & FeldmanHall, O. (June 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.
- 2. **Son, J.**, Bhandari, A., & FeldmanHall, O. (October 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).
- 3. **Son, J.**, Bhandari, A., & FeldmanHall, O. (March 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.
- 4. Heffner, J., **Son, J.**, & FeldmanHall, O. (March 2018). Emotion prediction errors predict decisions to punish. Presented at the 21<sup>st</sup> Annual Mind/Brain Research Day, Providence, RI.
- 5. Lee, W.\*, **Son, J.**, & FeldmanHall, O. (March 2018). Social influence increases preferences for uncertain gambles. Presented at the 21<sup>st</sup> Annual Mind/Brain Research Day, Providence, RI.
- 6. Hu, M.\*, **Son, J.**, & FeldmanHall, O. (August 2017). Acquired equivalence: Evidence for mechanisms supporting moral learning. Presented at the annual Brown Summer Research Symposium, Providence, RI.
- 7. **Son, J.**, & FeldmanHall, O. (May 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.

- 8. **Son, J.**, & FeldmanHall, O. (March 2017). A tipping-point conformity effect for justice: Group choice shifts preferences for punishment. Presented at the 20<sup>th</sup> Annual Mind/Brain Research Day, Providence, RI.
- 9. Williams, W.C., Leong, Y.C., **Son, J.**, Alqueza, K., & Zaki, J. (April 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.
- 10. Williams, W.C., Leong, Y.C., **Son, J.**, Alqueza, K., & Zaki, J. (March 2016). Facial expressions track brain regions associated with affective salience and theory of mind. Presented at the 3<sup>rd</sup> Annual Meeting of the Society for Affective Science, Chicago, IL.
- 11. Williams, W.C., Leong, Y.C., **Son, J.**, Alqueza, K., & Zaki, J. (January 2016). Facial expressions track brain regions associated with affective salience and theory of mind. Presented at the 17<sup>th</sup> Annual Emotion Pre-Conference to the Annual Meeting of the Society for Personality and Social Psychology, San Diego, CA.
- 12. Williams, W.C., Nook, E., **Son, J.**, & Zaki, J. (April 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.
- 13. Williams, W.C., Nook, E., **Son, J.**, & Zaki, J. (February 2014). Audiences enhance the expression and communication but not the experience of emotion. Presented at the 9<sup>th</sup> Annual Emotion Pre-Conference to the Annual Meeting of the Society for Personality and Social Psychology, Austin, TX.
- 14. Williams, W.C., Nook, E., **Son, J.**, & Zaki, J. (June 2013). Audiences enhance the expression and communication but not the experience of emotion. Presented at the Stanford PsychSummer Conference.

## **Grants & Fellowships**

2019-2022	National Science Foundation Graduate Research Fellowship Program
	(\$138,000, award #2040433)
2019	Brown University Graduate Travel Grant (\$622)
2015	Stanford Undergraduate Advising & Research "Small Grant" (\$1,500)
2014	Stanford Undergraduate Teaching Fellowship (\$1,000)
2013	Stanford PsychSummer Grant (\$7,500)

#### **Awards & Honors**

2022	Brown University Presidential Award for Excellence in Teaching
2016	Stanford University Departmental Honors (B.A. Psychology)
2013	Stanford University PsychSummer "Best of Show" Poster Award

### **Research Training**

#### 2019

- Methods in Neuroscience at Dartmouth (MIND)
  - Dartmouth College, Hanover, NH
  - "Hackathon"-style summer school for computational modeling.

#### 2017

- Brown Institute for Brain Science Computational Modeling Workshop
  - o Brown University, Providence, RI
  - o "Bootcamp"-style summer course covering computational modeling techniques such as reinforcement learning, drift diffusion modeling, and hierarchical Bayesian estimation.

## **Teaching**

### 2021

- Guest Instructor Computational Psychiatry Course Zurich
  - o Translational Neuromodeling Unit, Zurich, Switzerland
  - Delivered introductory lecture on drift diffusion modeling (DDM) to an audience of 400+ attendees. Taught hands-on tutorial using the HDDM package to perform Bayesian hierarchical fitting of DDM parameters.
- Teaching Assistant CLPS 0010: Mind, Brain, and Behavior: An Interdisciplinary Approach
  - o Brown University, Providence, RI
  - o Supervisor: Elena Festa
  - o Taught both in Summer 2021 and Fall 2021.
  - o Introductory lecture course with an enrollment of 200 students. Taught weekly sections. Helped students learn how to understand, evaluate, and propose scientific research. Provided guidance and feedback on writing journal-style scientific reports. Delivered solo guest lecture on social psychology.
- Guest Workshop Instructor Computational Modeling Workshop, Carney Institute for Brain Science
  - o Brown University, Providence, RI
  - Delivered a hands-on workshop for estimating hierarchical drift diffusion models using the HDDM package in Python.

#### 2020

- Teaching Assistant CLPS 0700: Social Psychology
  - o Brown University, Providence, RI
  - o Supervisor: Oriel FeldmanHall
  - o Introductory lecture course with an enrollment of 300 students. Helped students design and analyze their own studies, and provided guidance and feedback on writing journal-style scientific reports. Delivered solo guest lecture on attribution.

- Guest Workshop Instructor Computational Modeling Workshop, Carney Institute for Brain Science
  - o Brown University, Providence, RI
  - Delivered a hands-on workshop for estimating hierarchical drift diffusion models using the HDDM package in Python.

#### 2019

- Teaching Assistant CLPS 1790: Personality and Clinical Assessment
  - o Brown University, Providence, RI
  - o Supervisor: Jack Wright
  - Upper-level lab course with an enrollment of 24 students. Helped students design and analyze their own studies, and provided guidance and feedback on writing journal-style scientific reports.
- Workshop Instructor Data Science Using R
  - o Brown University, Providence, RI
  - Weekly workshop for undergraduates. Covered data wrangling, visualization, and mixed-effects regression.
- Guest Workshop Instructor Computational Modeling Workshop, Carney Institute for Brain Science
  - o Brown University, Providence, RI
  - Delivered a hands-on workshop for estimating hierarchical drift diffusion models using the HDDM package in Python.
- Guest Lecturer Summer @ Brown
  - o 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
  - o Brown University, Providence, RI
  - Three-part workshop teaching the fundamentals of programming computerized psychology experiments using PsychToolbox in Matlab.

#### 2014 - 2016

- Teaching Fellow Psych One: Introduction to Psychology
  - o Stanford University, Stanford, CA
  - Supervisors: Bridgette Martin-Hard, James Gross, Jamil Zaki, & Greg Walton
  - o Taught weekly sections (13-15 students each) in F14, W15, W16, and S16.

## **Scientific & Community Outreach**

- 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.
- Lesson Plan Designer Brain Week Rhode Island
  - Helped design a lesson plan to introduce Rhode Island students to the brain sciences, and specifically to the science of ingroup/outgroup cognition. Created a video introducing the Robber's Cave study and encouraging students to reflect on how groups affect their own social interactions.

#### 2020

- 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.

#### 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
  - Generally: organized events for undergraduate students and community members to learn about (and engage in) psychological science.
  - o Primary organizer for a discussion with Dr. Albert Bandura regarding his newly-published book, *Moral Disengagement*.
  - o 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 posing with Dr. Zimbardo following a special screening of the Stanford Prison Experiment movie and subsequent panel discussion.

## **Professional & Departmental Service**

2020-present	Graduate council, Carney Institute for Brain Science
	CLPS graduate student representative
2020-present	Diversity & Inclusion Action Plan (DIAP) committee
	Member of "Hiring & Recruitment" sub-committee
2020-present	Social cognitive seminar series, Brown Dept. of CLPS
	Co-organizer
2019-present	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

Journal of Experimental Psychology: General (JEPG) Social, Cognitive, and Affective Neuroscience (SCAN) Social Neuroscience

## "Popular Science"

Carney Institute for Brain Sciences

2019: What is love? Here's what brain science can tell us.

# **Media Coverage**

Carney Institute for Brain Sciences

2021: The next generation of scientists on the future of brain science.

# Brown Daily Herald

2021: <u>U. researchers find that cognitive maps are used to navigate social networks</u>

2018: FeldmanHall Lab demystifies human behavior 2017: New lab studies emotional decision-making