



## Hyowon Gweon

Associate Professor of Psychology

### Bio

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#### BIO

Hyowon (Hyo) Gweon (she/her) is an Associate Professor in the Department of Psychology. As a leader of the Social Learning Lab, Hyo is broadly interested in how humans learn from others and help others learn: What makes human social learning so powerful, smart, and distinctive? Taking an interdisciplinary approach that combines developmental, computational, and neuroimaging methods, her research aims to explain the cognitive underpinnings of distinctively human learning, communication, and prosocial behaviors.

Hyo received her PhD in Cognitive Science (2012) from MIT, where she continued as a post-doc before joining Stanford in 2014. She has been named as a Richard E. Guggenheimer Faculty Scholar (2020) and a David Huntington Dean's Faculty Scholar (2019); she is a recipient of the APS Janet Spence Award for Transformative Early Career Contributions (2020), Jacobs Early Career Fellowship (2020), James S. McDonnell Scholar Award for Human Cognition (2018), APA Dissertation Award (2014), and Marr Prize (best student paper, Cognitive Science Society 2010).

#### ACADEMIC APPOINTMENTS

- Associate Professor, Psychology
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)
- Member, Wu Tsai Human Performance Alliance
- Member, Wu Tsai Neurosciences Institute

#### ADMINISTRATIVE APPOINTMENTS

- Director of Graduate Studies, Department of Psychology, (2021- present)
- Director of Graduate Studies, Symbolic Systems, (2020- present)

#### PROGRAM AFFILIATIONS

- Symbolic Systems Program

#### PROFESSIONAL EDUCATION

- Ph.D., MIT , Cognitive Science (2012)

#### LINKS

- Social Learning Lab: <http://sll.stanford.edu>

## Teaching

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### COURSES

#### 2023-24

- Developmental Science of Social Cognition: PSYCH 175 (Aut)
- Master's Program Seminar: SYMSYS 291 (Aut, Win, Spr)
- Rethinking the Development of the Self: PSYCH 287A (Spr)

#### 2022-23

- Introduction to Developmental Psychology: PSYCH 60 (Spr)
- Master's Program Seminar: SYMSYS 291 (Aut, Win, Spr)
- Social Cognition and Learning in Early Childhood: PSYCH 175 (Spr)

#### 2021-22

- Introduction to Developmental Psychology: PSYCH 60 (Spr)
- Master's Program Seminar: SYMSYS 291 (Aut, Win, Spr)
- Social Cognition and Learning in Early Childhood: PSYCH 175 (Win)
- Triangulating Intelligence: Melding Neuroscience, Psychology, and AI: CS 322, PSYCH 225 (Win)

#### 2020-21

- Introduction to Developmental Psychology: PSYCH 60 (Spr, Sum)
- Master's Program Seminar: SYMSYS 291 (Aut, Win, Spr)

## Publications

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### PUBLICATIONS

- **Inferential social learning: cognitive foundations of human social learning and teaching.** *Trends in cognitive sciences*  
Gweon, H.  
2021
- **Young children consider the expected utility of others' learning to decide what to teach.** *Nature human behaviour*  
Bridgers, S., Jara-Ettinger, J., Gweon, H.  
2019
- **The rare preference effect: Statistical information influences social affiliation judgments.** *Cognition*  
Velez, N., Bridgers, S., Gweon, H.  
2019; 192: 103994
- **16-Month-Olds Rationally Infer Causes of Failed Actions** *SCIENCE*  
Gweon, H., Schulz, L.  
2011; 332 (6037): 1524-1524
- **Infants consider both the sample and the sampling process in inductive generalization** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Gweon, H., Tenenbaum, J. B., Schulz, L. E.  
2010; 107 (20): 9066-9071
- **The effects of information utility and teachers' knowledge on evaluations of under-informative pedagogy across development.** *Cognition*  
Bass, I., Bonawitz, E., Hawthorne-Madell, D., Vong, W. K., Goodman, N. D., Gweon, H.  
2022; 222: 104999
- **Beyond knowledge versus belief: The contents of mental-state representations and their underlying computations.** *The Behavioral and brain sciences*

- Asaba, M., Chuey, A., Gweon, H.  
2021; 44: e141
- **Moderated Online Data-Collection for Developmental Research: Methods and Replications** *FRONTIERS IN PSYCHOLOGY*  
Chuey, A., Asaba, M., Bridgers, S., Carrillo, B., Dietz, G., Garcia, T., Leonard, J. A., Liu, S., Merrick, M., Radwan, S., Stegall, J., Velez, N., Woo, et al  
2021; 12: 734398
  - **Emotion as Information in Early Social Learning** *CURRENT DIRECTIONS IN PSYCHOLOGICAL SCIENCE*  
Wu, Y., Schulz, L. E., Frank, M. C., Gweon, H.  
2021
  - **Preschool-Aged Children Jointly Consider Others' Emotional Expressions and Prior Knowledge to Decide When to Explore.** *Child development*  
Wu, Y., Gweon, H.  
2021
  - **Learning from other minds: an optimistic critique of reinforcement learning models of social learning** *CURRENT OPINION IN BEHAVIORAL SCIENCES*  
Lez, N., Gweon, H.  
2021; 38: 110-115
  - **Learning from other minds: An optimistic critique of reinforcement learning models of social learning.** *Current opinion in behavioral sciences*  
Vélez, N., Gweon, H.  
2021; 38: 110-115
  - **The Division of Labor in Communication: Speakers Help Listeners Account for Asymmetries in Visual Perspective.** *Cognitive science*  
Hawkins, R. D., Gweon, H., Goodman, N. D.  
2021; 45 (3): e12926
  - **Leaving a Choice for Others: Children's Evaluations of Considerate, Socially-Mindful Actions.** *Child development*  
Zhao, X., Zhao, X., Gweon, H., Kushnir, T.  
2021
  - **StoryCoder: Teaching Computational Thinking Concepts Through Storytelling in a Voice-Guided App for Children**  
Dietz, G., Le, J. K., Tamer, N., Han, J., Gweon, H., Murnane, E. L., Landay, J. A., ASSOC COMP MACHINERY  
ASSOC COMPUTING MACHINERY.2021
  - **Online Developmental Science to Foster Innovation, Access, and Impact.** *Trends in cognitive sciences*  
Sheskin, M., Scott, K., Mills, C. M., Bergelson, E., Bonawitz, E., Spelke, E. S., Fei-Fei, L., Keil, F. C., Gweon, H., Tenenbaum, J. B., Jara-Ettinger, J., Adolph, K. E., Rhodes, et al  
2020
  - **The role of communication in acquisition, curation, and transmission of culture.** *The Behavioral and brain sciences*  
Gweon, H. n.  
2020; 43: e104
  - **Integrating Expectations and Outcomes: Preschoolers' Developing Ability to Reason About Others' Emotions** *DEVELOPMENTAL PSYCHOLOGY*  
Asaba, M., Ong, D. C., Gweon, H.  
2019; 55 (8): 1680–93
  - **Integrating Incomplete Information With Imperfect Advice** *TOPICS IN COGNITIVE SCIENCE*  
Velez, N., Gweon, H.  
2019; 11 (2): 299–315
  - **Response patterns in the developing social brain are organized by social and emotion features and disrupted in children diagnosed with autism spectrum disorder.** *Cortex; a journal devoted to the study of the nervous system and behavior*  
Richardson, H. n., Gweon, H. n., Dodell-Feder, D. n., Malloy, C. n., Pelton, H. n., Keil, B. n., Kanwisher, N. n., Saxe, R. n.  
2019; 125: 12–29
  - **Integrating Incomplete Information With Imperfect Advice.** *Topics in cognitive science*  
Velez, N., Gweon, H.  
2018

- **Development of Children's Sensitivity to Overinformativeness in Learning and Teaching** *DEVELOPMENTAL PSYCHOLOGY*  
Gweon, H., Shafto, P., Schulz, L.  
2018; 54 (11): 2113–25
- **Means-Inference as a Source of Variability in Early Helping.** *Frontiers in psychology*  
Bridgers, S., Gweon, H.  
2018; 9: 1735
- **Means-Inference as a Source of Variability in Early Helping** *FRONTIERS IN PSYCHOLOGY*  
Bridgers, S., Gweon, H.  
2018; 9
- **From Exploration to Instruction: Children Learn From Exploration and Tailor Their Demonstrations to Observers' Goals and Competence.** *Child development*  
Gweon, H., Schulz, L.  
2018
- **'To the victor go the spoils': Infants expect resources to align with dominance structures.** *Cognition*  
Enright, E. A., Gweon, H., Sommerville, J. A.  
2017; 164: 8-21
- **Order Matters: Children's Evaluation of Underinformative Teachers Depends on Context.** *Child development*  
Gweon, H., Asaba, M.  
2017
- **Learning the Structure of Social Influence** *COGNITIVE SCIENCE*  
Gershman, S. J., Pouncy, H. T., Gweon, H.  
2017; 41: 545-575
- **The Naïve Utility Calculus: Computational Principles Underlying Commonsense Psychology.** *Trends in cognitive sciences*  
Jara-Ettinger, J., Gweon, H., Schulz, L. E., Tenenbaum, J. B.  
2016; 20 (8): 589-604
- **Learning From Others and Spontaneous Exploration: A Cross-Cultural Investigation** *CHILD DEVELOPMENT*  
Shneidman, L., Gweon, H., Schulz, L. E., Woodward, A. L.  
2016; 87 (3): 723-735
- **Children's understanding of the costs and rewards underlying rational action** *COGNITION*  
Jara-Ettinger, J., Gweon, H., Tenenbaum, J. B., Schulz, L. E.  
2015; 140: 14-23
- **Sins of omission: Children selectively explore when teachers are under-informative** *COGNITION*  
Gweon, H., Pelton, H., Konopka, J. A., Schulz, L. E.  
2014; 132 (3): 335-341
- **Differences in the right inferior longitudinal fasciculus but no general disruption of white matter tracts in children with autism spectrum disorder** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Koldewyn, K., Yendiki, A., Weigelt, S., Gweon, H., Julian, J., Richardson, H., Malloy, C., Saxe, R., Fischl, B., Kanwisher, N.  
2014; 111 (5): 1981-1986
- **Theory of Mind Performance in Children Correlates With Functional Specialization of a Brain Region for Thinking About Thoughts** *CHILD DEVELOPMENT*  
Gweon, H., Dodell-Feder, D., Bedny, M., Saxe, R.  
2012; 83 (6): 1853-1868
- **The double-edged sword of pedagogy: Instruction limits spontaneous exploration and discovery** *COGNITION*  
Bonawitz, E., Shafto, P., Gweon, H., Goodman, N. D., Spelke, E., Schulz, L.  
2011; 120 (3): 322-330