# Leor Hackel

University of Southern California, Department of Psychology 3620 S. McClintock Ave., Los Angeles, CA 90089

lhackel@usc.edu hackellab.org

POSITIONS Assistant Professor Department of Psychology, University of Southern California	2019-Present
Assistant Professor Department of Psychology, Rutgers University	Jan-June, 2019
Post-doctoral Fellow Department of Psychology, Stanford University	2016-2018
EDUCATION PhD in Social Psychology, New York University Minor in Quantitative Psychology	2016
<b>BS, Neuroscience &amp; Behavior</b> , <i>Summa Cum Laude</i> , Columbia University Departmental Honors in Neuroscience & Behavior	2011
AWARDS, FELLOWSHIPS, AND HONORS	
Fellow, Society of Experimental Social Psychology	2022
Rising Star Award, Association for Psychological Science	2021
Friends of Katzell Summer Fellowship, New York University	2014
Student Poster Award, Society for Personality & Social Psychology Graduate Student Outstanding Research Award,	2014
Society for Personality & Social Psychology	2014
Travel Award, Society for Personality & Social Psychology	2013
GSAS Dean's Conference Travel Award, New York University	2013
Travel Award, Center for Social & Political Behavior, New York Universit	y 2013
Honorable Mention, National Science Foundation Graduate Research Fell-	owship 2013
Fellowship, NIH/University of Michigan Training Course in fMRI	2012
Engberg Award, NYU	2011
Jennifer A. Pack Prize in Psychology, Columbia University	2011

## **GRANTS**

A Neural Model of Reinforcement Learning from Familiar Relational Roles. U.S.-Israel Binational Science Foundation: \$75,000. (2022-2024).

An Interdisciplinary Approach to Reducing Disparities in Social Capital. National Science Foundation, SBE Postdoctoral Research Fellowship: \$227,520. (2016-2018).

Neural Mechanisms of Social Learning. NYU Center for Brain Imaging Grant: \$10,000. (2014). Neural Underpinnings of Identity-Related Social Preferences. NYU Center for Brain Imaging Grant: \$5,000. (2012-2013).

## **PUBLICATIONS**

- **Hackel, L. M.**, Kalkstein, D. A., & Mende-Siedlecki, P. (2024). Simplifying social learning. *Trends in Cognitive Sciences*, 28(5), 428-440.
- **Hackel, L. M.,** & Kalkstein, D. A. (2023). Social concepts simplify complex reinforcement learning. *Psychological Science*, 34(9), 968-983.
- **Hackel, L. M., &** Mende-Siedlecki, P. (2023). Two modes of social impressions and their effects on choice. *Journal of Experimental Psychology: General*, 152(11), 3002–3020.
- Sparkman, G., **Hackel, L. M.,** Randall Crosby, J., Gross, J. J., & Martin Hard, B. (2023). Connecting introductory psychology to climate change can empower students. *Teaching of Psychology*, 00986283231177949.
- Cho, H., & **Hackel, L. M.** (2022). Instrumental learning of social affiliation through outcome and intention. *Journal of Experimental Psychology: General*, 151(9), 2204-2221.
- **Hackel, L. M.,** Mende-Siedlecki, P., Loken, S., & Amodio, D. M. (2022). Context-dependent learning in social interaction: Trait impressions support flexible social choices. *Journal of Personality and Social Psychology*, 123(4), 655-675.
- **Hackel, L. M.**, Kogon, D., Amodio, D. M., & Wood, W. (2022). Group value learned through interactions with members: A reinforcement learning account. *Journal of Experimental Social Psychology*, 99, 104267.
- Rathje, S., **Hackel, L. M.**, & Zaki, J. (2021). Seeing live theatre improves empathy, changes attitudes, and leads to pro-social behavior. *Journal of Experimental Social Psychology*, 95, 104138.
- Doell, K. C., Pärnamets, P., Harris E., **Hackel, L. M.,** & Van Bavel, J. J. (2021). Understanding the effects of partisan identity on climate change. *Current Opinion in Behavioral Sciences*, 42, 54-59.
- Kalkstein, D. A., **Hackel, L. M.**, & Trope, Y. (<u>2020</u>). Person-centered cognition: The presence of people in a visual scene promotes relational reasoning. *Journal of Experimental Social Psychology*, *90*, 104009.
- **Hackel, L. M.,** Wills, J., & Van Bavel, J. J. (2020). Shifting prosocial intuitions: Neurocognitive evidence for a value based account of group-based cooperation. *Social Cognitive and Affective Neuroscience*, 15(4), 371-381.
- Wills, J., **Hackel, L. M.**, FeldmanHall, O., Pärnamets, P., & Van Bavel, J. J. (2020). The social neuroscience of cooperation. In Poeppel, D., Mangun, G. R., & Gazzaniga, M. S. (Eds.) *The Cognitive Neurosciences*. 6<sup>th</sup> Edition. MIT Press.

- **Hackel, L. M.**, Mende-Siedlecki, P., & Amodio, D. M. (2020). Reinforcement learning in social interaction: The distinguishing role of trait inference. *Journal of Experimental Social Psychology*, 88, 103948.
- **Hackel, L. M.**, Berg, J. J., Lindström, B. R., & Amodio, D. M. (2019). Model-based and model-free social cognition: Investigating the role of habit in social attitude formation and choice. *Frontiers in Psychology*, *10*, 2592.
- **Hackel, L. M.**, & Amodio, D. M. (2018). Computational neuroscience approaches to social cognition. *Current Opinion in Psychology*, 24, 92-97.
- Schmid, P., **Hackel, L. M.**, & Amodio, D. M. (2018). Power effects on instrumental learning: Evidence from the brain and behavior. *Motivation Science*, 4(3), 206-226.
- **Hackel, L. M.** & Zaki, J. (2018). Propagation of economic inequality through reciprocity and reputation. *Psychological Science*, 29(4), 604-613.
- **Hackel, L. M.**, Coppin, G., Wohl, M. J. A., & Van Bavel, J. J. (2018). From groups to grits: Social identity shapes evaluations of food pleasantness. *Journal of Experimental Social Psychology*, 74, 270-280.
- Schmid, P., **Hackel, L. M.**, Jasperse, L., & Amodio, D. M. (2018). Frontal cortical effects on feedback processing and reinforcement learning: Relation of EEG asymmetry with the feedback-related negativity and behavior. *Psychophysiology*, *55*(1), e12911.
- Dixon-Gordon, K. L., Tull, M. T., **Hackel, L. M.**, & Gratz, K. L. (<u>2018</u>). The influence of emotional state on learning from reward and punishment in borderline personality disorder. *Journal of Personality Disorders 32*(4), 433-446.
- **Hackel, L. M.,** & Zaki, J. (2017). My brain contains multitudes: The value of a flexible approach to identity. *Psychological Inquiry*, 28(2-3), 99-102.
- **Hackel, L. M.,** Zaki, J., & Van Bavel, J. J. (2017). Social identity shapes social valuation: Evidence from prosocial behavior and vicarious reward. *Social Cognitive and Affective Neuroscience*, 12(8), 1219-1228.
- **Hackel, L. M.**, Larson, G. M., Bowen, J. D., Ehrlich, G. A., Mann, T. C., Middlewood, B., Roberts, I. D., Eylink, J., Fetterolf, J.C., Gonzalez, F., Garrido, C. O., Kim, J., O'Brien, T., O'Malley, E. E., Mesquita, B., & Barrett, L.F. (2016). On the neural implausibility of the modular mind: Evidence for distributed construction dissolves boundaries between perception, cognition, and emotion. *Behavioral and Brain Sciences*, 39.
- **Hackel, L. M.**, Doll, B. B., & Amodio, D. M. (<u>2015</u>). Instrumental learning of traits versus rewards: Dissociable neural correlates and effects on choice. *Nature Neuroscience*, 18, 1233-1235.
  - Featured in "News & Views": Hsu, M., & Jenkins, A. C. (2015). Character studies. *Nature Neuroscience*, 18, 1198-1199.

**Hackel, L. M.**, Looser, C. E., & Van Bavel, J. J. (2014). Group membership alters the threshold for mind perception: The role of social identity, collective identification, and intergroup threat. *Journal of Experimental Social Psychology*, 52, 15-23.

Van Bavel, J. J., **Hackel, L. M.**, & Xiao, Y. J. (2014). The group mind: The pervasive influence of social identity on cognition. In J. Decety & Y. Christian (Eds.) *New frontiers in social neuroscience*. (pp. 41-56). Springer.

Van Bavel, J. J., Xiao, Y. J. & **Hackel, L. M.** (2013). Social identity shapes social perception and evaluation: Using neuroimaging to look inside the social brain. In B. Derks, D. Scheepers & N. Ellemers (Eds.) *The Neuroscience of Prejudice and Intergroup Relations*. (pp. 110-129). Psychology Press.

#### MANUSCRIPTS UNDER REVISION

Babur, B., Leong, Y. C., Pan, C. X., & **Hackel**, **L. M.** (2023). Neural responses to social rejection reflect dissociable learning about relational value and reward. *Invited revision*.

Zhang., Y., & **Hackel**, L. M. (2023). Reward association with mental states shapes empathy and prosocial behavior. *Invited revision*.

## MANUSCRIPTS SUBMITTED FOR PUBLICATION

Ni, Q., Kalkstein, D. A., & **Hackel**, **L. M**. (2023). The intentional stance drives relational reasoning in social scenes. *Manuscript submitted for publication*.

### **SYMPOSIA CHAIRED**

Hackel, L. M. (2024, May). *How semantic meaning shapes and is shaped by social learning*. Symposium chaired at the annual meeting of the Association for Psychological Science, San Francisco, CA.

Hackel, L. M., & Mende-Siedlecki, P. (2022, May). *Expectation versus experience: Prediction error in social cognition*. Symposium chaired at the annual meeting of the Association for Psychological Science, Chicago, IL.

Hackel, L. M., & Zaki, J. (2018, May). *How learning gives rise to morality*. Symposium chaired at the 30<sup>th</sup> annual meeting of the Association for Psychological Science, San Francisco, CA.

Hackel, L. M., & Zaki, J. (2018, March). *How learning gives rise to morality*. Symposium chaired at the 19<sup>th</sup> annual meeting of the Society for Personality & Social Psychology, Atlanta, GA.

Kalkstein, D., & Hackel, L. M. (2017, October). *Making cognition social: How thinking, reasoning, and learning change in social versus nonsocial situations*. Symposium chaired at the annual meeting of the Society for Experimental Social Psychology, Boston, MA.

Amodio, D. M., & Hackel, L. M. (2015, May). *Learning from social rewards and punishments: How social contexts transform the dynamics of reinforcement learning.* Symposium chaired at the 25th annual meeting of the Association for Psychological Science, New York, NY.

Hackel, L. M., & Van Bavel, J. J. (2013, May). *Group influences on mind perception*. Symposium chaired at the 25<sup>th</sup> annual meeting of Association for Psychological Science, Washington, D.C.

Hackel, L. M, & Van Bavel, J. J. (2013, January). *Group influences on mind perception: Novel insights into when and how we see minds across group divides*. Symposium chaired at the 14<sup>th</sup> annual meeting of the Society for Personality and Social Psychology, New Orleans, LA.

## **TALKS**

Hackel, L. M. (2024, May). *Social concepts simplify complex reinforcement learning*. Annual meeting of the Association for Psychological Science, San Francisco, CA.

Hackel, L. M. (2024, February). *Simplifying Social Decisions*. Judgment and Decision Making Preconference to the annual meeting of the Society for Personality and Social Psychology, Long Beach, CA.

Hackel, L. M. (2023, October). *Two modes of social impressions and their effects on choice*. Society for Experimental Social Psychology, Madison, WI.

Hackel, L. M. (2023, May). *An emotion regulation perspective on moral disagreement.* Open Minds conference, Florence, Italy.

Hackel, L. M. (2023, April). *Neural responses to social rejection reflect learning about relational value.* Annual meeting of the Social Affective Neuroscience Society, Santa Barbara, CA.

Hackel, L. M. (2023, March). *Simplicity in social learning*. UC Santa Barbara Social Psychology Colloquium.

Hackel, L. M. (2022, November). *Simplicity in social learning*. USC Psychology Department Colloquium.

Hackel, L. M. (2022, July). *Instrumental learning of social affiliation through outcome and intention*. Annual meeting of the International Society for Research on Emotion, Los Angeles, CA

Hackel, L. M. (2022, May). *Instrumental learning of social affiliation through outcome and intention*. Annual meeting of the Association for Psychological Science, Los Angeles, CA.

Hackel, L. M. (2021, October). *Instrumental learning of social affiliation through outcome and intention*. Annual meeting of the Society for Experimental Social Psychology, Santa Barbara, CA.

- Hackel, L. M. (2021, May). *Generalization of social value across contexts*. Annual meeting of the Social Affective Neuroscience Society, Santa Barbara, CA.
- Hackel, L. M. (2019, October). *An instrumental learning approach to social cognition: Neural substrates and behavioral implications.* University of California, Los Angeles.
- Hackel, L. M. (2019, October). *Empathy as an engine of reciprocity*. University of Southern California.
- Hackel, L. M. (2019, April). *Instrumental learning in social interaction*. Invited paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Hackel, L. M. (2019, February). *Instrumental learning in social interaction*. Rutgers-Princeton Center for Cognitive Computational Neuropsychiatry Seminar, Piscataway, NJ.
- Hackel, L. M. (2019, January). *Instrumental learning in social interaction*. Yale University, New Haven, CT.
- Hackel, L. M. (2018, October). *Empathy as an engine of reciprocity*. Neuroleadership Summit, New York, NY.
- Hackel, L. M. (2018, August). *Social groups shape cooperation: Evidence from behavior and the brain.* Paper presented at the annual Mind & Life European Summer Research Institute, Chiemsee, Germany.
- Hackel, L. M, & Zaki, J. (2018, March). *Propagation of economic inequality through reciprocity and reputation: A reinforcement learning account.* Paper presented at the 30<sup>th</sup> annual meeting of the Association for Psychological Science, San Francisco, CA.
- Hackel, L. M, & Zaki, J. (2018, March). *Propagation of economic inequality through reciprocity and reputation: A reinforcement learning account.* Paper presented at the 19<sup>th</sup> annual meeting of the Society for Personality & Social Psychology, Atlanta, GA.
- Hackel, L. M. (2017, December). *Instrumental learning in social interaction*. Departmental talk, Boston College, Boston, MA.
- Hackel, L. M. (2017, November). *Instrumental learning in social interaction*. Departmental talk, Rutgers University, New Brunswick, NJ.
- Hackel, L. M. (2017, November). *Instrumental learning in social interaction*. Presented at the Wood Lab, University of Southern California.
- Hackel, L. M, Mende-Siedlecki, P, & Amodio, D. M. (2017, October). *Trait inference distinguishes social versus nonsocial reinforcement learning*. Paper presented at the annual meeting of the Society for Experimental Social Psychology, Boston, MA.

- Hackel, L. M. (2016, October). *Instrumental learning about people: Bridging action, value, and social cognition*. Paper presented at the Stanford University Psychology Department Affective Seminar, Stanford, CA.
- Hackel, L. M., & Amodio, D. M. (2016, September). *Social interactions guided by habits*. Paper presented at the annual meeting of the Society for Experimental Social Psychology, Santa Monica, CA.
- Hackel, L. M., & Amodio, D. M. (2016, August). *Habit and social cognition: Learning processes and effects on behavior.* Paper presented at the Habit-Driven Consumer meeting, Catalina Island, CA.
- Hackel, L. M., Doll, B. B., & Amodio, D. M. (2016, April). *Instrumental learning of traits versus rewards: Disssociable neural correlates and effects on choice*. Paper presented at the 9<sup>th</sup> annual meeting of the Social and Affective Neurosicence Society, New York, NY.
- Hackel, L. M, Doll, B. B., & Amodio, D.M. (2015, May). *Neural signatures of both trait and value learning guide social decisions*. Paper presented at the 27<sup>th</sup> annual meeting of the Association for Psychological Science, New York, NY.
- Hackel, L. M, Doll, B. B., & Amodio, D.M. (2015, May). *Neural encoding of traits drives decision-making above and beyond reward learning*. Paper presented at the 5<sup>th</sup> annual Interdisciplinary Symposium on Decision Neuroscience, Boston, MA.
- Hackel, L. M., Zaki, J., & Van Bavel, J. J. (2015, February). *Motivational components of group identification shape altruistic behavior and neural vicarious reward responses*. Data blitz presented at the Emotion Preconference to the 16<sup>th</sup> annual meeting of the Society for Personality and Social Psychology, Long Beach, CA.
- Hackel, L. M., Looser, C. E., & Van Bavel, J. J. (2013, May). *Social identity alters mind perception*. Data blitz presented at the Four College Conference, Princeton University, Princeton, NJ.
- Hackel, L. M., Looser, C. E., & Van Bavel, J. J. (2013, April). *Social identity alters mind perception: Behavioral and neuroimaging evidence*. Paper presented at the 25<sup>th</sup> annual meeting of Association for Psychological Science, Washington, D.C.
- Hackel, L. M., Looser, C. E., Jost, J. T., & Van Bavel, J. J. (2013, April). *Social identity alters mind perception: Behavioral and neuroimaging evidence.* Paper presented at the 6<sup>th</sup> annual meeting of the Social & Affective Neuroscience Society, San Francisco, CA.
- Hackel, L. M., Looser, C. E., & Van Bavel, J. J. (2013, January). *Social identity alters the threshold for mind perception*. Paper presented at the 14<sup>th</sup> annual meeting of the Society for Personality and Social Psychology, New Orleans, LA.
- Hackel, L. M., Looser, C. E., & Van Bavel, J. J. (2012, May). Failing to see the mind across the group divide: Social identity alters the threshold for mind perception. Paper presented at the New York University Psychology Department, New York, NY.

#### **POSTERS**

- Mende-Siedlecki, P., & Hackel, L. M. (2022, April). *Reference-dependent impressions bias social decisions*. Poster presented at the annual meeting of the Social Affective Neuroscience Society (virtual conference).
- Zhang, Y.\*, & Hackel, L. M. (2021, April). *Learning empathy via Pavlovian conditioning*. Poster presented at the annual meeting of the Social for Affective Science (virtual conference).
- Cho, H.\*, & Hackel, L. M. (2021, February). *Instrumental learning of social affiliation through outcome and intention*. Poster presented at the annual meeting of the Society for Personality and Social Psychology (virtual conference).
- Hackel, L. M., Mende-Siedlecki, P., Foerde, K., & Amodio, D. M. (2017, March). *Instrumental social learning across contexts*. Poster presented at the 10<sup>th</sup> annual meeting of the Social and Affective Neuroscience Society, Los Angeles, CA.
- Hackel, L. M., Mende-Siedlecki, P., Loken, S., & Amodio, D. M. (2017, January). *Instrumental social learning across contexts*. Poster presented at the 18th annual meeting of the Society for Personality and Social Psychology, San Antonio, TX.
- Hackel, L. M., Coppin, G., Wohl, M. J. A., & Van Bavel, J. J. (2016, January). *From groups to grits: Identity shapes food evaluation*. Poster presented at the 17<sup>th</sup> annual meeting of the Society for Personality and Social Psychology, San Diego, CA.
- Hackel, L. M., Zaki, J., & Van Bavel, J. J. (2015, April). *Motivational components of group identification shape altruistic behavior and neural vicarious reward responses*. Poster presented at the 8<sup>th</sup> annual meeting of the Social and Affective Neuroscience Society, Boston, MA.
- Hackel, L. M., Doll, B. B., & Amodio, D. M. (2015, March). *Neural signatures of both trait and value learning guide social decisions*. Poster presented at the 22<sup>nd</sup> annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Hackel, L. M., Doll, B. B., & Amodio, D. M. (2015, March). *Learning about people through feedback: Reinforcement learning in social cognition*. Poster presented at the 16<sup>th</sup> annual meeting of the Society for Personality and Social Psychology, Long Beach, CA.
- Hackel, L. M., Looser, C. E., Jost, J. T., & Van Bavel, J. J. (2013, February). *Social identity shapes mind perception: Behavioral and neuroimaging evidence*. Poster session presented at the 15<sup>th</sup> Annual Meeting of the Society for Personality and Social Psychology, Austin, TX.
- Hackel, L. M., Looser, C. E., & Van Bavel, J. J. (2012, January). *Seeing minds: Social identity alters the threshold for mind perception*. Poster session presented at the Mind Perception Pre-Conference to the 13<sup>th</sup> Annual Meeting of the Society for Personality and Social Psychology, San Diego, CA.

TEACHING	_
Psychology Department, University of Southern California	
Instructor, Social Cognition	2020-
Instructor, Social Neuroscience	2021-
Instructor, Special Topics in Social Psychology	Spring, 2021
Psychology Department, New York University	1 0
Teaching Assistant, Cognition	Spring, 2016
Teaching Assistant, Intermediate Graduate Statistics	Fall, 2014
Teaching Assistant, Statistics for the Behavioral Sciences	Summer, 2013
Guest Lecturer, Graduate Research Methods	Fall, 2012, 2014
Psychology Department, Columbia University	
Guest Lecturer, Intro to Social Cognition	Spring, 2011
Teaching Assistant, Intro to Social Cognition	Spring, 2010 & 2011

## **MENTORING**

## **PhD Trainees**

• Yi Zhang, Jean Luo, Kira Harris

## **Undergraduate Honors Theses Advised**

- Daniel Belkind (University of Southern California)
- Alexis Pinela (University of Southern California)
  - o Provost's Undergraduate Research Fellowship recipient
- Stacy Beach (New York University)
  - o Dean's Undergraduate Research Fellowship recipient
  - o Dean's Undergraduate Research Conference, Panel Award
  - Doris Aaronson Award for Outstanding Thesis in Psychology
- Bosi Chen (New York University)
  - o Dean's Undergraduate Research Fellowship recipient
  - Walter & Phyllis Loeb Research Scholarship
- Siri Loken (New York University)
  - o Dean's Undergraduate Research Fellowship recipient
  - Hillary Ann Citrin Award for Outstanding Thesis in Psychology
- Jonathan Rosenthal (New York University)
  - o Dean's Undergraduate Research Fellowship recipient
  - o Dean's Undergraduate Research Conference, Panel Award
- Amanda Szerdi (Stanford Univeristy)
  - o Undergraduate Advising & Research grant recipient

## **REVIEWING: JOURNALS**

Cognition; Cognitive Affective & Behavioral Neuroscience; Cognitive Science; Cerebral Cortex; Emotion; Group Processes and Intergroup Relations; Human Brain Mapping; Journal of Cognitive Neuroscience; Journal of Experimental Psychology: General; Journal of Experimental Social Psychology; Journal of Personality & Social Psychology; Nature Communications; Neuroimage; Neuropsychologia; PLoS One; Perspectives on Psychological Science; PNAS; Psychological Science; Review of General Psychology; Science: Advances, Social Cognitive and Affective Neuroscience; Social Psychological and Personality Science; Trends in Cognitive Sciences

## **REVIEWING: FUNDING AGENCIES**

Israel Science Foundation; U.S. National Science Foundation

SERVICE	
Social Behavior Lab, Director, Psychology Department, USC	2022-
Steering Committee, Psychology Department, USC	2019-
Graduate Student Career Readiness Committee, Faculty Advisor,	
Psychology Department, USC	2021
Graduate Admissions Committee, Psychology Department, USC	2019-2021
Coordinator, Social Psychology Brown Bag Series, USC	2020-
Co-Chair, SPSP Climate Impact Task Force	2019-2020
Reviewer, Society for Personality & Social Psychology conference	2015-2021
Graduate Admissions Committee, Social Psychology, New York University	2014-2015
Coordinator, Social Neuroscience Journal Group, New York University	2012-2014

## **ORGANIZATIONS**

Association for Psychological Science (APS) Social & Affective Neuroscience Society (SANS) Society for Personality and Social Psychology (SPSP) Society for Experimental Social Psychology (SESP)