

Hause Lin
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Education and Research Experience

- 2021- Post-Doctoral Fellow, MIT, University of Regina
Advisors: Gordon Pennycook, David Rand
- 2016-21 Ph.D., University of Toronto, Canada
Committee: Michael Inzlicht, Cendri Hutcherson, Katherine Duncan
- 2019 Research Assistant, Rotman School of Management, University of Toronto, Canada
Advisor: Bernardo Blum, Associate Professor of Economic Analysis and Policy
- 2019 Research Fellow, Donders Institute for Neuroscience, The Netherlands
Advisor: Mike X Cohen, Synchronization in Neural Systems Lab
- 2015-16 M.A., University of Toronto, Canada
- 2011-14 B.Sc. (Hons, Ranked 1/223), University of Sussex, UK

Awards, Grants, and Honors

- 2015-20 Connaught International Scholarship (\$175,000), University of Toronto
- 2020 Doctoral Completion Award (\$8,000), University of Toronto
- 2020 Robert Pratt Scholarship (\$2,250), University of Toronto
- 2020 Udacity Technology Deep Learning Scholarship, Bertelsmann Technology
- 2020 Kaggle Open Data Research Grant (\$2,000), Google
- 2019 Data for Social Good Scholarship, Dataquest
- 2019 Udacity Artificial Intelligence with PyTorch Scholarship
- 2019 rstudio::conf(2020) Scholarship (\$1,000), RStudio
- 2019 Toronto Machine Learning Summit Scholarship, Royal Bank of Canada
- 2019 Mary H. Beatty Fellowship (\$10,000), University of Toronto
- 2019 Summer Institute in Social and Personality Psychology, New York University
- 2019 Inaugural Psychology Best Paper Award (\$250), University of Toronto
- 2019 School of Graduate Studies Conference Grant (\$560), University of Toronto
- 2018 Society for Psychophysiological Research Training Fellowship (\$3,400)
- 2018 Ontario Graduate Scholarship (\$15,000), Ontario, Canada
- 2018 Society for Personality and Social Psychology Graduate Travel Award (\$500)
- 2017 The Social & Affective Neuroscience Society Poster Award (\$200)
- 2016-19 Graduate Student Grant (\$400 per year), University of Toronto
- 2016 School of Graduate Studies Conference Grant (\$410), University of Toronto
- 2014 The Undergraduate Awards Winner and The George Berkeley Gold Medal (Psychology)
- 2014 The British Psychological Society Undergraduate Award for Highest Overall Score
- 2013 Junior Research Associate Grant (\$2,500), University of Sussex
- 2009 Corporal First Class, Commendation Letter, Commando Training Institute, Singapore

Peer-Reviewed Publications ([Google Scholar: hauselin.com/scholar](https://scholar.google.com/citations?user=hauselin.com))

- Lin, H.**, Werner, K. M., & Inzlicht, M. (accepted). Promises and perils of experimentation: The mutual internal validity problem. *Perspectives on Psychological Science*. doi: <https://psyarxiv.com/hwubj/>
- Lin, H.**, Saunders, B., Friese, M., Evans, N. J., & Inzlicht, M. (2020). Strong effort manipulations reduce response caution: A preregistered reinvention of the ego-depletion paradigm. *Psychological Science*, 31(5), 1-17. doi: [10.1177/0956797620904990](https://doi.org/10.1177/0956797620904990)
- Umemoto, A., **Lin, H.**, & Inzlicht, M. (in-principle acceptance). Cost-benefit analysis in physical effort expenditure: An electrophysiological registered report. Registered Report. *Cortex*.
- Lin, H.**, & Vartanian, O. (2018). A neuroeconomic framework for creative cognition. *Perspectives on Psychological Science*, 13(6), 655-677. doi: [10.1177/1745691618794945](https://doi.org/10.1177/1745691618794945). **University of Toronto Trainee Best Paper Award**

- Lin, H., Saunders, B., Hutcherson, C. A., & Inzlicht, M. (2018). Midfrontal theta and pupil dilation parametrically track subjective conflict (but also surprise) during intertemporal choice. *NeuroImage*, 172, 838-852. doi: [10.1016/j.neuroimage.2017.10.055](https://doi.org/10.1016/j.neuroimage.2017.10.055)
- Francis, Z., Milyavskaya, M., Lin, H., & Inzlicht, M. (2018). Development of a within-subject, repeated-measures ego depletion paradigm: Inconsistent results and future recommendations. *Social Psychology*, 49, 271-286. doi: [10.1027/1864-9335/a000348](https://doi.org/10.1027/1864-9335/a000348)
- Saunders, B., Lin, H., Milyavskaya, M., & Inzlicht, M. (2017). The emotive nature of conflict monitoring in the medial prefrontal cortex. *International Journal of Psychophysiology*, 119, 31-40. doi: [10.1016/j.ijpsycho.2017.01.004](https://doi.org/10.1016/j.ijpsycho.2017.01.004)

Scientific Reproducibility Publications

- Anderson, T., Petranker, R., Lin, H., & Farb, N. A. S. (2020). The metronome response task for measuring mind wandering: Replication attempt and extension of three studies by Seli et al. *Attention, Perception, & Psychophysics*. <https://doi.org/10.3758/s13414-020-02131-x>
- Jones, B. C., DeBruine, L. M., Flake, J. K., Liuzza, M. L., Antfolk, J., Arinze, N. C., Ndukaihe, I. L. G., ... Lin, H., Inzlicht, M., ... Forscher, P. S., Chartier, C. R., Coles, N. A. (in press). To which world regions does the valence-dominance model of social perception apply? *Nature Human Behavior*. <https://psyarxiv.com/n26dy>
- Ebersole, C. R., Mathur, M.A., Baranski, E., Bart-Plange, D-J., Buttrick, N.R., Chartier, C. R., Corker, K. S., ... Lin, H., Žeželj, I., Zrubka, M., Nosek, B. A. (accepted). Many Labs 5: Testing pre-data collection peer review as an intervention to increase replicability (results-blind manuscript). *Advances in Methods and Practices in Psychological Science*. Retrieved from <https://psyarxiv.com/sxfrm2/>
- Chartier, C. R., Arnal, J. D., Arrow, H., Bloxson, N., Bonfiglio, D. B. V., Brumbaugh, C. C., Ebersole, C. R., ... Lin, H., ... Schmidt, K., Storage, D., Tocco, C. (accepted). Many Labs 5: Replication of Albarracín et al. (2018). *Advances in Methods and Practices in Psychological Science*.
- Landy, J. F., Jia, M., Ding, I. L., Viganola, D., Tiemey, W., Dreber, A., Johannesson, M., ... **The Crowdsourcing Hypothesis Tests Collaboration***, Uhlmann, E. L. (2020). Crowdsourcing hypothesis tests: Making transparent how design choices shape research results. *Psychological Bulletin*. doi: [10.1037/bul0000220](https://doi.org/10.1037/bul0000220) ***part of the collaboration**
- Moshontz, H., Campbell, L., Ebersole, C. R., IJzerman, H., Urry, H. L., Forscher, P. S., Grahe, J. E., ... Lin, H., ... Navarette, G., Silan, M. A., Chartier, C. R. (2018). The Psychological Science Accelerator: Advancing psychology through a distributed collaborative network. *Advances in Methods and Practices in Psychological Science*. 1(4), 501-515, doi: [10.1177/2515245918797607](https://doi.org/10.1177/2515245918797607)

Manuscripts Under Review

- Frömer, R., Lin, H. (shared first-authors), Wolf, C. D. K., Inzlicht, M., & Shenhav, A. (revision submitted). When effort matters: Expectations of reward and efficacy guide cognitive control allocation. <https://www.biorxiv.org/content/10.1101/2020.05.14.095935v3>
- Lin, H., Westbrook, A., & Inzlicht, M. (invited revision). Instilling the value of effort. Registered Report.
- Fusco, G., Scandola, M., Lin, H., Inzlicht, M., & Aglioti, S. M. (under review). Modulating preferences during intertemporal choices through exogenous midfrontal theta transcranial alternating current. Registered Report.

Manuscripts In Preparation

- Lin, H., & Cohen, M. X. (in prep). Dimension reduction and source analysis of multivariate EEG neural activity via generalized eigendecomposition.
- Lin, H., & Inzlicht, M. (in prep). Using machine learning and neurophysiology to investigate information processing and predict irrational choice. **Winner of Kaggle Open Data Research Grant**
- Lin, H., Hutcherson, C. A. (in prep). Using computational methods to infer behavioral preferences and predict moral trade-offs.
- Hutcherson, C. A., Lin, H., Inbar, Y. (in prep). Investigating the computational and temporal dynamics associated with ethical tradeoffs and violations.
- Miles, E., Lin, H., Francis, Z., & Inzlicht, M. (in prep). Practicing self-control does not improve self-control, but modestly improves well-being: A pre-registered study. [Open Science Framework Preregistration](https://www.osf.io/registration/)

Research Software and Data Science Teaching (github.com/hauselin)

Lin, H. (2019). Data science tutorials. Retrieved from hauselin.com/datascience

Lin, H. (2019). hauselin/docdata R package. hauselin.github.io/docdata/

Lin, H. (2019). hauselin/hausekeep R package: third release (v0.0.0.9003-alpha). hauselin.github.io/hausekeep

Lin, H. (2019). R Shiny effect size converter. escal.site

Talks (*denotes advisee)

Lin, H., & Cohen, M. X. (Oct 2020). *Hypothesis-driven dimension reduction and source separation for time-domain EEG data.*

Talk presented at the Society for Psychophysiological Research 60th Annual Meeting. [Slides and code.](#)

Frömer, R., **Lin, H.**, Wolf, C. D. K., Inzlicht, M., & Shenhav, A. (Oct 2019). *Neural dynamics underlying the integration of reward and efficacy during evaluation and motivation of cognitive control.* Talk presented at the Society for Neuroscience, Chicago, Illinois, USA.

Inzlicht, M., Francis, Z., & **Lin, H.** (Oct 2019). *Recasting ego depletion: Self-control failure as boredom regulation.* Talk presented at the Society of Experimental Social Psychology Conference, Toronto, Canada.

Lin, H., & Vartanian, O. (May 2019). *An integrative neurobiological framework for studying creativity.* Talk presented at the Inaugural Psychology Trainee Award Event, University of Toronto, Scarborough.

Lin, H. (May 2019). *Regulatory dynamics during decision making.* Invited talk presented at the Behavioural Science Institute, Radboud University, The Netherlands.

Lin, H. (Feb 2019). *Is creativity decision making? A new framework for studying creative cognition.* Invited talk presented at the University of Toronto Mississauga Perception, Cognition, and Language Group, Canada.

Lin, H. (Jun 2018). *Easily generate APA-format results (with effect sizes) in R.* Lightning talk presented at the Society for the Improvement of Psychological Science 2018 Meeting, Grand Rapids, Michigan, USA.

Lin, H., Friese, M., Saunders, B., & Inzlicht, M. (Jan 2018). *When might ego depletion exist?* Talk presented at the Social Personality Research Group, University of Toronto, Canada.

Hutcherson, C.A., **Lin, H.**, *Ilangomaran, R., & Inbar, Y. (Oct 2017). *Taboo for you? Computational approaches to sacred values and moral temptation.* Talk presented at the 2017 Society for Experimental Social Psychology Annual Meeting, Boston, MA, USA.

Lin, H., Saunders, B., Hutcherson, C. A., & Inzlicht, M. (Nov 2017). *Self-control in decision making involves prefrontal theta band oscillatory dynamics.* Talk presented at the Society for Neuroscience, Washington, D.C., USA.

Lin, H., Saunders, B., Hutcherson, C. A., & Inzlicht, M. (Apr 2017). *Do midfrontal theta oscillations and pupil responses track subjective conflict during value-guided choice?* Talk presented at the Ebbinghaus Empire Meeting Data Blitz, University of Toronto, Canada.

Lin, H., & Inzlicht, M. (Mar 2017). *Heart versus brain: Do emotions help or hinder decision making?* Talk presented at the Social Personality Research Group, University of Toronto, Canada.

Inzlicht, M., Saunders, B., & **Lin, H.** (Sept 2016). *The conflict negativity: A neural system tracking parametric variation in subjective conflict during value-guided decisions.* Talk presented at the Society for Psychophysiological Research 56th Annual Meeting, Minneapolis, Minnesota, USA.

Lin, H., Saunders, B., Hutcherson, C. A., & Inzlicht, M. (July 2016). *Varying subjective value and conflict during intertemporal choice: Graded representation of decision conflict in the brain.* Talk presented at the Society for the Advancement of Judgment and Decision Making Studies 1st Meeting, University of the Balearic Islands, Spain.

Lin, H., Saunders, B., Hutcherson, C. A., & Inzlicht, M. (Nov 2015). *Neural and psychophysiological correlates of conflict during intertemporal choice.* Talk presented at the Social Personality Research Group, University of Toronto, Canada.

Posters (*denotes advisee)

*Kwon, V., **Lin, H.**, & Inzlicht, M. (Sept 2019). *Multivariate EEG analyses reveal evolving spatiotemporal theta networks during self-regulation.* Poster presented at the Society for Psychophysiological Research 59th Annual Meeting, Washington, D.C., USA.

Umamoto, A., **Lin, H.**, & Holroyd, C. (Sept 2019). *Electrophysiological indices of reward valuation and cognitive control during decision making involving physical effort.* Poster presented at the Society for Psychophysiological Research 59th Annual Meeting, Washington, D.C., USA.

- Lin, H.,** Saunders, B., Friese, M., & Inzlicht, M. (May 2019). *Strong effort manipulations reduce response caution: A pre-registered reinvention of the ego depletion paradigm*. Poster presented at the 31st Association for Psychological Science Convention. Washington, D.C., USA.
- Lin, H.,** Saunders, B., & Inzlicht, M. (Oct 2018). *Decision-making biases and certainty elicit rapid and distinct neurophysiological responses*. Poster presented at the Society for Psychophysiological Research 58th Annual Meeting, Quebec City, Quebec, Canada.
- Anderson, T., Petranker, R., **Lin, H.,** & Farb, N. (Oct 2018). *The metronome response task: A continuous performance task measuring meta-awareness and mind-wandering*. Poster presented at the Society for Psychophysiological Research 58th Annual Meeting, Quebec City, Quebec, Canada.
- *Minkovich, M., **Lin, H.,** & Inzlicht, M. (May 2018). *Distinct effects of meaning and personal relevance on prosocial choice and behavior*. Poster presented at the Southern Ontario Behavioural Decision Research Conference, Toronto, Canada.
- Lin, H.,** *Ilangomaran, D., *Bhagat, K., Inbar, Y., & Hutcherson, C.A. (May 2018). *Computational insights into moral temptation in taboo tradeoffs*. Poster presented at the Social & Affective Neuroscience Society 11th Annual Meeting, New York City, New York, USA.
- Lin, H.,** Miles, E., Francis, Z., & Inzlicht, M. (Mar 2018). *Practicing self-control does not improve self-control but modestly improves well-being*. Poster presented at the Society for Personality and Social Psychology Annual Convention, Atlanta, Georgia, USA.
- Lin, H.,** Saunders, B., Hutcherson, C. A., & Inzlicht, M. (Oct 2017). *Self-control in decision making involves prefrontal theta band oscillatory dynamics*. Poster presented at the Society for Neuroeconomics, Toronto, Canada.
- Lin, H.,** Saunders, B., Hutcherson, C. A., & Inzlicht, M. (Aug 2017). *Midfrontal theta and pupil dilation track subjective conflict in value-based decisions*. Poster presented at the 13th International Conference for Cognitive Neuroscience, Amsterdam, Netherlands.
- Lin, H.,** *Ilangomaran, D., Inbar, Y., & Hutcherson, C. A. (July 2017). *Forbidden tradeoffs: Computational insights into morally taboo decision making*. Poster presented at the 4th Summer School in Model-Based Neuroscience, University of Amsterdam, Netherlands.
- Lin, H.,** Saunders, B., Hutcherson, C. A., & Inzlicht, M. (Mar 2017). *Decision-conflict in the temporal discounting task: Midfrontal theta and pupil dilation track subjective conflict in value-based decisions*. Poster presented at the Social & Affective Neuroscience Society 10th Annual Meeting, Los Angeles, California, USA. Poster Award Winner.
- Lin, H.,** Saunders, B., Hutcherson, C. A., & Inzlicht, M. (Sept 2016). *Neurometric variation of decision conflict: Neurophysiological signals during intertemporal choice*. Poster presented at the Society for Psychophysiological Research 56th Annual Meeting, Minneapolis, Minnesota, USA.
- Lin, H.,** Saunders, B., Hutcherson, C. A., & Inzlicht, M. (May 2016). *Neurometric variation of decision-conflict brain activity during intertemporal choice*. Poster presented at The Neuroscience of Decision Making 38th Symposium, University of Montreal, Canada.

University Teaching

- 2019 Reproducible and Replicable Research Methods and Analyses with R, University of Toronto
- 2018 Data Science with R, Rotman School of Management, University of Toronto
- 2016 Scientific Communication, University of Toronto
- 2012-15 Student Mentor Part-Time, University of Sussex

Undergraduate Advising

- 2020 Maham Khan (Computer Science & Mathematical Sciences), University of Toronto
- 2020 Frank Fan (Physics & Molecular Biology), University of Toronto
- 2018-19 Victor KyoJin Kwon (Computer Science), University of Toronto
- 2017-18 Krupal Bhagat (Psychology & Neuroscience), University of Toronto
- 2017-18 Michelle Minkovich (Psychology), University of Toronto
- 2016-18 Dharini Ilangomaran (Psychology & Neuroscience), University of Toronto

Work Experience

- 2019 Research Assistant, Rotman School of Management, University of Toronto

- 2018 Society for Personality and Social Psychology Conference Volunteer
- 2011-14 Student Ambassador Part-Time, University of Sussex
- 2007-09 National Service (Corporal First Class), Commando Training Institute, Singapore Armed Forces

Ad-Hoc Academic Journal Peer-Review ([Publons: hauselin.com/publons](https://publons.com/publons))

Brain Topography; Cognitive, Affective, and Behavioral Neuroscience; Cognition; Cognitive Science; Journal of Experimental Psychology: General; Journal of Experimental Social Psychology; Personality and Social Psychology Bulletin; Perspectives on Psychological Science; Psychological Science; Memory & Cognition; Motivation and Emotion; Nature Communications (co-reviewer); NeuroImage (co-reviewer); Neuropsychologia; Scientific Reports

Professional Academic Service

- 2020-21 Society for Psychophysiological Research Program Committee
- 2019-22 Defense Advanced Research Project Agency Replication Project, Center for Open Science
- 2019 Many Labs 5 Multi-Site Replication Project Data Analyst
- 2018-20 Society for Psychophysiological Research Student Committee Member
- 2017 Psychological Science Accelerator Methods and Analysis Reviewer
- 2015 Judging Panelist for Psychology, The Undergraduate Awards

Courses and Workshops

- 2020 Causal Diagrams: Draw Your Assumptions Before Your Conclusions, HarvardX, edX
- 2020 Network Dynamics of Social Behavior, Coursera
- 2020 Machine Learning with Tidyverse (Allison Hill), rstudio::conf, San Francisco
- 2019 Time-Frequency Principal Components Analysis (Edward Bernat)
- 2019 Mathematics for Machine Learning Specialization, Coursera, Imperial College London
- 2019 Computational Thinking using Python XSeries, MITx, edX
- 2019 Using Behavioral Science to Advance Psychology and Public Policy, New York University
- 2019 Bayesian Multilevel Models with brms package (Paul Bürkner), Utrecht University
- 2019 Computational Bayesian Methods using Stan (Shravan Vasishth), Free University of Berlin
- 2018 Machine Learning for Neuroimaging Data (Leila Wehbe)
- 2018 Machine Learning for Psychologists (Sergey Fogelson), University of Toronto
- 2018 Teaching Workshop (John Vervaeke), University of Toronto
- 2017 Math and MATLAB for Neural Time Series (Mike X Cohen), Radboud University
- 2017 Model-Based Neuroscience Summer School, University of Amsterdam
- 2017 Productive Academic Writing (Paul Silvia), University of Toronto
- 2017 Time-Frequency Decomposition: Methods and Challenges (Mike X Cohen)
- 2016 Bayesian Cognitive Modeling (Joachim Vandekerckhove), University of Toronto
- 2015 Multilevel Data Analysis Using R, University College London
- 2015 Regressions with R, University College London
- 2015 Python PsychoPy Neuroscience Workshop, University of Nottingham
- 2015 EEG Analysis, King's College London
- 2015 Introduction to Bayesian Analysis, University College London
- 2014 Limbic Brain Advanced Functional Neuroanatomy, London
- 2014 Human Brain Anatomy: Introduction to Functional Neuroanatomy, London

Professional Memberships

Society for Psychophysiological Research, Society for Neuroscience, Society for Neuroeconomics, Social & Affective Neuroscience Society, Society for the Improvement of Psychological Science

Skills and Knowledge

Skills: Neural and Behavioral Time Series, Statistical Modeling, Machine Learning, Experimentation and A/B Testing, Multilevel Modeling, Signal Processing
Programming: Python, R, JavaScript, Node.js, HTML, CSS, MATLAB
Frameworks and Libraries: Bootstrap, MongoDB, Express
Languages: English, Cantonese, Mandarin Chinese