

**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/>

Frömer, R., **Lin, H. (shared first-authors)**, Wolf, C. D. K., Inzlicht, M., & Shenhav, A. (accepted). When effort matters: Expectations of reward and efficacy guide cognitive control allocation. *Nature Communications*. <https://www.biorxiv.org/content/10.1101/2020.05.14.095935v3>

**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

- Lin, H., Westbrook, A., & Inzlicht, M. (revision submitted). Instilling the value of effort. Registered Report Stage 1.
- 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://osf.io/8v9kz/)

Research Software and Data Science Teaching ([github.com/hauselin](https://github.com/hauselin))

**Lin, H.** (2019). Data science tutorials. Retrieved from [hauselin.com/datascience](https://hauselin.com/datascience)  
**Lin, H.** (2019). hauselin/docdata R package. [hauselin.github.io/docdata/](https://hauselin.github.io/docdata/)  
**Lin, H.** (2019). hauselin/hausekeep R package: third release (v0.0.0.9003-alpha). [hauselin.github.io/hausekeep](https://hauselin.github.io/hausekeep)  
**Lin, H.** (2019). R Shiny effect size converter. [escal.site](https://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 56<sup>th</sup> 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 1<sup>st</sup> 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 59<sup>th</sup> Annual Meeting, Washington, D.C., USA.  
**Umemoto, 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 59<sup>th</sup> Annual Meeting, Washington, D.C., USA.

- Lin, H.,** Saunders, B., Frieze, 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 58<sup>th</sup> 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 58<sup>th</sup> 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 11<sup>th</sup> 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 13<sup>th</sup> 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 4<sup>th</sup> 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 10<sup>th</sup> 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 56<sup>th</sup> 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 38<sup>th</sup> Symposium, University of Montreal, Canada.

### University Teaching

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|---------|---|
| 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

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|---------|--|
| 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

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