#### Hause Lin

# hauselin@gmail.com

## **Education and Research Experience**

2019	Research Fellow, Donders Institute for Neuroscience, The Netherlands
	Advisor: Mike X Cohen, Synchronization in Neural Systems Lab
2019-	Research Assistant, Rotman School of Management, University of Toronto, Canada
	Advisor: Bernardo Blum, Associate Professor of Economic Analysis and Policy
2016-	Ph.D., University of Toronto, Canada
	Committee: Michael Inzlicht, Cendri Hutcherson, Katherine Duncan
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	Facebook Fellowship Award (finalist and awaiting outcome)
2019	Bertelsmann Technology Scholarship, Udacity Artificial Intelligence Program
2019	rstudio::conf(2020) Diversity Scholarship (\$1,000), RStudio
2019	Royal Bank of Canada Toronto Machine Learning Summit Scholarship
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
2011	International Foundation Year Award for Highest Overall Score, University of Sussex
2009	Corporal First Class, Commendation Letter, Commando Training Institute, Singapore

# **Peer-Reviewed Publications** (Google Scholar: bit.ly/2W44us1)

- **Lin, H.**, Saunders, B., Friese, M., Evans, N. J., & Inzlicht, M. (accepted). Strong effort manipulations reduce response caution: A preregistered reinvention of the ego-depletion paradigm. *Psychological Science*.
- Landy, J. F. et al. (in press). Crowdsourcing hypothesis tests: Making transparent how design choices shape research results. *Psychological Bulletin*.
- Lin, H., & Vartanian, O. (2018). A neuroeconomic framework for creative cognition. *Perspectives on Psychological Science*, *13*(6), 655-677. doi: 10.1177/1745691618794945. University of Toronto Trainee Award.
- Moshontz, H., et al. (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
- 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
- **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: <a href="https://doi.org/10.1016/j.neuroimage.2017.10.055">10.1016/j.neuroimage.2017.10.055</a>. Supplement

- 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
- Jones, B. et al. (in-principle acceptance). Social perception of faces around the world: How well does the valence-dominance model generalize across world regions? Registered Report. *Nature Human Behavior*. <a href="https://psyarxiv.com/n26dy">https://psyarxiv.com/n26dy</a>
- Umemoto, A., **Lin, H.**, & Inzlicht, M. (in-principle acceptance). Cost-benefit analysis in physical effort expenditure: An electrophysiological registered report. Registered Report. *Cortex*.
- Chartier, C. R., et al. (in-principle acceptance). Many Labs 5: Replication of Albarracín et al. (2008). *Advances in Methods and Practices in Psychological Science*. Retrieved from <a href="https://osf.io/vha4m/">https://osf.io/vha4m/</a>
- Ebersole, C. R., et al. (in-principle acceptance). Many Labs 5: Testing pre-data collection peer review as an intervention to increase replicability (results-blind manuscript). Retrieved from <a href="https://psyarxiv.com/sxfm2/">https://psyarxiv.com/sxfm2/</a>

## **Manuscripts Under Review**

Anderson, T., Petranker, R., **Lin, H.**, & Farb, N. (invited revision). Replication of Seli et al.'s (2013) wandering minds and wavering rhythms. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. Open Science Framework Preregistration

### **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.**, Werner, K. M., & Inzlicht, M. (invited paper). Fewer theories, more triangulation. Theory in psychological science special issue. *Perspectives on Psychological Science*.
- **Lin, H.**, Hutcherson, C. A. (in prep). Using computational methods to infer behavioral preferences and predict choice. Hutcherson, C. A., **Lin, H.**, Inbar, Y. (in prep). Investigating the computational and temporal dynamics associated with ethical tradeoffs and violations.
- **Frömer, R., Lin, H. (shared first-authors)**, Wolf, C., Inzlicht, M., & Shenhav, A. (in prep). Neural dynamics underlying the integration of reward and efficacy during evaluation and motivation of cognitive control.
- Lin, H., Westbrook, A., & Inzlicht, M. (in prep). A reinforcement learning paradigm to increase willingness to exert effort. Registered Report.
- **Lin, H.**, & Inzlicht, M. (in prep). Using machine learning and neurophysiology to investigate evidence integration and predict irrationality.
- 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
- Fusco, G., Scandola, M., Lin, H., Inzlicht, M., & Aglioti, S. M. (in prep). Modulating preferences during intertemporal choices through exogenous midfrontal theta transcranial alternating current.

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

- Lin, H. (2019). Data science with R. Retrieved from <a href="https://newstate.com">hausetutorials.netlify.com</a>
- Lin, H. (2019). hauselin/docdata R package. <a href="hauselin.github.io/docdata/">hauselin/docdata/</a>
- 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. Zenodo. escal.site

#### Talks (\*denotes advisee)

- Frömer, R., Lin, H., 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, 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 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 59th Annual Meeting, Washington, D.C., USA.
- **Lin, H.**, Saunders, B., Friese, M., & Inzlicht, M. (May 2019). Strong effort manipulations reduce response caution: A preregistered 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 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 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 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 38<sup>th</sup> 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	Social Cognition: Understanding Ourselves and Others, University of Toronto
2016	Scientific Communication, University of Toronto
2012-15	Student Mentor Part-Time, University of Sussex

#### **Undergraduate Advising**

)
ronto
of Toronto

#### Work and Volunteering 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: bit.ly/2MZbUbY)

Brain Topography; Cognitive, Affective, and Behavioral Neuroscience; Cognition; Cognitive Science; Journal of Experimental Psychology: General; Journal of Experimental Social Psychology; Psychological Science; Memory & Cognition; Nature Communications (co-reviewer); NeuroImage (co-reviewer); 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
2019-20	University of Toronto Graduate Students' Union Census Committee
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**

2019-20	The 99 AI Challenge, University of Toronto
2019	Time-Frequency Principal Components Analysis (Edward Bernat)
2019	Mathematics for Machine Learning Specialization, Coursera, Imperial College London
2019	MITx: 6.00.1x Introduction to Computer Science and Programming Using Python, 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: Experimental Methodology, Neural and Behavioral Time Series Analysis, Population-Based Statistics, Machine Learning, Sampling Paradigms, Causal Inference, Multilevel Modeling, Signal Processing Programming Languages: Python, R, MATLAB, Stan Probabilistic Programming Languages: English, Cantonese, Mandarin Chinese