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EDUCATION

University of Toronto

September 2020 - present

Doctor of Philosophy, Psychology (expected 2025)

Supervisors: Dr. Wil Cunningham, Dr. Daphna Buchsbaum

University of Toronto

2020

Master of Arts, Psychology

Supervisor: Dr. Daphna Buchsbaum

Swarthmore College

2017

Bachelor of Arts, Cognitive Science

Supervisor: Dr. Frank Durgin

HONOURS AND AWARDS

Schwartz Reisman Graduate Fellowship (\$7,500)

2024 – 2025

Canada Graduate Scholarship - Doctoral,

Social Sciences and Humanities Research Council (\$105,000)

2022 – 2025

Ontario Graduate Scholarship (\$15,000)

2021 – 2022

Canada Graduate Scholarship - Master's,

Social Sciences and Humanities Research Council (\$17,500)

2020 – 2021

Faculty of Arts and Sciences Domestic Graduate Entrance Award (\$5,000)

2019

Frances Velay Women's Science Research Fellowship (USD \$4,500)

2016

PUBLICATIONS

Note: Asterisks represent equal contribution between authors. Italics represent undergraduate mentee at time of research.

Gelpí, R. A., Otsubo, K., Whalen, A., & Buchsbaum, D. (in press). Investigating sensitivity to shared information and personal experience in children's use of majority information. *Open Mind*. <https://doi.org/10.31234/osf.io/7ms3p>

Gelpí, R. A., Whalen, A., Griffiths, T. L., Xu, F., & Buchsbaum, D. (in press). Can children and adults balance majority size with information quality in learning from preferences? *Journal of Experimental Psychology: General*. <https://doi.org/10.31234/osf.io/pa3g4>

Gelpí, R. A., & Buchsbaum, D. (2024). Children as cultural explorers: How imitation, pedagogy, and selective trust prepare children for learning in the cultural niche. In R. Kendal, J. Tehrani, & J. Kendal (Eds.), *Oxford Handbook of Cultural Evolution*. <https://doi.org/10.1093/oxfordhb/9780198869252.013.19>

Blackburn, A. M., Han, H., Jeftić, A., Stöckli, S., **Gelpí, R.**, Acosta-Ortiz, A. M., Travaglino, G. A., Alvarado, R., Lacko, D., Milfont, T. L., Chrona, S., Griffin, S. M., Tamayo-Aguledo, W.,

Lee, Y., & Vestergren, S. (2023). Long-term predictors of compliance with COVID-19 guidelines across countries: The role of social norms, trust, stress, demographic factors, and moral values. *Current Psychology*. <https://doi.org/10.1007/s12144-023-05281-x>

Blackburn, A. M.*, Han, H.*, **Gelpí, R. A.**, Stöckli, S., Jeftic, A., Ch'ng, B., Koszałkowska, K., Lacko, D., Milfont, T. L., Lee, Y., The COVIDiSTRESS II Consortium, & Vestergren, S. (2023). Mediation analysis of conspiratorial thinking and anti-expert sentiments on vaccine willingness. *Health Psychology*, 42(4), 235–246. <https://doi.org/10.1037/hea0001268>

Gelpí, R., Allidina, S., Hoyer, D., & Cunningham, W. A. (2022). The labelled container: Conceptual development of social group representations. *Behavioral and Brain Sciences*, 45, e108. <https://doi.org/10.1017/S0140525X21001412>

Blackburn, A. M., Vestergren, S., & The COVIDiSTRESS II Consortium (including **Gelpí, R.**). (2022). COVIDiSTRESS diverse dataset on psychological and behavioural outcomes one year into the COVID-19 pandemic. *Scientific Data*, 9, 331. <https://doi.org/10.1038/s41597-022-01383-6>

Rachev, N. R.*, Han, H.*, Lacko, D.*, **Gelpí, R.***, Yamada, Y., & Lieberoth, A. (2021). Replicating the “Disease” framing paradigm during the 2020 COVID-19 pandemic: A study of stress, worry, trust, and choice under risk. *PLOS ONE*. <https://doi.org/10.1371/journal.pone.0257151>

Lieberoth, A., Lin, S.-Y., Stöckli, S., Han, H., Kowal, M., **Gelpí, R.**, Chrona, S., Tran, T. P., Jeftic, A., Rasmussen, J., Cakal, H., Milfont, T. L., & The COVIDiSTRESS Global Survey Consortium (2021). Stress and worry in the 2020 coronavirus pandemic: Relationships to trust and compliance with preventive measures across 48 countries. *Royal Society Open Science*, 8, 200589. <https://doi.org/10.1098/rsos.200589>

Yamada, Y., Čepulić, D. B., Coll-Martín, T., Debove, S., Gautreau, G., Han, H., Rasmussen, J., Tran, T. P., Travaglino, G. A., The COVIDiSTRESS Global Survey Consortium (including **Gelpí, R.**), & Lieberoth, A. (2021). COVIDiSTRESS Global Survey dataset on psychological and behavioural consequences of the COVID-19 outbreak. *Scientific Data*, 8, 3. <https://doi.org/10.1038/s41597-020-00784-9>

Gelpí, R., Cunningham, W. A., & Buchsbaum, D. (2020). Belief as a non-epistemic adaptive benefit. *Behavioral and Brain Sciences*, 43, e36. <https://doi.org/10.1017/S0140525X19002206>

Peer-Reviewed Conference Proceedings

Zhou, C., **Gelpí, R. A.**, Lucas, C. G. & Buchsbaum, D. (2024). Can children learn functional relations through active information sampling? In *Proceedings of the 46th Annual Meeting of the Cognitive Science Society* (pp. 229–236).

Tang, Y.*, **Gelpí, R. A.***, & Cunningham, W. A. (2023). Unequal norms emerge under coordination uncertainty in multi-agent deep reinforcement learning. In *Proceedings of the 45th Annual Meeting of the Cognitive Science Society* (pp. 555–561).

Gelpí, R. A., Zhou, C., Lucas, C. G., & Buchsbaum, D. (2023). Characterizing shifts in strategy in active function learning. In *Proceedings of the 45th Annual Meeting of the Cognitive Science Society* (pp. 2377–2383).

Gelpí, R.*, Tang, Y.*, & Cunningham, W. A. (2022). Informational trade-offs of learning from expert demonstration. In *Proceedings of the 20th International Conference on Cognitive Modeling* (pp. 107–108).

Prystawski, B., Gelpí, R., Lucas, C. G., & Buchsbaum, D. (2021). Modelling recognition in human puzzle solving. In Proceedings of the 43rd Annual Meeting of the Cognitive Science Society (pp. 1907–1913).

Gelpí, R., Saxena, N., Lifchits, G., Buchsbaum, D. & Lucas, C. G. (2021). Sampling heuristics for active function learning. In Proceedings of the 19th International Conference on Cognitive Modeling (pp. 80–86).

Gelpí, R., Prystawski, B., Lucas, C. G., & Buchsbaum, D. (2020). Incremental hypothesis revision in causal reasoning across development. In Proceedings of the 42nd Annual Meeting of the Cognitive Science Society (pp. 974–980).

Durgin, F. H., & **Gelpí, R.** (2017). When do vehicles of similes become figurative? Gaze patterns show that similes and metaphors are initially processed differently. In *Proceedings of the 39th Annual Meeting of the Cognitive Science Society* (pp. 1967–1972).

Forthcoming publications

Gelpí, R. A., Xue, E. & Cunningham, W. A. (under review). Towards machine theory of mind with large language model-augmented inverse planning.

Gelpí, R. A., Tang, Y., Jackson, E. C., & Cunningham, W. A. (under revision). Stereotypic expectations entrench unequal conventions across generations in deep multi-agent reinforcement learning. [arXiv:2410.01763](https://arxiv.org/abs/2410.01763) [cs.MA]

Gelpí, R. A., Arefhaghi, D., & Sommerville, J. A. (under revision). Children can infer traits from observed behaviors, but prefer to use facial cues to predict future moral violations.

PRESENTATIONS

Organized Symposia

Hwang, H. G., **Gelpí, R.** (symposium chair), Burkholder, A., & Gerdin, E. (2021, April). Balancing belonging, fairness, and cost in children's predictions and preferences about social affiliation. Symposium at the SRCD 2021 Virtual Biennial Meeting.

Oral Presentations

Zhou, C., **Gelpí, R. A.**, Lucas, C. G. & Buchsbaum, D. (2024, July). Can children learn functional relations through active information sampling? Paper to be presented at the 46th Annual Meeting of the Cognitive Science Society, Rotterdam, Netherlands.

Tang, Y.*, **Gelpí, R.***, & Cunningham, W. A. (2023, July). Unequal norms emerge under coordination uncertainty in multi-agent deep reinforcement learning. Paper presented at the 45th Annual Meeting of the Cognitive Science Society, Sydney, Australia.

Gelpí, R., Saxena, N., Lifchits, G., Buchsbaum, D. & Lucas, C. G. (2021, July). Sampling heuristics for active function learning. Paper presented at Virtual MathPsych/ICCM 2021.

Gelpí, R., Ai, W., Verma, A., Cunningham, W. A., & Sommerville, J. A. (2021, April). Dissociating moral evaluations and affiliative decision-making in intergroup exclusion. Paper presented at the SRCD 2021 Virtual Biennial Meeting.

Gelpí, R., Prystawski, B., Lucas, C. G., & Buchsbaum, D. (2020, August). Incremental hypothesis revision in causal reasoning across development. Paper presented at the 42nd Annual

Meeting of the Cognitive Science Society.

Conference Posters and Flash Talks

Gelpí, R. A., Lucas, C. G., & Buchsbaum, D. (2024, March). Children's use of feature-based and alternation-based rules to explain causal functions. Poster to be presented at the 13th Biennial Meeting of the Cognitive Development Society, Pasadena, CA.

Zhou, C., **Gelpí, R. A.**, Lucas, C. G., & Buchsbaum, D. (2024, March). The development of efficient sampling heuristics in children. Poster to be presented at the 13th Biennial Meeting of the Cognitive Development Society, Pasadena, CA.

Gelpí, R. A.*, Tang, Y.*, Jackson, E. C., & Cunningham, W. A. (2023, October). Stereotypic expectations entrench unequal conventions across generations in deep multi-agent reinforcement learning. Poster presented at the 2023 Meeting of the Society for Neuroeconomics, Vancouver, BC, Canada.

Gelpí, R., Zhou, C., Lucas, C. G., & Buchsbaum, D. (2023, July). Characterizing shifts in strategy in active function learning. Poster presented at 45th Annual Meeting of the Cognitive Science Society, Sydney, Australia.

Gelpí, R.*, Tang, Y.*, Jackson, E. C. & Cunningham, W. A. (2022, July). Temporally extended priority expert demonstrations in a simple foraging task. Poster presented at MathPsych/ICCM 2022, Toronto, ON, Canada.

Saxena, N., **Gelpí, R.**, Buchsbaum, D., & Lucas, C. G. (2022, July). Dynamic strategy selection in active function learning. Poster presented at the 44th Annual Meeting of the Cognitive Science Society, Toronto, ON, Canada.

Arefhaghi, D.*, **Gelpí, R.***, & Sommerville, J. A. (2022, April). Mean or mad? Children's trait inference from behaviour and facial expressions. Poster presented at the 12th Biennial Meeting of the Cognitive Development Society, Madison, WI.

Gelpí, R., Saxena, N., Lifchits, G., Buchsbaum, D. & Lucas, C. G. (2021, July). Sampling heuristics for active function learning. Poster presented at the 43rd Annual Meeting of the Cognitive Science Society.

Prystawski, B., **Gelpí, R.**, Lucas, C. G., & Buchsbaum, D. (2021, July). Modelling recognition in human puzzle solving. Poster presented at the 43rd Annual Meeting of the Cognitive Science Society.

Arefhaghi, D., **Gelpí, R.**, & Sommerville, J. A. (2021, April). Children's integration of prior evidence and facial cues in generalizations about antisocial behaviour. Poster presented at the SRCD 2021 Virtual Biennial Meeting.

Gelpí, R., Verma, A., Ai, W., Sommerville, J. A., & Cunningham, W. A. (2021, February). Group membership trumps moral evaluation in affiliative decision-making. Poster presented at the 22nd Annual Meeting of the Society for Personality and Social Psychology.

Arefhaghi, D., **Gelpí, R.**, & Sommerville, J. A. (2021, January). Children's integration of prior evidence in generalizations about antisocial behaviour. Flash talk presented at the 11th Budapest CEU Conference on Cognitive Development.

Gelpí, R., Lucas, C. G., & Buchsbaum, D. (2019, October). Incremental hypothesis revision in child and adult causal reasoning. Poster presented at the 11th Biennial Meeting of the Cognitive

Development Society, Louisville, KY.

Durgin, F. H., & **Gelpí, R.** (2017, July). When do vehicles of similes become figurative? Gaze patterns show that similes and metaphors are initially processed differently. Poster presented at the 39th Annual Meeting of the Cognitive Science Society, London, UK.

Invited Talks

Gelpí, R. (2021, August). Sampling heuristics for active function learning.
University of Edinburgh, Computational Cognitive Science Lab.

Gelpí, R. (2020, July). Learning, near and far: Belief revision across development.
University of Edinburgh, Computational Cognitive Science Lab.

Gelpí, R. (2020, March). Predicting belief revision with Bayesian models.
University of Toronto, Re:Cognition Speaker Series.

TEACHING EXPERIENCE

Course Instructor of Record

Cognitive Development (PSY312H)

January 2023 – April 2023

Social Psychology: Attitudes (PSY320H)

September 2024 – December 2024

Teaching Assistant

Introduction to Cognitive Psychology (PSY270H)

September 2019 – December 2019

The Psychology of Prejudice (PSYC12)

September 2020 – December 2020

Social Development (PSY311H)

January 2021 – April 2021

Statistics II (PSY202H) – *Tutorial Leader*

July 2021 – August 2021

Statistics I (PSY201H)

September 2021 – December 2021

Social Psychology: Attitudes (PSY320H)

January 2022 – April 2022

Introduction to Developmental Psychology (PSY210H)

September 2022 – December 2022

Guest Lectures

Social Development (PSY311H): Introduction to Bayesian Inference

September 2020

Social Development (PSY311H): Moral Judgment and Behaviour

March 2021

Workshops

Introduction to R for Statistical Programming

February 2022

Instructor

Designed and taught a one-hour workshop for introducing undergraduate developmental researchers in the Computational Cognitive Development Lab on how to use R and RStudio for data cleaning, visualization, and analysis.

Introduction to Cognitive Modelling

July 2021

Instructor

Designed and taught a one-hour workshop for introducing undergraduate developmental researchers in the Toronto Early Cognition Lab to the basics of the theory and implementation of Bayesian cognitive models.

Professional Development in Psychology Workshop Series

June 2020 – August 2020

Instructor

Co-designed and co-taught a 10-week-long summer workshop series for undergraduate developmental researchers in the Toronto Early Cognition Lab, covering topics including applying to

graduate school, methods in developmental psychology, and statistical tools and methods for data analysis.

Cognition, Innovation, and Social Power Discussion Series
Instructor

June 2020 – August 2020

Co-led a 7-week-long discussion series discussing the role of structural power and oppression in education for undergraduate developmental researchers in the Toronto Early Cognition Lab, and the role of exploration and innovation in children's active learning from environments.

Research Supervision

Bing Ju (Undergraduate Research Opportunity Program)	<i>2024 – 2025</i>
Catherine Ma (Undergraduate Mini-Thesis Project)	<i>2024</i>
Josh Benzon (Undergraduate Teaching & Research Award, Brown University)	<i>2023</i>
Doga Pulat (Undergraduate Research Opportunity Program)	<i>2023</i>
Joshua Lunger (Undergraduate Research Opportunity Program)	<i>2022 – 2023</i>
Yikai Tang (Undergraduate Thesis Project)	<i>2022 – 2023</i>
Mello Mo (Undergraduate Mini-Thesis Project)	<i>2022</i>
Nayan Saxena (Undergraduate Independent Study Project)	<i>2021 – 2022</i>
Heather Chong (Undergraduate Research Opportunity Program)	<i>2020 – 2021</i>
William Ai (Undergraduate Research Opportunity Program)	<i>2020</i>
(Undergraduate Independent Study Project)	<i>2020 – 2022</i>
Denise Arefhaghi (Undergraduate Independent Study Project)	<i>2020 – 2021</i>
Ben Prystawski (Undergraduate Research Opportunity Program)	<i>2019 – 2020</i>
(Undergraduate Independent Study Project)	<i>2020 – 2021</i>
Maureen Huang (Undergraduate Independent Study Project)	<i>2019 – 2020</i>

PROFESSIONAL AND SERVICE

Reviews

- Journal of Experimental Psychology: General (*ad hoc*)
- Journal of Experimental Psychology: Learning, Memory, and Cognition (*ad hoc*)
- Open Mind (*ad hoc*)
- Proceedings of the Annual Meeting of the Cognitive Science Society (*ad hoc*)

Service

President, Graduate Peer Mentorship Program, University of Toronto	<i>2024 – present</i>
Data Team, Científico Latino Graduate Student Executive Committee	<i>2023 – present</i>
Graduate Peer Mentor, University of Toronto	<i>2020 – 2023</i>
Científico Latino Graduate Student Mentorship Initiative	<i>2021 – 2022</i>
Treasurer, Psychology Graduate Students Association	<i>September 2020 – August 2022</i>
Secretary, Psychology Graduate Students Association	<i>September 2019 – August 2020</i>
Webmaster, Psychology Graduate Students Association	<i>September 2019 – August 2020</i>
Diversity and Inclusion Committee, Best Research Practices Working Group, University of Toronto	<i>June 2020 – August 2021</i>
Co-Organizer, Psychology Undergraduate Research Club	<i>September 2020 – August 2021</i>

Professional Development

- CIFAR Deep Learning & Reinforcement Learning Summer School *July 2024*
- Course Instructor Training Camp *December 2022*
- Schwartz Reisman Institute AI Boot Camp *June 2022*
- Advanced University Teaching Preparation Certification (10 workshops, 2 practicum sessions) *February 2020 – October 2022*
- Psychology Graduate Student Teaching Workshop *May 2022 – June 2022*

Memberships

- Cognitive Science Society
- Cognitive Development Society
- Society for Mathematical Psychology
- Society for Neuroeconomics
- Society for Research in Child Development

SKILLS

Programming Languages

- R Statistical Programming
- Python
 - PyTorch
 - PyMC
 - scikit-learn
- Java
- Javascript
- WebPPL Probabilistic Programming
- L^AT_EX

Research Methods

- Bayesian cognitive modelling
- Deep reinforcement learning
- Large language models
- EEG (HydroCel Geodesic Sensor Net)
- Eye-tracking (EyeLink, Positive Science)
- Qualtrics survey design
- SONA Systems