

# REBEKAH A. GELPÍ

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Department of Psychology ◇ University of Toronto

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## EDUCATION

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### 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

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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

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

**Gelpí, R. A.,** *Tang, Y.,* Jackson, E. C., & Cunningham, W. A. (2025). Stereotypic expectations entrench unequal conventions across generations in deep multi-agent reinforcement learning. *PNAS Nexus*, 4(3), pgaf076. <https://doi.org/10.1093/pnasnexus/pgaf076>

**Gelpí, R. A.,** Whalen, A., Griffiths, T. L., Xu, F., & Buchsbaum, D. (2025). Can children and adults balance majority size with information quality in learning from preferences? *Journal of Experimental Psychology: General*. <https://doi.org/10.1037/xge0001724>

**Gelpí, R. A.,** Otsubo, K., Whalen, A., & Buchsbaum, D. (2025). Investigating sensitivity to shared information and personal experience in children's use of majority information. *Open Mind*, 9, 240–265. <https://doi.org/10.1162/opmi.a.00182>

**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*

**Gelpí, R. A.**, León-Villagrà, P., Cunningham, W. A., Lucas, C. G., & Buchsbaum, D. (accepted). Resource-rational belief revision can mitigate as well as amplify polarization. In *Proceedings of the 47th Annual Meeting of the Cognitive Science Society*.

Zhou, C., **Gelpí, R. A.**, Iorini, M., Lucas, C. G., & Buchsbaum, D. (accepted). Preschool children’s learning and generalization of continuous causal functions. In *Proceedings of the 47th Annual Meeting of the Cognitive Science Society*.

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).

#### Preprints and forthcoming publications

**Gelpí, R. A.**, Ju, Y., Jackson, E. C., Tang, Y., Verch, S., Voelcker, C., & Cunningham, W. A. (2025). Sorrel: A simple and flexible framework for multi-agent reinforcement learning. [arXiv:2506.00228](https://arxiv.org/abs/2506.00228) [cs.MA]

**Gelpí, R. A.**, León-Villagrà, P., Buchsbaum, D., & Denison, S. (under revision). An introduction to rational constructivism in cognitive development. [https://doi.org/10.31234/osf.io/n42xh\\_v1](https://doi.org/10.31234/osf.io/n42xh_v1)

## PRESENTATIONS

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### Organized Symposia

Hwang, H. G., **Gelpí, R. A.** (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

**Gelpí, R. A.**, León-Villagrà, P., Cunningham, W. A., Lucas, C. G., & Buchsbaum, D. (2025, July). Resource-rational belief revision can mitigate as well as amplify polarization. Paper to be presented at the 47th Annual Meeting of the Cognitive Science Society, San Francisco, CA, USA.

**Gelpí, R. A.**, Lucas, C. G., & Buchsbaum, D. (2025, May). Children's use of feature-based and alternation-based rules to explain causal relationships. Paper to be presented at the SRCD 2025 Biennial Meeting, Minneapolis, MN, USA.

Zhou, C., **Gelpí, R. A.**, Lucas, C. G. & Buchsbaum, D. (2024, July). Can children learn functional relations through active information sampling? Paper 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

Zhou, C., **Gelpí, R. A.**, Iorini, M., Lucas, C. G., & Buchsbaum, D. (2025, July). Preschool children's learning and generalization of continuous causal functions. Poster to be presented at the 47th Annual Meeting of the Cognitive Science Society, San Francisco, CA, USA.

**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, USA.

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, USA.

**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, USA.

**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, USA.

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.

## TEACHING EXPERIENCE

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### 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) – *Tutorial Leader*

*September 2021 – December 2021*

*January 2025 – April 2025*

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

*June 2020 – August 2020*

*Instructor*

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

Alex Kim (Undergraduate Mini-Thesis Project) *2025*

Bing Ju (Undergraduate Research Opportunity Program) *2024 – 2025*

Catherine Ma (Undergraduate Mini-Thesis Project) *2024*

Josh Benzon (Undergraduate Teaching & Research Award, Brown University) *2023*

Doga Pulat (Undergraduate Research Opportunity Program) *2023*

Joshua Lunger (Undergraduate Research Opportunity Program) *2022 – 2023*

Yikai Tang (Undergraduate Thesis Project) *2022 – 2023*

Mello Mo (Undergraduate Mini-Thesis Project) *2022*

Nayan Saxena (Undergraduate Independent Study Project) *2021 – 2022*

Heather Chong (Undergraduate Research Opportunity Program) *2020 – 2021*

William Ai (Undergraduate Research Opportunity Program) *2020*

(Undergraduate Independent Study Project) *2020 – 2022*

Denise Arefhaghi (Undergraduate Independent Study Project) *2020 – 2021*

Ben Prystawski (Undergraduate Research Opportunity Program) *2019 – 2020*

(Undergraduate Independent Study Project) *2020 – 2021*

Maureen Huang (Undergraduate Independent Study Project) *2019 – 2020*

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## 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

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

### 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

## REFERENCES

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### William A. Cunningham

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Department of Psychology &  
Computer Science  
University of Toronto  
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### Daphna Buchsbaum

Associate Professor  
Department of Cognitive &  
Psychological Sciences  
Brown University  
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### Christopher G. Lucas

Reader (Associate Professor)  
School of Informatics  
University of Edinburgh  
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