

# JULIA H. ESPINOSA, PhD

Department of Human Evolutionary Biology • Harvard University  
11 Divinity Ave • Cambridge, MA, 02138 • United States  
[jespino@hbs.harvard.edu](mailto:jespino@hbs.harvard.edu) • [sites.google.com/view/jespino](https://sites.google.com/view/jespino)

## ACADEMIC APPOINTMENTS

---

- 2022-present**      **NSF Postdoctoral Fellow**  
Harvard University, Department of Human Evolutionary Biology &  
Evolutionary Neuroscience Lab  
Mentor: Erin Hecht, Harvard University  
Project: *Neural and Genetic Bases of Individual Variation in Dog Aggression*
- 2016-2022**      **Graduate Research and Teaching Fellow**  
University of Toronto, Department of Psychology,  
Canine Cognition & Computational Cognitive Development Lab
- 2015-2016**      **Graduate Research Fellow**  
University of Guelph, Department of Animal Biosciences,  
Companion Animal Behaviour and Welfare Lab

## EDUCATION

---

- 2022**      **Doctor of Philosophy, Psychology**  
University of Toronto, Toronto, Canada  
Dissertation: The Physical World of the Dog  
Advisors: Daphna Buchsbaum, Laura Corbit,  
Committee members: Suzanne MacDonald, Julie Teichroeb
- 2018**      **Master of Arts, Psychology**  
University of Toronto, Toronto Canada  
Thesis: Investigating the Solidity Principle in Domestic Dogs  
Committee: Daphna Buchsbaum (advisor),  
Morris Moscovitch, Julie Teichroeb
- 2016**      **Master of Science, Animal Bioscience**  
University of Guelph, Guelph, Canada  
Thesis: Interventions for identifying anxiety and stress signals in  
domestic dogs  
Committee: Lee Niel (advisor), Tina Widowski
- 2012**      **Bachelor of Science, Neuroscience**  
University of Michigan, Ann Arbor  
Advisor: Barbara Smuts
- 2010**      **Associate of Science, Life Sciences and Mathematics**  
Washtenaw College, Ann Arbor MI, USA

## PUBLICATIONSR

§denotes student mentee

Google Scholar profile: <https://scholar.google.ca/citations?user=28FiKbMAAAAJ&hl=en>

### Peer-Reviewed Articles

1. §Pelgrim, M. H., **Espinosa, J.**, & Buchsbaum, D. (2022). Head-Mounted Mobile Eye-Tracking in the Domestic Dog: A New Method, *Behavior Research Methods*, <https://doi.org/10.3758/s13428-022-01907-3>
2. **Espinosa, J.**, Tecwyn, E. C., & Buchsbaum, D. (2021). Searching high and low: Domestic dogs' understanding of solidity. *Animal Cognition*, 1-16. <https://doi.org/10.1007/s10071-021-01568-3>
3. ManyDogs, \***Espinosa, J.**, Bray, E. E., Buchsbaum, D., Byosiére, S.-E., Byrne, M., Freeman, M. S., Gnanadesikan, G. E., Guran, A., Horschler, D. J., Huber, L., Johnston, A. M., MacLean, E. L., Pelgrim, M. H., Santos, L., Silver, Z. A., Stevens, J. R., Völter, C. J., & Zipperling, L. (pre-registered report accepted in principle). ManyDogs 1: A Multi-Lab Replication Study of Dogs' Pointing Comprehension. *Animal Behavior and Cognition*. <https://doi.org/10.31234/osf.io/f86jq>  
\*Corresponding Author
4. **Espinosa, J.**, Dong, L., & Buchsbaum, D. (2021). Domestic dogs' gaze and behavior in 2-alternative choice tasks. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 43, 2616-2622. <https://escholarship.org/uc/item/34f3q7w4>
5. §Pelgrim, M. H., **Espinosa, J.**, Tecwyn, E. C., Marton, S. M., Johnston, A. M., & Buchsbaum, D. (2021). What's the Point? Domestic Dogs' Sensitivity to the Accuracy of Human Informants. *Animal Cognition*, 24, 281-297. <https://doi.org/10.1007/s10071-021-01493-5>
6. **Espinosa, J.**, & Starmans, C. (2020). Control it and it's yours: Children's reasoning about the ownership of living things. *Cognition*, 202, 104319. <https://doi.org/10.1016/j.cognition.2020.104319>
7. Byosiére, S.-E., **Espinosa, J.**, & Smith, B. (2018). The function of play bows in *Canis lupus* and its variants: A comparison of dingo (*Canis lupus dingo*), dog (*Canis lupus familiaris*) and wolf puppies (*Canis lupus*), *Behaviour*, 155(5), 369-388. <https://doi.org/10.1163/1568539X-00003495>
8. Alhoy-Dellaire, J., **Espinosa, J.**, & Mason, G., (2018). Play and optimal welfare: does play behaviour indicate the presence of positive affective states? *Behavioral Processes*, 156, 3-15. <https://doi.org/10.1016/j.beproc.2017.11.011>
9. Byosiére, S.-E., **Espinosa, J.**, & Smuts, B. B. (2016). Investigating the function of play bows in adult pet dogs (*Canis lupus familiaris*). *Behavioral Processes*, 125, 106-113, <https://doi.org/10.1016/j.beproc.2016.02.007>
10. Byosiére, S.-E., **Espinosa, J.**, Marshall-Pescini, S., Smuts, B. B., & Range, F. (2016). Investigating the function of play bows in dog and wolf puppies (*Canis lupus familiaris*, *Canis lupus occidentalis*). *PLOS One*, 11(12), e0168570, <https://doi.org/10.1371/journal.pone.0168570>

### Submitted & in preparation

11. **Espinosa, J.**, Corbit, L., McGinn, K., Pelgrim, M. H., & Buchsbaum, D. (in prep). Domestic dogs' sensitivity to the temporal priority principle.

12. **Espinosa, J.,** & MacDonald, S. (in prep). The secret minds of pets: Perceptions of emotion and cognition in companion animals
13. **Espinosa, J.,** & Buchsbaum, D. (in prep). Four variations on visible displacement: Domestic dogs' understanding of object occlusion
14. **Espinosa, J.,** Flint, H., & Niel, L. (in prep). Dog owner recognition and assessment of dog fear behaviour.

## INVITED TALKS

---

|         |                                                                                                                                                                                                                                |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 05/2022 | ISPA – Instituto Universário de Ciências Psicológicas, Sociais e da Vida, Lisbon, Portugal                                                                                                                                     |
| 03/2022 | Centro de Investigación Mente, Cerebro y Comportamiento, University of Granada, Granada, Spain                                                                                                                                 |
| 11/2021 | 6 <sup>th</sup> International Universal Scientific Education and Research Network (USERN)                                                                                                                                      |
| 06/2021 | Petminded Community Event                                                                                                                                                                                                      |
| 06/2021 | PoCo Hertiage Museum and Archives, Port Coquitlam, BC, Canada                                                                                                                                                                  |
| 02/2021 | Petminded Community Event                                                                                                                                                                                                      |
| 09/2020 | Ebbinghaus Empire Meeting, University of Toronto, ON, Canada.                                                                                                                                                                  |
| 01/2020 | Developmental Interest Group, University of Toronto, ON, Canada.                                                                                                                                                               |
| 09/2019 | Ebbinghaus Empire Meeting, University of Toronto, ON, Canada                                                                                                                                                                   |
| 08/2019 | University of Toronto Arts & Sciences annual recruitment event, Toronto, ON, Canada.                                                                                                                                           |
| 03/2019 | TED <sup>x</sup> , University of Toronto, ON, Canada. The Secret Life of Dogs: <a href="https://www.ted.com/talks/julia_espinosa_the_secret_life_of_dogs">https://www.ted.com/talks/julia_espinosa_the_secret_life_of_dogs</a> |
| 10/2018 | North York Dog Training Club, Toronto, ON, Canada.                                                                                                                                                                             |
| 09/2018 | University of Toronto, Ebbinghaus Empire Meeting, Toronto ON, Canada                                                                                                                                                           |

## CONFERENCE PRESENTATIONS

---

§denotes undergraduate mentee

1. **Espinosa, J.** (2022, April). Big Team Science in Comparative Cognition. Oral presentation at the 29<sup>th</sup> *Annual International Conference of the Comparative Cognition Society*, virtual.
2. Pelgrim, M. H., **Espinosa, J.,** & Buchsbaum, D. (2022, April). Impact of Value and Familiarity

- on Dog's food Preferences. *29<sup>th</sup> Annual International Conference of the Comparative Cognition Society*, virtual.
3. ManyDogs, **Espinosa, J.**, Pelgrim, M. H., & Byosiére, S. (2021, July). The ManyDogs Project. Roundtable discussion at the *7<sup>th</sup> Biannual Canine Science Forum*, virtual.
  4. de Groot, B., **Espinosa, J.**, Choraży, A., Słuszkiewicz, Z., Tsiourti, C. (2021, July). Animal Ethnography: Towards a multi-disciplinary method for understanding animals. Oral presentation at the *Diverse Intelligences Summer Institute*, virtual.
  5. Bayet, L., **Espinosa, J.**, Tsiourti, C. (2021, July). A starter toolkit for affective cognition?. Oral presentation at the *Diverse Intelligences Summer Institute*, virtual.
  6. **Espinosa, J.**, Corbit, L., McGinn, K., Pelgrim, M.H., Buchsbaum, D. (2021, July). Domestic dogs' understanding of the temporal priority principle. Oral presentation at the *7<sup>th</sup> Biannual Canine Science Forum*, virtual.
  7. Pelgrim, M.H., **Espinosa, J.**, Buchsbaum, D. (2021, July). Head Mounted Eye-Tracking in Dogs: A New Method. Oral presentation at the *7<sup>th</sup> Biannual Canine Science Forum*, virtual.
  8. **Espinosa, J.**, Dong, L., Buchsbaum, D. (2021, July). Domestic dogs' gaze-behavior associations in 2-alternative choice tasks. Poster presentation at the *43<sup>rd</sup> Annual Meeting of the Cognitive Science Society*, virtual
  9. **Espinosa, J.**, Dong, L., Buchsbaum, D. (2021, April). Investigating gaze-choice associations in domestic dogs. Oral presentation at the *28<sup>th</sup> Annual International Conference of the Comparative Cognition Society*, virtual.
  10. Pelgrim, M.H., **Espinosa, J.**, Buchsbaum, D. (2021, April). Head-Mounted Wearable Eye-Tracking in the Domestic Dog: A New Method. Oral presentation at the *28<sup>th</sup> Annual International Conference of the Comparative Cognition Society*, virtual.
  11. Pelgrim, M.H., **Espinosa, J.**, Tecwyn, E., Marton, S., Johnston, A. M., Buchsbaum, D. (2021, March). What's the point? Domestic dogs' understanding of the accuracy of human social informants. Oral presentation at the *Biennial Society for Research in Child Development*, virtual.
  12. ManyDogs, (**Espinosa, J.**, +15 others in alphabetical order). (2021, January) ManyDogs 1: Multilab collaboration studies in Canine Cognition. Twitter thread presented by G.E. Gnanadesikan at the *Animal Behavior Society's Global Twitter Conference*: <https://twitter.com/ManyDogsProject/status/1354550089918767105?s=20>
  13. **Espinosa, J.**, Corbit, L., McGinn, K., Pelgrim, M.H., Buchsbaum, D. (2020, July). Investigating the spatiotemporal priority principle in domestic dogs. Oral presentation at the *57<sup>th</sup> Annual Meeting of the Animal Behavior Society*, virtual.
  14. **Espinosa, J.**, Corbit, L., McGinn, K., Pelgrim, M.H., Buchsbaum, D. (2020, July). Domestic dogs understanding of spatial temporal priority. Poster presentation at the *42<sup>nd</sup> Annual Meeting of the Cognitive Science Society*, virtual.

15. §Dong, L., **Espinosa, J.**, Buchsbaum, D. (2020, July). Perceptual decision making in domestic dogs. Poster presentation at the *42<sup>nd</sup> Annual Meeting of the Cognitive Science Society*, virtual.
16. ManyDogs, **Espinosa, J.** (2020, February). The ManyDogs Project Update. Oral presentation at the *2<sup>nd</sup> International East Coast Canine Cognition Workshop* in New Haven, CT.
17. **Espinosa, J.**, Buchsbaum, D. (2019, July). Dogs' understanding of occlusion events. Poster presentation at the *41<sup>st</sup> Annual Meeting of the Cognitive Science Society* in Montreal, QC, Canada.
18. §Pelgrim, M.H., Tecwyn, E., **Espinosa, J.**, Marton, S., Johnston, A., Buchsbaum, D. (2019, July). Dogs' assessments of informant accuracy. Poster presentation at the *41<sup>st</sup> Annual Meeting of the Cognitive Science Society* in Montreal, QC, Canada.
19. **Espinosa, J.**, Buchsbaum, D. (2019, April). Domestic dog understanding of physical containment, covering, and occlusion events. Oral presentation at the *26<sup>th</sup> Annual International Conference of the Comparative Cognition Society* in Melbourne Beach, FL.
20. §Pelgrim, M.H., **Espinosa, J.**, Tecwyn, E., Marton, S., Johnston, A., Buchsbaum, D. (2019, April). Domestic Dogs' understanding of the accuracy of human social informants. Poster presentation at the *26<sup>th</sup> Annual International Conference of the Comparative Cognition Society* in Melbourne Beach, FL.
21. §Pelgrim, M.H., **Espinosa, J.**, Tecwyn, E., Marton, S., Johnston, A. M., Buchsbaum, D. (2019, January). What's the point? Domestic dogs' understanding of the accuracy of human social cues. Talk at the *Arts and Sciences Student Union Undergraduate Research Conference* in Toronto, Ontario.
22. **Espinosa, J.**, Buchsbaum, D. (2018, November). Meat or Veggies? Dogs' discrimination between items of unequal value. Oral presentation at the *1<sup>st</sup> East Coast Canine Cognition Workshop*, in New Haven, CT.
23. §Pelgrim, M.H., **Espinosa, J.**, Tecwyn, E., Buchsbaum, D. (2018, November). Social understanding in Domestic Dogs (*Canis lupus familiaris*). Oral presentation at the *1<sup>st</sup> East Coast Canine Cognition Workshop* in New Haven, CT.
24. MacDonald, S., Nickerson, A., **Espinosa, J.** (2018, October). It's magic! Violation of expectations in dogs (*Canis lupus familiaris*). Oral presentation at the *Biennial Meeting of the International Society for Comparative Psychology* in Los Angeles, CA.
25. **Espinosa, J.**, Tecwyn, E., Pelgrim, M., Marton, S., Johnston, A., Buchsbaum, D. (2018, July). What's that point all about? Domestic dogs compare the accuracy of human social cues. Oral presentation at the *6<sup>th</sup> Biannual Canine Science Forum* in Budapest, Hungary.
26. **Espinosa, J.**, Tecwyn, E., Buchsbaum, D. (2018, April) Investigating the Solidity Principle in Domestic Dogs. Oral presentation at the *25<sup>th</sup> Annual International Conference of the Comparative Cognition Society* in Melbourne Beach, FL.
27. **Espinosa, J.**, Buchsbaum, D. (2018, April). Meat or Veggies? Assessing food preferences in domestic dogs with simultaneous choice tasks. Poster presentation at the *25<sup>th</sup> Annual International Conference of the Comparative Cognition Society* in Melbourne Beach, FL.

28. **Espinosa, J.**, Tecwyn, E., Buchsbaum, D. (2017, October). Domestic Dogs and the Solidity Principle. Oral presentation at the *1<sup>st</sup> International Canine Science Conference* in Tempe, AZ.
29. Byosiére, SE., **Espinosa, J.**, Smith, B. (2017, October). Comparing the function of play bows in dingo puppies (*Canis dingo*) to dogs (*Canis lupus familiaris*) and wolf puppies (*Canis lupus occidentalis*). Oral presentation at the *1<sup>st</sup> International Canine Science Conference* in Tempe, AZ.
30. Ahloy-Dallaire, J., **Espinosa, J.**, Mason, G. (2017, June). Do any forms of play indicate the presence of positive affective states? Oral presentation at the *UFAW International Animal Welfare Science Symposium* in Surrery, UK.
31. **Espinosa, J.**, Tecwyn, E., Buchsbaum, D. (2017, June). Domestic Dogs and the Solidity Principle. Poster presentation at *the 54<sup>th</sup> Annual International Conference of the Animal Behavior Society* in Scarborough, ON, Canada.
32. **Espinosa, J.**, Tecwyn, E., Buchsbaum, D. (2017, April). Domestic Dogs and the Solidity Principle. Poster presentation at *the 24<sup>th</sup> Annual International Conference of the Comparative Cognition Society* in Melbourne Beach, FL.

## AWARDS, FELLOWSHIPS, & SCHOLARSHIPS

---

|           |                                                                                                                                                                                                         |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2022      | <b>National Science Foundation</b> (\$138,000 USD)<br>BIO PRFB Integrative Research Award #2209046 for independent postdoctoral research in the two-year period from September 2022 through August 2024 |
| 2021      | <b>Doctoral Completion Award</b> , University of Toronto (\$5,000 CAD)                                                                                                                                  |
| 2021      | <b>Diverse Intelligences Summer Institute</b> (DISI) (\$1,275 USD)                                                                                                                                      |
| 2018-2019 | <b>Ontario Graduate Scholarship</b> , University of Toronto (\$15,000 CAD)                                                                                                                              |
| 2018      | <b>Kuczaj Memorial Travel Grant</b> , Comparative Cognition Society (\$500 USD)                                                                                                                         |
| 2017      | <b>Diversity Travel Award</b> , Animal Behavior Society, 54 <sup>th</sup> annual conference (\$250 USD)                                                                                                 |
| 2017      | <b>Conference Grant</b> , School of Graduate Studies, University of Toronto (\$320 CAD)                                                                                                                 |
| 2011      | <b>Michigan Competitive Scholarship</b> , University of Michigan (\$1,500 USD)                                                                                                                          |
| 2010      | <b>USA Dance Scholarship</b> , USA Dance (\$300 USD)                                                                                                                                                    |
| 2008-2010 | <b>Foundation Scholarship</b> , Washtenaw Community College (\$1,200 USD)                                                                                                                               |
| 2008      | <b>Dean's High Honor Roll</b> , Washtenaw Community College                                                                                                                                             |
| 2008      | <b>Michigan Promise Scholarship</b> , State of Michigan, USA                                                                                                                                            |

## LEADERSHIP

---

## Professional

- 2018-present Co-founder and main organizer of *ManyDogs: Collaborative open science experiments in canine science*. Chief responsibilities in ManyDogs Study 1: Project Coordinator, Local Team Captain (University of Toronto), Data Team, Social Media Team, and Website Team, <https://manydogsproject.github.io/>
- 2016-2020 Colloquium Organizer, *GTA Animal Cognition Group*, Toronto ON, Canada
- Conference & symposium organizer*
- 2022-present Executive Committee Member, *Annual International Conference of the Comparative Cognition Society*
- 2018, 2020 Founder and Co-organizer of the *East Coast Canine Cognition Workshop*, New Haven, CT

## University Service

- 2020-2022 Graduate Student Representative, *University of Toronto Psychology Equity, Diversity, and Inclusion Initiative*
- 2017-2020 Treasurer, Social Event Coordinator, *University of Toronto Psychology Graduate Students Association*

## RESEARCH EXPERIENCE

---

- 2016 – present **Computational Cognitive Development Lab**  
(PI: Dr. Daphna Buchsbaum), *Cognitive, Linguistic & Psychological Sciences*, Brown University, Providence RI, USA
- PhD research student
  - Teaching Assistant
  - Dog behavior study design
- 2020 – present **Corbit Lab**  
(PI: Dr. Laura Corbit, PhD), *Department of Psychology* University of Toronto, Toronto ON, Canada
- PhD research student
  - Experimental design for rat studies
- 2018-2019 **StarLab for Mind and Development**  
(PI: Dr. Christina Starman, PhD), *Department of Psychology* University of Toronto, Toronto ON, Canada
- PhD research student
  - Developmental psychology study design
  - Online survey design
- 2015-2016 **Companion Animal Behaviour and Welfare Lab**  
(PI: Dr. Lee Niel, PhD), *Department of Population Medicine*, Ontario Veterinary College, Guelph ON, Canada

- Master's research student
- Intervention design for improved recognition of dog stress signals
- Online survey design

## TEACHING EXPERIENCE

---

*Teaching Assistant, Department of Psychology, University of Toronto*

|                |                                                      |
|----------------|------------------------------------------------------|
| Winter 2021    | Behavioural Genetics (PSY390H S)                     |
| Fall 2020      | Introduction to Cognitive Psychology (PSY270H F)     |
| Winter 2019    | Interpersonal Relationships (PSY424H S)              |
| Fall 2018      | Introduction to Developmental Psychology (PSY210H F) |
| Winter 2018    | Animal Cognition (PSY362H S)                         |
| Winter 2017    | Introduction to Psychology (PSY100H1 S)              |
| Fall 2016/2017 | Developmental Psychology Lab (PSY319H1 F)            |

## Guest Lectures

|               |                                                                                                                                                |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 03/2022       | What's up with dogs: An introduction to canine science, Department of Psychology, Faculty of Arts, University of Waterloo, Canada              |
| 05/2021       | Applied associative learning: Clicker training (PSY308H1 F) Department of Psychology, Faculty of Arts & Science, University of Toronto, Canada |
| 02/2020       | Physical and causal knowledge in domestic dogs (Canine Science Research Methods Graduate Course), Hunter College, CUNY, NY USA                 |
| 03/2018       | Animal Social Cognition (PSY424H S), Department of Psychology, Faculty of Arts & Science, University of Toronto, Canada                        |
| 10/2017, 2018 | Introduction to statistical methods (PSY319H1 F), Department of Psychology, Faculty of Arts & Science, University of Toronto, Canada           |

## Student Mentorship

*Thesis Supervision*

Michael Spiotta (April, 2022). *Investigating the Function of Play Bows in African Wild Dogs (Lycaon pictus)*. City University of New York, Hunter College.

*Undergraduate Independent Study Projects, Department of Psychology, University of Toronto*

Liyuzhi Dong (2019-2020). Perceptual Decision-making in Domestic Dogs (*Canis familiaris*)

Katherine McGinn (2019-2020). What do dogs (*Canis familiaris*) know about cause-and-effect relationships?

Madeline H. Pelgrim (2018-2019). Do dogs differentiate between reliable and unreliable human social informants?

Sarah MacKay-Marton (2017-2018). Dogs (*Canis familiaris*) understanding of human pointing.

*Undergraduate Research Opportunity Program, University of Toronto*

|           |                     |
|-----------|---------------------|
| 2019-2020 | Ece Yucer           |
| 2019      | Tommy Gweon         |
| 2018-2019 | Lucas Baron         |
| 2018-2019 | Liyuzhi Dong        |
| 2018      | Katherine McGinn    |
| 2018      | Victoria Tan        |
| 2016-2017 | Aarushi Gupta       |
| 2016-2017 | Madeline H. Pelgrim |

*Undergraduate Work-study Students, University of Toronto*

|           |                                      |
|-----------|--------------------------------------|
| 2019-2020 | Lucas Baron, Lab Coordinator         |
| 2018-2019 | Melanie Mascarenhas, Lab Coordinator |
| 2017-2018 | Madeline H. Pelgrim, Lab Coordinator |

## SKILLS

---

- R Statistical programming
- Python
- CAD software packages (Solidworks, Inkscape, and Autodesk)
- Event logging software (Noldus The Observer/BORIS)
- Head-mounted mobile eye-tracking methods for dogs
- Photoshop
- Qualtrics survey design
- Bilingual in Spanish and English
- Positive reinforcement dog trainer
- Molecular biology lab techniques (e.g., ChIP, (q)PCR, tissue culture, spectroscopy, cryosection)