Polyphony J. Bruna

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EDUCATION

University of California, Merced, CA   Expected 2027
Doctor of Philosophy, Cognitive and Information Sciences

Vassar College, Poughkeepsie, NY   2022
Bachelor of Arts, Cognitive Science and Philosophy
Minor, Japanese
- Overall GPA: 3.99/4.00
- Honors: *Phi Beta Kappa, Sigma Xi, Psi Chi, cum laude generali et cum laude in materia subiecta*

RESEARCH INTERESTS

Computational Modeling; Cognitive Alignment; Language Evolution and Change; AI; HMI, Translation

PUBLICATIONS

Rane, S.[†], **Bruna, P. J.**[†], Sucholutsky, I., Kello, C., & Griffiths, T. (2023). *Concept alignment.* 1st NeurIPS Workshop on AI meets Moral Philosophy and Moral Psychology (MP2).

Bruna, P. J., Andrews, J., & de Leeuw, J. R. (2023). *Psychophysical Adaptive Procedure: Developing a New, Generalizable Method* [Manuscript in preparation].

Andrews, J. & **Bruna, P. J.** (2023). *Probing the Methodology and Interpretation of Learned Categorical Perception Research* [Manuscript in preparation].

Bruna, P. J. (2021). *Exploring Semantic Relatedness Judgments in the Structure of a Semantic Network* [Unpublished manuscript]. Department of Cognitive Science, Vassar College. https://osf.io/sj7tg/

de Leeuw, J. R., Andrews, J., Barney, L., Bigler, M., **Bruna, P. J.**, Chen, Y., Cherry, R., Dowie, D. R., Forbes, E., Haffey, B., Hu, X., Jaklitsch, M., Leopold, N., Lewis, C., MacDonald, D., McShaffrey, C., Nakayama, K., Olstad, W., Peng, R., … Zhang, L. (2021). Words May Jump-Start Meaning More Than Vision: A Non-Replication of Early ERP Effects in Boutonnet and Lupyan (2015). *Collabra: Psychology, 7*(1). https://doi.org/10.1525/collabra.29763

Bruna, P. J. (2019). A Review of Bryan W. Van Norden, Taking Back Philosophy. *Vassar College Journal of Philosophy, 6*, 73–75. https://www.vassar.edu/sites/default/files/2021-08/philosophy-journal-spring-2019.pdf

TALKS AND POSTER PRESENTATIONS

Rane, S. & **Bruna, P. J.** (2023, Dec 15). *Concept alignment* [Poster Presentation]. 1st NeurIPS Workshop on AI meets Moral Philosophy and Moral Psychology (MP2), New Orleans, LA, United States.

Bruna, P. J. (2023, July 19). *Semantics and Syntax Co-emerge in Adaptive Reservoir Network Dynamics* [Talk]. Diverse Intelligences Summit, University of St. Andrews, Scotland.

[†] Authors contributed equally to this work

Bigler, M. & **Bruna, P. J.** (2020, Sep 30). *Probing the Methodology and Interpretation of Learned Categorical Perception Research* [Poster presentation]. 35th Annual URSI Symposium, Vassar College, Poughkeepsie, NY, United States. https://www.vassar.edu/sites/default/files/2021-06/URSI_11_andrewsj_mbigler_pbruna.pdf

Bruna, P. J. (2020, Mar 27). *Hearing That It Is Silent: How to Hallucinate a Non-Perception* [Paper talk]. 10th Annual Mid-Hudson Valley Undergraduate Philosophy Conference, Marist College, Poughkeepsie, NY, United States. (Canceled due to COVID-19)

Bruna, P. J. & Marks, P. (2019, Sep 25). *Psychophysical Adaptive Procedure: Developing a New, Generalizable Method* [Poster presentation]. 34th Annual URSI Symposium, Vassar College, Poughkeepsie, NY, United States. https://osf.io/4ahd9/?view_only=0b55b01f9eea4ed1a0402589087a0a71

PROFESSIONAL MEMBERSHIPS

Phi Beta Kappa	Since 2022
Sigma Xi, The Scientific Research Honor Society	Since 2022
Psi Chi, International Honor Society in Psychology	Since 2021

HONORS AND AWARDS

The Jamie Nisse Greenberg Philosophy Prize – $900 *Vassar College*	2022
Best Technical Write-Up *Mid-Hudson IEEE Undergraduate Capstone Project Awards*	2022

SCHOLARSHIPS, FELLOWSHIPS, AND GRANTS

Cognitive and Information Sciences Fall Fellowship – $22,500 *University of California, Merced*	2023
Chancellor's Recruitment Fellowship – $45,000 *University of California, Merced*	2022 – 2023
*Foreign Language and Area Studies (FLAS) Fellowship – $22,500 + tuition/fees *U.S. Department of Education*	2022 – 2023
Adolph Sutro Fellowship – $10,000 *Vassar College*	2022
Critical Language Scholarship for advanced Japanese, alternate *U.S. Department of State; American Councils for International Education*	2022
Frances Lehman Loeb 1928 Scholarship – $44,000 *Vassar College*	2021 – 2022

* Awarded, but declined

Research Award – $4,000 2021
Vassar College

Frances Lehman Loeb 1928 Scholarship – $44,000 2020 – 2021
Vassar College

Undergraduate Research Summer Institute (URSI) – $5,000 2020
Vassar College

Frances Lehman Loeb 1928 Scholarship – $42,500 2019 – 2020
Vassar College

Undergraduate Research Summer Institute (URSI) – $5,000 2019
Vassar College

1956 Memorial Scholarship – $42,000 2018 – 2019
Vassar College

WORKSHOPS AND TRAINING PROGRAMS

Complexity-GAINs International Summer School (Topic: Intelligence and Representation) 2023
Isaac Newton Institute for Mathematical Sciences, University of Cambridge

Diverse Intelligences Summer Institute 2023
University of St. Andrews

Key Connections 2022
The Phi Beta Kappa Society

Pittsburgh Summer Program in Philosophy of Science and Specialized Sciences 2020
University of Pittsburgh; Carnegie Mellon University

RESEARCH AND TEACHING EXPERIENCE

Teaching Assistant, Cognitive Science Department 2021 – 2022
Vassar College

Research Mentor, Undergraduate Research Summer Institute (URSI) 2021
Vassar College

Research Assistant, Cognitive Science Department 2018 – 2021
Vassar College

INTERNSHIPS

Intern, Cognitive Science Department 2021 – 2022
Vassar College

Research Fellow, Undergraduate Research Summer Institute (URSI) 2019, 2020
Vassar College

SERVICE

Graduate Student Co-Chair, Cognitive and Information Sciences Department   2023 – 2024
University of California, Merced

Editor, Vassar College Journal of Philosophy   2018 – 2019
Vassar College

SKILLS

Technical: Neural Networks, Semantic Networks, Bayesian Statistics, Behavior-Based Robotics

Computer: R, JavaScript, jsPsych, Python, C/C++

Equipment: High-Performance Computing, Geodesic EEG System, Netstation 5.4, KISS IDE

Language: English (native), Japanese (advanced)