

PETER BLOUW

Senior Research Scientist, Applied Brain Research, Inc.

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EDUCATION

University of Waterloo PhD in Philosophy Diploma in Cognitive Science	2012 - 2017
University of Waterloo MA in Philosophy	2011
University of Guelph BA in English Literature	2010

AWARDS

Best Paper Prize for Computational Modeling of Language 39th Annual Conference of the Cognitive Science Society	2017
Ontario Graduate Scholarship (\$30,000) Awarded for academic merit by the province of Ontario.	2015-17
University of Waterloo President's Graduate Scholarship (\$50,000) Awarded to UW students who win provincial or national scholarships.	2012-17
Joseph-Armand Bombardier Canada Graduate Scholarship (\$105,000) Awarded by the Social Sciences and Humanities Research Council of Canada.	2012-15

PUBLICATIONS

Journal Articles

1. **Blouw, P.** & Eliasmith, C. (2018). Using neural networks to generate inferential roles for natural language. *Frontiers in Psychology*, 8(2335): 1-14.
2. **Blouw, P.**, Solodkin, E., Thagard, P. & Eliasmith, C. (2016). Concepts as semantic pointers: A framework and computational model. *Cognitive Science*, 40(5): 1128-1162.
3. Turri, J., Buckwalter, W., & **Blouw, P.** (2015). Knowledge and luck. *Psychonomic Bulletin & Review* 22(2): 378-390.
4. Turri, J., & **Blouw, P.** (2015). Excuse validation: A study in rule-breaking. *Philosophical Studies* 172(3): 615-634.

Conference Proceedings

5. **Blouw, P.** & Eliasmith, C. (2017). Inferential role semantics for natural language. In *Proceedings of the 39th Annual Conference of the Cognitive Science Society*, (pp. 142-147).
6. **Blouw, P.**, Eliasmith, C., & Tripp, B. (2016). A scalable spiking neuron model of action planning. In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*, (pp. 1583-1588).
7. Kröger, B., Bekolay, T., & **Blouw, P.** (2016). Modeling motor planning in speech production using the neural engineering framework. In *Studenten- und Lehrertexte zur Sprachkommunikation: Elektronische Sprachsignalverarbeitung*, (pp. 15-22).
8. **Blouw, P.** & Eliasmith, C. (2015). Constraint-based parsing with distributed representations. In *Proceedings of the 37th Annual Conference of the Cognitive Science Society*, (pp. 1583-1588).

9. Turri, J., **Blouw, P.** & Buckwalter, W.,(2014). Knowledge and luck. In *Proceedings of the 36th Annual Conference of the Cognitive Science Society*, (pp. 1958-1963).
10. **Blouw, P.** & Eliasmith, C. (2013). A neurally-plausible encoding of word order information into a semantic vector space. In *Proceedings of the 35th Annual Conference of the Cognitive Science Society*, (pp. 1905-1910).
11. Hunsberger, E., **Blouw, P.**, Bergstra, J. & Eliasmith, C. (2013). A neural model of human image categorization. In *Proceedings of the 35th Annual Conference of the Cognitive Science Society*, (pp. 633-638).

Book Chapters

12. **Blouw, P.**, Buckwalter, W. & Turri, J. (2017). Gettier cases: A taxonomy. In R. Borges, C. de Almeida, & P. Klein (Eds.) *Explaining knowledge: New essays on the Gettier problem*, (pp. 242-252). Oxford University Press.

Thesis

13. **Blouw P.** (2017) *Inferential Role Semantics for Natural Language*. Supervisor: Chris Eliasmith. Committee Members: Paul Thagard, John Turri, Pascal Poupart, & Robert Brandom (External).

SELECTED PRESENTATIONS

- **Blouw, P.** Commentary on F. Zenker, Lund University: “From Discovery to Justification: Outline of an Ideal Research Program in Empirical Psychology,” University of Waterloo Philosophy Department Colloquium, *10 January 2018*.
- **Blouw, P.** & Eliasmith, C. (2017). Inferential role semantics for natural language. 39th Annual Conference of the Cognitive Science Society. *July 2017*.
- **Blouw, P.**, Eliasmith, C., & Tripp, B. (2016). A scalable spiking neuron model of action planning. 38th Annual Conference of the Cognitive Science Society. *August 2016*.
- **Blouw, P.** & Eliasmith, C. (2015). Constraint-based parsing with distributed representations. 37th Annual Conference of the Cognitive Science Society. *July 2015*.

TEACHING

Online Instructor: Introduction to Cognitive Science, Summer 2012, University of Waterloo.

Teaching Assistant: Introduction to Business Ethics (2x), Introduction to Cognitive Science, and Introduction to Philosophy at the University of Waterloo

PROFESSIONAL SERVICE

Ad-hoc Reviews: *Neural Computation*; *PLOS One*; *Conference of the Cognitive Society*; *International Conference on Robotics and Automation*

Membership: Cognitive Science Society (2013-present)

Workshops: Chief organizer of annual Nengo summer school on large-scale brain modeling at the University of Waterloo. Obtained \$15,000 in yearly funding from the US Office of Naval Research. (2014-present)

TECHNICAL SKILLS AND COURSEWORK

Languages	Python, Matlab
Libraries	Nengo, TensorFlow, PyTorch (beginner)
Tools	Git, NumPy/SciPy, LaTeX
Graduate Courses	Deep learning (97%), Simulating Neural Systems (96%), Formal Logic (92%)