

Nicolas Porot

nicolas.porot@uantwerpen.be

+32 (0)4 70 93 90 53

S.S. 208, Lange Sint-Annastraat 7

Antwerpen 2000, BE

www.nicolasporot.com

Employment

Postdoctoral Researcher, Center for Philosophical Psychology, University of Antwerp, 2019-20

Education

Ph.D. Program in Philosophy, The Graduate Center, City University of New York, September 2019

Dissertation: *Some Non-Human Languages of Thought*; Committee: Eric Mandelbaum (advisor), Elisabeth

Camp, Michael Devitt, Stephen Neale, Katherine Ritchie

Diplôme de l'École Normale Supérieure, Paris, 2016

Research Master, Cognitive Science, École de Hautes Études en Sciences Sociales/École

Normale Supérieure/Université de Paris V, 2013

B.A. Philosophy, University of California, Los Angeles, 2010

Awards, Fellowships, and Visiting Positions

Visiting Assistant in Research, Yale University, 2018-19 Academic Year

Dissertation Completion Fellowship, The Graduate Center, City University of New York, 2018-19

Visiting Doctoral Student, Jean Nicod Institute, Paris, Spring 2016

Mention bien for master's thesis, École de Hautes Études en Sciences Sociales, June 2014

Title: "Seeing Events in Static Images," Advisors: Roberto Casati, Patrick Cavanagh

University of California, Los Angeles, 2010: *Magna cum laude*, College of Letters and Sciences

Honors, Philosophy Department Honors

Publications

"The Reference of Proper Names: Testing Usage and Intuition" (with Michael Devitt), *Cognitive Science*, 2018

"The Science of Belief: A Progress Report" (with Eric Mandelbaum), *Wiley Interdisciplinary Reviews*

(*WIRES*): *Cognitive Science*, forthcoming

Papers in Progress

"Some Evidence for Languages of Thought in Chimpanzees, Olive Baboons, and an African Grey Parrot"

"Minds Without Spines: Multi-Stability as a Mark of the Mental"

"Symbolic Representation in Arthropods"

"Multiply Formatted Languages of Thought"

"There Are No Holes in Conscious Vision"

Teaching Experience

Graduate Teaching Fellow, Brooklyn College.

Courses taught: Introduction to Business Ethics (1x), Introduction to Philosophy (5x)

Lecturer, Medgar Evers College.

Course taught: Introduction to Logic (3x)

Lecturer, Baruch College.

Course taught: Philosophy and Psychology (1x)

Talks and Conference Presentations

"Some Evidence for Languages of Thought in Chimpanzees, Baboons, and an African Grey Parrot,"

ESPP, Athens, September 2019.

"Testing the Usage of Proper Names," Experimental Philosophy Lab, Yale, October 2018; Invited

Symposium on Experimental Semantics, Pacific APA, Seattle, April 2017; Experimental Semantics Workshop, University of Warsaw, Poland, April 2016
“There Are No Holes in Conscious Vision,” ESPP, University of Hertfordshire, UK, August 2017; ASSC XX, Buenos Aires, Argentina, June 2016; Perception Group Meeting, Institut Jean Nicod, Paris, May 2016
“New Data on Proper Names: Usage Supports Antidescriptivist Theories of Reference,” Experimental Philosophy Group, Institut Jean Nicod, Paris, February 2016
“Revised Methods for Testing Theories of Reference,” Workshop on Experimental Semantics Workshop, LOGOS, Barcelona, February 2015
“Multiple Object Tracking Is Not Evidence for Bare Demonstratives in a Language of Thought,” Cognitive Science Speaker Series, CUNY Graduate Center, July 2015
“Holes in Memory, and How to Plug Them,” Southern Society of Philosophy and Psychology, New Orleans, April 2015; Cognitive Science Speaker Series, CUNY Graduate Center, October 2014

Language Abilities

English (US), native; French (France), fluent

Professional Service

Referee: *Erkenntnis*, *Thought*, *Philosophical Psychology*, *Teorema* (Special Issue on Experimental Semantics)

Organizer: CUNY Graduate Student Conference 2015

Dissertation Abstract

Many of us have the sense that at least some non-human animals think. Recently, comparative psychology has begun to converge with this shared sense. However, the nature of non-human animal mental states, as well as their relation to our own, remain poorly understood. This dissertation is a test of one strategy for better understanding both: the Language of Thought Hypothesis.

A Language of Thought (LoT) is a combinatorial set of mental representations. And, since mental representations and rules of combination vary in kind, there are many possible LoTs. Simple LoTs might lack familiar features of the putative human LoT, such as object representations, recursively defined rules of combination, sentential connectives, or predicate-argument structure. Some LoTs may even include icons, cognitive maps, analogue magnitudes, or vector representations.

The most familiar arguments for the existence of LoTs fail when applied to non-human animals. This includes arguments from productivity and systematicity, as well as arguments from concept learning and perceptual computation. However, independent empirical evidence supports attributing LoTs to at least some non-human animals. First, evidence suggests at least some arthropods possess mental representations with syntactic structure. Arthropods have been shown to engage in more flexible behavior than previously thought. For example, bumblebees deploy abstract shape representations in social learning, and paper wasps pass a classic test of transitive inference. And at least one piece of evidence cannot be accommodated by any plausible model-free strategy. Honeybees can be trained to cardinally order natural numbers, up to six and including zero. Subitizing and analogue magnitudes, the most plausible alternative means for representing numerosity, cannot represent zero as such. Symbolic representations of number is the only remaining representational kind to explain the behavior. Since such representations guide action even with no reinforcement history for numerosities of zero, this result also provides evidence for inference on the basis of discrete, symbolic representation in the honeybee—for honeybee LoTs. It casts doubt on non-inferential explanation of flexible arthropod behavior more generally, especially for those arthropods with high degrees of sociality, such as paper wasps and bumblebees.

Second, results from a recently developed experimental paradigm suggest chimpanzees, olive baboons, and an African grey parrot are all competent with disjunctive syllogism. The best explanation of this competence posits combinations of connective-like mental representations, which function to combine syntactically with other representations. This is evidence for a kind of combinatoriality, and thus for a LoT in these creatures. Previous tests had suggested human children succeed at similar tasks at roughly the age that they begin producing natural language sentential negation. This left open the possibility that natural language was necessary for conceptual negation. But the non-human results, coupled with new work on the acquisition

of conceptual and natural language negation in human children, strongly suggest the failure was due to working memory constraints. Importantly, however, these results do not show that non-human animals, or even infants, possess a LoT with all of the hallmarks of the putative human LoT, such as predicate argument structure and recursively defined combination rules.

LoTs can explain a wide range of comparative data better than rival explanatory frameworks. This bolsters the explanatory purchase of non-human LoTs for comparative psychology, and thus of LoTs as a psychological kind generally. And it supports continuity between humans and other species for psychological competences such as natural language and reasoning. Finally, it suggests exciting future programs of research. Since the species described occupy widely separated clades of the phylogenetic tree, LoTs may turn out to be widespread in the animal world. However, precisely which animals possess syntactically structured mental states, and the degree to which different LoTs are the result of convergent evolution, remains to be seen. And we are only beginning to understand the syntactic rules governing combinations in non-human LoTs.