Matías Osta-Vélez

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AOS

Philosophy of cognitive science, general philosophy of science, epistemology.

AOC

Cognitive psychology, logic, philosophy of language.

EDUCATION

Ph.D. in Philosophy of Science (double dregree) 2017-2020
Munich Center for Mathematical Philosophy, Ludwig-Maximilians Universität.
Institut d'Histoire et Philosophie des Sciences et des Techniques, Université Paris 1 Panthéon-Sorbonne.

Title: *Inference and the Structure of Concepts.*
Committee: Stephen Hartmann (supervisor), Max Kistler (supervisor), Igor Douven (CNRS), Paul Égré (Institut Jean Nicod), Philip Koralus (Oxford), Peter Gärdenfors (Lund). *Summa cum laude.*

Master in Logic and Philosophy of Science 2013-2014
Unievrsité Paris 4 Sorbonne, France.

Title: *Logique, raisonnement et rationalité.*
Supervisors: Pierre Wagner and Marco Panza. *Summa cum laude.*

Master in Mathematical Logic 2012-2013
Université Paris 1 Panthéon-Sorbonne, France.

Supervisor: Pascal Ludwig.

B.A. in Philosophy (4-year program) 2005-2010
School of Humanities, University of the Republic, Uruguay.

Other studies:

Master in Cognitive Science, University of the Republic, 2015-2017.
North-American Summer School for Logic, Language and Information, Rutgers University, 2016.

AFFILIATIONS

Postdoctoral research fellow   2023 - 2024
Department of Philosophy, Heinrich Heine University, Germany.

NeuroMind fellow (postdoctoral researcher)   2021 - 2023
Center for Mind and Cognition, Ruhr-Universität Bochum, Germany.

Lecturer in Philosophy of science (part-time)   2017-
Instituto de Filosofía, Universidad de la República, Uruguay.

External member   2020 –
Munich Center for Mathematical Philosophy, LMU, Germany.

Past affiliations:
PhD candidate   2016 – 2020
IHPST, Université Paris 1 Panthéon-Sorbonne,
Département d'Études Cognitives, ENS, France.

PhD candidate   2017 – 2020
Munich Center for Mathematical Philosophy, LMU, Germany.

Teaching assistant in philosophy of sience   2011 – 2017
Institute of Philosophy, University of the Republic, Uruguay.

Teaching assistant in logic   2009 – 2011
Institute of Philosophy, University of the Republic, Uruguay..

PUBLICATIONS

1. Gärdenfors, P. & Osta-Vélez, M. (2023). Reasoning with concepts: A unifying framework. Forthcoming in *Minds & Machines*.

2. Osta-Vélez, M. & Gärdenfors, P. (2022). Analogy as a search procedure: A dimensional view. *Journal of Experimental & Theoretical Artificial Intelligence.* https://doi.org/10.1080/0952813X.2022.2125081.

3. Osta-Vélez, M. & Gärdenfors, P. (2021). Nonmonotonic reasoning, expectations orderings, and conceptual spaces. *Journal of Logic, Language and Information*, *31*, 70-97.

4. Osta-Vélez, M. & Gärdenfors, P. (2020). Category-based induction in Conceptual Spaces. *Journal of Mathematical Psychology, 96*, 102357.

5. Osta-Vélez, M. (2019). Methods of representation as inferential devices. *Journal for General Philosophy of Science, 50*(2), 231-245.

6. Osta-Vélez, M. (2023). Language, concepts, and the nature of inference. Forthcoming in E. Caorsi and R. Navia (Eds.) *Language, Meaning, and Philosophy: Philosophy of Language in Uruguay.* Lexington books.

7. Osta-Vélez, M. (2021). Inference and the structure of concepts. PhD Thesis. Ludwig-Maximilians Universität, Fakultät für Philosophie. DOI 10.5282/edoc.27633 [Publsihed online].

8. Osta-Vélez, M. (2016). La matematización galileana de la naturaleza según Husserl. In C. Pallas (Ed.), *La Filosofía y su Enseñanza*, (pp. 87-104). Montevideo: ANEP-CFE.

9. Osta-Vélez, M. (2014). Logique, raisonnement, et rationlaité. Université Paris 1 Panthéon Sorbonne. Philosophie ⟨dumas-01101587⟩. [Publsihed online]

Under review:

10. Douven, I.,Verheyen, S., Elqayam, S., Gärdenfors, P., & Osta-Vélez, M. *Analogical reasoning: A Carnapian approach.*

11. Gärdenfors, P. & Osta-Vélez, M. *Reasoning with generics as expectations.*

12. Osta-Vélez, M. & Gärdenfors, P. *Explicating Conceptual Coherence.*

13. Douven, I.,Verheyen, S., Elqayam, S., Gärdenfors, P., & Osta-Vélez, M. *Similarity-based reasoning in conceptual spaces.*

14. Osta-Vélez, M. *Explicating material inferences with conceptual spaces.*

Book reviews:

15. Osta-Vélez, M. (2021). Review of S. Arfini, *Ignorant cognition. Studies in Philosophy and Education*, *40*, 231–236.

16. Osta-Vélez, M. (2019). Review of H. Mercier & D.Sperber, *The Enigma of Reason. Philosophical Psychology*, *6*, 995-999.

TEACHING

Lecturer:

- *Formal methods in Philosophy of Science.*
  . Block seminar, undergraduate course (Philosopy), School of Humanities, University of the Republic, March-May, 2023.

- *The implicit mind: theoretical and practical issues.*
  With Álvaro Peláez. Master in Contemporary Philosophy, School of Humanities, University of the Republic. 30hs, first semester, 2022.

- *Reasoning, normativity, and cognitive biases.*
  With Peter Brossel. Master in Cognitive Science, Rühr Universität Bochum. 40hs, summer semester, 2022.

- *Theoretical foundations of Cognitive Science.*
  Master in Cognitive Science, School of Natural Sciences, University of the Republic. 40hs, second semester, 2021.

- *Theories of Concepts*
  Master in Contemporary Philosophy, School of Humanities, University of the Republic. 30hs, second semester, 2021.

- *Theories of Reasoning.*
  Master in Philosophy of Science, MCMP, Ludwig-Maximilians Universität. 40hs, summer semester, 2020.

- *Philosophical foundations of the cognitive sciences*
  Master in Contemporary Philosophy, School of Humanities, University of the Republic. 30hs, second semester, 2019.

- *Épistémologie*
  Licence en Philosohie. Univerité Paris 1 Panthéon-Sorbonne. 40hs, winter semester, 2018.

- *History and Philosophy of Science*
  Undergraduate course (Philosophy), School of Humanities, University of the Republic. 96hs, second semester, 2017-22.

- *Research methods in Philosophy*
  Co-teached. Undergraduate course (Philosophy), School of Humanities, University of the Republic. 96hs, first semester, 2015-16.

- *Introduction to epistemology*
  Undergraduate course for all degrees, School of Humanities, University of the Republic. 96hs, first semester, 2011-12.

Teaching assistant

- *Logic*
  Undergraduate course in Philosophy, School of Humanities, University of the Republic. 96hs, second semester, 2009-11.

- *History and Philosophy of Science II*
  Undergraduate course in Philosoph), School of Humanities, University of the Republic. 96hs, second semester, 2011, 2012, 2015 and 2016.

SELECTED TALKS

1. "Variability, Correlations and Conceptual Coherence"
   Workshop: *Conceptual Spaces at Work*, Warsaw University of Technology, Warsaw, june 2023.

2. "From feature correlations to conceptual coherence."
   Workshop *The Cognitive and Ontological Dimensions of Naturalness*, Heinrich-Heine-Universität Düsseldorf, may 2023.

3. "The role of categorization in inductive reasoning."
   BAPS Invited Symposium: *Categorization across fields*, 2023 International Convention of Psychological Science (ICPS), Brussels, march 2023.

4. "Default rules, expectations and conceptual spaces."
   Workshop *Logic and Philosophy*. Buenos Aires Logic Group, SADAF, Argentina, november 2022.

5. "Concepts, languaje and rational inference."
   Invited talk. School of Philosophy, Universidad Nacional de Córdoba, Argentina, november 2022.

6. "Local and global properties of concepts: a metacognitive perspective."
   Invited talk. Forschungskolloquium Seniorprofessur Gerhard Schurz .
   Heinrich-Heine-Universität Düsseldorf, Germany, october 2022.

7. "Local and global properties of concepts: a metacognitive perspective."
   Workshop *Conceptual Spaces and Social Spaces*.
   Université de Paris Cité, France, july 2022.

8. "Analogy as a search procedure."
   Workshop *Concepts and Reasoning*, Ruhr Universität Bochum, Germany, june 2022.

9. "Typicality in Reasoning."
   Invited talk. *LiRa Seminar*, University of Amsterdam, Netherlands, october 2021.

10. "Category-based induction in Conceptual Spaces."
    Cognitive Science seminar, Philosophy Department, Universidad de Lund, Sweden, april 2019.

11. "Formal and Conceptual Inference."
    WIP seminar, Munich Center for Mathematical Philosophy (LMU), Germany, january 2019.

12. "Explicating material inferences."
    European Society for Philosophy and Psychology, Universität Leipzig , Germany, september 2021.

13. "Inference and the structure of mental representations."
    East European Network for Philosophy of Science, july 2021.

14. "Modeling categorical inference in conceptual spaces" (with Peter Gärdenfors).
    The Complexity of Cognition, XVI AISC annual conference, Universidad de Roma Tre, Italy, december 2019.

15. "Grounding mathematical concepts in practices" (with Guillermo Nigro).
    Novermbertagung on the History of Mathematics, Université de Strasbourg, France, november 2019.

16. "Formal and Conceptual Inference."
    iCog5: Interdisciplinary approaches to higher cognitive function, University of Reading, february 2019.

17. "Conceptual Change and (Philosophy of) Mathematics" (with Marina Imocrante). *Novermbertagung on the History of Mathematics*, University of Sevilla, november 2018.

18. "MBR in Toulmin's procedural account of concepts and explanations." *20th Model-based Reasoning in Science and Technology*, University of Sevilla, october 2018.

19. "Methods of Representation as Inferential Devices." *Congrès de la SoPhA*, Université Catholique de Louvain, Belgium, july 2018.

20. "The role of mathematical structures in conceptual change." *Congrès de la SoPhA (Symposium on the philosophy of mathematics)*, Université Catholique de Louvain, Belgium, july 2018.

21. "Styles of Reasoning and Modularity in Scientific Cognition." *Salzburg Conference for Young Analytic Philosophy*, Salzburg University, Austria, september 2017.

22. "Mathematization of movement in Galileo." *Congreso de la Sociedad Filosófica del Uruguay*, Uruguay, october 2016.

HONORS, GRANTS AND AWARD

- *NeuroMind fellowship*   2021 - 2023
  Center for Mind & Cognition, RUB, Alemania.

- *Double summa cum laude*   2020
  Highest distinction for doctoral theses of the University of Munich.
  Ludwig-Maximilians Universität, Germany.

- *Deutsche Forschungsgemeinschaft one-year research grant*   2019 - 2020
  Munich Center for Mathematical Philosophy, LMU, Germany.

- *Visiting fellow*   2019, 2022
  Funded by CSIC-UdelaR.
  Philosophy and Cognitive Science Department, Lund University, Sweden.

- *ANII-Campus France Doctoral scholarship*   2017-2020
  Université Paris 1 Panthéon-Sorbonne, France.

- *Distinction for excellent master's theses*   2014
  Online publication of master thesis by the University of Paris 1
  Université Paris 1 Panthéon-Sorbonne, France.

- *ANII Scholarship for master studies*   2013-2014
  Université Paris 1 Panthéon-Sorbonne, France.

- *CSIC mobility grant*   2012, 2015, 2016, 2019, 2022.
  University of the Republic, Uruguay.

ACADEMIC SERVICE

Referee:

- Journal of Mathematical Psychology

- Inquiry

- Erkenntnis

- Pragmatics & Cognition

- Foundations of Chemistry

- Elenkhos

- Crítica

Organizer:

- Co-organizer of the workshop "Concepts: Philosophical perspectives" at Ruhr Universität Bochum, 17-18.10.2022.

- Main organizer of the workshop "Concepts and Reasoning" at Ruhr Universität Bochum, 20-21.07.2022.

- Co-organizer of the Research Seminar on Rationality and Cognition at Ruhr Universität Bochum. Summer semester, 2022.

- Co-organizer of the reading group "Inference and Reasoning," MCMP, LMU, 2019-2023.

- Co-organizer of the *International Seminar on Understanding*, IHPST, Université Panthéon-Sorbonne, 2018-2019.

Thesis supervision:

- Sebastián Peralta (University of the Republic): "Conciencia fenomenal desde una perspectiva evolutiva."

- Fernanda Joubanoba (University of the Republic): "Razonamiento abductivo en ciencias."

OTHERS

Languages: Spanish (native), Franch (C2), English (C2), German (A2).
Technical skills: Python (intermediate), R (intermediate), LaTex (advanced).