# Pablo León Villagrá

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July 28, 2020

3.48 Informatics Forum 10 Crichton Street Edinburgh, EH8 9AB United Kingdom

# Education

2015–today	Ph.D. University of Edinburgh Thesis Title: Inference and Generalization in Humans and Machines Supervisors: Prof. Dr. Christopher Lucas, Prof. Dr. Subramanian Ramamoorthy
2012–2015	MSc. Cognitive Science, University of Osnabrück Thesis Title: Causal Reasoning and the Markov Assumption in a Physical Microworld Thesis Grade: 1.0 (A), Overall Grade: 1.0 (Distinction) Supervisors: Prof. Dr. Frank Jäkel, Prof. Dr. David Lagnado
2010-2011	New Bulgarian University Semester abroad
2008–2013	BSc. Cognitive Science, University of Osnabrück Thesis Title: Categorization in Chess Thesis Grade: 1.0 (A), Overall Grade: 1.2 (Distinction) Supervisor: Prof. Dr. Frank Jäkel

### Academic & Research Experience

2019-2020 Visiting Ph.D. student at the Computational Cognitive Development Lab, University of Toronto, Canada Six month visit during which I ran developmental studies in categorization. 2019 Participant at the Diverse Intelligences Summer Institute, University of St, Andrews, UK A month-long summer institute hosting lectures and projects regarding issues of computational, social and comparative cognition. 2018-2019 Tutor for Informatics Research Review, University of Edinburgh, UK Tutoring informatics master students in writing a research review and structuring their research projects. 2016-2019 TA, Tutor, Demonstrator & Marker for Introduction to Cognitive Science, University of Edinburgh, UK 2018-2019 TA, Tutor & Marker for Computational Cognitive Science, University of Edinburgh, UK Developing materials for the tutorials in R. Tutoring and marking an undergraduate-level class in computational modeling. 2016-2019 TA, Tutor, Demonstrator & Marker for Introduction to Cognitive Science, University of Edinburgh, UK Developing materials for the exercises, labs and assignments in Python. Tutoring and demonstrating an introductory course in Cognitive Science. 2017 Internship at the Alan Turing Institute, London, UK During the three month internship I developed and implemented a prototype app to allow citizen engagement through interactive explanations. 2014 Research Assistant in the Cognitive Modeling Group, University of Osnabrück, Germany Developing, programming, running and analyzing human categorization experi-2014 Research Internship at the Causal Cognition Lab, University College London, UK Three month visit during which I developed experimental designs and researched causal cognition. 2013-2014 Tutor for Multivariate Statistics, University of Osnabrück, Germany Tutoring of psychology master students in multivariate statistics. Supervision of theoretical and SPSS exercises.

#### **Publications**

- Pablo León-Villagrá and Frank Jäkel. "Categorization and Abstract Similarity in Chess". In: *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (2013).
- Alexander Matthews et al. "GPflow: A Gaussian process library using TensorFlow". In: *The Journal of Machine Learning Research* 18.1 (2017), pp. 1299–1304.
- Pablo León-Villagrá, Sarwar Islam, et al. "You guessed it! Reflecting on preconceptions and exploring data without statistics". In: *Proceedings of the 2nd European Data and Computational Journalism Conference*. University College Dublin. 2018, p. 11.

- Pablo León-Villagrá, Irina Preda, and Christopher G Lucas. "Data Availability and Function Extrapolation". In: Proceedings of the 40th Annual Conference of the Cognitive Science Society (2018).
- Pablo León-Villagrá, Verena S. Klar, et al. "Exploring the Representation of Linear Functions". In: Proceedings of the 41th Annual Conference of the Cognitive Science Society (2019).
- Pablo León-Villagrá and Christopher G Lucas. "Generalizing Functions in Sparse Domains". In: Proceedings of the 41th Annual Conference of the Cognitive Science Society (2019).
- Pablo León-Villagrá, Kay Otsubo, et al. "Uncovering Category Representations with Linked MCMC with people". In: Proceedings of the 42nd Annual Conference of the Cognitive Science Society (2020).

#### **Presentations**

2019	Talk: Dubrovnik, Croatia Title:Generalizing Functions in Sparse Domains XI. Dubrovnik Conference on Cognitive Science
2018	Talk: Darmstadt, Germany Title: Data availability and function extrapolation 14th Biannual conference of the German Society for Cognitive Science Best Presentation Award
2017	Poster Presentation: London, UK Title: Identifying Causal Direction in the Two-Variable Case 39th Annual Cognitive Science Conference
2017	Talk: Osnabrück, Germany Title: Human-like Function Learning and Transfer Colloquium of the Institute of Cognitive Science
2016	Poster Presentation: Windsor, UK Title: Human-like Function Learning and Transfer Workshop: Human-Like Computing Machine Intelligence Workshop
2015	Talk: Kunsthaus Muerz, Austria Title: Kausales Denken - Bayesianische Modelle im Dialog mit der Wiener'schen Denkpsychologie Symposium: Oswald Wiener: Selbstbeobachtung - Denkpsychologie
2015	Poster Presentation: Möhnesee-Günne, Germany Title: Categorization in Chess Interdisciplinary College, Möhnesee-Günne

## **Scholarships**

2015–2018 **Ph.D. Scholarship**School of Informatics, Institute for Language, Cognition and Computation

## Software

Actionscript, JavaScript, MATLAB, Python, R, Scala, SPSS, TEX

# Languages

German | Mother tongue Spanish | Mother tongue English | Fluent