<u>CV – Limor Raviv</u> Mobile: +31-624751126 Email: <u>limor.raviv@mail.huji.ac.il</u> Twitter: @Limor_Raviv

Academic Education

- **2021 ...** Researcher Associate, Department of Computer Science, Vrije Universiteit Brussels, with Prof. Bart de Boer at the Artificial Intelligence Lab.
- 2020 Research Associate, Department of Psychology, University of Wisconsin-Madison, with Dr. Gary Lupyan in Cognition and Cognitive Neuroscience Perception.
- 2016 2020 PhD in Psychology of Language, Max Planck Institute for Psycholinguistics (*Cum Laude* the highest distinction in the Netherlands)

Thesis title: Language and society: how social pressures shape grammatical structure Specialized in behavioral group communication paradigms, artificial language learning, social interaction, population structure, cognitive and communicative biases in language evolution and language use, and computational modelling of cultural evolution and change dynamics. Excellent control of R and good control of Python.

Full published thesis: Raviv, L., (2020). <u>Language and society: how social pressures shape grammatical structure</u>. Doctoral Dissertation, Max Planck Institute for Psycholinguistics. ISBN: 78-94-92910-12-7.

2013-2015 M.A in Cognitive Science, Hebrew University (*Summa Cum Laude* - the highest distinction in Israel)

Thesis title: Language Evolution in the Lab: The Case of Child Learners Examining the emergence of complex grammatical structure with children and adults using iterated learning models, and testing Statistical Learning (SL) abilities across development and across modalities.

2010-2013 B.A in Cognitive Science and Generative Linguistics, Hebrew University Including BA courses in in Mathematics, Physics, and Computer Science. Specialized in core cognitive mechanisms, language evolution theories, neural networks, and psycholinguistic.

Awards

- Jan 2021 Otto Hahn Medal for outstanding scientific achievements by young scientists, Max-Planck-Gesellschaft
- Aug 2018International Travel Award, Radboud University
- Apr 2018 Hurford Prize for Best Student Talk, 12th International Conference on the Evolution of Language (EVOLANG XII), Poland
- Mar 2017 International Travel Award, CUNY Conference, MIT
- June 2016 Best Poster Award, Fifth Implicit Learning Seminar, Lancaster, UK
- May 2016 International Travel Award, Radboud University
- Jan 2016 Best Master's Thesis Award, Department of Cognitive Science, Hebrew University

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2010-2012 Full Excellence Scholarship, Department of Mathematics, Hebrew University

Published Peer-Reviewed Papers

(7 papers, with a total of 122 recorded citations by 01/02/2021 according to Google Scholar)

Raviv, L., de Heer Kloots, M., & Meyer, A. (2021). <u>What makes a language easy to learn? A</u> preregistered study on how systematic structure and community size affect language learnability. *Cognition*, 210, 104620. doi:10.1016/j.cognition.2021.104620

Raviv, L., Meyer, A., & Lev-Ari, S. (2020). The role of social network structure in the emergence of linguistic structure. *Cognitive Science*, 44(8), e12876. doi:10.1111/cogs.12876

Raviv, L., Meyer, A., Lev-Ari, S. (2019b). <u>Larger communities create more systematic languages</u>. *Proceedings of the Royal Society B: Biological Science*, 286(1907). doi:10.1098/rspb.2019.1262

Raviv, L., Meyer, A., Lev-Ari, S. (2019a). <u>Compositional structure can emerge without</u> generational transmission. *Cognition*, 182, 151-164. doi:10.1016/j.cognition.2018.09.010

Raviv, L., & Arnon, I. (2018a). <u>Systematicity, but not compositionality: Examining the emergence of linguistic structure in children and adults using iterated learning</u>. *Cognition*, 181, 160-173. doi:10.1016/j.cognition.2018.08.011

Raviv, L., & Arnon, I. (2018b). <u>The developmental trajectory of children's auditory and visual</u> <u>statistical learning abilities: Modality-based differences in the effect of age</u>. *Developmental Science*. 21(4): e12593. doi:10.1111/desc.12593

Havron, N., **Raviv**, L., & Arnon, I. (2018). <u>Literate and preliterate children show different learning</u> patterns in an artificial language learning task. *Journal of Cultural Cognitive Science*, 2, 21-33. doi:10.1007/s41809-018-0015-9

Papers under review

Raviv, L., Green, S. C., & Lupyan, G. (Invited submission by Trends in Cognitive Science). *How variability shapes learning and generalization*.

Media Coverage

The Economist The Times Geographical Talk the Talk Podcast The Dissenter Show Science X Earth.com News Archaeology News Network Science Daily EurekAlert!

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SIGTYP newsletter

<u>Teaching</u>

- **2019-2020 Psychology of Language and Cultural Cognition**, Radboud University
- 2019 Data Visualization, Max Planck Research School for Language Sciences
- 2018 Mixed Effects Models in R, Max Planck Research School for Language Sciences
- 2017 <u>A Short Tutorial on Agent Based Modeling in Python</u>, online tutorial on GitHub
- 2013-2015 Introduction to Linguistics, The Hebrew University of Jerusalem, Israel

Student Supervision

2019-2020 Supervisor of research MA thesis "Relating linguistic structure, memory, and group size effects to language learnability" Marianne de Heer Kloots Brain and Cognitive Sciences program, University of Amsterdam

2019-2020 Supervisor of research MA project "Language change in online social networks" Li Lei Linguistics and Communication Sciences program, Centre for Language Studies, Radboud University

Employment

2013-2015 Living Lab Manager, Language Learning and Processing Lab Co-Founder, manager, and experimenter at The Living Lab, a public-oriented research laboratory located inside in the Bloomfield Science Museum in Jerusalem, Israel. The lab offered families visiting the museum a chance to learn about child development, participate in studies, and speak with scientists about their methods and theories. During that time, I developed novel materials for empirical research on multiple topics, and gained extensive hands-on experience in conducting large-scale behavioral studies (testing over 2000 children and adults). The position also included resources and material development, executive management, social media outreach, formal representation, and manpower qualification.

2013-2015 Research Assistant, The Hebrew University

Developing materials, theoretic and empiric research, testing participants.

- 2012-2014 Private tutor for students with severe learning disabilities, Goldman Inc.
- 2010-2013 Translator and Linguistic Editor, Freelance
- 2006-2010 Security Officer, Israeli Embassy and Israeli Airlines, the Czech Republic
- 2003-2005 Journalist/War correspondent, Compulsory Army Service, Israeli Defense Force

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Peer-Reviewed Conference Papers

Raviv, L., Meyer, A. & Lev-Ari, S. (2020). <u>Network Structure and the Cultural Evolution of Linguistic Structure: A Group Communication Experiment</u>. In *Ravignani, A., Barbieri, C., Martins, M., Flaherty, M., Jadoul, Y., Lattenkamp, E., Little, H., Mudd, K. & Verhoef, T. (Eds.): The Evolution of Language: Proceedings of the 13th International Conference (EvoLang13).* doi:10.17617/2.3190925.

Thompson, B., **Raviv, L.** & Kirby, S. (2020). Complexity Can Be Maintained in Small Populations: <u>A Model of Lexical Variability in Emerging Sign Languages</u>. In *Ravignani, A., Barbieri, C., Martins, M., Flaherty, M., Jadoul, Y., Lattenkamp, E., Little, H., Mudd, K. & Verhoef, T. (Eds.): The Evolution of Language: Proceedings of the 13th International Conference (EvoLang13).* doi:10.17617/2.3190925.

Lei, L., **Raviv, L.** & Alday, P. (2020). <u>Using Spatial Visualizations and Real-World Social</u> <u>Networks to Understand Language Evolution and Change</u>. In *Ravignani, A., Barbieri, C., Martins, M., Flaherty, M., Jadoul, Y., Lattenkamp, E., Little, H., Mudd, K. & Verhoef, T. (Eds.): The Evolution of Language: Proceedings of the 13th International Conference (EvoLang13)*. doi:10.17617/2.3190925.

Ergin, R., **Raviv, L.**, Senghas, A., Padden, C. & Sandler, W. (2020). <u>Community Structure Affects</u> <u>Convergence on Uniform Word Orders: Evidence From Emerging Sign Languages</u>. In *Ravignani, A., Barbieri, C., Martins, M., Flaherty, M., Jadoul, Y., Lattenkamp, E., Little, H., Mudd, K. & Verhoef, T. (Eds.): The Evolution of Language: Proceedings of the 13th International Conference (EvoLang13).* doi:10.17617/2.3190925.

Raviv, L., Meyer, A., & Lev-Ari, S. (2018). The role of community size in the emergence of linguistic structure. In Cuskley, C., Flaherty, M., Little, H., McCrohon, L., Ravignani, A. & Verhoef, T. (Eds.): The Evolution of Language: Proceedings of the 12th International Conference (EVOLANGXII). doi:10.12775/3991-1.096

Raviv, L., & Arnon, I. (2016). <u>Language evolution in the lab: The case of child learners</u>. In *Proceedings of the 38th Annual Meeting of the Cognitive Science Society (CogSci 2016). Austin, TX: Cognitive Science Society.*

Raviv, L., & Arnon, I. (2016). <u>The developmental trajectory of children's statistical learning</u> <u>abilities</u>. In *Proceedings of the 38th Annual Meeting of the Cognitive Science Society (CogSci 2016). Austin, TX: Cognitive Science Society.*

Invited Talks

- Jan 2021Ram Lab for Mathematical Ecology & Evolution, School of Zoology, Safra Center
for Bioinformatics, Tel Aviv University, Israel
- Jan 2021 Language Complexity Seminar, Department of Linguistics, Hebrew University, Jerusalem, Israel
- Nov 2020 Social and Cultural Evolution Workshop Group (SCEW), Penn University of Pennsylvania, USA

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- Oct 2020 Computation and Language Lab, University of California, Berkeley, USA
- Oct 2020 Complexity Science Hub, Vienna, Austria
- Aug 2020 Centre for Social, Cognitive and Affective Neuroscience (cSCAN), Institute of Neuroscience & Psychology, University of Glasgow, UK
- July 2020 Department of Communication and Cognition, Tilburg University, the Netherlands
- June 2020 Language & Cognition Lab, Division of Psychology and Language Sciences, University College London (UCL), UK
- June 2020 Cognitive Biology of Language Group, University of Barcelona, Spain
- May 2020 LAL Seminar, School of Languages and Linguistics, University of Melbourne
- Mar 2020 Computational Auditory Perception Group, Max Planck Institute for Empirical Aesthetics, Frankfurt, Germany
- Feb 2020 Data and Art series, California Institute of the Arts (CalArts), Los Angeles, USA
- June 2019 Language, Memory, and Attention group, Cognitive Department Colloquium Series, Royal Holloway, University of London, UK
- Apr 2019 Cognitive Science Department Colloquium Series, Haifa University, Israel
- Apr 2019 Psychology Department, Hebrew University, Jerusalem, Israel
- Dec 2018 Cohn Institute for the History and Philosophy of Science, Tel Aviv University, Israel
- Dec 2018 Department of Linguistics, Tel Aviv University, Israel
- Oct 2018 Linguistics Department Colloquium Series. University of Arizona, Tucson, USA
- Oct 2018 Donders Discussion Series, Donders Institute for Brain, Cognition and Behaviour, Nijmegen, the Netherlands
- Aug 2018 Center for Language Evolution, the University of Edinburgh, UK
- May 2018 Diversity in Language, Culture and Cognition Colloquium Series. Centre for Language Studies, Radboud University, Nijmegen, the Netherlands
- Dec 2017 Multimodal Language and Cognition lab, Radboud University, Nijmegen, the Netherlands
- Jan 2016 Linguistics Colloquia series, The Language, Logic and Cognition Center (LLCC), The Hebrew University, Jerusalem, Israel

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Presentations at Professional Conferences

- Nov 2020 The role of community size and network structure in shaping linguistic diversity: Experimental evidence. Talk presented online at the Computational Research in Linguistic Typology Workshop, Conference on Empirical Methods in Natural Language Processing (EMNLP 2020)
- Nov 2019 What makes a language easy to learn? How systematic grammar and community size affect language learnability. Poster presented at the 17th winter conference on Brain & Cognition (NVP), the Netherlands
- Sept 2019 Social structure affects the emergence of linguistic structure: experimental evidence. Talk presented at Protolang 6, Lisbon, Portugal
- Aug 2019 Language Change in Online Social Networks. Talk presented at the Symposium on Representations, Usage and Social Embedding in Language Change (RUSE), The University of Manchester, UK
- July 2019 Memory and generalization: How do group size, structure and learnability relate in lab-evolved artificial languages? Talk presented at Culture Conference 2019: Communication in Culture, the University of Stirling, UK
- June 2019 Complexity can be maintained in small populations: a model of lexical variability in emerging sign languages. Talk presented at the Interaction and the Evolution of Linguistic Complexity Workshop, the University of Edinburgh, UK
- Oct 2018 Network structure and the cultural evolution of linguistic structure: An artificial language study. Talk presented at the Cultural Evolution Society Conference (CES 2018). Tempe, Arizona, USA
- Apr 2018 The role of community size in the emergence of linguistic structure. Talk presented at the 12th International Conference on the Evolution of Language (EVOLANG XII). Torun, Poland
- Oct 2017 The role of community size in the emergence of linguistic structure. Talk presented at XLanS: Triggers of language change in the Language Sciences. University of Lyon, France
- Sept 2017 Compositional structure can emerge without generational transmission. Talk presented at the Inaugural Cultural Evolution Society Conference (CESC 2017). Max Planck Institute for the Science of Human History, Jena, Germany
- Mar 2017 Compositional structure can emerge without generational transmission. Talk presented at the 30th Annual CUNY Conference on Human Sentence Processing. MIT, Boston
- Aug 2016Language evolution in the lab: The case of child learners. Talk presented at the
38th Annual Meeting of the Cognitive Science Society (CogSci 2016). Philadelphia,
USA

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- **July 2016** Language evolution in the lab: The case of child learners. Talk presented at the 6th Cognitive Linguistics conference (UK-CLC). Bangor, UK
- **June 2016** Language evolution in the lab: The case of child learners. Talk presented at the Fifth Implicit Learning Seminar. Lancaster, UK
- Sept 2015 Developmental differences in children's statistical learning abilities. Talk presented at the conference of Architectures and Mechanisms for Language Processing (AMLaP). Valletta, Malta
- June 2015 Developmental differences in children's statistical learning abilities. Talk presented at Interdisciplinary Advances in Statistical Learning. San Sebastian, Spain

Professional Services

2018-2020 Co-Founder, Organizer, and Public Relations Officer, R-Ladies Nijmegen R-Ladies is a local group actively dedicated to promoting gender diversity and equality in the programming community by conducting women-oriented events, tutorials, and hands-on workshops on programming in R.

2016-2019 PhD Representative, Max Planck Institute for Psycholinguistics

Representing my fellow PhDs in internal matters (e.g., working conditions, issues with supervision, mental health problems, PhD life, etc.), organizing social events, representing my institute at international Max Planck Society meetings.

2017 Activity Coordinator and Developer, Kletskoppen Child Language Festival

A science festival for children and families organized by language researchers from Nijmegen. The festival features interactive demos, live experiments, and informative lectures for parents, and aims to expose the public to the science behind language learning and communication.

2017 Donders Ponders Debate Team

A discussion session organized by the Donders institute, focusing on various aspects of scientific life, from methodological practices to ideas and theories. Teams of 4 members compete against each other in several rounds, debating and presenting opposing options on a question/statement.

Journal Article Reviewer

- Cognitive Science
- Journal of Language Evolution
- Journal of Child Language
- Journal of Visualized Experiments (JoVe)

Conference Reviewer

- the 12th International Conference on the Evolution of Language (EVOLANGXII)
- the 13th International Conference on the Evolution of Language (EVOLANGXIII
- the 39th Annual Meeting of the Cognitive Science Society (CogSci 2017)
- the 40th Annual Meeting of the Cognitive Science Society (CogSci 2018)
- the 41st Annual Meeting of the Cognitive Science Society (CogSci 2019)
- Learning in Humans and Machines (L2HM 2018)