

Curriculum Vitae

Research areas: First Language Learning, Second language Learning, Psycholinguistics, Cognitive Science, Language Evolution. Google-scholar (Dec, 2025): 5165 citations, h-index 31, i10-index 60.

Higher Education

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| 2004 - 2010 | Stanford University, PhD in Linguistics with Cognitive Science designation. Dissertation title: <i>Starting Big - The role of multi-word phrases in language learning and use.</i> |
| 2003 - 2004 | University of Edinburgh, MSc in Psycholinguistics with Distinction, Department of Psychology |
| 2000 - 2003 | Tel Aviv University, B. A. in Linguistics, Summa cum Laude |

Academic Appointments

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| Aug 2025-Aug 2026 | Leverhulme Trust Visiting Professor, School of Psychology, Philosophy and Language Sciences, University of Edinburgh |
| Aug 2024–Aug 2025 | Visiting Professor, Center for Language Evolution, University of Edinburgh |
| 2021-current | Full Professor, Department of Psychology, Hebrew University, Jerusalem |
| Sept 2019-Oct 2019 | Visiting Professor, Department of Brain and Cognitive Sciences, MIT, Cambridge, MA |
| Feb 2018- Oct 2018 | Visiting Professor, Department of Brain and Cognitive Sciences, MIT, Cambridge, MA |
| June 2017-2021 | Associate Professor (with tenure), Department of Psychology, Hebrew University, Jerusalem |
| 2013-2017 | Assistant Professor, Department of Psychology, Hebrew University, Jerusalem |
| 2011-2013 | Lecturer (Assistant Professor), Department of Psychology and member of the Institute of Information Processing and Decision Making, University of Haifa |
| Jan 2010-June 2011 | Lecturer (Assistant Professor), School of Languages, Linguistics and Cultures, University of Manchester, UK |

Academic Awards

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| 2021 | Elected to the Israel Young Academy (30 members, selected based on scientific excellence from all faculty member in Israel) |
| 2021 | Rector's prize for excellence in research, teaching, and contribution to the academic community |
| 2014-2015 | Elected member of the Young Forum of Outstanding Researchers in the Humanities and Social Science, The Israel Academy of Science |
| 2014 | Excellence in Teaching, Psychology, Faculty of Social Sciences |
| 2011-2014 | Alon Fellowship for Outstanding Young Researchers for position at Ben Gurion University (<i>declined</i>) |

2011-2016 Martin Buber Society of Fellows in the Humanities, Hebrew University; postdoctoral fellowship (*declined*)

University-Community partnership

Founder of the new Living Lab at the Bloomfield Children's Science Museum in Jerusalem. The lab aims to promote developmental research in Israel; expose parents and children to new findings on child development; and enable visitors and educators to engage with scientists studying child development. The Living Lab aims to educate the public about child development by immersing museum visitors in the process of scientific discovery. The lab is based on the Living Lab model (<http://www.livinglab.org>), successfully implemented in over 40 museums around the world. This is the first Living Lab in Israel. Over 9000 children and parents have participated in the lab since its founding in November 2014. Data collected in the lab has been presented in numerous international conferences and yielded multiple publications in high-ranking journals. As member of the Israel Young Academy, I was involved in several task forces to increase diversity and equality in Israeli academia. I led a national working group to promote first-generation students (students who are the first in their families to enter higher education). This led to the development of new policies implemented in multiple universities in Israel (full report available upon request).

Reviewer For:

Israeli Science Foundation (ISF), Bi-national Science Foundation (BSF), NSF, Developmental Psychology, Nature, Cognitive Science, Lingua, Language Learning, Journal of Child Language, Journal of Memory and Language, Early Childhood Research Quarterly, Journal of Cognitive Psychology, Language Learning and Development, Journal of Experimental Psychology: Learning, Memory and Cognition, Applied Psycholinguistics, Language and Cognitive Processes, Cognitive Psychology, Developmental Science, Applied Linguistics, Brain and Language, Science.

Membership in Professional Associations

Cognitive Science Society, Linguistic Society of America, Association for Psychological Science. Member of the Collier-Dolittle prize committee (<https://coller-dolittle-24.sites.tau.ac.il/>)

Invited lectures and keynotes (recent only)

2025	Invited seminar, Psychology Department, NYU, NYC Invited seminar, Psychology Department, Birbeck college, London Invited seminar, Psychology Department, CEU, Vienna Invited seminar, CogCom, University of Vienna Invited seminar, Department of Psychology, UCL, UK Invited seminar, Max Plank Institute for Psycholinguistics, Nijmegen Invited seminar talk, Department of Psychology, Cambridge University, UK
2024	Invited Cognitive series talk, Princeton University Invited colloquium talk, Mind, Brains and Machines, NYU University
2023	Invited seminar talk, Israel Institute for Advanced Studies Invited talk, workshop on communicative efficiency, Leipzig University Invited colloquium talk, Linguistics Circle, Edinburgh University Invited colloquium talk, Centre for Language Evolution, Edinburgh University Invited colloquium talk, Linguistics Department, Oxford University
2022	Invited colloquium talk, Linguistics Department, Stanford University

- 2021 Invited colloquium talk, Psychology Department, University of Haifa
Invited colloquium talk, Linguistics Department, Bar Ilan University
Invited colloquium talk, Centre for Language Evolution, University of Edinburgh
Invited keynote, 3rd International Usage-based conference, Tel-Aviv
- 2020 Invited symposium talk at the 42nd meeting of the Cognitive Science Society. University of Toronto, July, 2020
- 2019 Invited keynote at the Workshop on Cross-linguistic Perspectives on Processing and Acquisition, University of Zurich.
- 2018 Invited colloquium, Department of Psychology, University of Edinburgh
Keynote speaker, Workshop on Psycholinguistic and Computational Perspectives on Non-Compositional Meaning in Phrases, Tübingen.
Invited colloquium, The department of Psychological and Linguistic Sciences, Brown University
Invited colloquium, Psychology department, Princeton
Invited colloquium, Brain and Cognitive Sciences department, MIT
- 2017 Invited talk at the Centre for Language Evolution, University of Edinburgh.
Keynote address, Israeli Society for Computational Linguistics (ISCOL), Jerusalem

Research Grants

- 2025-2029 Bi-national Science Foundation (BSF). Zaslavsky, N. (PI) & **Arnon, I.** (PI). Efficient compression in developmental trajectories of learning word meanings. \$288,000
- 2020-2025 **Arnon, I.** (PI). What makes linguistic information more learnable? Israeli Science Foundation \$350,000
- 2022-2023 **Arnon, I.** & Liran Carmel: Funded Research Group at the Hebrew University Institute for Advanced Studies on the topic of: *What allows human language? Seeking the genetic, anatomical, cognitive, and cultural factors underlying language emergence*
- 2016-2020 European Research Council (ERC-COG), Ambridge, B. (PI), **Arnon, I.** (partner organization), Goskum (partner organization), Koyman (partner organization), Fukimara (partner organization): Cross-linguistic Acquisition of Sentence Structure, *2,000,000 Euro (187,500 Euro to Arnon, I.)*
- 2016-2020 Israeli Science Foundation, **Arnon, I. (PI)**. The developmental trajectory of statistical learning: sources and consequences of individual differences in learning. \$250,000
- 2012-2015 Bi-national Science Foundation (BSF), **Arnon, I.** (PI) & Christiansen, M. H. (PI): The differential role of multi-word chunks in first and second language learning, \$135,000
- 2012-2016 Israeli Science Foundation (ISF), **Arnon, I.** (PI): When bigger is better: Extending a novel framework for understanding and facilitating second language learning, \$150,000

Publications

Articles in Refereed Journals

1. Wolters, L., Kirby, S., & Arnon, I. (in press). Cultural transmission promotes the emergence of statistical properties that support language learning, *Cognitive Science*
2. **Arnon, I.**, Carmel, L., Cladiere, N., Fitch, T. W., Goldin-Meadow, S., Kirby, S., Okanoya, K., Raviv, L., Wolters, L., & Fisher, S. E. (2025). What enables human language? A bio-cultural framework, *Science*, DOI: [10.1126/science.adq83](https://doi.org/10.1126/science.adq83)
3. Wolters, L., Ota, M. & **Arnon, I.** (2025). Skewed Distributions Facilitate Infants' Word Segmentation, *Cognition*, 263, 106221
4. **Arnon, I.**, Kirby, K. & Allen, J. A., Garrigue, C., Carroll, E. L., & Garland, E. C. (2025). Whale song shows language-like statistical structure, *Science*, DOI: [10.1126/science.adq7055](https://doi.org/10.1126/science.adq7055)
5. Goldin-Meadow, S. & **Arnon, I.** (2025), Whole-to-part development in language creation, *Trends in Cognitive Sciences*, 29, 12-14
6. Wolters, L., Lavi-Rotbain, O., & Arnon, I. (2024). Zipfian distributions facilitate children's learning of novel word-referent mappings, *Cognition*, 253, 105932
7. Ariel, M., **Arnon, I.**, Katzir, N. & Tal, Sh. (2024). The child's or constructions: It's all about choice. *Frontiers in Communication*, 9, 1364230
8. Abu-Zhaya, R. & **Arnon, I.** (2024). Does order of exposure impact the formation of linguistic predictions? Grammatical gender as a case study. *Language Learning*, 1-39
9. Kimhci, I., Wolters, L., Stamps, R. & **Arnon, I.** (2024). Evidence of Zipfian Distributions in Three Sign Languages, *Gesture*. 22, 154-188
10. **Arnon, I.** & Kirby, S. (2024). Cultural evolution creates the statistical structure of language, *Scientific Reports*, 145255
11. Tal, Sh., Grossman, E. & **Arnon, I.** (2024). Infant-directed speech becomes less redundant as infants grow: Implications for language learning, *Cognition*, 249, 105817
12. Tal, Sh., Rhode, H., Grossman, E. & **Arnon, I.** (2023). Speakers use more redundant referents with language learners: Evidence for communicatively-efficient referential choice, *Journal of Memory and Language*, 128, 104378
13. Lavi-Rotbain, O. **Arnon, I.** (2023). Zipfian Distributions in Child-Directed Speech. *Open Mind*, 7 1–30.
14. Lavi-Rotbain, O. & **Arnon, I.** (2022). The learnability consequences of Zipfian distributions, *Cognition*, 223, 105038
15. Abu-Zhaya, R., **Arnon, I.**, & Borovsky, A. (2022). Do children use multiword information in Real-Time Sentence Comprehension? *Cognitive Science*, 46, e13111
16. Tal, Sh. & **Arnon, I.** (2022). Redundancy can benefit learning: Evidence from word order and case marking. *Cognition*, 224, 105055
17. Tal, Sh., Culbertson, J., Smith, K., Grossman, E., & **Arnon, I.** (2022). The impact of information structure on the emergence of differential object marking: an experimental study. *Cognitive Science*, 46, e13119
18. Shufaniya, A. & **Arnon, I.** (2022). A cognitive bias for Zipfian distributions? Uniform distributions become more skewed over time through cultural transmission, *Journal of Language Evolution*, 59-80
19. **Arnon, I.** (2021). The Starting Big Approach to language acquisition, Invited paper for special issue of *Journal of Child Language: Theories in language acquisition*, xx-xx. [[In this issue, eight leading language acquisition researchers were asked to outline their unique theoretical perspective on language acquisition]].

20. Skarabela, B., Ota, M., & **Arnon, I.** (2021). Clap your hands' or 'take your hands'? One-year-olds distinguish between frequent and infrequent multiword phrases, *Cognition*, 211, 104612.
21. **Arnon, I.** (2020). Do current statistical learning tasks capture stable individual differences in children? An investigation of task reliability across modality. *Behavior Research Methods*. DOI: 10.3758/s13428-019-01205-5.
22. Havron, N. & **Arnon, I.** (2020). Starting Big: The Effect of Unit Size on Language Learning in Children and Adults, *Journal of Child Language*, xx-xx.
23. Ambridge, B., Doherty, L., Ramya M., Bannard, C., Samanta, S., McCauley, S. M., **Arnon, I.**, Zicherman, Sh, Bekman, D., Efrati, A., Berman, R., Narasimhan, B., Sharma, D. M., Nair, R. B, Fukumura, K., Tasumi, T., Campbell, S, Pye, C., Pedro, P. M., Pixabaj, S. F., Peliz, M., & Mendoza, M. J. (2020). The cross-linguistic acquisition of sentence structure: Computational modeling and grammaticality judgments from adult and child speakers of English, Japanese, Hindi, Hebrew and K'iche', *Cognition*, 202, 104310.
24. Culberston, J., Franck, J, Braquet, G., Navarro, M. B., & **Arnon, I.** (2020). A learning bias for word order harmony: evidence from speakers of non-harmonic languages, *Cognition*, 204, 104329.
25. Johnson, T., Siegelman, N. & **Arnon, I.** (2020). Individual differences in learning abilities impact structure addition: Better learners create more structured languages, *Cognitive Science*, 44, e12877.
26. Lavi-Rotbain, O. & **Arnon, I.** (2020). Visual Statistical Learning Is Facilitated in Zipfian Distributions, *Cognition*, 206, 104492.
27. **Arnon, I.** (2019). Statistical Learning, Implicit Learning, and First Language Acquisition: A Critical Evaluation of Two Developmental Predictions, *Topics in Cognitive Science*, 11, 504-519 (Invited paper for special issue on *Two Approaches, One Phenomenon: Aligning Implicit Learning and Statistical Learning*, Ed. P. Monaghan & P. Rebuchet).
28. Raviv, L. & Arnon, I. (2018). The developmental trajectory of children's auditory and visual statistical learning abilities: modality-based differences in the effect of age. *Developmental Science*, e12593.
29. Lavi-Rotbain, O. & Arnon, I. (2018). Developmental differences between children and adults in the use of visual cues for segmentation, *Cognitive Science*, 42, 606-620.
30. Tal, Sh. & **Arnon, I.** (2018). SES effects on the use of variation sets in child-directed speech, *Journal of Child Language*, 45, 1423-1438.
31. **Arnon, I.** (2018). Can mimicking infants' early experience facilitate adult language learning? A critique of Hudson-Kam (2018), *Language Learning and Development*, 14, 339-344.
32. Raviv, L. & **Arnon, I.** (2018). Systematicity but not compositionality: Examining the emergence of linguistic structure in children and adults using iterated learning, *Cognition*, 181, 160-173.
33. Shufaniya A & **Arnon, I.** (2018). Statistical learning is not age-invariant during childhood: performance improves with age across modality, *Cognitive Science*, 42(8), 3100-3115.
34. Havron, N., Raviv, L., & **Arnon, I.** (2018). Literate and pre-literate children show different learning patterns in an artificial language learning task, *Journal of Cultural Cognitive Science*, 2, 21-33.

35. Arnon, I., McCauley, S. & Christiansen, M. H. (2017). Digging up the building blocks of language: Age-of-Acquisition effects for multiword phrases, *Journal of Memory and Language*, 92, 265-280.
36. **Arnon, I.**, & Christiansen, M. H. (2017). The role of multiword building blocks in explaining L1-L2 differences, Special issue on Multiword Units in Language (M. H. Christiansen & I. Arnon, Eds.). *Topics in Cognitive Science*.
37. Havron, N. & Arnon, I. (2017). Minding the gaps: literacy enhances lexical segmentation in children learning to read, *Journal of Child Language*, 44, 1516-1538.
38. Havron, N, & **Arnon, I** (2016). Reading between the words: The effect of literacy on L2 segmentation, *Applied Psycholinguistics*, 38, 127-153.
39. **Arnon, I.** (2015). What can frequency effects tell us about the building blocks and mechanisms of language learning? *Journal of Child Language*, 42, 274-277.
40. Siegelman, N. & **Arnon, I.** (2015). The advantage of starting big: learning from unsegmented input facilitates mastery of grammatical gender in an artificial language. *Journal of Memory and Language*, 85, 60-75.
41. Hernandez, M., Costa, A., & **Arnon, I.** (2015). More than words: multiword frequency effects in non-native speakers, *Language, Cognition & Neuroscience*, 31, 785-800.
42. Costa, A., Foucart, A., **Arnon, I.**, Aparici, M., & Apesteguia, J. (2014). “Piensa” twice: On the foreign language effect in decision making, *Cognition*, 130, 236-254.
43. **Arnon, I.** & Cohen Priva, U. (2014). Time and again: the changing effect of word and multiword frequency on phonetic duration, *Mental Lexicon*, 9, 377-400.
44. **Arnon, I.** & Cohen Priva, U. (2013). More than words: the effect of multi-word frequency and constituency on phonetic duration. *Language and Speech, Special Issue: Parsimony and Redundancy in Models of Language*, 56, 346-368.
45. Hofmeister, P., Jaeger, F. T., **Arnon, I.**, Snider, N., & Sag, I. (2013). The source ambiguity problem: distinguishing the effects of grammar and processing on acceptability judgments, *Language and Cognitive Processes* 28, 48-87.
46. de Marneffe, M., Grimm, S., **Arnon, I.**, & Bresnan, J. (2012). A statistical model of grammatical choices in children’s production of dative sentences. *Language and Cognitive Processes*, 1, 25-61.
47. **Arnon, I.**, & Ramscar, M. (2012). Granularity and the acquisition of grammatical gender: How order-of-acquisition affects what gets learned, *Cognition* 122, 292-305.
48. **Arnon, I.** & Clark, E. V. (2011). Why ‘*Brush your teeth*’ is better than ‘*teeth*’: Children’s word production is facilitated in familiar sentence-frames. *Language Learning and Development*, 7, 107-129. Winner of Peter Jusczyk Best Paper Award.
49. **Arnon, I.** (2010). Re-thinking child difficulty: The effect of NP type on children’s processing of relative clauses in Hebrew. *Journal of Child Language*, 37, 27 – 57.
50. **Arnon, I.** & Snider, N. (2010). More than words: Frequency effects for multi-word phrases. *Journal of Memory and Language*, 62, 67-82. Among ten most downloaded papers in 2010.
51. Tily, H., Gahl, S., **Arnon, I.**, Kothari, A., Snider, N. and Bresnan, J. (2009). Pronunciation reflects syntactic probabilities: Evidence from spontaneous speech, *Language & Cognition* 2(1), 147-165.

Edited Books

1. **Arnon, I.**, Casillas, M., Estigabarría, B., & Kurumada, C. (2014). *Language in Interaction: Studies in Honour of Eve V. Clark* (pp. 358). Trends in Language Acquisition Research Series, Amsterdam: John Benjamins.

2. **Arnon, I., & Clark, E. V.** (2011). *Experience, Variation and Generalization: Learning a First Language* (pp. 300). Trends in Language Acquisition Research Series, Amsterdam: John Benjamins.

Editor of Journal Special Issue

1. Multiword units in Language (2017). Special issue in Topics in Cognitive Science (M. H. Christiansen & I. Arnon, Eds.).

Chapters in Collections

1. Tal, Sh, **Arnon, I.**, & Culbertson, J. (2025). Artificial Language Learning, chapter in the Oxford Handbook of Empirical Approaches to Language Evolution (Eds. L. Raviv & C. Boeckx)
2. Tal, Sh. & Smith, K., Culbertson, J., Grossman, E., & **Arnon, I.** (2023). From atypical information structure to semantically-conditioned differential object marking: an experimental study, *Language Change: Theoretical and Empirical Perspectives* (Eds. Elitzur Bar-Asher Siegal, Nora Boneh, Eitan Grossman & Aynat Rubinstein), Springer.
3. **Arnon, I.** (2016). The nature of child-directed speech in Hebrew: frequent frames in a morphologically rich language. *The Acquisition of Hebrew* pp 221-234, Trends in Language Acquisition Research Series (Ed. Ruth Berman), Amsterdam: John Benjamins.
4. Kurumada, C. & **Arnon, I.** (2014). Language acquisition in interaction, In I. Arnon, Casillas, M., C. Kurumada, & B. Estigarribia (Eds.), *Language in Interaction* (pp 1-12), Trends in Language Acquisition Research Series, Amsterdam: John Benjamins.
5. Snider, N., & **Arnon, I.** (2012). A unified lexicon and grammar? Compositional and non-compositional phrases in the lexicon. In S. Gries & D. Divjak (Eds.) *Frequency effects in language* (pp 127-164). Berlin: Mouton de Gruyter.
6. **Arnon, I.** (2011). Learning constructions: re-thinking the path of relative clause acquisition in Hebrew. In E. Kidd (Ed.). *The acquisition of relative clauses: functional and typological perspectives* (pp 81-105), Amsterdam: John Benjamins.
7. **Arnon, I.** (2011). Units of learning in language acquisition. In I. Arnon & E.V. Clark (Eds.), *Experience, Variation and Generalization: Learning a First Language* (pp 167-187), Trends in Language Acquisition Research Series, Amsterdam: John Benjamins,
8. Hofmeister, P., Jaeger, F., **Arnon, I.**, Sag, I., & Snider, N.(2007). Locality and Accessibility in Wh-questions. In S. Featherston & W. Sternefeld (eds.), *Linguistic Evidence: Empirical, Theoretical, and Computational Perspectives* (pp. 185-205). Berlin: Mouton de Gruyter.