

January 31st 2025

Uri Hertz, PhD

Senior Lecturer, Department of Cognitive Sciences, University of Haifa, Israel
Visiting Scholar, Behavior and Decision Sciences, University of Pennsylvania,
Philadelphia, PA, USA

Visiting Scholar, Department of Psychology, Princeton University, USA

I am a cognitive scientist interested in social learning and collective behavior. I study how human and AI agents learn from each other, share information, and make decisions together, and how these support collective behaviors such as social norms and social structure. I use single and multiplayer experiments, behavioral measurements, computational models and neuroimaging to study these processes.

Contact

Email: uhertz@cog.haifa.ac.il

Telephone: +972 (0)4 6146239

Website: <http://www.socialdecisionlab.net/>

Address: University of Haifa, Abba Khoushy Ave 199, Haifa, Israel 3498838

Positions

2024 – Visiting Scholar, Behavior and Decision Sciences, University of Pennsylvania, Philadelphia, PA, USA

2023 – Visiting Scholar, Psychology Department, Princeton University, Princeton, NJ, USA

2022 – Senior Lecturer (Tenured), Department of Cognitive Sciences, University of Haifa, Haifa, Israel.

2018 – 2022 Lecturer, Department of Cognitive Sciences, University of Haifa, Haifa, Israel.

2017 – 2018 Lecturer, of Political Sciences, University of Haifa, Haifa, Israel.

2017 – 2018 Lecturer, Department of Information Systems, University of Haifa, Haifa, Israel.

2016 – 2017 Associate Researcher at the Institute of Cognitive Neuroscience (ICN), University College of London (UCL), London, UK.

2016 – 2017 Post doctorate research fellow at [the Human Mind Project](#), the School of Advanced Study (SAS), University of London, London, UK.

2013 – 2016 Post doctorate research associate at the Institute of Cognitive Neuroscience (ICN), University College of London (UCL), London, UK.

Other Affiliations

2022- Institute of Information Processing and Decision Making, University of Haifa, Haifa, Israel.

2021- Haifa Brain and Behavior Hub, University of Haifa, Haifa, Israel.

2019- Data Science Research Center, University of Haifa, Haifa, Israel.

2019- Brain and Behavior Hub, University of Haifa, Haifa, Israel.

Education

2006 – 2014 PhD in Computational Neuroscience, the Interdisciplinary Center for Neural Computation (ICNC) at the Hebrew university of Jerusalem, Jerusalem, Israel, under the

January 31st 2025

supervision of Prof. Amir Amedi. Thesis: "Brain topography and multisensory perception: fMRI studies using novel computational approaches".

2002-2006 – B.Sc. in Bio-Medical Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel. Graduated with honor. Final Project about the relation between motor learning and action observation, supervised by Dr. Opher Donchin.

Publications

[Google Scholar page](#)

1. **Hertz, U.**, Köster, R., Janssen, M. A., Leibo, J. Z. (2025). Beyond the matrix: Experimental approaches to studying cognitive agents in social-ecological systems. *Cognition*, 254, 105993.
2. Anlló, H., Salamander, G., Raihani, N., Palminteri, S., **Hertz, U.** (2024). Experience and advice consequences shape information sharing strategies. *Communications Psychology*, 2(1), 1–13.
3. Kozakevich Arbel, E., Shamay-Tsoory, S. G., **Hertz, U.** (2024). Adaptive empathic response selection is sensitive to multiple dimensions of social interaction. *Communications Psychology*, 2(1), 1–14.
4. **Hertz, U.** (2024). A cognitive approach to learning, monitoring, and shifting social norms. *Current Opinion in Psychology*, 101917, 101917.
5. Bar-Sella, A., Sayda, D., Mansour, M., Nof, A., **Hertz, U.**, & Zilcha-Mano, S. (2024). Changing attachment orientation: Uncovering the role of shifting the emotion regulation tendency. *Journal of Counseling Psychology*.
6. Anlló, H., Bavard, S., Benmarrakchi, F., Bonagura, D., Cerrotti, F., Cicue, M., Gueguen, M., Guzmán, E. J., Kadieva, D., Kobayashi, M., Lukumon, G., Sartorio, M., Yang, J., Zinchenko, O., Bahrami, B., Silva Concha, J., **Hertz, U.**, Konova, A. B., Li, J., ... Palminteri, S. (2024). Comparing experience- and description-based economic preferences across 11 countries. *Nature Human Behaviour*, 1–14.
7. Nafcha, O., & **Hertz, U.** (2024). Asymmetric cognitive learning mechanisms underlying the persistence of intergroup bias. *Communications Psychology*, 2(1), 1–12.
8. Pereg, M., **Hertz, U.**, Ben-Artzi, I., Shahar, N. (2024). Disentangling the contribution of individual and social learning processes in human advice-taking behavior. *NPJ Science of Learning*, 9(1), 4.
9. Heimer, O., **Hertz, U.** (2024). The spread of affective and semantic valence representations across states. *Cognition*, 244, 105714.
10. Gazit, L., Arazy, O., **Hertz, U.** (2023). Choosing between human and algorithmic advisors: The role of responsibility sharing. *Computers in Human Behavior: Artificial Humans*, 100009.
11. **Hertz, U.**, Jia, F., & Francis, K. B. (2023). Moral judgement and decision-making: theoretical predictions and null results. *Scientific Reports*, 13(1), 1–3. (Editorial review of the Moral Judgement and Decision-Making collection in *Scientific Reports*)
12. Heimer, O., Kron, A., & **Hertz, U.** (2023). Temporal dynamics of the semantic versus affective representations of valence during reversal learning. *Cognition*, 236, 105423.
13. Nissan, N., **Hertz, U.**, Shahar, N., & Gabay, Y. (2023). Distinct reinforcement learning profiles distinguish between language and attentional neurodevelopmental disorders. *Behavioral and Brain Functions: BBF*, 19(1), 6.
14. Shamay-Tsoory, S. G., **Hertz, U.** (2022). Adaptive Empathy: A Model for Learning Empathic Responses in Response to Feedback. *Perspectives on Psychological Science: A Journal of the Association for Psychological Science*, 17456916211031926.

15. **Hertz, U.**, Snider-Levy, K. L. G., A., Canetti, D., Gross, M. L. (2022). To shoot or not to shoot: experiments on moral injury in the context of West Bank checkpoints and COVID-19 restrictions enforcement. *European Journal of Psychotraumatology*, 13(1), 2013651.
16. Mizrahi, S., Ben-Eliyahu, A., Cohen, N., **Hertz, U.**, Miller-Mor, R., Mishor, E., & Vigoda-Gadot, E. (2022). Public management during a crisis: when are citizens willing to contribute to institutional emergency preparedness? *Public Management Review*, 1–25.
17. Fintz, M., Osadchy, M., & **Hertz, U.** (2022). Using deep learning to predict human decisions and using cognitive models to explain deep learning models. *Scientific Reports*, 12(1), 4736.
18. Nafcha, O., & **Hertz, U.** (2022). The devil is in the task structure. *eLife*, 11, e78930. (Invited insight paper).
19. Zaatri, S., Aderka, I. M., **Hertz, U.** (2022). Blend in or stand out: social anxiety levels shape information-sharing strategies. *Proceedings of the Royal Society B: Biological Sciences*, 289(1975), 20220476.
20. Lachman I., Hadar I., **Hertz U.**, (2022) “Cost-benefit considerations have limited effect on the decision to exert cognitive effort in real-world computer-programming tasks”. *Royal Society Open Science*, 9(6), 211885.
21. Agassi, O. D., **Hertz, U.**, Shani, R., Derakshan, N., Wiener, A., Okon-Singer, H. (2022). Using clustering algorithms to examine the association between working memory training trajectories and therapeutic outcomes among psychiatric and healthy populations. *Psychological Research*
22. Jiryis, T., Magal, N., Fructher, E., **Hertz, U.**, Admon, R. (2022). Resting-state heart rate variability (HRV) mediates the association between perceived chronic stress and ambiguity avoidance. *Scientific Reports*, 12(1), 17645
23. **Hertz U.**, “Learning how to behave: cognitive learning processes account for asymmetries in adaptation to social norms” *Proceedings of Royal Society B*, 2021. (This paper was featured in [PNAS Journal Club](#) section, June 18th 2021).
24. Kozakevich-Arbel E., Shamay-Tsoory S., **Hertz U.** “Adaptive Empathy: Empathic response selection as a dynamic, feedback-based learning process”, *Frontiers in Psychology*, 2021.
25. **Hertz U.**, Bell V., Raihani N., (2021), “Trusting and learning from others: immediate and long-term effects of learning from observation and advice”, *Proceedings of Royal Society B*, 2021, 288, 20211414.
26. Hemed E., Mark-Tavger I., **Hertz U.**, Bakani-Elkayam S., Eitam B, “Automatically Controlled: Task-Irrelevance Fully Cancels Otherwise Automatic Imitation”, 2021, *Journal of Experimental Psychology: General*, Advanced Online Publication.
27. Kurvers R. H. J. M., **Hertz U.**, Karpus J., Balode M.P., Jayles B., Binmore K., Bahrami B.,(2021), “How to sway voters: Strategic dishonesty outperforms truth-telling in competition for social influence” *iScience* 24, 103505.
Kurvers, Hertz and Karpus contributed equally to this paper.
28. **Hertz U.**, Blakemore C., Frith C.D.; The effect of hints on object perception in ambiguous images, 2020, (*Journal of Experimental Psychology: Human Perception and Performance*)
29. Cohen N., **Hertz U.**, Street-Level Bureaucrats' Social Value Orientation under the New Public Management, 2020, *Public Administration Review*.
30. Zacharopoulos G., **Hertz U.**, Kanai R., Bahrami B., The effect of feedback valance and source on perception and metacognition: an fMRI investigation, *Cognitive Neuroscience (PCNS)*, 2020.

January 31st 2025

31. **Hertz U.**, Tyropoulou E, Olesen C, Bahrami B., “Self-Competence Increases the Willingness to Pay for Social Influence” *Scientific Reports*, 2020.
32. **Hertz U.**, Bell B., Barnaby J., McQuillin A., Bahrami B., “The communication of metacognition for social strategy in psychosis: an exploratory study”, *Schizophrenia Bulletin Open*, 2020.
33. Farmer H., **Hertz U.**, Hamilton A.; *The Neural Basis of Shared Preference Learning; Social Cognitive and Affective Neuroscience*, 2019.
34. Lachman I., Hadar I., **Hertz U.**; *The Subjective Cost of Writing Reusable Code: The Case of Functions*; 2019; *International Conference on Advanced Information Systems Engineering*, 29-39
35. **Hertz U.**, Bahrami B., Keramati M.; *Stochastic satisficing account of choice and confidence in uncertain value-based decisions*; *PloS One*, 2018.
36. **Hertz U.**, Palminteri S., Brunetti S.#, Olesen C.#, Frith C. D., Bahrami B.; *Neural computations underpinning the strategic management of influence in advice giving*; *Nature Communications*; 2017; 8(1) 2191.
37. **Hertz U.**, Romand-Monnier M., Kyriakopoulou K.#, Bahrami B.; *Social influence protects collective decision making from equality bias*; *Journal of Experimental Psychology: Human Perception and Performance* 2016, 42 (2), 164.
38. **Hertz U.**, Kelly M#, Rutledge R. B., Winston J., Wrigh N., Dolan R. J., Bahrami B.; *Oxytocin Effect on Collective Decision Making: A Randomized Placebo Controlled Study*; *PLoS One*, 2016, 11 (4), e0153352.
39. Peer M., Abboud S., **Hertz U.**, Amedi A., Arzy S.; *Intensity-based masking of fMRI BOLD signal for improving functional connectivity measures*; *Human Brain Mapping*, 2016. 37 (7), 2407-2418.
40. Zeharia N., **Hertz U.**, Flash T., Amedi A.; *New Whole-body Sensory-Motor Gradients Revealed Using Phase-Locked Analysis and Verified using MVPA and Functional Connectivity*; *Journal of Neuroscience* 2015. 35 (7), 2845-2859.
41. **Hertz U.**, Amedi A.; *Flexibility and stability in sensory processing revealed using visual-to-auditory sensory substitution*; *Cerebral Cortex* 2014, 25(8) 2049-2064.
42. Zeharia N., **Hertz U.**, Flash T. Amedi A.; *The negative BOLD homunculus and somatotopic information in the negative and positive BOLD signal in M1 and the SMA*; *PNAS* 2012, 109 (45), 18565-1857.
43. Striem- Amit E., **Hertz U.**, Amedi A.; *Extensive cochleotopic mapping of human auditory cortical fields obtained with phase-encoding fMRI*; *PLoS ONE* 2011, 6 (3), e17832.
Striem – Amit E. and Hertz U. equally contributed to this paper.
44. **Hertz U.**, Amedi A.; *Disentangling unisensory and multisensory components in audiovisual integration using a novel multi-frequency fMRI spectral analysis*; *Neuroimage* 2010, 52 (2), 617-63

Active Grants

2024-2028 Israel Science Foundation (ISF). PI. Title: Cognitive Processes Underlying the Detection and Punishment of Social Norm Violations. (\$255,000)

2020-2025 Israel Science Foundation (ISF). PI. Title: The neurocognitive mechanisms underlying learning of social norms. (\$324,000)

Pervious Grants

2020 – Israel Science Foundation (ISF) - Equipment grant. PI. Title: The neurocognitive mechanisms underlying learning of social norms (\$72,000)

January 31st 2025

2021-2022 Joy Ventures. Co-PI with Shai Gabay and Yafit Gabay. Title: Overcoming Habits by Stimulating the Brain's Gaze Control Network. (\$100,000)

2019 – 2021 National Institute of Psychobiology in Israel (NIPI) research grant. PI. Title: Motivations for information sharing in Social Anxiety Disorder (\$50,000)

2020 – Data Science Research Center at the University of Haifa research grant. Co-PI with Dr. Rita Osadchy. Title: Using Deep Learning to Model Human Decision Making, and Human Decisions to Interpret Deep Learning Models (NIS 80,000)

2019 – UK-Israel SYNERGY Programme, workshop grant (£4500)

2019 – University of Haifa Rector International Conferences Grant (NIS 15000).

2017 – UK-Israel SYNERGY Programme, workshop grant (£4500)

Fellowships and Awards

2020 - University of Haifa, Faculty of Social Sciences, Yakir Teaching Award.

2018 - University of Haifa, Faculty of Social Sciences, Yakir Publication Award.

2013- Best Poster award in ICNC retreat. Sponsor: The Interdisciplinary Center for Neural Computation at the Hebrew university of Jerusalem.

2009- Best Poster award in Faculty day. Sponsor: The Interdisciplinary Center for Neural Computation at the Hebrew university of Jerusalem.

2006-2011 ICNC PhD fellowship

2005 – Zolotowsky Center of Neuroscience summer scholarship.

2002-2005 – Zolotowsky tuition scholarships for excellent students.

Organization of Conferences and Symposia

Symposium organizer, “Beyond the matrix: multi agent reinforcement learning”, Society for Neuroeconomics, Vancouver, Canada, 2023

Host-Organizer, “Social Motivation Symposium”, University of Haifa, Haifa, IL 2019

Host-Organizer, “A Penny for Your Thoughts: Workshop on Social Cognition”, University of London, London, UK 2017

Organization Team, “Intelligence and the Mind” workshop, University of London, London, UK 2017

Public Engagement

Youth science program, Haifa, IL, 2023

European scientists night lecture, Haifa, IL, 2019

Presenter “TA{s}TE” event, Tate Modern, London, UK 2018

Presenter “TA{s}TE” event, Tate Modern, London, UK 2017

Organization Team, “The Mind in Practice” event, Google Campus, London, UK 2017

Teaching

Lecturer in a Masters course at the Master in Behavioral and Decision Science, University of Pennsylvania: AI and Human Behavior (2024).

Lecturer in 3 undergraduate courses at the Department of Cognitive Sciences, University of Haifa: Pro-seminar in Cognitive Sciences, Computation and Cognition, and Neuroeconomics.

January 31st 2025

I carried out two workshops for researchers at the Faculty of Social Sciences, University of Haifa: Online Experiments (2020) and Modeling Cognitive Processes (2020).

Editing and Reviewing

Editorial Board:

Scientific Reports (2021-2024)

Editor on Scientific Reports special collection on Moral Judgements and Decision-Making (2022-2023)

Referee for peer-reviewed journals:

eLife, PNAS, NeuroPsychologia, PlosOne, Frontiers In Behavioral Neuroscience, NeuroImage, Cognition, Social Cognitive and Affective Neuroscience, Scientific Reports, Cerebral Cortex, Journal of Experimental Social Psychology, Journal of Experimental Psychology: General, Nature Communications Biology, Human Brain Mapping, Perspectives on Psychological Science.

Funding Agencies:

Reviewer for The U.S.-Israel Binational Science Foundation (BSF), the Wellcome Trust (UK), Israel Science Foundation (ISF), Netherlands Institute for Advanced Study (NIAS-KNAW).

Recent Seminar and Conference Talks

2025 – Norms and Behavioral Change NoBec seminar - Preference and perception of algorithmic advice in social decision making

2024 – Cognitive Psychology Seminar, Brown University, RI, USA - Learning how to behave: cognitive learning processes underlying adaptation to social norms and intergroup bias

2024 – Cultural Evolution Society meeting, Durham, UK - Ancient humans' basecamp habitation pattern and the transition from experience-based to information-based social learning

2024 - Technology Management Seminar, NYU, NY, USA - Preference and perception of algorithmic advice in social decision making

2024 - Center for Social Norms and Behavioral Dynamics, University of Pennsylvania, PA, USA - Learning how to behave: cognitive learning processes underlying adaptation to social norms and intergroup bias

2023 – Society for Neuroeconomics, Vancouver, Canada - Beyond the matrix – Multiagent reinforcement learning

2023 - Computational Psychology Seminar, Princeton University, NJ, USA - Learning mechanism underlying social norms and intergroup bias

2022 - Computational Psychiatry Seminar, Max Planck Computational Psychiatry, London, UK - Social Learning and Advice Giving

2022 - Social Learning Seminar, Max Planck Institute Tubingen, Tubingen, Germany - Learning mechanism underlying adaptation to social norms

2021 - Affective Brain Lab, University College London, London, UK - Learning mechanism underlying adaptation to social norms

Mentoring

Ongoing

January 31st 2025

Dr. Hernan Anlló - Marie Sklodowska Curie post-doc fellow, joint supervision with Prof. Stefano Palminteri (ENS, Paris, France).

Elena Kozakevitch-Arbel – PhD candidate, joint supervision with Prof. Simon Shamay-Tsoory (University of Haifa, Haifa, Israel).

Itamar Lachman– PhD candidate, joint supervision with Prof. Irit Hadar (University of Haifa, Haifa, Israel).

Lior Gazit – PhD candidate, joint supervision with Prof. Ofer Arazy (University of Haifa, Haifa, Israel).

Gili Barkay – PhD candidate, joint supervision with Prof. Shai Gabai (University of Haifa, Haifa, Israel)

Alumni

Fady Khoury, MA

Orit Nafcha, PhD (post-doc)

Orit Heimer, PhD

Lior Gazit, MSc

Itamar Lachman, MSc

Matan Fintz, MSc

Or Ziv, MA

Dina Bavli, MA