GAL RAZ

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EDUCATION

expected 2024 **PhD** in Brain & Cognitive Sciences, MIT
2018 **MSc** in Psychological Research, University of Oxford
2016 **BSc** (Hons.) in Liberal Arts and Sciences, University College Utrecht

AWARDS

2022-2025 ICoN Graduate Fellowship
2022 Best Computational Paper at Cognitive Science Society Conference (joint with Anjie Cao)
2021 Walle Nauta Award for Excellence in Undergraduate Teaching
2020 Cheng Graduate Fellowship
2018 Humphrey Prize for Best Research Project Dissertation in MSc cohort
2018 Best Research Project Poster Presentation Prize in MSc cohort
2017 Full scholarship for MSc studies by German Academic Exchange Services
2016 Kupcinet-Getz Scholar at Weizmann Institute of Science

EMPLOYMENT

2018-2019 Visiting Researcher, Hitachi Centre for Exploratory Research
2018 Management Consulting Intern, Oliver Wyman (Amsterdam Office)

PUBLICATIONS AND TALKS

Under review

Raz, G, Piccolo, S., Medrano, J., Liu, S., Lydic, K., Mei, C., Nguyen, V., Shu, T. & Saxe, R. (under review). An asynchronous, automated workflow for looking time experiments with infants.

Sheffield, J. G., **Raz, G.**, Sella, F., & Kadosh, R. C. How can noise alter neurophysiology in order to improve human behaviour? A combined transcranial random noise stimulation and electroencephalography study (preprint available here)

Publications

Raz, G., Cao, A., Saxe, R., & Frank, M.C. (2023). Modeling habituation in infants and adults using rational curiosity over perceptual embeddings. *NeurIPS* (IMOL Workshop)

Liu, S., **Raz, G.**, Kamps, F., Grossmann, T. & Saxe, R. (2023). Response: No evidence for discontinuity between infants and adults. *Trends in Cognitive Sciences*

Raz, G., Cao, A., Frank, M. C. & Saxe, R. (2023). No evidence for familiarity preferences after partial exposure to visual concepts in preschoolers and infants. *Proceedings of the Annual Meeting of the Cognitive Science Society*

Erel, Y., Shannon, K.A., ..., **Raz, G.**, ... & Liu, S. (2023). iCatcher+: Robust and automated annotation of infant gaze from videos collected in the lab and online. *Advances in Methods and Practices in Psychological Science*

Cao, A., **Raz, G**, Saxe, R & Frank, M. C. (2022). Habituation reflects optimal exploration over noisy perceptual samples. *Topics in Cognitive Science*

Sella, F., **Raz, G.** & Cohen-Kadosh, R. (2021). When randomisation is not good enough: Matching groups in intervention studies. *Psychonomic Bulletin & Review, 1-9.*

Saban, W., **Raz, G.**, Grabner, R., Gabay, S. & Cohen-Kadosh, R. (2021). Primitive Visual Channels Have a Causal Role in Cognitive Transfer. *Scientific Reports, 11(1), 1-9.*

Raz, G. & Saxe, R. (2020). Learning in Infancy Is Active, Endogenously Motivated, and Depends on the Prefrontal Cortices. *Annual Review of Developmental Psychology, 2, 247-268.*.

Poster presentations

Raz, G, Cao, A., Frank, M. C.,Saxe, R., Rational analysis of infant looking time (*International Congress of Infant Studies*, 2022)

Cao, A., **Raz, G**, Saxe, R., Frank, M. C. Habituation reflects optimal exploration over noisy perceptual samples (*The Multi-disciplinary Conference on Reinforcement Learning and Decision Making*, 2022)

Raz, G.*, Radkani, S.*, Tenenbaum, J. B. & Saxe, R. Humans measure algorithmic complexity to guide engagement with event sequences (*Annual Meeting of the Cognitive Science Society*, 2020, *equal contribution)

Dissertations

2018 **MSc Dissertation**: Modulating Arithmetic Learning with Transcranial Random Noise Stimulation (University of Oxford)

2016 **BSc Dissertation**: Biases in Visual Number Perception: Computational Models of Early Visual Processing Predict Numerosity Judgments (University College Utrecht)

TEACHING AND MENTORSHIP

Courses

2020 & 2021 Head TA for Infant and Early Childhood Cognition (taught by Prof. Laura Schulz)

Mentored students

Undergrads Miranda Zhang ('17-'18, Oxford), Amy Small ('17-'18, Oxford), Ashti Shah ('19, MIT), Anna Wilson ('20-'21, MIT), Christian Rich ('20-'21, MIT), Andrea Moncada ('21-'22, MIT), Ronald Alvarez ('22, MIT)

Qualifications

Fall 2021 Inclusive Teaching Track, MIT Teaching + Learning Lab

Spring 2021 Microteaching Track, MIT Teaching + Learning Lab

Winter 2020 Lesson Planning Track, MIT Teaching + Learning Lab

Fall 2020 Subject Design Track, MIT Teaching + Learning Lab

COMMUNITY SERVICE AND OUTREACH

2020 - present Member of Graduate Student Council of School of Science, MIT
- Advising the Dean's office on graduate student affairs

2020 - present REFS (Resource for Easing Friction and Stress) in Brain & Cognitive Sciences, MIT
- Confidential resource and advocate for graduate students
- Working with departmental leadership to further students' interests: successfully pushed through relocation stipend for incoming graduates, and a policy for PhD internships.

2017 - present Volunteer at Dhamma Meditation Centers
- Regular volunteer at 10-day silent meditation retreats
- Served in German, Israeli, UK and US centers
- Working in kitchen, maintenance and course management

MISCELLANEOUS SKILLS AND INTERESTS

Programming languages (in order of proficiency): Python, R, Stan, MATLAB, JavaScript, Unity scripting (C#), WebPPL

Lab techniques: infant behavioral experiments, adult online & in-lab experiments, adult eye-tracking, electroencephalography (EEG), functional near-infrared spectroscopy (fNIRS), transcranial electrical brain stimulation, rodent behavioral experiments

Languages: German, English and Hebrew (fluent), Spanish (level B2), Dutch (level B1)

Online courses (click course names for certificates):

Machine Learning (Stanford)	Bayesian Statistics I (UC Santa Cruz)
Computational Neuroscience (UW)	Bayesian Statistics II (UC Santa Cruz)
MATLAB Programming (Vanderbilt)	Python for Data Science and ML (Udemy)

For fun: Vipassana meditation, Judo, Yoga, chess, poker, RTS games, electronic music

Last updated: February 17, 2024