

Saurabh Ranjan

Ph.D. Candidate, Behavioral & Cognitive Neuroscience Area

Department of Psychology, University of Florida.

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FIELD OF SPECIALIZATION

Areas: *memory, perception, artificial general intelligence.*

Topics: *reality monitoring, metacognition, imagination, consciousness, neurofeedback.*

Methods: *human behavioral measures, cognitive models, deep neural network models, and machine learning with neuroimaging data.*

EDUCATION & EMPLOYMENT HISTORY

Since September 2020:

*Pursuing Ph.D. in Psychology,
Behavioral and Cognitive Neuroscience Area,
**Department of Psychology,
University of Florida, United States.***

*Dissertation Title: Reality Monitoring in Humans and Artificial Intelligence:
A Behavioral and Computational Perspective on False Memories.*

*Since 2023: Graduate Teaching Assistant
2022-2023: Graduate Research Assistant
2021-2022: Graduate Teaching Assistant
2020-2021: Graduate Research Assistant*

July 2019 – July 2020:

*Research Assistant
Prof. Narayanan Srinivasan's Lab (Now at IIT-Kanpur, India)
**Centre of Behavioral and Cognitive Sciences,
University of Allahabad, India.***

July 2018 – January 2019:

*Research Intern
**Homi Bhabha Centre for Science Education,
Tata Institute of Fundamental Research, India.***

2016 – 2018:

*Master of Science (M.Sc.) in Cognitive Science
**Centre of Behavioral and Cognitive Sciences,
University of Allahabad, India.***

2013 – 2016:

Bachelor of Science (B.Sc.) in Physics
Birla Institute of Technology, Mesra, India.

FELLOWSHIP/SCHOLARSHIP AND AWARDS

2025:

Threadgill Dissertation Fellowship
College of Liberal Arts and Sciences, University of Florida.

2024:

UF Department of Psychology Travel Award for
The Psychonomic Society 65th Annual Meeting 2024.

Scott O. Lilienfeld APS Travel Award
Association of Psychological Sciences 2024 Annual Convention.

UF Department of Psychology Travel Award for
Association of Psychological Sciences 2024 Annual Convention.

2020 – 2025:

Graduate Student Fellowship
Department of Psychology, University of Florida.

2016 – 2018:

Graduate Merit Scholarship
Centre of Behavioral and Cognitive Sciences, University of Allahabad.

WORKING PAPERS

4. **Ranjan, S., & Odegaard, B.** *Internal world building as Imagination Networks in Humans and Generative Artificial Intelligence.*
3. **Ranjan, S., & Odegaard, B.** *Reality Monitoring in Humans and Machine and the role of memory.*
2. **Ranjan, S., & Odegaard, B.** *Generalizing the Generation Effect in Reality Monitoring.*
1. **Ranjan, S.** *Empirical and Theoretical Status of Metacognition during Reality Monitoring.* (Available here: [Weblink](#)).

PAPERS

8. **Ranjan, S., & Odegaard, B.** (2024). Heterarchy or hierarchy? Insights from a new model of visual imagination. *Physics of Life Reviews*, 49, 74-76.

7. **Ranjan, S.**, & Odegaard, B. (2024). Reality monitoring and metacognitive judgments in a false-memory paradigm. *Neuroscience Research*, 201, 3-17.
6. Maynes, R., Faulkner, R., Callahan, G., Mims, C. E., **Ranjan, S.**, Stalzer, J., & Odegaard, B. (2023). Metacognitive awareness in the sound-induced flash illusion. *Philosophical Transactions of the Royal Society B*, 378(1886), 20220347.
5. Chiasson, P., Boylan, M. R., Elhamiasl, M., Pruitt, J. M., **Ranjan, S.**, Riels, K., ... & Keil, A. (2023). Effects of Neurofeedback training on performance in laboratory tasks: A systematic review. *International Journal of Psychophysiology*.
4. Aggarwal, A., & **Ranjan, S.** (2022, February). How do Undergraduate Students Reason about Ethical and Algorithmic Decision-Making?. In *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education-Volume 1* (pp. 488-494).
3. Karnam, D., Agrawal, H., Parte, P., **Ranjan, S.**, Borar, P., Kurup, P. P., ... & Chandrasekharan, S. (2021). Touchy feely vectors: A compensatory design approach to support model-based reasoning in developing country classrooms. *Journal of Computer Assisted Learning*, 37(2), 446-474.
2. Karnam, D., Agrawal, H., Parte, P., **Ranjan, S.**, Sule, A., & Chandrasekharan, S. (2019, December). Touchy Feely Affordances of Digital Technology for Embodied Interactions Can Enhance 'Epistemic Access'. In *2019 IEEE Tenth International Conference on Technology for Education (T4E)* (pp. 114-121). IEEE.
1. [Preprint] **Ranjan, S.**, & Srinivasan, N. (2019, September 20). Sense of agency for future-directed intentions: Intentional binding for intermediate outcomes. <https://doi.org/10.31234/osf.io/qa93k>

CONFERENCE POSTERS/TALKS

Undergraduate Research Assistants denoted by +

7. [Submitted] **Ranjan, S.**, & Odegaard, B. (May 16-20, **2025**). *Visual Imagination Networks in Humans and Large Language Models*. Vision Sciences Society's Annual Meeting. St. Pete., Florida.
6. **Ranjan, S.**, & Odegaard, B. (May 23-26, **2024**). *The Fragility of Reality Monitoring under Extraneous Factors* [Poster]. The Psychonomic Society's 65th Annual Meeting, New York City, NY.
5. **Ranjan, S.***, & Odegaard, B. (May 23-26, **2024**). *Reality Monitoring, Fast and Slow: Investigating the Effects of Speed and Accuracy Feedback* [Poster + Flash Talk]. Association for Psychological Science Annual Convention, San Francisco, CA.

*Ranjan, S. won the **Scott O. Lilienfeld APS Travel Award** for this work.

4. Maw, M.*⁺, Zhuang, L. ⁺, Baltes, J. ⁺, **Ranjan, S.**, Odegaard, B. (March 20, **2024**). *Task demands and sensory externalization interact to influence accuracy and metacognition in reality monitoring* [Poster]. PGSO Undergraduate Research Forum, University of Florida, Gainesville, Florida, U.S.A.
*Maw, M. won the **Third Prize** at the 2024 PGSO Undergraduate Research Forum.
3. Dundigalla, S. ⁺, Johnson, D. ⁺, Roh, A. ⁺, **Ranjan, S.**, Odegaard, B. (March 20, **2024**). *Cognitive Strategies in Reality Monitoring Change Based on Extraneous Factors* [Poster]. PGSO Undergraduate Research Forum, University of Florida, Gainesville, Florida, U.S.A.
2. **Ranjan, S.**, Baltes, J. ⁺, Roh, A. ⁺, & Odegaard, B. (**2023**). Confidence in reality monitoring judgments. *Journal of Vision*, 23(9), 4844-4844.
1. **Ranjan, S.**, & Srinivasan, N. (October **2018**). *Intentional binding and future-directed intentions* [Talk]. Fifth Annual Conference of Cognitive Science (ACCS), IIT-Guwahati, India.

ADHOC REVIEWER

iScience (A Cell Press Journal)

TRAINING SCHOOLS

February 4-10, 2019:

Attended 'Winter School on Cognitive Modeling' organized by Indian Institute of Technology (IIT) - Mandi, India, and co-organized by the University of Groningen, Netherlands, at IIT-Mandi Campus, India.