

# Stanford

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## Percy Khushroo Mistry

Social Science Research Scholar, Psych/Major Laboratories and Clinical & Translational Neurosciences Incubator

### Bio

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#### CURRENT ROLE AT STANFORD

Research Scholar, Stanford Cognitive and Systems Neuroscience Laboratory

#### EDUCATION AND CERTIFICATIONS

- Postdoctoral training, Stanford University , Computational Neuroscience
- Ph.D., University of California Irvine , Psychology (Computational Cognitive Science) (2018)
- M.A, University of California Irvine , Psychology (Computational Cognitive Science) (2015)
- Diploma, UoL , Mathematics (2012)
- MBA, Indian Institute of Management Calcutta , Finance, Systems (2003)
- Bachelors, University of Mumbai, India , Electronics Engineering (2001)

#### LINKS

- Personal Website: <https://profiles.stanford.edu/percy-mistry>
- LinkedIn: <https://www.linkedin.com/in/percy-mistry/>
- Google Scholar Profile: <https://scholar.google.com/citations?user=y8k34s5TOIoC&hl=en&authuser=1>
- Lab Site: <https://med.stanford.edu/scsnl.html>
- Twitter: <https://twitter.com/mystrypercy>

### Publications

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#### PUBLICATIONS

- **Hierarchical, Interactive, and Dynamic Predictive Capacity of Current Biological, Psychological, Social, and Environmental Measurements in Depression, Anxiety, ADHD, and Social Quality across the Lifespan.** *Research square*  
Roberts, C., Yamamoto, R., Fawnia, Z., Mistry, P., Treves, I. N., Decker, A., Sallie, S. N., Chatham, C., Aftab, A., Lee, K., Park, M., Menon, V., Gabrieli, et al  
2025
- **Unraveling latent cognitive, metacognitive, strategic, and affective processes underlying children's problem-solving using Bayesian cognitive modeling.** *bioRxiv : the preprint server for biology*  
Mistry, P. K., Chang, H., El-Said, D., Menon, V.  
2025
- **Digital twins for understanding mechanisms of learning disabilities: Personalized deep neural networks reveal impact of neuronal hyperexcitability.** *bioRxiv : the preprint server for biology*  
Strock, A., Mistry, P. K., Menon, V.

2024

- **Learning-induced reorganization of number neurons and emergence of numerical representations in a biologically inspired neural network.** *Nature communications*  
Mistry, P. K., Strock, A., Liu, R., Young, G., Menon, V.  
2023; 14 (1): 3843
- **A neurodevelopmental shift in reward circuitry from mother's to nonfamilial voices in adolescence.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*  
Abrams, D. A., Mistry, P. K., Baker, A. E., Padmanabhan, A., Menon, V.  
2022
- **Neurocognitive modeling of latent memory processes reveals reorganization of hippocampal-cortical circuits underlying learning and efficient strategies.** *Communications biology*  
Supekar, K., Chang, H., Mistry, P. K., Iuculano, T., Menon, V.  
2021; 4 (1): 405
- **Aberrant dynamics of cognitive control and motor circuits predict distinct restricted and repetitive behaviors in children with autism.** *Nature communications*  
Supekar, K., Ryali, S., Mistry, P., Menon, V.  
2021; 12 (1): 3537
- **Anxiety and Stress Alter Decision-Making Dynamics and Causal Amygdala-Dorsolateral Prefrontal Cortex Circuits During Emotion Regulation in Children.** *Biological psychiatry*  
Warren, S. L., Zhang, Y. n., Duberg, K. n., Mistry, P. n., Cai, W. n., Qin, S. n., Bostan, S. N., Padmanabhan, A. n., Carrion, V. G., Menon, V. n.  
2020
- **Latent neurocognitive mechanisms underlying quantity discrimination in children with and without mathematical learning disabilities.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*  
Chang, H., Mistry, P. K., Zhang, Y., Schwartz, F., Menon, V.  
2026
- **Recurrent neural network models reveal unified mechanisms generating event-related potentials from MMN to P300.** *bioRxiv : the preprint server for biology*  
Strock, A., Nghiem, T. E., Trouvain, N., Mistry, P. K., Hinaut, X., Menon, V.  
2025
- **Personalized deep neural networks reveal mechanisms of math learning disabilities in children.** *Science advances*  
Strock, A., Mistry, P. K., Menon, V.  
2025; 11 (23): eadq9990
- **Symbolic numerical generalization through representational alignment.** *CogSci ... Annual Conference of the Cognitive Science Society. Cognitive Science Society (U.S.). Conference*  
Strock, A., Liu, R., Iyer, R., Mistry, P. K., Menon, V.  
2025; 47: 1882-1888
- **Space wandering in the rodent default mode network.** *Proceedings of the National Academy of Sciences of the United States of America*  
Nghiem, T. E., Lee, B., Chao, T. H., Branigan, N. K., Mistry, P. K., Shih, Y. I., Menon, V.  
2024; 121 (15): e2315167121
- **Space wandering in the rodent default mode network.** *bioRxiv : the preprint server for biology*  
Nghiem, T. E., Lee, B., Chao, T. H., Branigan, N. K., Mistry, P. K., Shih, Y. I., Menon, V.  
2023
- **A Multinomial Processing Tree Model of the 2-back Working Memory Task.** *Computational brain & behavior*  
Lee, M. D., Mistry, P. K., Menon, V.  
2022; 5 (3): 261-278
- **Linear and nonlinear profiles of weak behavioral and neural differentiation of numerical operations in children with math learning difficulties.** *Neuropsychologia*  
Chen, L., Iuculano, T., Mistry, P., Nicholas, J., Zhang, Y., Menon, V.

2021: 107977

- **A quantum probability account of individual differences in causal reasoning** *JOURNAL OF MATHEMATICAL PSYCHOLOGY*  
Mistry, P. K., Pothos, E. M., Vandekerckhove, J., Trueblood, J. S.  
2018; 87: 76-97