Postdoctoral Fellow, Max Planck Institute for Human Development, Berlin, Germany.

# Indrajeet Patil



# **Experience**

- Postdoctoral Fellow, Max Planck Institute for Human Development, Germany, 2019-.
- Postdoctoral Fellow, Department of Psychology, Harvard University, USA, 2017-2019.
  - Designed a novel Reinforcement Learning paradigm to model human moral learning.
  - Conducted a meta-analysis to dissociate the role of empathic concern versus distress in altruism.
  - Created multiple R packages to analyze and visualize data (used by thousands of people worldwide).
- Ph.D. Researcher, Scuola Internazionale Superiore di Studi Avanzati (SISSA), Trieste, Italy, 2011-2015.
  - Collected and analyzed over a billion records of neuroimaging (both functional and anatomical) and psychophysiological (skin conductance) data to link human moral decision-making and brain function.
  - Created novel Virtual Reality paradigms to study human moral behavior.
  - Studied clinical deficits in autism, multiple sclerosis, and anxiety disorders.

# **Technical Skills**

• Programming skills

Data analysis: R (advanced), MATLAB (intermediate), Python (beginner) Web development: HTML/CSS (intermediate), JavaScript (intermediate)

Database management: SQL (intermediate)

Document preparation: RMarkdown (advanced), xaringan (advanced), LATEX (intermediate)

Miscellaneous: Git/GitHub, YAML

- Open-source software development (in R; published on CRAN; Total downloads: 97,757):
  - ggstatsplot (Downloads: 33,784, since April 2018): Informative data visualizations with statistical analyses.
  - groupedstats (Downloads: 25,367, since July 2018): Grouped statistical analyses.
  - broomExtra (Downloads: 23,742, since March 2019): Enhancements for working with regression models.
  - statsExpressions (Downloads: 6,703, since August 2019): Creates expressions with statistical details.
  - pairwiseComparisons (Downloads: 8,161, since August 2019): Multiple pairwise comparison tests.
- Techniques: text mining, machine learning, meta-analysis, logistic/linear regression, linear/ordinal mixed effects regression, clustering (k-means, hierarchical cluster analysis, linear discriminant analysis), k-nearest neighbor, bagging, random forests, support vector machines, dimensionality reduction (PCA, ICA), Reinforcement Learning, Bayesian statistics, cross validation, neural networks, naive Bayes classification, Structural Equation Modeling, path analysis
- GUI softwares (for statistical analysis): SPSS, jamovi, JASP, Amos, G\*Power
- Online data collection: Qualtrics, MTurk

## **Publications**

• 13 first author, peer-reviewed publications

Citations: 432, h-index: 9, i10-index: 9, Open materials (13/13) Selected media coverage: Time, The Huffington Post, Daily Mail, la Repubblica, etc.

### **Education**

- Doctor of Philosophy (Neuroscience), SISSA, Trieste, Italy, 2011-2015 (summa cum laude).
- Master of Science (Physics), Department of Physics, University of Pune, India, 2008-2010.
- Bachelor of Science (Physics), Fergusson College, India, 2005-2008.

### Other Skills

- Communication: Skilled at disseminating complex ideas to a range of audiences, including scientists and the general public (> 20 talks, published articles for newspapers).
- Advising/Project Management: Coordinated large teams of multi-national researchers across multiple neuroimaging studies across several years. Supervised and trained 7 students' undergraduate theses.