Rashi Pant

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Education

2018–24	**Ph.D. (rer. nat.), Magna cum Laude**, Biological Psychology and Neuropsychology, Universität Hamburg
2015-16	**M.A.**, Cognitive Science, Johns Hopkins University, Baltimore
2012-15	**B.Sc.** Physics, St. Xavier's College, Mumbai

Research Experience

2024–2025	Postdoctoral Researcher, Biological Psychology and Neuropsychology, Universität Hamburg, Advisor: Prof. Dr. Brigitte Röder
2016–2018	Lab Manager, Neuroplasticity and Development Laboratory, Johns Hopkins University, Advisor: Prof. Dr. Marina Bedny
2015–2016	Research Assistant, Cognitive and Brain Sciences Laboratory, Johns Hopkins University, Advisor: Prof. Dr. Brenda Rapp

Industry Experience

2025 –	Medical Program Manager, Mindpeak AI GmbH, Hamburg (Computer Vision/AI for Pathology and Drug Biomarkers)

Publications

Journal Articles

† Co-first authorship

J1. Hauptmann†, M., Elli†, G., **Pant, R.** & Bedny, M. Neural specialization for 'visual' concepts emerges in the absence of vision. *Cognition* **257.** https://doi.org/10.1016/j.cognition.2024.106058 (2025).

J2. **Pant, R.**, Pitchaimuthu, K., Ossandón, J., Shareef, I., Lingareddy, S., Finsterbusch, J., Kekunnaya, R. & Röder, B. Altered visual cortex excitatory/inhibitory ratio following transient congenital visual deprivation in humans. *eLife*. https://doi.org/10.7554/eLife.98143.3 (2025).

J3. **Pant, R.**, Ossandón, J., Stange, L., Shareef, I., Kekunnaya, R. & Röder, B. Stimulus-evoked and resting-state alpha oscillations show a linked dependence on patterned visual experience for development. *NeuroImage:Clinical* **38.** https://doi.org/10.1016/j.nicl.2023.103375 (2023).

J4. **Pant, R.**, Guerreiro, M., Ley, P., Bottari, D., Shareef, I., Kekunnaya, R. & Röder, B. The size-weight illusion is unimpaired in individuals with a history of congenital visual deprivation. *Scientific Reports* **11.** https://doi.org/10.1038/s41598-021-86227-w (2021).

J5. **Pant, R.**, Kanjlia, S. & Bedny, M. A sensitive period for the neural phenotype of language in blind individuals. *Developmental Cognitive Neuroscience* **41.** https://doi.org/10.1016/j.dcn.2019.100744 (2020).

J6. Kanjlia, S., **Pant, R.** & Bedny, M. Sensitive period for cognitive repurposing of human visual cortex. *Cerebral Cortex* **29.** https://doi.org/10.1093/cercor/bhy280 (2019).

Presentations

Talks

T1. *Altered visual cortex excitatory/inhibitory ratio following sight recovery in humans.* International Multisensory Research Forum, Durham, UK. July 2025. Symposium "Blindness as a window into fundamental principles of brain organisation: Moving beyond absolutist frameworks ".

T2. *Stimulus-evoked and endogenous alpha oscillations show a linked dependence on patterned visual experience for development.* International Multisensory Research Forum, Brussels. July 2023. Symposium "Post-natal transient blindness : how does the visual system cope with it?".

T3. *Excitatory/Inhibitory balance in the human visual cortex in blindness and sight recovery.* Johns Hopkins University, Baltimore. Nov. 2022. Neuroplasticity and Development Laboratory.

T4. *Persistent impairment of Excitatory/Inhibitory balance in the human visual cortex after recovery from congenital patterned visual deprivation.* Society for Neuroscience, San Diego. Nov. 2022. Nanoymposium "Experience-Dependent Plasticity: Gaining Insights Into the Neural Capacity to Adapt".

T5. *Sensitive period plasticity and recovery after sight restoration.* Hector Fellow Academy Annual Symposium, Karlsruhe. July 2022.

T6. *Stimulus-evoked and endogenous alpha oscillations show a linked dependence on patterned visual experience for development.* Vision Sciences Society, St. Petersburg, USA (Virtual). Journal of Vision. May 2022. Symposium on visual cortex development.

T7. *The Size-Weight-Illusion is unimpaired in sight recovery individuals* LV Prasad Eye Institute, Hyderabad. Jan. 2020.

Posters

P1. Hauptman, M., Elli, G., Lane, C., **Pant, R** & Bedny, M. *The neural basis of language about animates* Society for the Neurobiology of Language, Washington DC. Sept. 2025.

P2. Khan, W., **Pant, R**, Kolli, B., Nalluri, A., Lingareddy, S., Kekunnaya, R. & Röder, B. *Excitatory/Inhibitory ratio in the visual cortex of congenitally blind humans* European Conference on Visual Perception, Mainz. Sept. 2025.

P3. **Pant, R**, Pitchaimuthu, K., Ossandón, J., Shareef, I., Lingareddy, S., Finsterbusch, J., Kekunnaya, R. & Röder, B. *Altered visual cortex excitatory/inhibitory ratio following transient congenital visual deprivation in humans* Psychologie und Gehirn, Hamburg. June 2024.

P4. **Pant, R**, Ossadón, J., Stange, L., Shareef, I., Kekunnaya, R. & Röder, B. *P-110 Stimulus-evoked and resting-state alpha oscillations are jointly reduced in sight recovery individuals with a history of a congenital blindness* DGKN-Kongress für Klinische Neurowissenschaften, Hamburg. Mar. 2023.

P5. **Pant, R**, Ossadón, J., Stange, L., Shareef, I., Kekunnaya, R. & Röder, B. *Stimulus-evoked and resting-state alpha oscillations are jointly reduced in sight recovery individuals with a history of a congenital blindness* European Summer School Visual Neurosciences, Rauischholzhausen, Marburg. Aug. 2022.

P6. **Pant, R**, Ossadón, J., Stange, L., Shareef, I., Kekunnaya, R. & Röder, B. *Neural mechanisms of sight recovery after congenital blindness in humans* Global Partners Research Forum: Sustainable Future in Focus (Online, hosted by Indiana University). Jan. 2021.

P7. **Pant, R**, Guerreiro, M., Ley, P., Bottari, D., Shareef, I., Kekunnaya, R. & Röder, B. *The size-weight illusion is unimpaired in sight recovery individuals* Hector Fellow Academy Annual Symposium, Karlsruhe. July 2019.

P8. Elli, G., **Pant, R**, Achtman, R. & Bedny, M. *The neural basis of concrete noun and verb meanings in congenitally blind individuals: An fMRI MVPA study* Society for the Neurobiology of Language, Quebec. Nov. 2018.

P9. **Pant, R**, Kanjlia, S., Lane, C. & Bedny, M. *A sensitive period for the modification of the language network in blindness* Society for Neuroscience (Washington DC) and Society for the Neurobiology of Language, Baltimore. Nov. 2017.

Awards & Honors

2018–2022	Hector Fellow Academy PhD Fellowship (Four years of salary and travel funding, plus 38,000 EUR in research funds)
2021	Poster Award for "UN Sustainable Development Goal 10, Reduced Inequalities" (1000 EUR in travel funds)
2015	J.N Tata Endowment Scholarship Award (21,000 USD)

Academic Activity

2023-	Reviewer for Neurobiology of Language, Scientific Reports, iScience, PLOS One, Experimental Brain Research
2022	Selected to attend the European Summer School for Visual Neuroscience (Rauischholzhausen)

Development and Certifications

2024	Good Clinical Practice (NIDA)
2018-2022	MBA Fundamentals for Scientists (Hector School of Engineering and Management)

Media and Engagement

2025	Pant et al., 2025 covered by podcast on low vision
2024	Co-organizer of the Annual Hector Fellow Academy Symposium event for interdisciplinary scientific exchange
2024	Featured video portrait with Hector Fellow Prof. Dr. Brigitte Röder, Fascinating Brain
2021	Presented at the Global Partners Research Forum on research implications for UN Sustainable Development Goal 10: Reducing Inequalities
2017	Co-organized and instructed at the Youth Slam (Summer School) with the National Federation of the Blind, Maryland, USA

Advising

2023-	Waqar Khan, Universität Hamburg, PhD Student
2023-2024	Angelina Radakovic, Universität Hamburg, Masters Thesis
2023-2024	Lea Schumacher, Universität Hamburg, Master's Working Student
2023-2024	Helen Beck, Universität Hamburg, Bachelor's Working Student
2022	Saskia Leißner, Universität Hamburg, Bachelor's Internship
2017-2018	Julia Slisz, Johns Hopkins University, Undergraduate Research Assistant