

Franziska Brändle

POSTDOC · HUMAN INFORMATION PROCESSING LAB

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Education

Max Planck Institute for Biological Cybernetics

International Max Planck Research School for Mental Functions and Dysfunctions

Tübingen, Germany

PHD COGNITIVE SCIENCE

2020 - 2024

- Advisor: Dr. Eric Schulz
- Advisory Board Members: Prof. Dr. Peter Dayan, Prof. Dr. Anna Levina

University of Osnabrück

Osnabrück, Germany

MSc COGNITIVE SCIENCE

2017 - 2019

- Thesis Advisor: Prof. Dr. Kai-Uwe Kühnberger

Hochschule der Medien

Stuttgart, Germany

BENG AUDIOVISUAL MEDIA

2013 - 2017

Experience

- 04/2025 - present **Junior Research Fellow**, Linacre College
- 09/2024 - present **PostDoc (Human Information Processing Lab, Prof. Christopher Summerfield)**, University of Oxford
- 09/2022 - 12/2022 **Research visit (Computational Cognitive Neuroscience, Prof. Sam Gershman)**, Harvard University
- 03/2019 - 10/2019 **Master's Degree candidate**, SALT AND PEPPER - Software Solutions, Osnabrück
- 01/2018 - 01/2019 **Working Student (VR & PR Department)**, SALT AND PEPPER - Software Solutions, Osnabrück
- 09/2012 - 02/2019 **Director, Assistant Director, Unit Manager, etc.**, Various Movie Projects

Publications (selection)

PUBLISHED

- Brändle, F.**, Wu, C.M., Schulz, E. 2025. Leveling up fun: Learning progress, expectations, and success influence enjoyment in video games. *Scientific Reports*.
- Binz, M., Akata, E., Bethge, M., **Brändle, F.**, Callaway, F., ... , Schulz, E. 2025. A foundation model to predict and capture human cognition. *Nature*.
- Allen, K.*, **Brändle, F.***, Botvinick, M., Fan, J.E., Gershman, S.J., ... , Tenenbaum, J.B., Schulz, E. 2024. Using Games to Understand the Mind. *Nature Human Behaviour*. (*Joint first authorship.)
- Nath, S.S., **Brändle, F.**, Schulz, E., Dayan, P., Brielmann, A. 2024. Relating Objective Complexity, Subjective Complexity and Beauty. *Psychology of Aesthetics, Creativity, and the Arts*.
- Brändle, F.**, Stocks, L.J., Gershman, S.J., Tenenbaum, J.B., Schulz, E. 2023. Empowerment contributes to exploration behaviour in a creative online game. *Nature Human Behaviour*.
- Brändle, F.**, Binz, M., Schulz, E. 2022. Exploration Beyond Bandits. In Dezza, Schulz, & Wu (Eds.), *The Drive for Knowledge: The Science of Human Information-Seeking*.
- Brändle, F.**, Wu, C.M., Schulz, E. 2020. What are we curious about. *Trends in Cognitive Sciences*.

ABSTRACTS

- Brändle, F.**, Ruggeri, A., Kessler, S., Schulz, E. 2024. Uncertainty-driven little alchemists: differences in exploration strategies between adults and children in an online game. *CogSci Conference*.
- Brändle, F.**, Wu, C.M., Schulz, E. 2023. Learning progress and uncompensated rewards as motivational drivers of engagement. *Computational Cognitive Neuroscience Conference*.

- Brändle, F.**, Wu, C.M., Schulz, E. 2023. Engagement As Maximizing Learnability: Balancing Difficulty And Prior Knowledge. Curiosity, Creativity and Complexity Conference.
- Brändle, F.**, Wu, C.M., Schulz, E. 2022. Fun as maximizing learnability: Balancing difficulty and prior knowledge. CogSci Conference.
- Brändle, F.**, Stocks, L.J., Tenenbaum, J.B., Gershman, S.J., Schulz, E. 2022. Intrinsically Motivated Exploration as Empowerment. Intrinsically Motivated Open-Ended Learning Workshop.

Awards and Honors

- 2019 **Top M.Sc. Graduate 2019**, Cognitive Science Master Program, University of Osnabrück
- 2016-2017 **Multiple awards of film festivals**, For the movie "Update"
- 2012 **DMV-Abiturpreis**, Award for excellent performance in high school mathematics.

Presentations (selection)

- 11/2025 **Linacre College**, Seminar Series
- 10/2025 **University of Oxford**, Behavioural Lab
- 09/2025 **IMOL Workshop**, Keynote
- 06/2025 **RLDM Conference**, Workshop on "Principles of intrinsic motivations"
- 06/2024 **University College London**, Affective Brain Lab Meeting
- 10/2023 **Donders Institute**, Stress and Control Meeting
- 08/2023 **University College London**, Affective Brain Lab Meeting
- 11/2022 **Harvard University**, Computational Cognitive Neuroscience Lab Meeting
- 09/2022 **Bernstein Conference**, Workshop on "Surprise in the brain: Theory and Experiments"
- 05/2022 **University of Tübingen**, Motivation Science Lab Meeting
- 04/2022 **IMOL Workshop**, Contributed Talk
- 03/2022 **Cosyne**, Workshop on "The what, how and when of learning"
- 02/2022 **Kortizes Institut**, Lecture Series "Vom Reiz der Sinne"
- 12/2021 **University of Edinburgh**, Computational Cognitive Science Lab Meeting
- 07/2021 **CogSci Conference**, Workshop on "Using Games to Understand Intelligence"

Teaching Experience

- 2025 **How to Build a Brain from Scratch**, Tutor, University of Oxford
- 2021-2024 **Methods of Neuropsychology**, Guest Lecturer, University of Tübingen
- Summer 2022 **Computational Modelling**, Teaching Assistant, University of Tübingen
- Winter 2014 **Computer Science 1**, Teaching Assistant, Hochschule der Medien, Stuttgart

Mentoring

- 2022-2024 **Silja Kessler**, BSc Student, MPI for Biological Cybernetics
- 2021-2022 **Surabhi N. Nath**, Master Thesis, MPI for Biological Cybernetics
- 2020-2021 **Lena J. Stocks**, Master Thesis, MPI for Biological Cybernetics

Professional Service

SERVICE

- 2026 **PuG Workshop Organization**, "Curiosity And Intrinsic Motivation: Toward A Cross-Disciplinary Framework From Theory To Practice"
- 2025 **RLDM Workshop Organization**, "Principles of intrinsic motivations"
- 2022 **Bernstein Workshop Organization**, "Surprise in the brain: Theory and Experiments"
- 2021 **CogSci Workshop Organization**, "Using Games to Understand Intelligence"
- 2021-present **Peer Review**, Nature Human Behaviour, Cognition, Behavior Research Methods, Open Mind, CogSci, CCN, NeurIPS Workshops
- 2023-2024 **Equal Opportunities Officer**, Max Planck Institute for Biological Cybernetics
- 2022-2023 **Equal Opportunities Officer (Deputy)**, Max Planck Institute for Biological Cybernetics
- 2020-2023 **PhD Representative**, Max Planck Institute for Biological Cybernetics

OUTREACH

- 2025 - 2026 **Engagement Ambassador**, Experimental Psychology Department, University of Oxford
- 2025 **Podcast Interview**, Behind the Screens
- 2023 **TV Interview**, SWR - Science Talk
- 2023 **Newspaper Interview**, Schwäbisches Tagblatt
- 2021 **Radio Interview**, SWR2 Tandem
- 2020 **Newspaper Interview**, Stuttgarter Zeitung

Personal Development

- 2023 **Barcelona Summer School for Advanced Modeling of Behavior**,
- 2023 **International Summer School on AI and Games**,
- 2022 **International Interdisciplinary Computational Cognitive Science Summer School**,
- 2021 **ELLIS doctoral symposium**,

Public Service

- 2025-pres. **President of the Linacre Drama Society**, Production of stage plays
- 2014-pres. **Member of the club „Kreativ in den Ferien e.V.“**, Organization of theatre weeks for children
- 2017-2019 **Member of the club "Ostensibles e.V."**, Production of stage plays
- 2015-2018 **2. chairman of the club „Kreativ in den Ferien e.V.“**,
- 2014-2017 **Leadership of the drama group at Hochschule der Medien**, Production of stage plays