

# Xiaoyan “Cheyenne” Wu

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*In coming postdoc position at the University of Zurich’s Department of Adult Psychiatry and Psychotherapy, Zurich, Switzerland*

## Work Experience

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**University of Zurich**, Department of Adult Psychiatry and Psychotherapy **Starting in 2024/12**  
*Postdoctoral researcher in Computational Psychiatry* *Zurich, Switzerland*

- Supervisor: Prof. Philipp Homan.

## Education

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**Beijing Normal University**, School of Psychology **2020/09-2024/10**  
*PhD in Cognitive Neuroscience (Cum-GPA: 3.38/4.0)* *Beijing, China*

- Supervisor: Prof. Chao Liu, Co-Supervisor: Prof. Hang Zhang (Peking University)

**University of Zurich**, Zurich Center for Neuroeconomics **2021/12-2024/01**  
*PhD in Neuroeconomics (Exchange)* *Zurich, Switzerland*

- Supervisor: Prof. **Christian C. Ruff** (This is a two-year exchange program as part of my PhD. I study the neurocomputational components of trust during the exchange)

**Shenzhen University**, Department of Psychology **2017/09-2020/07**  
*MSc in Psychology (Cum-GPA: 3.28/4.0)* *Shenzhen, China*

- Supervisor: Prof. Yuejia Luo

**Zhuhai College of Jilin University**, Business School **2015/09-2017/07**  
*BS in Economics and Business Administration (Cum-GPA: 3.26/4.0)* *Zhuhai, China*

## Training

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**MRI User Training with Qualified Certificate** **2022/06-2023/06**  
*University Hospital Zurich* *Zurich, Switzerland*

**The 2023 Neuroeconomics Summer School** **2023/07**  
*University of Pennsylvania* *Philadelphia, PA, USA*

**Computational Psychiatry Course Zurich 2022** **2022/09**  
*University of Zurich* *Zurich, Switzerland*

## Publications

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### Under-review:

1. **Wu, X.**, Fu, H., Aydogan, G., ...& Liu, C.(2024). The Selfishness of Adolescents Overrides Cooperation in Social Dilemmas. *Under review*.

### Published:

2. **Wu, X<sup>#</sup>.**, Ren<sup>#</sup>, X., Liu, C., & Zhang, H.(2024). The motive cocktail in altruistic behaviors. *Nature Computational Science*. [DOI](#)
3. **Wu, X.**, Zhu, R., & Liu, C.(2024). A Cognitive Computational Mechanism for Mutual Cooperation: The Roles of Positive Expectation and Social Reward. *Acta Psychologica Sinica (Best Chinese Journal)*. [DOI](#)

4. Wang, H., **Wu, X.**, ... & Qin, S. (2024). Acute stress during witnessing injustice shifts third-party interventions from punishing the perpetrator to helping the victim. *PLOS Biology* DOI
5. Jin, K., Wu, J., Zhang, S., **Wu, X.**, Gu, R., Liu, Chao. (2024). Observing heroic behavior and its gender difference in immersive virtual environments. *Proceedings of the National Academy of Sciences*. DOI
6. **Wu, X.**, Zhu, R., Gong, X., Luo, Y., & Liu, C.(2023). Social incentives foster cooperation through guilt aversion: an effect that diminishes with primary psychopathic traits. *PsyCh Journal*. DOI
7. **Wu, X.**<sup>#</sup>, Feng, C<sup>#</sup>, He, Z., Gong, X., Luo, Y. J., & Luo, Y. (2019). Gender-specific effects of vasopressin on human social communication: An ERP study. *Hormones and behavior* DOI
8. **Wu, X.**, Xu, P., Luo, Y. J., & Feng, C. (2018). Differential effects of intranasal vasopressin on the processing of adult and infant cues: an ERP study. *Frontiers in human neuroscience* DOI
9. **Wu, X.**, Feng, C., Xu, J., He, Z., Luo, Y., & Luo, Y. (2019). The Effects of vasopressin on human social behaviors. *Advances in Psychological Science (Top Chinese Journal)*, DOI

## Selected Poster Presentations

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- **Wu, X.**, Ren X., Liu, C., & Zhang, H. The Neural Signature of "Motive Cocktail" in Altruistic Behavior *21st Annual Society for Neuroeconomics Meeting, Cascais, Portugal, 2024.*
- **Wu, X.**, Bürgi, N., Ruff, C. Cognitive Components of Trust. *Society for Social Neuroscience annual meeting, Tsukuba, Ibaraki Prefecture, Japan, 2024.*
- **Wu, X.**, Ren X., Liu, C., & Zhang, H. The "motive cocktail" in third-party punishment and helping. *21st Annual Society for Neuroeconomics Meeting, Vancouver, British Columbia, Canada, 2023.*
- **Wu, X.**, Bürgi, N., Ruff, C. Cognitive Components of Trust. *21st Annual Society for Neuroeconomics Meeting, Vancouver, British Columbia, Canada, 2023.*

## Teaching

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- Lecturer of Methods in Cognitive Neuroscience at **University of Zurich** **2023/08/10**  
*A lecture aiming to provide a comprehensive introduction to functional Magnetic Resonance Imaging (fMRI) in cognitive neuroscience for high school students preparing for university.*
- Teaching assistant of Social and Affective Neuroscience at **Beijing Normal University** **2020/09-2020/01**  
*Teaching assistant to prof. Chao Liu's Social and Affective Neuroscience course for graduate students.*
- Invited lecture at **National University of Singapore** **2024/07**  
*Invited to teach Methods in Psychological Research and Neuroscience at NUS Business School for a summer school.*

## Advising and Mentorship

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- Advisor of Bachelor's Thesis at **Beijing Normal University** **2021/06-2022/07**  
*Title: The computational mechanisms underlying the effect of favoritism on reciprocity decision-making (Outstanding undergraduate dissertation).*
- Advisor of Bachelor's Thesis at **Beijing Normal University** **2023/06-2024/07**  
*Title: Dynamic learning in human-AI cooperative interaction: a cognitive computational approach (Outstanding undergraduate dissertation).*

## Research Grants

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- Key Projects of Shenzhen University Innovation Development Grant **2019-2020**  
*PI, \$2300*
- Beijing Normal University Doctoral Interdisciplinary Grant **2019-2020**  
*co-PI, \$1500*

## Invited Talks

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- The Socioeconomic Motives for Third-party Punishment and Help **2024/03**  
Invited by Prof. Kazuhisa Takemura at *Department of Psychology, Waseda University*
- The "Motive Cocktail" in Altruistic Behaviors **2024/03**  
Invited by Prof. Yohsuke Ohtsubo  
at *Graduate School of Humanities and Sociology, University of Tokyo*
- Neurocomputational Components of Trust **2024/01**  
Invited by prof. Brian Knutson at *Department of Psychology, Stanford University*
- The "Motive Cocktail" in Altruistic Behaviors **2022/12**  
Invited by prof. Philippe Tobler at *Department of Economics, University of Zurich*
- The Motivations Underlies Human Third-party Punishment and Help **2022/08**  
Invited by prof. Hang Zhang at *Department of Psychology, Peking University*

## Selected Awards

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- S4SN Travailing Award **2024**  
*Travailing Award of Society for Social Neuroscience annual meeting, Tsukuba, Japan.*
- Outstanding Graduates (1%) **2020**  
*Outstanding graduate of Shenzhen University.*
- The First Prize Scholarship (Top 10%) **2019**  
*An academic award that recognizes outstanding achievements during my master's studies.*
- National scholarship (Top 3%) **2018**  
*The highest academic award given by the Chinese government to exceptional undergraduate and postgraduate students.*

## Skills

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- Programing: MATLAB, Python and R. [View code samples.](#)
- EEG/MEG/fMRI and Eye-tracking.
- Excellent communication skills in spoken and written English.
- Fluent in Mandarin, Cantonese and Hokkien.

## References

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- **Chao Liu**  
Professor in *IDG/McGovern Institute for Brain Research, Beijing Normal University*  
liuchao@bnu.edu.cn
- **Christian C. Ruff**  
Professor in *Department of Economics, University of Zurich*  
christian.ruff@econ.uzh.ch

- **Ernst Fehr**

Professor in *Department of Economics, University of Zurich*  
ernst.fehr@econ.uzh.ch

- **Hang Zhang**

Professor in *IDG McGovern Institute for Brain Research, Peking University*  
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