Yang Hu Ph.D.

Associate Professor

School of Psychology and Cognitive Science

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EDUCATION

09/2013 – 04/2017 Ph.D in <u>Psychology & Decision Neuroscience</u> (cum laude)

Center for Economics and Neuroscience (CENs), Institute for Psychology,

University of Bonn, Bonn, Germany

Supervisors: Prof. Dr. Bernd Weber & Prof. Dr. Ulrich Ettinger

Title of the PhD dissertation: Neural and cognitive basis of third-party

altruistic decision-making and its modulators

09/2010 - 06/2013 Master of Science in <u>Psychology & Cognitive Neuroscience</u>

Institute of Cognitive Neuroscience (ICN), School of Psychology and Cognitive Science & Institutes for Advanced Interdisciplinary Research, East China

Normal University (ECNU), Shanghai, China

Supervisor: Dr. Zhao-xin Wang (王兆新博士)

01/2013 – 04/2013 **Visiting Student**

CENs, University of Bonn, Bonn, Germany

09/2006 – 06/2010 Bachelor of Science in <u>Applied Psychology</u> (cum laude)

Department of Applied Psychology, ECNU, Shanghai, China

Supervisor: Dr. Xiao-hong Pan (潘晓红博士)

PROFESSIONAL EXPERIENCE

09/2021 – Present Associate Professor in Social Neuroscience & Social Psychology

Department of Psychology (09/2021 – 07/2023), Department of Social and Managerial Psychology (08/2023 – present), School of Psychology and Cognitive Science, East China Normal University, Shanghai, China

04/2019 – 08/2021 Boya (博雅) Postdoctoral Fellow in Social Neuroscience

Center for Brain and Cognitive Sciences (CBCS), School of Psychological and

Cognitive Sciences, Peking University, Beijing, China

Project: Moral Emotion and Immorality: A Neurocomputation Approach

Co-Supervisor: Prof. Dr. Xiao-lin Zhou (周晓林教授)

05/2017 – 03/2019 **Postdoctoral Fellow in <u>Decision Neuroscience</u>**

Neuroeconomics, Reward and Decision Making Laboratory, Institut des Sciences Cognitives Marc Jeannerod, CNRS, Bron, France

Project: Neurocomputational Basis of Immorality

Co-Supervisor: Dr. Jean-Claude Dreher

RESEARCH INTERESTS

Social Neuroscience & Neuroeconomics

• Neurocomputational mechanism of social/moral decision making (e.g., corrupt behaviors, third-party justice and other moral/immoral behaviors), contexual modulators, and individual differences, combining various neuroscience approaches (esp., fMRI), computational modelling combining with behavioral paradigms.

Social Psychology & Decision-Making

- Computational mechanism of individual social/moral decision making (e.g., corrupt behaviors, third-party justice and other moral/immoral behaviors), contexual modulators, and individual differences, combining large-scale online experiments, personality measures, with computational modelling
- Computation-based application study with the following goals: 1) constructing the predictive
 model of corrupt (and other im/moral) behaviors taking machine learning approaches; 2)
 establishing effective intervention to combat corrupt (and other immoral) behaviors and nudge
 prosocial behaviors

PUBLICATIONS

Note: "*" means corresponding author (CA), "†" means authors equally distributed, "\$" means student mentee/mentor.

Book Chapter

†Hu, Y., †Gao, X., Yu, H., He, Z., & *Zhou, X. (2021). Neuroscience of moral decision making. In S. D. Sala (Ed.), Encyclopedia of Behavioural Neuroscience: Elsevier.

Peer-Reviewed Articles

2021-2023 (in press)

- 1. §Hu, Y., §Qiu, S., Wang, G., Liu, K., Li, W., *Yu, H., *Zhou, X. Are Guilt-Prone Power-Holders Less Corrupt? Evidence from Two Online Experiments. *Social Psychology and Personality Science*, online published.
- 2. †\$Tang, Y., <u>†</u>\$***Hu, Y.**, Zhuang, J., Feng, C., *Zhou, X. Uncovering Individual Variations in Bystander Intervention of Injustice through Intrinsic Brain Connectivity Patterns. *Neuroimage*, in press.
- 3. Liao, J., Ou, J., *Hu, Y., Tobler, P. N., & *Wu, Y. (2023). Testosterone administration modulates inequality aversion in healthy males: evidence from computational modeling. *Psychoneuroendocrinology*, 106321.
- 4. Tang, Z., *Qu, C., <u>Hu, Y.</u>, Benistant, J., Moisan, F., Derrington, E., & *Dreher, J.-C. (2023). How strength of social ties modulates brain computations for Third-Party Punishment. *Scientific Reports*, 10510.
- 5. **Hu, Y.**, †Philippe, R., †Guigon, V., †Zhao, S., Derrington, E., Corgnet, B., . . . *Dreher, J.-C. (2022). Perturbation of right dorsolateral prefrontal cortex makes power holders less resistant to tempting bribes. *Psychological Science*, *33*(3), 412-423.
- 6. <u>Hu, Y.</u>, Hu, C., Derrington, E., Corgnet, B., *Qu, C., & Dreher, J.-C. (2021). Neural basis of corruption in power-holders. *eLife*, *10*, e63922..
- 7. †Hu, Y., †Pereira, A., Gao, X., Campos, B., Derrington, E., Zhou, X., Cendes, F., *Dreher, J-C. (2021). Right temporoparietal junction underlies avoidance of moral transgression in Autism Spectrum Disorder. *Journal of Neuroscience*, 41(8), 1699-1715.
- 8. Hu, J., †Hu, Y., †Li, Y., *Zhou, X. (2021). Computational and neurobiological substrates of cost-benefit integration in altruistic helping decision. *Journal of Neuroscience*, 41(15), 3545-3561.
- 9. †Ou, J., †*Wu, Y., <u>Hu, Y.</u>, Gao, X., *Li, H., & Tobler, P. N. (2021). Testosterone reduces generosity through cortical and subcortical mechanisms. *Proceedings of the National Academy of Sciences*, *118*(12), e2021745118.

2017-2020

- 10. †*Qu, C., <u>†*Hu, Y.</u>, Tang, Z., *Dreher, J-C. (2020). Neurocomputational mechanisms underlying flexible immoral decisions benefiting self and others: an fMRI investigation. *Social Cognitive and Affective Neuroscience*, nsaa029.
- 11. Wu, Y., Zhang, Y., Ou, J., <u>Hu, Y.</u>, & Zilioli, S. (2020). Exogenous testosterone increases the audience effect in healthy males: evidence for the social status hypothesis. *Proceedings of the Royal Society B:*

- Biological Sciences, 287(1931).
- 12. **Hu, Y., *Ma, J., *Luan, Z., Dubas, J., *Xi, J. (2019). Indirect reciprocity in adolescents: Evidence from incentivized inequality-related economic paradigms. *Journal of Adolescence*, 74, 221-228.
- 13. †Hu, Y., †*Fiedler, S., Weber, B. (2019). What drives the (un)empahtic bystander to intervene? Insights from eye-tracking. *British Journal of Social Psychology*, *9*(*3*), 733-751.
- 14. †Weng, X., †Li, Q., †Ma, Y., Peng. Y., <u>Hu, Y.</u>, Zhou, K., Shen, F., *Wang H., & *Wang, Z. (2019). Effects of hunger on visual perception in binocular rivalry. *Frontiers in Psychology*, 12.
- 15. *Hu, Y., †He, L., †Zhang, L., Wölke, T., Dreher, J-C., Weber, B. (2018) Spreading Inequality: Neural computations underlying pay-it-forward reciprocity. *Social Cognitive and Affective Neuroscience*, nsy040.
- 16. <u>Hu, Y.</u>, Cui, Z., Fan, M., Pei, Y., & *Wang, Z. (2018). Effects of acute alcohol intoxication on empathic neural responses for pain. *Frontiers in Human Neuroscience*, 11.
- 17. †Shen, F., †Hu, Y., Fan, M., *Wang, H., & *Wang, Z. (2018). Racial bias in neural response for pain is modulated by minimal group. *Frontiers in Human Neuroscience*, 11.
- 18. †SDavid, B., **SHu, Y., Krüger, F., Weber, B. (2017). Other-regarding attention can modulate third-party altruistic choice: An fMRI study. *Scientific Reports*, 7, 43024.
- 19. *Yin, L., <u>Hu, Y.</u>, Dynowsky, D., Li, J., Weber, B. (2017). The good lies: Altruistic goals modulate processing of deception in the anterior insula. *Human Brain Mapping*, *38*(7), 3675-3690. doi:10.1002/hbm.23623
- 20. *Strang, S., Gerhardt, H., Marsh, N., Artigas, S. O., <u>Hu, Y.</u>, Hurlemann, R., Park, S. Q. (2017). A matter of distance: the effect of oxytocin on social discounting is empathy-dependent. *Psychoneuroendocrinology*, 78, 229-232.

Before 2017

- 21. *Hu, Y., Scheele, D., Becker, B., Voos, G., David, B., Hurlemann, R., & Weber, B. (2016). The effect of oxytocin on third-party altruistic decisions in unfair situations: An fMRI study. *Scientific Reports*, 6.
- 22. Yan, C., Su, L., Wang, Y., Xu, T., Yin, D., Fan, M., Deng, C., <u>Hu, Y.</u>, ... Chan, R.C.K. (2016). Multivariate Neural Representations of Value during Reward Anticipation and Consummation in the Human Orbitofrontal Cortex. *Scientific Reports*, 6, 29079.
- 23. †*Hu, Y., †Strang, S., Weber, B. (2015) Helping or punishing strangers: Neural correlates of altruistic decisions as third-party and of its relation to empathic concern. *Frontiers in Behavioral Neuroscience*, 9:24.
- 24. Enax, L., <u>Hu, Y.</u>, Trautner, P., *Weber, B. (2015) Nutrition labels influence value computation of food products in the ventromedial prefrontal cortex. *Obesity*, 2015, *23*(4), 786-792.
- 25. †Sun D., †Chan, C. C. H., <u>Hu, Y.</u>, *Wang, Z., *Lee, T. M. C. (2015) Neural correlates of the outcome processing of dishonest choices: An fMRI and ERP study. *Neuropsychologia*, 68, 148-157.
- 26. †Zhang, Y., †Hu, Y., Guan, S., Hong, X., Wang, Z., *Li, X. (2014) Neural substrate of initiation of cross-modal working memory retrieval. *PLoS ONE*, *9* (8): e103991.
- 27. *Pan, X., <u>Hu, Y.</u>, Li, L., Li, J. (2009) Evaluative-feedback stimuli selectively activate self-related regions: An fMRI study. *Neuroscience Letters*, *465*, 90-94.

AWARDS & FELLOWSHIPS (SELECTED)

- Boya Postdoctoral Fellowship of Peking University (2019 2021)
- State Fund of The China Scholarship Council (No. 201306140034; 2013 –2017)
- The Fund of ECNU for Overseas Studies, International Conferences and Domestic Scholarly Visit (2013)
- National Scholarship for Reducing Tuition during Graduate Study (2010 2013)
- Excellent Undergraduate Award, Shanghai (2010)
- National Scholarship for Undergraduate Student (2009, 2010)

FUNDING

"The influence of guilt on corrupt behavior: moderation of the person to whom the guilt is directed and the underlying neurocognitive basis" (32200853; 01/2023-12/2025; Active), PI, supported by National Natural Science Foundation of China

"Corrupt behaviors and interpersonal relationship: evidence from computational modeling and brain imaging" (23ZR1418400; 04/2023-03/2026; Active), PI, supported by Natural Science Foundation of Shanghai

"Key brain bases of social and moral behaviors" (Subproject of the STI 2030-Major Projects; 2021ZD0200500; 09/2026 – 09/2026; Active), PI, supported by Ministry of Science and Technology, China

"Psychological research on corruption" (2022ECNU-XWK-XK003; 06/2023-05/2025; Active), PI, supported by the Fundamental Research Funds for the Central Universities, Ministry of Education, China

"Neurocomputational basis of third-party justice: perspectives from decision process" (2019M660007; 11/2019 – 03/2021; Complete), PI, supported by China Postdoctoral Science Foundation

"The optimal procedures, mechanisms, and modelling of group decision-making: An investigation based on behavioral and neural data" (71942001; 01/2020 – 12/2024; Active), Participant, supported by National Natural Science Foundation of China

TEACHING

Undergraduate Course

- "Introduction to Methods for Cognitive Science" (Fall semesters: 2022, 2023)
- "Seminar for Research on Social Psychology" (Spring semesters: 2023, 2024)
- "Introduction to Psychology" (For psychology minor; Fall semesters: 2022, 2023)

Graduate Course

- "Introduction to Research on Psychology" (With other colleagues; Fall semesters: 2022, 2023)
- "Advanced Methods in Research on Psychology" (With other colleagues; Fall semesters: 2022, 2023)

OTHER ACADEMIC TRAINING/EXPERIENCE (SELECTED)

17/07/2017 - 29/07/2017	2017 Neuroeconomics Summer School
	New York University-Shanghai, Shanghai, China
10/10/2016 - 12/10/2016	Course on Bayesian Statistics and Bayesian Cognitive Modelling
	University Hospital Hamburg-Eppendorf (UKE), Hamburg, Germany
29/08/2016 - 01/09/2016	Course on Computational Psychiatry
	Swiss Federal Institute of Technology (ETH), Zürich, Switzerland
15/08/2014 - 22/08/2014	The 2 nd European Association for Decision Making (EADM) Summer School
	MPI for Research on Collective Goods, Bonn, Germany

ACADEMIC SURVICE

Board member of the Society for Psychology and Social Governance, division of the Chinese Psychological Society (CPS)

Junior academic director of the undergraduate class of the "Psychology + Computer Science" double major, School of Psychology and Cognitive Science, East China Normal University

Member of following associations/societies:

- Chinese Psychological Society (CPS)
- Society for Neuroeconomics
- The Social & Affective Neuroscience Society (SANS)
- Association for NeuroPsychoEconomics
- Organization for Human Brain Mapping (OHBM)
- European Association for Decision Making (EADM)
- Open Science Collboration (OSF)

Ad hoc reviewer for the following journals:

- Neuroimage
- Neuropsychopharmocology
- Cognitive, Affective & Behavioral Neuroscience
- Journal of Experimental Social Psychology
- Journal of Neuroscience, Economics and Psychology
- Psychoneuroendocrinology

[&]quot;Seminar for Research on Social Emotion and Decision-Making" (With Dr. Xiaoxue Gao; Fall semester: 2022)

[&]quot;The Psychology of Anti-Corruption: A Multidisciplinary Approach" (Spring semesters: 2024)

[&]quot;Advance in Research on Psychology" (With other colleagues; Spring semesters: 2023, 2024)

CV of Yang Hu

- Journal of Cognitive Neuroscience
- Scientific Reports
- iScience
- Ethics & Behavior
- Asian Journal of Business Ethics
- 心理科学进展
- 心理科学