Pengda Wang

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Education

Rice University   Houston, TX
Ph.D. in Industrial Organizational Psychology   *Anticipated: May 2028*
GPA: Psychology: 4.0/4.0

Rice University   Houston, TX
M.A. in Industrial Organizational Psychology; Qualifying Exams   *Oct 2025*
GPA: Psychology: 4.0/4.0
Master Thesis: *"I've read your stories, I know who you are": Reliability, validity, and interpretability of generative AI personality ratings*
Committee Members: Dr. Frederick L. Oswald (Chair), Dr. Tianjun Sun, Dr. Hanjie Chen

University of Minnesota-Twin Cities   Minneapolis, MN
B.S. in Psychology; B.A. in Computer Science   *Sep 2019 – May 2023*
GPA: Psychology: 3.9/4.0; Computer Science: 4.0/4.0

Research Interests

1. Personnel selection (e.g., faking, bias, machine learning applications, responsible artificial intelligence use).

2. Individual differences (e.g., personality traits and facets, dark personalities, social behaviors).

3. Psychometrics & Research methods (e.g., SEM, computational measurement, big data approaches).

4. Cross-cultural psychology (e.g., measurement invariance, tech-based/large-scale assessments).

Publications

1. Zou, H., **Wang, P.**, Yan, Z., Sun, T., & Xiao, Z. (2025). Can LLM "self-report"?: Evaluating the validity of self-report scales in measuring personality design in LLM-based chatbots. *Conference on Language Modeling (COLM 2025).* https://doi.org/10.48550/arXiv.2412.00207

2. **Wang, P.**, Loignon, A. C., Shrestha, S., Banks, G. C., & Oswald, F. L. (2024). Advancing organizational science through synthetic data: A path to enhanced data sharing and collaboration. *Journal of Business and Psychology.* https://doi.org/10.1007/s10869-024-09997-w [**Editor Commendation (top 22 out of 1600 articles)**]

3. **Wang, P.**, Myeong, H., & Oswald, F. L. (2024). On putting the horse (raters and criteria) before the cart (variance components in ratings). *Industrial and Organizational Psychology*, 1–5. https://doi.org/10.1017/iop.2024.16

4. **Wang, P.***, Xiao, Z.*, Chen, H., & Oswald, F. L. (2024). Will the real Linda please stand up. . .To large language models? Examining the representativeness heuristic in LLMs. *Conference on Language Modeling (COLM 2024).* https://doi.org/10.48550/arxiv.2404.01461 [**Oral spotlight presentation (top 2%)**]

5. Myeong, H., **Wang, P.**, & King, E. B. (2024). The weight of beauty in psychological research. *Industrial and Organizational Psychology, 17*(1), 111–114. https://doi.org/10.1017/iop.2023.87

Pre-prints

1. Jiang, H.*, **Wang, P.***, Yi, X., Xie, X., & Xiao, Z. (2025). The incomplete bridge: How AI research (mis)engages with psychology. *arXiv (Cornell University).* https://doi.org/10.48550/arXiv.2507.22847

2. **Wang, P.**, Zou, H., Chen, H., Sun, T., Xiao, Z., & Oswald, F. L. (2025). Personality structured interview for large language model simulation in personality research. *arXiv (Cornell University).* https://arxiv.org/abs/2502.12109

3. Sylvara, A., **Wang, P.**, Sun, T., Heimann, A. L., & Ingold, P. V. (2025). Automating personality-based employment interviews: Development and validation of an artificial intelligence chatbot. *PsyArXiv*. https://doi.org/10.31234/osf.io/9ktmf_v3

4. Yang, Y.*, **Wang, P.***, Plonsky, L. D., Oswald, F. L., & Chen, H. (2024). From babbling to fluency: Evaluating the evolution of language models in terms of human language acquisition. *arXiv (Cornell University)*. https://doi.org/10.48550/arXiv.2410.13259

5. **Wang, P.**, Zou, H., Yan, Z., Guo, F., Sun, T., Xiao, Z., & Zhang, B. (2024). Not yet: Large language models cannot replace human respondents for psychometric research. *PsyArXiv*. https://doi.org/10.31219/osf.io/rwy9b

Manuscripts Under Revision and Review

1. Xuan, K., **Wang, P.**, Yu, H., August, T., & You, J. (under review). TITLE REMOVED FOR BLIND REVIEW. [Topic: high fidelity social interaction environment for multi-agents evaluation] *ICLR 2025*.

2. **Wang, P.**, Zou, H., Yan, Z., Guo, F., Sun, T., Xiao, Z., & Zhang, B. (1st revise & resubmit). TITLE REMOVED FOR BLIND REVIEW. [Topic: Compare large language models vs. human respondents for psychometric research]. *Psychological Methods*.

3. **Wang, P.**, Zou, H., Chen, H., Sun, T., Yi, X., Xiao, Z., & Oswald, F. L. (under review). TITLE REMOVED FOR BLIND REVIEW. [Topic: Personality structured interview data for large language model personality simulation] *ICLR 2025*.

4. Yan, Z., Li, Y., **Wang, P.**, Chu, C., Sun, T., Zhang, B., & Xiao, Z. (under review). TITLE REMOVED FOR BLIND REVIEW. [Topic: Reliability and validity in Human-Computer Interaction research measurements]. *ACM Transactions on Computer-Human Interaction*.

5. Yang, Y.*, **Wang, P.***, Plonsky, L. D., Oswald, F. L., & Chen, H. (under review). TITLE REMOVED FOR BLIND REVIEW. [Topic: Linguistic theory and psycholinguistic theory view of language model development]. *Transactions of the Association for Computational Linguistics*.

6. Sylvara, A., **Wang, P.**, Sun, T., Heimann, A. L., & Ingold, P. V. (1st revise & resubmit). TITLE REMOVED FOR BLIND REVIEW. [Topic: AI chatbot personality-based employment interview]. *Journal of Occupational and Organizational Psychology*.

Conference Presentations

1. Zou, H., **Wang, P.**, Yan, Z., Sun, T., & Xiao, Z. (2025). Can LLM "self-report"?: Evaluating the validity of self-report scales in measuring personality design in LLM-based chatbots. [Poster]. Conference on Language Modeling (COLM 2025), Montreal, QC, Canada.

2. **Wang, P.**, Sylvara, A., Sun, T., Hebl, M. R., & Oswald, F. L. (2025). Differential embedding dimension functioning in natural language processing for psychological assessment. [Oral presentation]. International Meeting of the Psychometric Society (IMPS 2025), Minneapolis, MN, United States.

3. **Wang, P.**, & Oswald, F. L. (Co-Chairs) (2025). Bridging Disciplines: How Computer Science and I-O Psychology Benefit Each Other. [Alternative Session Type]. Society for Industrial and Organizational Psychology Annual Conference (SIOP 2025), Denver, CO, United States.

4. **Wang, P.**, Zou, H., Yan, Z., Guo, F., Sun, T., Xiao, Z., & Zhang, B. (2025). Not yet: Large language models cannot replace human respondents for psychometric research. In Hickman, L., & Liu, M.(Co-Chairs) (2025). Machine learning for I-O 7.0: Large language models for assessments. [Symposium]. Society for Industrial and Organizational Psychology Annual Conference (SIOP 2025), Denver, CO, United States.

5. **Wang, P.**, Sylvara, A., Sun, T., Hebl, M. R., & Oswald, F. L. (2025). Differential embedding dimension functioning in natural language processing for psychological assessment. In Hou, D. X., & Sun, T. (Co-Chairs) (2025). Innovations in AI assessment of individual differences: Improving validity and equity. [Symposium]. Society for Industrial and Organizational Psychology Annual Conference (SIOP 2025), Denver, CO, United States.

6. **Wang, P.***, Xiao, Z.*, Chen, H., & Oswald, F. L. (2024). Will the real Linda please stand up. . .To large language models? Examining the representativeness heuristic in LLMs. [Oral presentation]. Conference on Language Modeling (COLM 2024), Philadelphia, PA, United States. [**Oral spotlight presentation (top 2%)**]

7. **Wang, P.**, & Oswald, F. L. (2024). Leveraging synthetic data for advancements in organizational research. In Liou, G., & Tay, L. (Co-Chairs) (2024). Future of performance prediction and evaluation: Artificial intelligence and big data. [Symposium]. Society for Industrial and Organizational Psychology Annual Conference (SIOP 2024), Chicago, IL, United States.

8. Wu, F., **Wang, P.**, & Oswald, F. L. (2024). The influence of disability and career challenges on vocational interests. In Hoff, K. A. (Chair) (2024). To RIASEC and beyond: Advances in vocational interest research. [Symposium]. Society for Industrial and Organizational Psychology Annual Conference (SIOP 2024), Chicago, IL, United States.

Selected Works in Progress

1. **Wang, P.**, Chen, H., Sun, T., & Oswald, F. L. (internal review stage). "I've read your stories, I know who you are": Reliability, validity, and interpretability of generative AI personality ratings. [Master Thesis]

2. **Wang, P.**, Sylvara, A., Sun, T., Hebl, M. R., & Oswald, F. L. (internal review stage). Differential embedding dimension functioning in natural language processing for psychological assessment. Target: *Journal of Applied Psychology.*

3. Sylvara, A., **Wang, P.**, Sargent, M., Gregg, E., Heron, X., & Sun, T. (internal review stage). Examining the faking resistance of an AI chatbot personality interview. Target: *Journal of Applied Psychology.*

4. **Wang, P.**, Su, J., Sun, T., & Oswald, F. L. (writing stage). Synthetic text, real insights: Generation, evaluation, and trade-offs in synthetic textual data for organizational research. Target: *Organizational Research Methods.*

5. **Wang, P.**, Xia, H., Chen, H., Sun, T., Behrend, T. S., & Oswald, F. L. (experiment stage). When models miss the shot: Bias in vision-language model performance evaluation. Target: *Science.*

Research Grants Funded

Rice University, CIISR Graduate Research Fellowship (2025).	$1,500
OpenAI, Researcher Access Program (2024).	$5,000
University of Minnesota, Mortensen Research Award & CLA Research Scholarship (2023).	$1,500

Teaching Experience

Teaching Assistant	Advanced Psychological Statistics
Rice University	*Houston, TX*
Teaching Assistant	Computational Linear Algebra
University of Minnesota-Twin Cities	*Minneapolis, MN*

Internship, Research and Work Experience

ML/AI Ph.D. Resident	May 2025 – Present (end in December)
Midjourney, Inc	*San Francisco, CA*
Chili Lab Research Assistant	August 2024 – Present
Rice University	*Houston, TX*

SMART Lab Research Assistant	August 2024 – Present
Rice University	*Houston, TX*
Organization & Workforce Lab Research Assistant	August 2023 – Present
Rice University	*Houston, TX*
CFL Lab Research Assistant	May 2022 – May 2023
University of Minnesota-Twin Cities	*Minneapolis, MN*
TNT Lab Research Assistant	Apr 2021 – May 2023
University of Minnesota-Twin Cities	*Minneapolis, MN*
Ones' Green Lab Research Assistant	June 2020 – July 2022
University of Minnesota-Twin Cities	*Minneapolis, MN*

Service

Conference on Language Modeling (COLM) Reviewer	2025 - Present
Conference on Neural Information Processing Systems (NIPS) Reviewer	2025 - Present
Society for Industrial and Organizational Psychology Annual Conference (SIOP) Reviewer	2024 - Present
Conference on Human Factors in Computing Systems (CHI) Reviewer	2024 - Present

Professional Affiliations

Academy of Management, *Member*
American Psychological Association, *Member*
Association for Psychological Science, *Member*
Society for Industrial and Organizational Psychology, *Member*

Skills

Languages: Python, R, Java, C, C++, JavaScript, HTML/CSS, SQL,
Developer Tools: Git, Google Cloud Platform, VS Code, PyCharm, IntelliJ, Eclipse
Software: Microsoft Word, Excel, PowerPoint, Access, Google Workspace

Professional References

Dr. Frederick L. Oswald
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Rice University
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Dr. Tianjun Sun
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Rice University
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