

Pengda Wang

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Education

Rice University

Ph.D. in Industrial Organizational Psychology

GPA: Psychology: 4.0/4.0

Houston, TX

Anticipated: May 2028

Rice University

M.A. in Industrial Organizational Psychology

GPA: Psychology: 4.0/4.0

Houston, TX

Oct 2025

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

B.S. in Psychology; B.A. in Computer Science

GPA: Psychology: 3.9/4.0; Computer Science: 4.0/4.0

Minneapolis, MN

Sep 2019 – May 2023

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/9ktnmf.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. **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*.
2. **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*.
3. 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*.
4. 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*.
5. 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. **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.
2. **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.
3. **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.
4. **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.

5. **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]. The Conference on Language Modeling (COLM 2024), Philadelphia, PA, United States. [**Oral spotlight presentation (top 2%)**]
6. **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.
7. 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.**, Sylvara, A., Sun, T., Hebl, M. R., & Oswald, F. L. (writing stage). Differential embedding dimension functioning in natural language processing for psychological assessment. Target: *Journal of Applied Psychology*.
2. **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*.
3. **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]
4. Sylvara, A., **Wang, P.**, Sargent, M., Gregg, E., Heron, X., & Sun, T. (writing stage). Examining the faking resistance of an AI chatbot personality interview. Target: *Journal of Applied Psychology*.
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 <i>Rice University</i>	Advanced Psychological Statistics <i>Houston, TX</i>
Teaching Assistant <i>University of Minnesota-Twin Cities</i>	Computational Linear Algebra <i>Minneapolis, MN</i>

Internship, Research and Work Experience

ML/AI Ph.D. Resident <i>Midjourney, Inc</i>	May 2025 – Present <i>San Francisco, CA</i>
Chili Lab Research Assistant <i>Rice University</i>	August 2024 – Present <i>Houston, TX</i>
SMART Lab Research Assistant <i>Rice University</i>	August 2024 – Present <i>Houston, TX</i>
Organization & Workforce Lab Research Assistant <i>Rice University</i>	August 2023 – Present <i>Houston, TX</i>
CFL Lab Research Assistant <i>University of Minnesota-Twin Cities</i>	May 2022 – May 2023 <i>Minneapolis, MN</i>

TNT Lab Research Assistant

University of Minnesota-Twin Cities

Ones' Green Lab Research Assistant

University of Minnesota-Twin Cities

Apr 2021 – May 2023

Minneapolis, MN

June 2020 – July 2022

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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