

**Tianfang Han**  
**CURRICULUM VITAE**  
University of Idaho

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**EDUCATION:**

**Degrees:**

- 2023 Ph.D., Cognitive Psychology  
Purdue University, West Lafayette, IN  
Dissertation Title: "Specific or Nonspecific: Investigating the Effect of Event-Based Sequential Modulation on Temporal Preparation"
- 2020 M.S., Cognitive Psychology  
Purdue University, West Lafayette, IN  
Thesis Title: "Revisiting Variable-Foreperiod Effects: Evaluating the Repetition Priming Account"
- 2014 LL.B., Politics and Public Administration  
Peking University, Beijing, China
- 2014 B.Sc., Psychology (Double Major)  
Peking University, Beijing, China

**Certificates:**

- 2021 Graduate Certificate in Psychological Statistics  
Purdue University, West Lafayette, IN

**EXPERIENCE:**

Assistant Professor, Psychology & Communication, University of Idaho 2023 – present

**AREAS OF SPECIALIZATION:**

Cognitive Psychology, including sensation and perception, attention and cognitive control (or human information processing), learning and memory. Human factors, including engineering design and transportation safety.

**SCHOLARSHIP ACCOMPLISHMENTS:**

**Publications:**

**Han, T.**, & LaCroix, A. N. (2026) Testing the effect of stimulus onset asynchrony on auditory attention using the Attention Network Test. *Frontiers in Psychology*, 17, 1726700. DOI: [10.3389/fpsyg.2026.1726700](https://doi.org/10.3389/fpsyg.2026.1726700)

Lai, J., Yang, F., Li, H., Zhang, J., Feng, Y., **Han, T.**, & Chen, Y. (2026). Advancing Traffic Safety Analysis: A Novel Lightweight Rule-Based and Part-of-Speech Tagging-Based Approach for Information Extraction from Crash Reports. *Journal of Computing in Civil Engineering*, 40(1), 04025105. DOI: [10.1061/JCCEE5.CPENG-6634](https://doi.org/10.1061/JCCEE5.CPENG-6634).

Tian, C., Zhang, C., **Han, T.**, Chen, Y., Zhang, J., & Feng, Y. (2025). Evaluating the impacts of in-vehicle warnings at roundabouts with drivers' performance and eye movement data. *Transportation Research Part F: Traffic Psychology and Behaviour*, 115, 103348. DOI: [10.1016/j.trf.2025.103348](https://doi.org/10.1016/j.trf.2025.103348).

Zhang, C., Tian, C., **Han, T.**, Li, H., Feng, Y., Chen, Y., Proctor, R. W., & Zhang, J. (2025) Evaluation of an Infrastructure-based Warning System: A Case Study on Roundabout Driving Behaviors. *IEEE Transactions on Intelligent Transportation Systems*, 26(5), 6056-6069. DOI: [10.1109/TITS.2025.3548508](https://doi.org/10.1109/TITS.2025.3548508).

Feng, Y., Chen, Y., Zhang, J., Tian, C., Ren, R., **Han, T.**, & Proctor, R. W. (2024). Human-centred design of next generation transportation infrastructure with connected and automated vehicles: a system-of-systems perspective. *Theoretical Issues in Ergonomics Science*, 25(3), 287-315. DOI: [10.1080/1463922X.2023.2182003](https://doi.org/10.1080/1463922X.2023.2182003).

**Han, T.**, Hung, Y. H., Bell, M. R., Hayes, L. G., Chen, Y., Zhang, J., ... & Proctor, R. W. (2023). Experts' Evaluations and Opinions Concerning Deployment of Connected and Autonomous Vehicles. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (p. 21695067231192666). Sage CA: Los Angeles, CA: SAGE Publications. DOI: [10.1177/21695067231192666](https://doi.org/10.1177/21695067231192666).

**Han, T.**, & Proctor, R. W. (2023). Testing the saliency-based account of phasic alertness. *Psychonomic Bulletin & Review*, 1-9. DOI: [10.3758/s13423-023-02292-4](https://doi.org/10.3758/s13423-023-02292-4).

**Han, T.**, & Proctor, R. W. (2023). Effects of a neutral warning signal under increased temporal uncertainty. *Memory & Cognition*, 1-12. DOI: [10.3758/s13421-023-01404-8](https://doi.org/10.3758/s13421-023-01404-8).

Ren, R., Li, H., **Han, T.**, Tian, C., Zhang, C., Zhang, J., ... & Feng, Y. (2023). Vehicle crash simulations for safety: Introduction of connected and automated vehicles on the roadways. *Accident Analysis & Prevention*, 186, 107021. DOI: [10.1016/j.aap.2023.107021](https://doi.org/10.1016/j.aap.2023.107021).

**Han, T.**, & Proctor, R. W. (2022). Change of variable-foreperiod effects within an experiment: A Bayesian modeling approach. *Journal of Cognition*, 5(1). DOI: [10.5334/joc.235](https://doi.org/10.5334/joc.235).

**Han, T.**, & Proctor, R. W. (2022). Revisiting variable-foreperiod effects: Evaluating the repetition priming account. *Attention, Perception, & Psychophysics*, 84(4), 1193-1207. DOI: [10.3758/s13414-022-02476-5](https://doi.org/10.3758/s13414-022-02476-5).

**Han, T.**, & Proctor, R. W. (2022). Effects of a neutral warning signal on spatial two-choice reactions. *Quarterly Journal of Experimental Psychology*, 75(4), 754-764. DOI: [10.1177/17470218211037604](https://doi.org/10.1177/17470218211037604).

#### External Funding:

*Agency:* EPSCoR Research Fellowship (Track 4) 2024 - National Science Foundation  
*Proposal:* Modeling Human Preparation and Anticipation Processes  
*Role:* Principal Investigator  
*Amount:* \$164,597 (ID: 2429405)  
*Status:* Awarded.

*Agency:* Strengthening American Infrastructure - National Science Foundation  
*Proposal:* Collaborative Research: SAI: Human-Centered Design and Enhancement of Next Generation Transportation Infrastructure  
*Role:* Principal Investigator (Co-PI)  
*Amount:* \$150,000  
*Status:* Declined.

*Agency:* National Institute of Food and Agriculture/USDA  
*Proposal:* Improving Microbial Safety of Locally Grown Fresh Produce with Nanotechnology: Consumer and Producer Perceptions  
*Role:* Co-Program Director (Co-PI)  
*Amount:* \$299,998  
*Status:* Pending.

*Agency:* National Science Foundation  
*Proposal:* Collaborative Research: Workload and Stress: A Community of Collaborative Learners Perspective to Identify Stress Levels That Improve Student Outcomes in Technical Classrooms  
*Role:* Principal Investigator (Co-PI)  
*Amount:* \$318,523  
*Status:* Pending.

### Manuscript Submitted for Publication

**Han, T.**, & Proctor, R. W. *Same-Different Matching with Stroop Stimuli*

**Han, T.**, & Proctor, R. W. *Specific or Nonspecific: The Relation Between Temporal Preparation and Stimulus-Response Event Sequence*

Tian, C., Zhang, C., **Han, T.**, Feng, Y., Chen, Y., & Zhang, J. *Using Physiological Data to Understand Drivers' Performance and Workload under Warning Uncertainties: A Driving Simulation Study at Roundabouts*

Zhang, C., Tian, C., **Han, T.**, Chen, Y., Zhang, J., & Feng, Y. *Examining Driving Behaviors and Trust in an In-Vehicle Warning System Under Uncertainty: A Driving Simulator Study*

Rawson, J., Habib, K., Aryal, A., **Han, T.**, Ferenchak, N., & Losada-Rojasa, L. *Eyes on the Road: Disentangling Cyclist Mental Workload at Intersections*

Aryal, A., **Han, T.**, Rawson, J., Habib, K., Ferenchak, N., & Losada-Rojasa, L. *Pulse of the Pedal: ECG-Based Assessment of Stress in Urban Cycling*

### Conference Presentations and Posters:

**Han, T.** (2025, November). *Phasic Alertness Enhances Global Processing of Both Spatial and Non-spatial Visual Information* [Conference spoken presentation]. Psychonomic Society 66th Annual Meeting, Denver, CO, United States.

Zhang, C., Tian, C., **Han, T.**, Feng, Y., Chen, Y., & Zhang, J. (2025, October). *Impacts of In-Vehicle Warning's Reliability on Driver's Trust, Workload and Driving Performance at Roundabouts* [Conference spoken presentation]. 69th HFES Annual Meeting, Chicago, IL, United States.

**Han, T.** (2025, August). *Using Diffusion Decision Model to Analyze the Impact of Phasic Alertness* [Poster presentation] 2025 Annual Convention of the American Psychological Association, Denver, CO, United States.

**Han, T.**, & McDunn, B. (2024, November). *Whether Eye Gaze Causes Spatial Interference Depends on the Visual Context* [Conference poster]. Psychonomic Society 65th Annual Meeting, New York City, New York, United States.

**Han, T.**, Zhang, C., Tian, C., Li, H., Feng, Y., Chen, Y., & Zhang, J. (2024, September). *Impacts of Infrastructure-Assisted In-Vehicle Warning on Driving Behavior and Eye Movement at Roundabouts* [Conference spoken presentation]. 68th HFES Annual Meeting, Phoenix, AZ, United States.

**Han, T.**, Tian, C., Zhang, C., Li, H., Feng, Y., Chen, Y., & Zhang, J. (2024, August). *Combining Different Metrics Provides a More Nuanced Comprehension of Vehicle Interactions in Roundabouts. In Unique Roles of Psychologists in Research to Promote Safe Driving: A Tribute to Robert W. Proctor* [Symposium presentation] 2024 Annual Convention of the American Psychological Association, Seattle, WA, United States.

**Han, T.**, & Proctor, R. W. (2023, November). *Specific or Nonspecific: Investigating the Relation Between Preparation and Stimulus-response Event Sequence* [Conference spoken presentation]. Psychonomic Society

64th Annual Meeting, San Francisco, California, United States.

**Han, T.**, Hung, Y., Bell, M., Hayes, L., Chen, Y., Zhang, J., Feng, Y., & Proctor, R. W. (2023, October). *Experts' Evaluations and Opinions Concerning Deployment of Connected and Autonomous Vehicles* [Conference poster]. 67th HFES Annual Meeting, Washington, DC, United States.

**Han, T.**, & Proctor, R. W. (2022, November). *Specific or Nonspecific? Effect of Stimulus-Response Event Sequence on Temporal Preparation* [Conference poster]. Psychonomic Society 63rd Annual Meeting, Boston, Massachusetts, United States.

Proctor, R. W., **Han, T.**, Hung, Y.-H., Li, H., Ren, R., Tian, C., Zhang, C., Chen, Y., Feng, Y., & Zhang, J. (2022, August). Human-centered design of transportation infrastructure for connected and automated vehicles. In *Contributions of engineering psychology to implementation of connected and automated vehicles (CAVs)* [Symposium presentation] 2022 Annual Convention of the American Psychological Association, Minneapolis, MN, United States.

**Han, T.**, & Proctor, R. W. (2022, April). *Effects of a neutral warning signal on spatial two-choice reactions* [Conference paper talk]. The 94th annual meeting of the Midwestern Psychological Association, Chicago, IL, United States.

**Han, T.**, & Proctor, R. W. (2021, November). *Using Bayesian Modeling to Investigate Whether Variable Foreperiod Effects Systematically Change Over Time Within an Experiment* [Conference spoken presentation]. Psychonomic Society 62nd Annual Meeting, Online.

Proctor, R. W., **Han, T.** (2021, November). *Same-Different Matching with Stroop Color-Word Stimuli* [Conference poster]. Psychonomic Society 62nd Annual Meeting, Online.

**Han, T.**, & Proctor, R. W. (2020, November). *Evaluating the Repetition Priming Account of the Sequential Foreperiod Effect* [Conference poster]. Psychonomic Society 61st Annual Meeting, Online.

**Han, T.**, & Proctor, R. W. (2019, November). *Effects of a Neutral Auditory Warning Signal on Performance of a Two-Choice Spatial Reaction Task* [Conference poster]. Psychonomic Society 60th Annual Meeting, Montréal, Québec, Canada.

## TEACHING ACCOMPLISHMENTS:

### Courses Taught:

PSYC 509 Human Factors in Engineering Design (graduate level; University of Idaho)

PSYC 446 Engineering Psychology (undergraduate level; University of Idaho)

PSYC 325 Cognitive Psychology (undergraduate level; University of Idaho)

### Students Advised:

Undergraduate Students: 37 (supervised the research activity of 7 students)

Served on Honors Thesis Committee  
Annika Jozin

Graduate Students:

Advised to completion of degree-major professor  
Scott Wade, M.S., 05/09/2025

Served on graduate committee  
Rohan Shrestha, Master Thesis Committee  
Jode Keehr, Doctoral Committee

**Courses Developed:**

Human Factors in Engineering Design, an overview and application of key human factors theories, concepts, and principles for design.

Engineering Psychology, an overview of the major topics in engineering psychology, including theories, concepts and principles of system design and human information processing.

Cognitive Psychology, a review of the major topics studied in cognitive psychology including specialized research in perception, memory, learning, reasoning, language, decision making, and many other areas.

**SERVICE:****Departmental:**

Psychology Graduate Program Committee 2023 – present  
Psychology Undergraduate Program Committee 2023 – 2025 Spring  
Faculty Search Committee 2025 Fall

**Professional and Scholarly Organizations:**

**Guest Associate Editor** for *Frontiers in Psychology* (initiator of the currently active article collection – “[Bridging the Divide: Understanding Phasic Alertness and Temporal Preparation](#)”)

**External Reviewer** for:

*American Journal of Psychology*

*Attention, Perception, & Psychophysics*

*Behavior Research Method*

*Experimental Aging Research*

*Psychonomic Bulletin & Reviews*

*IEEE Transactions on Intelligent Vehicles*

*International Journal of Human-Computer Interaction*

National Science Foundation – Program of Perception, Action & Cognition (PAC) – as ad hoc reviewer

Human Factors and Ergonomics Society Annual Meeting – submission reviewer (2023, 2024, 2025) and committee member for Chapanis Best Student Paper Award (2025)

**Active Member** of:

American Psychological Association (Since 2024) – as Communication Chair of Division 21, Applied

Experimental and Engineering Psychology (2024 – 2026)

Human Factors and Ergonomics Society (Since 2018)

Psychonomic Society (Since 2019)