# Han Zhang

POSTDOCTORAL RESEARCH FELLOW

Department of Psychology, University of Michigan

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## Research Interests \_\_\_\_\_

Attention; distraction; mind-wandering; eye movements

## Education\_\_\_\_\_

University of Michigan	Ann Arbor, MI, USA
Postdoctoral Research Fellow, Department of Psychology	06/2020-present
• Advisor: Dr. John Jonides	
University of Michigan	Ann Arbor, MI, USA
Doctor of Philosophy, Education and Psychology	09/2014-05/2020
Dissertation: Mind-wandering: What Can We Learn from Eye Movements?	
University of Michigan	Ann Arbor, MI, USA
Master of Science, Psychology	09/2014-04/2018
Beijing Normal University	Beijing, China
Bachelor of Science, Psychology	09/2010-07/2014

# Awards and Grants\_\_\_\_\_

#### Since Postdoc

Probing attentional allocation with a novel forced-response method	2023
Standard Grant, National Science Foundation	\$659,877
Role: Key Personnel (Postdoc)	
Investigating interference-control in ADHD using a novel forced-response method	2023
R21, NATIONAL INSTITUTE OF MENTAL HEALTH	\$429,000
Role: Key Personnel (Postdoc)	
Before Postdoc	
Stanley E. and Ruth B. Dimond Best Dissertation Award	2020
School of Education, University of Michigan	\$500
Dissertation: Mind-wandering: What Can We Learn from Eye Movements?	
2020 ProQuest Distinguished Dissertation Awards (Nomination)	2020
School of Education, University of Michigan	
Rackham One-Term Dissertation Fellowship	2019
Rackham Graduate School, University of Michigan	\$17417
Rackham Graduate Student Research Grant	2019
Rackham Graduate School, University of Michigan	\$3000
Rackham Conference Travel Grant	2019, 2018, 2017
Rackham Graduate School, University of Michigan	\$1050
Rackham Summer Training Award	2018
Rackham Graduate School, University of Michigan	\$3700
Professor & Mrs. Cho-Yee To Travel Grant	2017, 2015
School of Education, University of Michigan	\$500
China National Scholarship	2014
Ministry of Education of the People's Republic of China	\$1500

The First Rank Academic Scholarship	2014, 2013
Faculty of Psychology, Beijing Normal University	\$300
Beijing Student Research and Entrepreneurial Action Plan	2013
Beijing Municipal Commission of Education	\$1500
Undergraduate Student Research Grant	2012
Faculty of Psychology, Beijing Normal University	\$280

## **Peer-reviewed Articles**

**Zhang, H.**, Miyake, A., Osborne, J., Shah, P., & Jonides, J. (2023). A d factor? Understanding trait distractibility and its relationships with ADHD symptomatology and hyperfocus. *PLOS ONE*, *18*(10), e0292215. https://doi.org/10.1371/journal.pone.0292215

Osborne, J. B., **Zhang, H.**, Carlson, M., Shah, P., & Jonides, J. (2023). The association between different sources of distraction and symptoms of attention deficit hyperactivity disorder. *Frontiers in Psychiatry*, *14*. https://doi.org/10.3389/fpsyt.2023.1173989

Fansher, M., Adkins, T. J., Lalwani, P., Boduroglu, A., Carlson, M., Quirk, M., Lewis, R. L., Shah, P., **Zhang, H.**, & Jonides, J. (2022). Icon arrays reduce concern over COVID-19 vaccine side effects: A randomized control study. *Cognitive Research: Principles and Implications*, 7(1), 38. https://doi.org/10.1186/s41235-022-00387-5

**Zhang, H.**, Abagis, T. R., & Jonides, J. (2021). The malleability of attentional capture. *Visual Cognition*, *29*(9), 571–574. https://doi.org/10.1080/13506285.2021.1915903

**Zhang, H.**, Anderson, N. C., & Miller, K. F. (2021). Scene meaningfulness guides eye movements even during mindwandering. *Attention, Perception, & Psychophysics*. https://doi.org/10.3758/s13414-021-02370-6

**Zhang, H.**, & Jonides, J. (2021). Pre-trial Gaze Stability Predicts Momentary Slips of Attention. *EMICS '21*. https://psyarxiv.com/bv2uc/

**Zhang, H.**, Anderson, N. C., & Miller, K. F. (2020). Refixation Patterns of Mind-wandering during Real-world Scene Perception. *Journal of Experimental Psychology: Human Perception and Performance*, 47(1), 36–52. https://doi.org/10.1037/xhp0000877

**Zhang, H.**, Miller, K. F., Sun, X., & Cortina, K. S. (2020). Wandering eyes: Eye movements during mind wandering in video lectures. *Applied Cognitive Psychology*, 34(2), 449–464. https://doi.org/10.1002/acp.3632

**Zhang, H.**, Qu, C., Miller, K. F., & Cortina, K. S. (2020). Missing the joke: Reduced rereading of garden-path jokes during mind-wandering. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *46*(4), 638–648. https://doi.org/10.1037/xlm0000745

**Zhang, H.**, Miller, K. F., Cleveland, R., & Cortina, K. S. (2018). How listening to music affects reading: Evidence from eye tracking. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 44(11), 1778–1791. https://doi.org/10.1037/xlm0000544

# **Book Chapters**

Michal, A., Fansher, M., Xin, S., **Zhang, H.**, & Shah, P. (2021). Cognitive development: Methods and illustrative examples. In *The oxford handbook of educational psychology*. Oxford University Press.

# **Under Review**

Adkins, T. J., **Zhang, H.**, Jonides, J., & Lee, T. G. (2023). *What happens after an error?* BioArXiv. https://doi.org/10.1101/2022.03.17.484792

Fansher, M., Lalwani, P., Adkins, T. J., **Zhang, H.**, Carlson, M., Boduroglu, A., Lewis, R. L., Jonides, J., & Shah, P. (2023). *Flatten what curve? Helping people make sense of pandemic incidence when public health messaging fails*. https://doi.org/10.1186/s41235-022-00387-5

Lee, T. G., Sellers, J., Jonides, J., & **Zhang, H.** (2023). *The forced-response method: A new chronometric approach to measure conflict processing*. PsyArXiv. https://doi.org/10.31234/osf.io/byzqf

**Zhang, H.**, Abagis, T. R., Steeby, C. J., & Jonides, J. (2023). *Lingering on distraction: Examining distractor rejection in adults with ADHD*. PsyArXiv. https://doi.org/10.31234/osf.io/cqe34

**Zhang, H.**, Miller, K. F., & Jonides, J. (2023). *Does mind-wandering affect distractor suppression?* PsyArXiv. https://doi.org/10.31234/osf.io/2h6kw

**Zhang, H.**, Sellers, J., Lee, T. G., & Jonides, J. (2023). *The Temporal Dynamics of Visual Attention*. PsyArXiv. https://doi.org/10.31234/osf.io/e4ktq

**Zhang, H.**, Xin, S., & Miyake, A. (2023). On the association between the self-control scale and social desirability measures: A meta-analysis and systematic review. PsyArXiv. https://doi.org/10.31234/osf.io/j4vy8

## Selected Presentations.

**Zhang, H.**, Sellers, J., Lee, T., & Jonides, J. (2023, November). *Modeling the temporal dynamics of visual attention*. [Talk session]. The psychonomic society's 64nd annual meeting. San francisco, CA, USA.

**Zhang, H.**, & Jonides, J. (2023, July). *Pretrial stability predicts momentary lapses of attention*. [Talk session]. The current issues in mind-wandering research conference. Heidelberg, germany.

**Zhang, H.**, Adkins, T., Lee, T., & Jonides, J. (2022, November). *How does the priority map change over time?* [Talk session]. The psychonomic society's 63nd annual meeting. Boston, MA, USA.

**Zhang, H.**, Miyake, A., Shah, P., & Jonides, J. (2021, November). *Uncovering the structure of individual differences in distractibility*. [Talk session]. The psychonomic society's 62nd annual meeting. Virtual conference.

**Zhang, H.**, Anderson, N. C., & Miller, K. F. (2020, November). *Mind-wandering during scene perception: On the role of meaning and salience*. [Poster session]. The psychonomic society's 61st annual meeting. Virtual conference.

**Zhang, H.**, Anderson, N. C., & Miller, K. F. (2020, April). *Scan-paths of mind-wandering during real-world scene perception*. [Graduate student research award]. The 92nd annual meeting of the midwestern psychological association (conference canceled due to covid-19).

**Zhang, H.**, Qu, C., Miller, K. F., & Cortina, K. S. (2019, November). *Reduced re-reading of garden-path jokes during mindless reading*. [Poster session]. The psychonomic society's 60th annual meeting. Montreal, québec, canada.

**Zhang, H.**, Miller, K. F., Cortina, K. S., & Jiang, T. (2019, June). *Mind-wandering in college classrooms: A mobile eyetracking study*. [Poster session]. SARMAC XIII. Cape cod, MA, USA.

**Zhang, H.**, & Shah, P. (2019, May). *What can iPhone's screen time tell about your cognitive functioning?* [Poster session]. The association for psychological science annual meeting. Washington, DC, USA.

**Zhang, H.** (2019, April). *Mind-wandering: What can we learn from eye-movements?* [Talk session]. The combined program in education and psychology brownbag. Ann arbor, MI, USA.

**Zhang, H.**, Miller, K. F., & Sun, X. (2019, March). *Scan-paths of mind-wandering during video lectures*. [Poster session]. The international convention of psychological science. Paris, france.

**Zhang, H.**, & Miller, K. F. (2018, November). *How irrelevant speech affects reading: The role of word predictability*. [Poster session]. The psychonomic society's 59th annual meeting. New orleans, LA, USA.

**Zhang, H.**, Miller, K. F., & Sun, X. (2018, May). *The wandering eyes: Mind-wandering during video lectures is associated with oculomotor behaviors*. [Poster session]. The association for psychological science annual meeting. San francisco, CA, USA.

**Zhang, H.**, Miller, K. F., Cleveland, R., & Cortina, K. S. (2016, May). *How listening to music affects reading: Evidence from eye tracking*. [Poster session]. The association for psychological science annual meeting. Chicago, IL, USA.

### **Teaching Experience**

#### PRIMARY INSTRUCTOR

#### EDUC 391: Educational Psychology and Human Development

Course design; weekly lectures; grading assignments and exams; office hours

09/2017 - 12/2017

#### **GRADUATE STUDENT INSTRUCTOR**

PSYCH 457 : Research in Educational and Cross-Cultural Settings	01/2020 - 04/2020
GRADING STUDENT ESSAYS AND EXAMS; OFFICE HOURS; SUPERVISING STUDENT RESEARCH PROJECTS	
PSYCH 457 : Research in Educational and Cross-Cultural Settings	01/2019 - 04/2019
GRADING STUDENT ESSAYS AND EXAMS; OFFICE HOURS; SUPERVISING STUDENT RESEARCH PROJECTS	
PSYCH 111: Introduction to Psychology	01/2018 - 04/2018
Three review sessions per week; grading assignments and exams; office hours	
PSYCH 457 : Research in Educational and Cross-Cultural Settings	01/2017 - 04/2017
GRADING STUDENT ESSAYS AND EXAMS; OFFICE HOURS; SUPERVISING STUDENT RESEARCH PROJECTS	
PSYCH 240: Intro to Cognitive Psychology	09/2016 - 12/2016
Three review sessions per week; grading assignments and exams; office hours	
PSYCH 457 : Research in Educational and Cross-Cultural Settings	01/2016 - 04/2016
GRADING STUDENT ESSAYS AND EXAMS; OFFICE HOURS; SUPERVISING STUDENT RESEARCH PROJECTS	
Global Course Connection: Beijing Normal University	2015 - 2019
Supervising joint research projects between US and Chinese students; organizing student activities	

# Grant-writing Experience

Investigating interference-control in ADHD using a novel forced-response method	2022
R21, NATIONAL INSTITUTE OF MENTAL HEALTH	Funded
Role: Conceptualization; original draft preparation; formal analysis; reviewing & editing	
Probing attentional allocation with a novel forced-response method	2022
National Science Foundation	Funded
Role: Conceptualization; original draft preparation; formal analysis; reviewing & editing	
Testing the efficacy of interactive decision aids on vaccine attitudes and uptake using a Bayesian precision estimates	2022
Merck Investigator Studies Program	Pending
Role: reviewing & editing	
Uncovering mechanisms of interference-resolution with a novel forced-response method	2022
National Science Foundation	Not Funded
Role: Conceptualization; original draft preparation; formal analysis; reviewing & editing	
Dissecting Distractibility by the Capture of Attention	2021
National Science Foundation	Not Funded
Role: Original draft preparation; formal analysis; reviewing & editing	
Mitigating distraction from external and internal sources	2020
National Science Foundation	Not Funded
Role: Original draft preparation; formal analysis; reviewing & editing	
Failure to resist external and internal distraction in ADHD	2019
R01, NATIONAL INSTITUTE OF MENTAL HEALTH	Not Funded
Role: Formal analysis; original draft preparation; reviewing & editing	

# Professional Service

#### OPAM (OBJECT PERCEPTION, ATTENTION, AND MEMORY) WORKSHOP ORGANIZER

- OPAM 31, November 16th 2023, San Francisco, CA, US
- OPAM 32, November 20th 2024, New York City, NY, YS
- http://www.opam.net/

#### STAR (Scholarship, Transferable skills, Academia & Research) Scholars Mentor

- 2018-2020, mentored underrepresented students on academic research engagement and transferable skills.
- https://lsa.umich.edu/psych/undergraduates/star-scholars-program.html

#### AD HOC REVIEWER

- Memory & Cognition
- NeuroImage
- Visual Cognition
- Cognitive Science
- Scientific Studies of Reading
- Frontiers in Psychiatry
- Psychological Research
- Cognition
- Scientific Reports
- Journal of Experimental Psychology: Human Perception and Performance

# References\_\_\_\_\_

John Jonides, Ph.D.	jjonides@umich.edu
Edward E. Smith Professor of Psychology and Neuroscience; Co-Director, functional MRI Center, University	
of Michigan	
Kevin F. Miller, Ph.D.	kevinmil@umich.edu
Professor of Psychology and Education, University of Michigan	
Taraz G. Lee, Ph.D.	tarazlee@umich.edu
Assistant Professor of Psychology, University of Michigan	
Akira Miyake, Ph.D.	akira.miyake@colorado.edu
Professor of Psychology, University of Colorado Boulder	