

# 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

POSTDOCTORAL RESEARCH FELLOW, DEPARTMENT OF PSYCHOLOGY

- Advisor: Dr. John Jonides

Ann Arbor, MI, USA

06/2020-present

### University of Michigan

DOCTOR OF PHILOSOPHY, EDUCATION AND PSYCHOLOGY

- Dissertation: Mind-wandering: What Can We Learn from Eye Movements?

Ann Arbor, MI, USA

09/2014-05/2020

### University of Michigan

MASTER OF SCIENCE, PSYCHOLOGY

Ann Arbor, MI, USA

09/2014-04/2018

### Beijing Normal University

BACHELOR OF SCIENCE, PSYCHOLOGY

Beijing, China

09/2010-07/2014

## Awards and Grants

### SINCE POSTDOC

#### Probing attentional allocation with a novel forced-response method

STANDARD GRANT, NATIONAL SCIENCE FOUNDATION

- Role: Key Personnel (Postdoc)

2023

\$659,877

#### Investigating interference-control in ADHD using a novel forced-response method

R21, NATIONAL INSTITUTE OF MENTAL HEALTH

- Role: Key Personnel (Postdoc)

2023

\$429,000

### BEFORE POSTDOC

#### Stanley E. and Ruth B. Dimond Best Dissertation Award

SCHOOL OF EDUCATION, UNIVERSITY OF MICHIGAN

- Dissertation: Mind-wandering: What Can We Learn from Eye Movements?

2020

\$500

#### 2020 ProQuest Distinguished Dissertation Awards (Nomination)

SCHOOL OF EDUCATION, UNIVERSITY OF MICHIGAN

2020

#### Rackham One-Term Dissertation Fellowship

RACKHAM GRADUATE SCHOOL, UNIVERSITY OF MICHIGAN

2019

\$17417

#### Rackham Graduate Student Research Grant

RACKHAM GRADUATE SCHOOL, UNIVERSITY OF MICHIGAN

2019

\$3000

#### Rackham Conference Travel Grant

RACKHAM GRADUATE SCHOOL, UNIVERSITY OF MICHIGAN

2019, 2018, 2017

\$1050

#### Rackham Summer Training Award

RACKHAM GRADUATE SCHOOL, UNIVERSITY OF MICHIGAN

2018

\$3700

#### Professor & Mrs. Cho-Yee To Travel Grant

SCHOOL OF EDUCATION, UNIVERSITY OF MICHIGAN

2017, 2015

\$500

#### China National Scholarship

MINISTRY OF EDUCATION OF THE PEOPLE'S REPUBLIC OF CHINA

2014

\$1500

## The First Rank Academic Scholarship

FACULTY OF PSYCHOLOGY, BEIJING NORMAL UNIVERSITY

2014, 2013

\$300

## Beijing Student Research and Entrepreneurial Action Plan

BEIJING MUNICIPAL COMMISSION OF EDUCATION

2013

\$1500

## Undergraduate Student Research Grant

FACULTY OF PSYCHOLOGY, BEIJING NORMAL UNIVERSITY

2012

\$280

## Peer-reviewed Articles

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

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

**Zhang, H.**, & Jonides, J. (2021). Pre-trial gaze stability predicts momentary slips of attention. *EMICS '21. ACM CHI '21 workshop on eye movements as an interface to cognitive state*. <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

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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

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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>

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>

Osborne, J., **Zhang, H.**, Carlson, M., Shah, P., & Jonides, J. (2023). *The association between different sources of distraction and symptoms of attention deficit hyperactivity disorder*.

**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.**, Miyake, A., Shah, P., & Jonides, J. (2023). *A d factor? Understanding individual differences in distractibility*. PsyArXiv. <https://doi.org/10.31234/osf.io/5nzs2>

**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

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**Zhang, H.**, Adkins, T., Lee, T., & Jonides, J. (2022, November). *How does the priority map change over time?* Oral presentation at the psychonomic society's 63rd annual meeting.

**Zhang, H.**, Miyake, A., Shah, P., & Jonides, J. (2021, November). *Uncovering the structure of individual differences in distractibility.* Oral presentation at the psychonomic society's 62nd annual meeting.

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

**Zhang, H.**, Anderson, N. C., & Miller, K. F. (2020, April). *Scan-paths of mind-wandering during real-world scene perception.* 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 presented at the psychonomic society's 60th annual meeting.

**Zhang, H.**, Miller, K. F., Cortina, K. S., & Jiang, T. (2019, June). *Mind-wandering in college classrooms: A mobile eye-tracking study.* Poster presented at SARMAC XIII.

Fischer, A., & **Zhang, H.** (2019, May). *Examining the effect of word predictability during mindless reading.* Poster presented at the association for psychological science annual meeting.

**Zhang, H.**, & Shah, P. (2019, May). *What can iPhone's screen time tell about your cognitive functioning?* Poster presented at the association for psychological science annual meeting.

**Zhang, H.** (2019, April). *Mind-wandering: What can we learn from eye-movements?* Oral presentation at the combined program in education and psychology brownbag.

**Zhang, H.**, Miller, K. F., & Sun, X. (2019, March). *Scan-paths of mind-wandering during video lectures.* Poster presented at the international convention of psychological science.

**Zhang, H.**, & Miller, K. F. (2018, November). *How irrelevant speech affects reading: The role of word predictability.* Poster presented at the psychonomic society's 59th annual meeting.

Qu, C., & **Zhang, H.** (2018, May). *All joking aside: Mind-wandering impairs processing of garden-path jokes.* Poster presented at the association for psychological science annual meeting.

**Zhang, H.**, Miller, K. F., & Sun, X. (2018, May). *The wandering eyes: Mind-wandering during video lectures is associated with oculomotor behaviors.* Poster presented at the association for psychological science annual meeting.

**Zhang, H.**, Miller, K. F., Cleveland, R., & Cortina, K. S. (2016, May). *How listening to music affects reading: Evidence from eye tracking.* Poster presented at the association for psychological science annual meeting.

## Teaching Experience

### PRIMARY INSTRUCTOR

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

09/2017 - 12/2017

COURSE DESIGN; WEEKLY LECTURES; GRADING ASSIGNMENTS AND EXAMS; OFFICE HOURS

### 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

## PROGRAM ASSISTANT

## 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

## AD HOC REVIEWER

- Memory & Cognition
- NeuroImage
- Visual Cognition
- Cognitive Science
- Scientific Studies of Reading
- Frontiers in Psychiatry
- Psychological Research
- Cognition
- Scientific Reports

## References

## John Jonides, Ph.D.

jjonides@umich.edu; 734-764-0192

EDWARD E. SMITH PROFESSOR OF PSYCHOLOGY AND NEUROSCIENCE; CO-DIRECTOR, FUNCTIONAL MRI CENTER, UNIVERSITY OF MICHIGAN; SENIOR EDITOR, PSYCHOLOGICAL SCIENCE

## Kevin F. Miller, Ph.D.

kevinmil@umich.edu; 734-615-1800

PROFESSOR OF PSYCHOLOGY AND EDUCATION, UNIVERSITY OF MICHIGAN

**Priti Shah, Ph.D.**

PROFESSOR OF COGNITION & COGNITIVE NEUROSCIENCE AND EDUCATIONAL PSYCHOLOGY, UNIVERSITY OF MICHIGAN

*priti@umich.edu; 734-615-3745*

**Kai S. Cortina, Ph.D.**

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