

ALEXANDER PATRICK BURGOYNE

Department of Psychology, Michigan State University

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EDUCATION

- 2018 – Present Cognition and Cognitive Neuroscience Doctoral Program
Michigan State University, Department of Psychology
Advisor: D. Zach Hambrick, Ph.D.
- 2018 Master's Degree
Cognition and Cognitive Neuroscience
Michigan State University, Department of Psychology
Advisor: D. Zach Hambrick, Ph.D.
Committee: Kimberly M. Fenn, Ph.D. & Lauren J. Harris, Ph.D.
- 2014 Bachelor of Arts in Psychology
Michigan State University, College of Social Science

HONORS AND AWARDS

- 2018 Research Scholars Award, College of Social Science (\$3,500)
- 2018 Thompson Endowment Fellow, College of Social Science (\$1,000)
- 2018 Future Academic Scholars in Teaching Fellow (\$2,000)
- 2018 Funding for Summer Conference Presentations (\$1,100)
- 2018 Research Enhancement Award (\$1,000)
- 2017 Summer Fellowship Award, Michigan State University (\$600)
- 2015 Rasmussen Fellowship Award, Michigan State University (\$5,000)
- 2014 Graduated with Honors

PUBLICATIONS

- Hambrick, D. Z., Altmann, E., & **Burgoyne, A. P.** (in press). A Knowledge-Activation Approach to Testing the Circumvention-of-Limits Hypothesis. *American Journal of Psychology*.

Hambrick, D. Z., **Burgoyne, A. P.**, & Oswald, F. L. "Domain-General Models of Expertise: The Role of Cognitive Ability." To appear in *Oxford Handbook of Expertise: Research and Application*. Eds. Ward, P., Schraagen, J. M., Gore, J., & Roth, E. Oxford: Oxford UP.

Burgoyne, A. P., Hambrick, D. Z., Altmann, E. M. (under review). What Accounts for Individual Differences in Placekeeping Ability? A Test of the Strategy Use Hypothesis.

Burgoyne, A. P., Hambrick, D. Z., Moser, J. S., & Burt, S. A. (under review). Altering Mindsets with a Brief Online Intervention.

Burgoyne, A. P., Nye, C. D., Macnamara, B. N., Charness, N., & Hambrick, D. Z. (under review). The Impact of Domain-Specific Experience on Chess Skill: Re-Analysis of a Key Study.

Mix, K., Hambrick, D. Z., Satyam, V. R., **Burgoyne, A. P.**, Levine, S. C. (under review). The Latent Structure of Spatial Skill: A Test of the 2 x 2 Typology.

Sisk, V., **Burgoyne, A. P.**, Sun, J., Butler, J. L., & Macnamara, B. N. (2018). To What Extent and Under Which Circumstances Are Growth Mindsets Important to Academic Achievement? Two Meta-analyses. *Psychological Science*.

Hambrick, D. Z., **Burgoyne, A. P.**, Macnamara, B. N., & Ullén, F. (2018). Toward a Multifactorial Model of Expertise: Beyond Born Versus Made. *The New York Academy of Sciences*.

Hambrick, D. Z., **Burgoyne, A. P.**, Campitelli, G., & Macnamara, B. N. (2018). "Working Memory, Thinking, and Expertise." *International Handbook of Thinking and Reasoning*. Eds. Ball, L. J. & Thompson, V. A. Psychology Press.

Macnamara, B. N., Hambrick, D. Z., Frank, D. J., King, M. J., **Burgoyne, A. P.**, & Meinz, E. J. (2018). "The Deliberate Practice View: An Evaluation of Definitions, Claims, and Empirical Evidence." *The Science of Expertise*. Eds. Hambrick, D. Z., Campitelli, G., & Macnamara, B. N. Psychology Press.

Sala, G., **Burgoyne, A. P.**, Macnamara, B. N., Hambrick, D. Z., Campitelli, G., & Gobet, F. (2017). Checking the "Academic Selection" Argument. Chess Players Outperform Non-Chess Players in Cognitive Skills Related to Intelligence: A Meta-Analysis. *Intelligence*.

Burgoyne, A. P., Sala, G., Gobet, F., Macnamara, B. N., Campitelli, G., & Hambrick, D. Z. (2016). The Relationship Between Cognitive Ability and Chess Skill: A Comprehensive Meta-Analysis. *Intelligence*, 59, 72-83.

POPULAR WRITING

Burgoyne, A. P. & Hambrick, D. Z. (2017, January 12). Intelligence and the DNA Revolution, *Scientific American*. Retrieved from <https://www.scientificamerican.com/article/intelligence-and-the-dna-revolution/>

Burgoyne, A. P. & Hambrick, D. Z. (2017, August 22). Flagging Fake News or Bad Sources Won't Work, *Slate*. Retrieved from http://www.slate.com/articles/health_and_science/science/2017/01/educating_people_about_sources_won_t_stop_fake_news.html

Hambrick, D. Z. & **Burgoyne, A. P.** (2016, September 18). The Difference Between Rationality and Intelligence, *New York Times*, p. SR12.

PRESENTATIONS AND POSTERS

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| 2018 | Co-chair of a symposium:
“How Important Are Growth Mindsets for Learning and Achievement?”
Association for Psychological Science Annual Meeting
San Francisco, CA, May 24-27, 2018 |
| 2018 | “The Role of Cognitive Ability, Music Aptitude, and Mindset in Acquiring Musical Skill”
Association for Psychological Science Annual Meeting
San Francisco, CA, May 24-27, 2018 (<i>presentation</i>) |
| 2018 | “Altering Mindsets with a Brief Online Intervention”
Midwest Psychological Association Conference
Chicago, IL, April 11-14, 2018 (<i>presentation</i>) |
| 2017 | “Cognitive Determinants of Multitasking Ability”
Association for Psychological Science Annual Meeting |

Boston, MA, May 25-28, 2017 (*poster*)

- 2017 “The Impact of Domain-Specific Experience on Chess Skill: Re-Analysis of a Key Study”
Midwest Psychological Association Conference
Chicago, IL, April 20-23, 2017 (*presentation*)
- 2016 “Acquiring Skill in Music”
Midwest Psychological Association Conference
Chicago, IL, May 5-7, 2016 (*poster*)
- 2016 “The Relationship Between Intelligence and Expertise in Chess: A Meta-Analysis”
Midwest Psychological Association Conference
Chicago, IL, May 5-7, 2016 (*presentation*)

COGNITIVE ABILITY TESTING SOFTWARE

- 2017 Visual Arrays Task (E-Prime v2)
2017 Choose-A-Move Chess Test (E-Prime v2)
2017 Chess Knowledge Test (E-Prime v2)
2017 Typing Speed Test (E-Prime v2)
2016 Reading Comprehension Test (E-Prime v1 and v2)
2016 Pattern Comparison Test (E-Prime v1 and v2)
All programs are free to download at www.scienceofexpertise.com/alex

WEB DESIGN AND MANAGEMENT

www.scienceofexpertise.com – Website for the Expertise Laboratory
www.journalofexpertise.org – Official website for the Journal of Expertise

ACADEMIC POSITIONS

- 2015 – Present Graduate Research Assistant/Laboratory Manager
Expertise Laboratory
Michigan State University, Department of Psychology

Supervisor: D. Zach Hambrick, Ph.D.

- 2016 Teaching Assistant
Psychology 402(W): Sensation and Perception
Michigan State University, Department of Psychology
Professor: Mark Becker, Ph.D.
- 2015 Teaching Assistant
Psychology 244: Developmental Psychology: Infancy through
Childhood
Michigan State University, Department of Psychology
Professor: Lauren J. Harris, Ph.D.
- 2014 – 2015 Professional Aide
Michigan Twins Project, Michigan State University
Principal Investigators: Kelly Klump, Ph.D., Alex Burt, Ph.D.
- 2013 Teaching Assistant
Psychology 200: Introduction to Cognitive Psychology
Michigan State University, Department of Psychology
Professor: Mark Becker, Ph.D.
- 2012 – 2013 Research Assistant
Michigan Twins Project, Michigan State University
Principal Investigators: Kelly Klump, Ph.D., Alex Burt, Ph.D.

RESEARCH INTERESTS

Expertise and skill acquisition, working memory, attention, task switching and multitasking, mindset, placekeeping ability, music aptitude, creativity, structural equation modeling, meta-analysis, multi-level modeling, differential psychology, personnel selection

ACADEMIC SERVICE

- 2017 Reviewer for the following journals: *Journal of Behavioral Decision Making, Clinical Psychological Science, Military Psychology, Journal of Expertise, Journal of Experimental Psychology: General*

- 2016 Reviewer for the Association for Psychological Science Student Grant Competition
- 2016 Student Representative, *Quantitative Genetics Faculty Search Committee*, Psychology Department, Michigan State University East Lansing, MI

TECHNICAL SKILLS

Structural equation modeling (*Amos, MPlus*)
 Meta-analysis (*R, Comprehensive Meta-Analysis*)
 Multi-level modeling, power analysis, etc. (*SPSS, G*Power*)
 Experiment task development (*E-Basic*)
 Web design (*HTML, CSS*)
 MIDI data extraction and analysis (*Anvil Studio*)
 Video & audio editing (*Final Cut Pro, Audacity*)
 Web management and graphic design (*Adobe Dreamweaver, Photoshop, Illustrator*)

PROFESSIONAL DEVELOPMENT

Fall 2018 Future Academic Scholars in Teaching Fellow
 Spring 2017 Leadership Academy at Michigan State University
 Summer 2016 Certification in College Teaching Institute
 Summer 2016 Introductory & Intermediate Structural Equation Modeling Workshop
 Summer 2015 Teaching Assistant Institute at Michigan State University

PROFESSIONAL MEMBERSHIP

2015 – Present Midwest Psychological Association Member
 2015 – Present American Psychological Association Member