

Jared M. Hotaling

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Academic Experience and Positions

University of New South Wales

Postdoctoral Fellow, School of Psychology, 2017-Present

University of Basel

Postdoctoral Research Scientist, Center for Economic Psychology, 2013-2016

Indiana University

Dual Ph.D., Psychological and Brain Sciences, Cognitive Science, November 2013

Dissertation: *Decision field theory-planning: A cognitive model of planning and dynamic decision making* (awarded Outstanding Research Award)

- Dissertation Committee: Jerome R. Busemeyer, Richard M. Shiffrin, Peter M. Todd, & Robert M. Nosofsky

Brown University

Lab Manager, Virtual Environment Navigation Laboratory, Brown University, 2006-2007

Lehigh University

B.A., with honors, Psychology, Cognitive Science, May 2006

Thesis I: *Rethinking rationality: An analysis of conflicting models of human reasoning*

- Advisor: John B. Gatewood

Thesis II: *The effect of regulatory focus on decision making*

- Advisor: Barbara C. Malt

Awards, Grants, Fellowships, and Scholarships

NSF/Indiana University Young Scientist Travel Award (2016)

International Exploratory Workshop, Swiss National Science Foundation, *Sequential Sampling Models of Decision Making*, Amount: CHF 16,000 (2016)

Society for Mathematical Psychology Conference Participation Award (2013, 2014, 2016)

Bruno de Finetti Prize, European Association for Decision Making (2015)

Outstanding Research Award, Cognitive Science Program, Indiana University (2014)

NSF Graduate Research Fellowship (2008-2011)

NSF Travel Award (2011)

Society for Mathematical Psychology Student Travel Award (2008, 2009, 2010, 2011, 2012)

President's Scholarship, Lehigh University (2006)

Williams Senior Writing Prize (3rd Prize), Lehigh University (2006)

NSF Research Experience for Undergraduates Scholarship, University of Wisconsin (2005)

Publications

Working Papers

- Hotaling, J. M.** (revise & resubmit). Decision field theory-planning: A model of planning on-the-fly. *Manuscript available upon request.*
- Hotaling, J. M.**, Jarvstad, A., Donkin, C., & Newell, B. R. (revise & resubmit). The effects of outcome information and salience on decisions from experience. *Manuscript available upon request.*
- Hotaling, J. M.**, Navarro, D. J., & Newell, B. R. (revise & resubmit). Skilled bandits: Learning to choose in a reactive world. *Manuscript available upon request.*
- DeCaro, D. A., **Hotaling, J. M.**, & Johnson, J. G. (revise & resubmit). Accounting for procedural utility: When decision procedures alter the evaluation of outcomes in consequentialist choice. *Manuscript available upon request.*
- Hotaling, J. M.**, Gluth, S., & Rieskamp, J. (in preparation). Comparing models of choice deferral and information sampling in risky decision making. *Manuscript available upon request.*
- Vanunu, Y., **Hotaling, J. M.**, & Newell, B. R. (in preparation). The impact of goal and cognitive load on decisions from experience.

Journal Articles

- Hotaling, J. M.** & Rieskamp, J. (2018). A quantitative test of computational models of multialternative context effects. *Decision*. Advance online publication. <http://dx.doi.org/10.1037/dec0000096>
- Spektor, M. S., Kellen, D., & **Hotaling, J. M.**, (2018). When the good looks bad: An experimental exploration of the repulsion effect. *Psychological Science*, 29(8), 1309-1320.
- Gluth, S., **Hotaling, J. M.**, & Rieskamp, J. (2017). The attraction effect modulates reward prediction errors and intertemporal choices. *Journal of Neuroscience*, 37(2), 371-382.
- Hotaling, J. M.**, Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2015). The dilution effect and information integration in perceptual decision making. *PLoS ONE*, 10(9), e0138481.
- Hotaling, J. M.**, Busemeyer, J. R. (2012). DFT-D: a cognitive-dynamical model of dynamic decision making. *Synthese*, 189(1), 67-80.
- Hotaling, J. M.**, Busemeyer, J. R., & Li, J. (2010). Theoretical developments in decision field theory: Comment on Tsetsos, Chater, & Usher. *Psychological Review*, 117(4), 1294-1298.
- Sloman, S., Barbey, A. K., & **Hotaling, J. M.** (2009). A causal model theory of the meaning of *cause*, *enable*, and *prevent*. *Cognitive Science*, 33(1), 21-50.

Refereed Conference Papers & Chapters

- Hotaling, J. M.**, Navarro, D. J., & Newell, B. R. (2018). Skilled bandits: Learning to choose in a reactive world. *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*.

- Hotaling, J. M.**, Fakhari, P., & Busemeyer, J. R. (2015). Dynamic decision making. In J. D. Wright (Ed.), *International Encyclopedia of the Social and Behavioral Sciences* (2nd ed.) (pp. 709-714). Oxford: Elsevier.
- Mullinix, G., Gray, O., Colado, J., Veinott, E., Leonard, J., Papautsky, E.L., Argenta, C., Clover, M., Castronova, E., Todd, P.M., Ross, T., Lorince, J., **Hotaling, J.**, Hale, C., Whitaker, E., J., Hoffman, R., Flach, J., & Fox, O. (2013). Heuristica: Designing a serious game for improving decision making. *Proceedings of the 2013 IEEE International Games Innovation Conference (IGIC)*, (pp. 250-255). Vancouver, BC.
- Veinott, E., Leonard, J., Papautsky, E.L., Perelman, B. Stankovic, A., Lorince, J., **Hotaling, J.**, Ross, T., Todd, P., Busemeyer, J., Castronova, E., Hale, C., Catrambone, R., Whitaker, E., Fox, O., Flach, J., & Hoffman, R. (2013). The effect of camera perspective and session duration on training decision making in a serious video game. *Proceedings of the 2013 IEEE International Games Innovation Conference (IGIC)*, (pp. 256-262). Vancouver, BC.
- Hotaling, J. M.**, Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2013). Dilution effects in perceptual information integration. *Proceedings of the 35th Annual Meeting of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

Presentations

Selected Conference Presentations

- Hotaling, J. M.**, Jarvstad, A., Donkin, C., & Newell, B. R. (2018). How to change the weight of rare events in decisions from experience. *Annual Meeting of the Psychonomic Society*, New Orleans, Louisiana.
- Hotaling, J. M.**, Jarvstad, A., Donkin, C., & Newell, B. R. (2018). How to change the weight of rare events in decisions from experience. *Annual Meeting of the Society for Judgment and Decision Making*, New Orleans, Louisiana.
- Hotaling, J. M.**, Jarvstad, A., Donkin, C., & Newell, B. R. (2018). How to change the weight of rare events in decisions from experience. *Annual Meeting of the Cognitive Science Society*, Madison, Wisconsin.
- Hotaling, J. M.**, Navarro, D. J., & Newell, B. R. (2018). Skilled bandits: Learning to choose in a reactive world. *Australian Mathematical Psychology Conference*, Perth, Australia.
- Hotaling, J. M.**, Gluth, S., & Rieskamp, J. (2017). Comparing rule-based and sequential sampling models of deferred decision making. *Australian Mathematical Psychology Conference*, Brisbane, Australia.
- Hotaling, J. M.** & Rieskamp, J. (2016). A critical test of sequential sampling models of multialternative context effects. *Seventh Annual Bernoulli Workshop*, Basel, Switzerland.
- Hotaling, J. M.**, Rieskamp, J., & Busemeyer, J. R. (2016). A critical test of sequential sampling models of multialternative context effects. *Annual Meeting of the Society for Mathematical Psychology*, New Brunswick, New Jersey.
- Hotaling, J. M.**, Rieskamp, J., & Gluth, S. (2016). Testing models of deferred decision making. *Miniconference on the Nature of Preferences and their Relation to Choice*, Potsdam, Germany.

- Hotaling, J. M.** (2015). Decision field theory-dynamic: A cognitive model of planning and multistage decision making. *Symposium on (Non-)Optimal Human Decision Making in Dynamic Environments*, Heidelberg, Germany.
- Hotaling, J. M.,** Busemeyer, J. R. (2013). Decision field theory-dynamic: A model of planning on-the-fly. *Annual Meeting of the Society for Mathematical Psychology*, Potsdam, Germany.
- Hotaling, J. M.,** Busemeyer, J. R. (2013). Decision field theory-dynamic: A model of planning on-the-fly. *Annual Summer Interdisciplinary Conference*, Cortina d'Ampezzo, Italy.
- Hotaling, J. M.,** Busemeyer, J. R. (2013). Decision field theory-dynamic: A model of planning on-the-fly. *Australian Mathematical Psychology Conference*, Sydney, Australia.
- Hotaling, J. M.,** Busemeyer, J. R. (2012). Decision field theory-dynamic: A cognitive model of dynamic decision making. *Annual Meeting of the Society for Mathematical Psychology*, Columbus, Ohio.
- Hotaling, J. M.,** Busemeyer, J. R., & Shiffrin, R. M. (2012). Decision field theory-dynamic: A cognitive model of dynamic decision making. *International Conference on Cognitive Science*, Kaliningrad, Russia.
- Hotaling, J. M.,** Busemeyer, J. R., & Shiffrin, R. M. (2012). Decision field theory-dynamic: A cognitive model of dynamic decision making. *Annual Summer Interdisciplinary Conference*, Cala Gonone, Italy.
- DeCaro, D. A., **Hotaling, J. M.,** & Johnson, J. G. (2012). Accounting for procedural utility: When decision procedures alter the evaluation of outcomes in consequentialist choice. *Midwestern Cognitive Science Conference*, Bloomington, Indiana.
- Hotaling, J. M.,** Busemeyer, J. R., & Shiffrin, R. M. (2012). The effect of variance on dynamic decision making. *Midwestern Cognitive Science Conference*, Bloomington, Indiana.
- Hotaling, J. M.,** Busemeyer, J. R., & Shiffrin, R. M. (2011). Models of multi-stage risky decision making. *Annual Meeting of the Society for Mathematical Psychology*, Boston, Massachusetts.
- Hotaling, J. M.,** Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2010). The dilution effect in perceptual decision making. *Annual Meeting of the Society for Judgment and Decision Making*, Saint Louis, Missouri.
- Hotaling, J. M.,** Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2010). Models of information integration in perceptual decision making. *Annual Meeting of the Society for Mathematical Psychology*, Portland, Oregon.
- Hotaling, J. M.,** Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2009). Information integration in perceptual decision making. *Annual Meeting of the Society for Mathematical Psychology*, Amsterdam, The Netherlands.
- Hotaling, J. M.,** Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2008). Information integration in perceptual decision making. *Annual Summer Interdisciplinary Conference*, Madonna di Campiglio, Italy.
- Hotaling, J. M.,** Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2008). Information integration: Towards and universal framework. *Red Hawk Mental Life Conference*, Oxford, Ohio.

Hotaling, J. M. (2006). Deliberation modes and regulatory focus: A new perspective on decision making. *Lehigh Valley Association of Independent Colleges Annual Psychology Conference*, Easton, Pennsylvania.

Invited Talks

Hotaling, J. M. (2018). Comparing models of choice deferral and information sampling in risky decision making. *Warwick Business School*, University of Warwick.

Hotaling, J. M. (2017). Using cognitive models to understand the decision making process. *Cognitive Science Department*, Rensselaer Polytechnic Institute.

Hotaling, J. M. (2017). Using cognitive models to understand the decision making process. *Center for Decision Research*, University of Leeds.

Hotaling, J. M. (2016). Using cognitive models to understand the decision making process. *Department of Psychology*, City University London.

Hotaling, J. M. (2015). Using cognitive models to understand the decision making process. *Department of Psychology*, Syracuse University.

Hotaling, J. M. (2015). Decision field theory-planning: A cognitive model of planning on the fly. *Subjective Probability, Utility, and Decision Making Conference*, Budapest Hungary.

Hotaling, J. M., Rieskamp, J., & Gluth, S. (2015). Testing models of deferred decision making. *Center for Adaptive Rationality*, Max Plank Institute for Human Development, Berlin, Germany.

Hotaling, J. M., Busemeyer, J. R. (2012). Decision field theory-dynamic: A cognitive model of dynamic decision making. *Cognitive Lunch Series*, Indiana University, Bloomington, Indiana.

Hotaling, J. M., Busemeyer, J. R. (2012). Decision field theory-dynamic: A cognitive model of dynamic decision making. *Center for Economic Psychology*, University of Basel, Switzerland.

Hotaling, J. M., Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2010). Information integration in perceptual decision making. *Cognitive Lunch Series*, Indiana University, Bloomington, Indiana.

Symposia

Otto, A. R., Knox, W.B., Love, B.C., Gershman, S., Niv, Y., Worthy, D. A., Maddox, W. T., **Hotaling, J. M.**, Busemeyer, J. R., & Shiffrin, R. M. (2011). Computational, Neuroscientific, and Lifespan Perspectives on the Exploration-Exploitation Dilemma. *Annual Meeting of the Cognitive Science Society*, Boston, Massachusetts.

Gureckis, T. M., Markant, D., **Hotaling, J. M.**, Dimperio, E., Busemeyer, J. R., Lee, M. D., Zhang, S., Steyver, M., Love, B. C., Otto, A. R., Simon, D. A., & Daw, N. (2010). Symposium on Dynamic Decision Making. *Annual Meeting of the Cognitive Science Society*, Portland, Oregon.

Poster Presentations

Hotaling, J. M., Navarro, D. J., & Newell, B. R. (2018). Skilled bandits: Learning to choose in a reactive world. *Annual Meeting of the Cognitive Science Society*, Madison, Wisconsin.

- Hotaling, J. M.,** Navarro, D. J., & Newell, B. R. (2017). Skilled bandits: Learning to choose in a reactive world. *Annual Meeting of the Society for Judgment and Decision Making*, Vancouver, Canada.
- Hotaling, J. M.,** Jarvstad, A., Donkin, C., & Newell, B. R. (2017). The effects of outcome salience on decisions from experience. *Annual Meeting of the Psychonomic Society*, Vancouver, Canada.
- Hotaling, J. M.,** Rieskamp, J., & Gluth, S. (2016). Comparing rule-based and sequential sampling models of deferred decision making. *Annual Meeting of the Psychonomic Society*, Boston, Massachusetts.
- Hotaling, J. M.,** Rieskamp, J., & Gluth, S. (2016). Comparing rule-based and sequential sampling models of deferred decision making. *Annual Meeting of the Society for Judgment and Decision Making*, Boston, Massachusetts.
- Hotaling, J. M.,** Rieskamp, J., & Gluth, S. (2016). Testing models of deferred decision making. *Annual Meeting of the Psychonomic Society*, Chicago, Illinois.
- Gluth, S., **Hotaling, J. M.,** & Rieskamp, J. (2016). Modulating intertemporal choices and reward prediction errors by the attraction effect. *Workshop on Sequential Sampling Models of Decision Making*, Emmetten, Switzerland.
- Spektor, M. S., Kellen, D., & **Hotaling, J. M.,** (2016). The effect of incentives and framing on context effects in perceptual decision making: The repulsion effect. *Workshop on Sequential Sampling Models of Decision Making*, Emmetten, Switzerland.
- Hotaling, J. M.,** Rieskamp, J., & Gluth, S. (2015). Testing models of deferred decision making. *Annual Meeting of the Psychonomic Society*, Chicago, Illinois.
- Hotaling, J. M.,** Rieskamp, J., & Gluth, S. (2015). Testing models of deferred decision making. *Annual Meeting of the Society for Judgment and Decision Making*, Chicago, Illinois.
- Hotaling, J. M.,** Rieskamp, J. (2014). Testing models of deferred decision making. *Annual Meeting of the Society for Judgment and Decision Making*, Long Beach, California.
- Hotaling, J. M.,** Rieskamp, J. (2014). Testing models of deferred decision making. *Annual Meeting of the Society for Mathematical Psychology*, Quebec City, Canada.
- Hotaling, J. M.,** Busemeyer, J. R. (2013). Decision field theory-dynamic: A model of planning on-the-fly. *Annual Meeting of the Society for Judgment and Decision Making*, Toronto, Canada.
- Hotaling, J. M.,** Busemeyer, J. R. (2013). Decision field theory-dynamic: A model of planning on-the-fly. *Annual Meeting of the Psychonomic Society*, Toronto, Canada.
- Hotaling, J. M.,** Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2013). Models of information integration in perceptual decision making. *Annual Meeting of the Cognitive Science Society*, Berlin, Germany.
- Hotaling, J. M.,** Busemeyer, J. R., & Shiffrin, R. M. (2011). Planning in multistage decision making. *Annual Meeting of the Society for Judgment and Decision Making*, Seattle, Washington.
- Hotaling, J. M.,** Busemeyer, J. R., & Shiffrin, R. M. (2011). Planning in multistage decision making. *Annual Meeting of the Psychonomic Society*, Seattle, Washington.

- Hotaling, J. M.**, Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2010). Models of information integration in perceptual decision making. *Annual Meeting of the Cognitive Science Society*, Portland, Oregon.
- Hotaling, J. M.**, Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2010). Models of information integration in perceptual decision making. *Annual Summer Interdisciplinary Conference*, Bend, Oregon.
- Hotaling, J. M.**, Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2009). Information integration in perceptual decision making. *Annual Summer Interdisciplinary Conference*, Sarre, Italy.
- Cohen, A. L., Busemeyer, J. R., Shiffrin, R. M., & **Hotaling, J. M.** (2008). Information integration in perceptual decision making. *Annual Meeting of the Psychonomic Society*, Chicago, Illinois.
- Hotaling, J. M.**, Cohen, A. L., Busemeyer, J. R., & Shiffrin, R. M. (2008). Information integration in perceptual decision making. *Annual Meeting of the Society for Mathematical Psychology*, Washington, D.C.
- Hotaling, J. M.** (2005). Multiple encoding of visual information in working memory. *Committee on Institutional Cooperation SROP Conference*, Madison, Wisconsin.

Teaching

University of Basel

- Research Methodology (Undergraduate Level; Fall 2015, Spring 2016, Fall 2016)
- Heuristic Strategies in Judgment & Decision Making (Graduate Level; Spring 2015, Spring 2016)
- Learning & Decision Making (Graduate Level; Fall 2013, Spring 2014, Spring 2015)

Indiana University

- Choice Behavior (Guest Lecturer, Undergraduate Level; Fall 2012)
- Experimental Methods in Psychology (Undergraduate Level; Spring 2010)
- Decision-Making and the Brain (Guest Lecturer, Undergraduate Level; Spring 2009)

Research Supervision

University New South Wales

- Ph.D. Students, Newell Lab (2017-present)
- Post-graduate honors students, Newell Lab (2017-present)
- Undergraduate research intern, Newell Lab (2017-present)

University Basel

- Ph.D. Students, Newell Lab (2013-2016)

Indiana University

- Undergraduate honors students, Memory and Perception Lab (2010-2013)
- IGERT Undergraduate Research Scholar, Judgment and Decision-Making Lab (Summer 2011)

Brown University

- Undergraduate honors students, Virtual Environment Navigation Lab, 2006-2007

Ad hoc Reviewing

PNAS, Psychological Review; Management Science; Psychonomic Bulletin & Review; Cognitive Psychology; Cognition; Journal of Behavioral Decision Making; Cognitive Science; Behavioral Research Methods; Journal of Experimental Psychology: Learning, Memory, and Cognition; Decision; Journal of Mathematical Psychology; Synthese; Proceeding of the Cognitive Science Society

Honors

Psi Chi Member, 2004
National Society of Collegiate Scholars Member, 2003
Phi Eta Sigma Member, 2003

Professional Affiliations

Society for Judgment and Decision Making
Cognitive Science Society
Society for Mathematical Psychology
Psychonomic Society

January, 2019