







Google Scholar profile

# TIM PLESKAC

PROFESSOR OF PSYCHOLOGY

### RESEARCH

I study how people make judgments and decisions; how these processes shape behavior at the individual, group, and organizational level; and how we can help people make better judgments and decisions. I investigate these questions with computational modeling and methods from the behavioral and cognitive sciences.

### **EXPERIENCE**

#### UNIVERSITY OF KANSAS, Lawrence, KS | 2018-

Professor, Department of Psychology; Senior Scientist, Cofrin Logan Center for Addiction Research and Treatment

In the Fall of 2018 I joined KU's department of psychology where I am establishing a behavioral science laboratory, which brings an interdisciplinary perspective to study judgment and decision making.

# MAX PLANCK INSTITUTE FOR HUMAN DEVELOPMENT, Berlin, Germany | 2014-

Adjunct Researcher, 2018—current; Senior Research Scientist, 2014—2018; Center for Adaptive Rationality

I helped lead an interdisciplinary research center composed of 30 researchers studying how individuals and groups search for information and make decisions when time and resources are limited. At the Center, I also trained researchers in computational modeling and advanced statistics because I believe when used wisely mathematics brings structure to scientists' thinking.

#### MICHIGAN STATE UNIVERSITY, East Lansing, MI | 2007–2018

Adjunct Professor, 2014–2018; Associate Professor, 2013–2014; Assistant Professor, 2007–2013, Department of Psychology

As a member of the psychology department, I directed a laboratory focused on developing and testing computational models of judgment and decision making. Key accomplishments include earning an NSF CAREER Award and being named the MSU College of Social Science Outstanding Teacher in 2013.

### **EDUCATION**

Psychology, MA, PhD

UNIVERSITY OF MARYLAND—COLLEGE PARK

2000-2004

Psychology, BS, cum laude

**UNIVERSITY OF IOWA** 

1996-2000

### POST DOCS

#### **INDIANA UNIVERSITY**

NIMH Postdoc Research Fellow, Cognitive Science Program, 2007

#### UNIVERSITY OF BASEL

Research Scientist, Department of Psychology, 2004–2006

### NOTEWORTHY

#### ASSOCIATE EDITOR

Psychological Science, 2016-

#### **ASSOCIATE EDITOR**

JEP: General, 2015-2017

## JANE BEATIE SCIENTIFIC RECOGNITION AWARD // 2015

European Association for Decision Making

#### NSF CAREER AWARD // 2010

National Science Foundation

#### EINHORN AWARD // 2008

Society for Judgment and Decision Making

### BOOKS

1. Hertwig, R., Pleskac, T. J., Pachur, T., & the Center for Adaptive Rationality (in press) *Taming Uncertainty.* Cambridge, Ma: MIT Press

### JOURNAL PUBLICATIONS

- \* graduate student or post doc (Note: I typically give students priority in authorship order.)
  † alternative ordering with last author being senior author
- 36. Leuker, C.\*, Pachur, T., Hertwig, R., & Pleskac, T. J.† (in press). Too good to be true? Psychological responses to surprising options in risk—reward environments. *Journal of Behavioral Decision Making*. https://doi.org/10.1002/bdm.2116
- 35. Bhatia, S., & Pleskac, T. J. (2019). Preference accumulation as a process model of desirable ratings. *Cognitive Psychology*, 109, 47-67. https://doi.org/10.1016/j.cogpsych.2018.12.003
- 34. Pleskac, T. J., Yu, S.\*, Hopwood, C., & Liu, T. (2019). Characterizing deliberation during preferential choice. *Decision*. 6, 77-107. <a href="http://dx.doi.org/10.1037/dec0000092">http://dx.doi.org/10.1037/dec0000092</a>
- 33. Schürman, O.\*, Frey, R., & Pleskac, T. J. (2019). Mapping risk perceptions in dynamic risk-taking environments. *Journal of Behavioral Decision Making*, 32, 94-105. <a href="https://doi.org/10.1002/bdm.2098">https://doi.org/10.1002/bdm.2098</a>
- 32. Johnson, D. J.\*, Cesario, J., & Pleskac, T. J. (2018). How prior information and police experience impacts decisions to shoot. *Journal of Personality & Social Psychology,* 115(4), 601-623. <a href="http://dx.doi.org/10.1037/pspa0000130">http://dx.doi.org/10.1037/pspa0000130</a>
- 31. Hertwig, R., & Pleskac. T. J. (2018). The construct-behavior gap and the description-experience gap: Comment on Regenwetter & Robinson (2017). *Psychological Review,* 125(5), 844-849. <a href="http://dx.doi.org/10.1037/rev0000121">http://dx.doi.org/10.1037/rev0000121</a>
- 30. Dai, J.\*, Pleskac, T. J., & Pachur T. (2018). Dynamic cognitive models of intertemporal choice. *Cognitive Psychology.* 104, 29-56. https://doi.org/10.1016/j.cogpsych.2018.03.001
- 29. Leuker, C.\*, Pachur, T., Hertwig, R., & Pleskac, T. J.† (2018). Exploiting risk—reward structures in decision making under uncertainty. *Cognition*, 175, 186-200. <a href="https://doi.org/10.1016/j.">https://doi.org/10.1016/j.</a>

### UNDER REVIEW

Pleskac, T. J., Conradt, L., Lueker, C., & Hertwig, R. The ecology of competition: A theory of risk--reward environments in adaptive decision making. Revise and resubmit at *Psychological Review*. http://doi.org/10.31234/osf.io/ewzcb

Johnson, D., J., Pleskac, T. J., Terrill, W., Gagnon, G. & Cesario, J.<sup>†</sup> Modeling Police Officers' Deadly Force Decisions in an Immersive Shooting Simulator

Leuker, C.\*, Samartzidis, L., Hertwig, R., & Pleskac, T. J.†. When money talks: Judging risk and coercion in high-paying clinical trials. <a href="http://doi.org/10.17605/OSF.IO/9P7CB">http://doi.org/10.17605/OSF.IO/9P7CB</a>

Leuker, C.\*, Pachur, T., Hertwig, R., & Pleskac, T. J.<sup>†</sup> Risk--reward structures can promote satisficing in decisions under risk. <a href="http://">http://</a>
<a href="http://">http://</a>
<a href="http://">10.31234/osf.io/kjc3r</a>

Dai, J.\*, Pachur, T., Pleskac, T. J., & Hertwig, R. What the future holds and when: A description experience gap in intertemporal choice. Revise & Resubmit Psychological Science. http:// 10.31234/osf.io/grwye

Litvinova, A.\*, Herzog, S. M., Krall, A. A., Pleskac, T. J., & Hertwig, R. Boosting the accuracy of confidence judgments using the wisdom of the inner crowd: Ecological and empirical analyses. Under revision

#### cognition.2018.02.019

- 27. Pleskac, T. J., Cesario, J., & Johnson, D.\* (2018). How race affects evidence accumulation during the decision to shoot. *Psychonomic Bulletin & Review*, 25, 1301-1330. <a href="http://dx.doi.org/10.3758/s13423-017-1369-6">http://dx.doi.org/10.3758/s13423-017-1369-6</a>
- 26. Kvam, P. D.\*, & Pleskac, T. J. (2017). A quantum information architecture for cue-based heuristics. *Decision*, *4*, 197–233. http://dx.doi.org/10.1037/dec0000070
- Johnson, D.\*, Hopwood, C., Cesario, J., & Pleskac, T. J. (2017).
   Advancing research on cognitive processes in social and personality psychology: A drift diffusion model primer. *Social Psychological and Personality Science*, 8, 413–423. <a href="https://doi.org/10.1177/1948550617703174">https://doi.org/10.1177/1948550617703174</a>
- 24. Kvam, P. D.\*, & Pleskac, T. J. (2016). Strength and weight: The determinants of choice and confidence. *Cognition*, *152*, 170–180. http://dx.doi.org/10.1016/j.cognition.2016.04.008
- 23. Uitvlugt, M. G., Pleskac, T. J., & Ravizza, S. M.<sup>+</sup> (2016). The nature of working memory gating in Parkinson's Disease: A multi-domain signal detection examination. *Cognitive, Affective, and Behavioral Neuroscience*, *16*, 289–301. <a href="http://dx.doi.org/10.3758/s13415-015-0389-9">http://dx.doi.org/10.3758/s13415-015-0389-9</a>
- 22. Kvam, P. D.\*, Pleskac, T. J., Yu, S.,\* & Busemeyer, J. R. (2015). Interference effects of choice on confidence: Quantum characteristics of evidence accumulation. *Proceedings of the National Academy of Sciences*, *112*, 10645–10650. <a href="http://dx.doi.org/10.1073/pnas.1500688112">http://dx.doi.org/10.1073/pnas.1500688112</a>
- 21. Yu, S.\*, Pleskac, T. J., & Zeigenfuse, M.\* (2015). Dynamics of postdecisional processing of confidence. *Journal of Experimental Psychology: General*, *144*, 489–510. <a href="http://dx.doi.org/10.1037/xge0000062">http://dx.doi.org/10.1037/xge0000062</a>
- 20. Pleskac, T. J., & Hertwig, R. (2014). Ecologically rational choice and the structure of the environment. *Journal of Experimental Psychology: General*, *143*, 2000–2019. <a href="http://dx.doi.org/10.1037/xge0000013">http://dx.doi.org/10.1037/xge0000013</a>
- 19. Zeigenfuse, M.\*, Pleskac, T. J., & Liu, T. (2014). Rapid decisions from experience. *Cognition*, *131*, 181–194. <a href="http://dx.doi.">http://dx.doi.</a>

Albrecht, R., Hoffman, J., Pleskac, T. J., Rieskamp, J., & von Helversen, B. Unstacking judgments: What response distributions reveal about the cognitive process in multiple-cue judgments. Revise & resubmit at Journal of Experimental Psychology: Learning, Memory, and Cognition.

### IN PREPARATION

Pleskac, T. J., & Schulze. Making ecologically rational inferences from bets.

Markant, D.\*, Diederich, A., Pachur, T., Hertwig, R., & Pleskac, T. J., Choosing from accumulated samples of experience.

Zakharov, A., Pleskac, T. J., & Hertwig, R. Ecolgically rational ambiguity aversion.

Hintze, A., & Pleskac, T. J. Evolution of heuristics.

### GRANTS

#### **Current External Funding**

Comparing single- vs. double-blind review of scientific abstracts for accuracy and bias.

Pls: Pleskac, . T., Kyung, E. with Chapman, G., & Urminsky, O. Agency submitted: NSF 2018–2020. Total Costs \$299,999

Understanding Race Bias in the Decision to Shoot with an Integrated Model of Decision Making.
Role: Senior Personnel (PI: Cesario

#### org/10.1016/j.cognition.2013.12.012

- 18. Pleskac, T. J., & Wershbale, A.\* (2014). Making assessments while taking repeated risks: A pattern of multiple response pathways. *Journal of Experimental Psychology: General*, 143, 142–162. <a href="http://dx.doi.org/10.1037/a0031106">http://dx.doi.org/10.1037/a0031106</a>
- 17. Pleskac, T. J., Kvam, P. D.\*, & Yu, S.\* (2013). What's the predicted outcome? Explanatory and predictive properties of the Quantum Probability framework? [Commentary on target article: Can quantum probability provide a new direction for cognitive modeling?] *Behavioral & Brain Sciences*, 36(3), 303–304. http://dx.doi.org/10.1017/S0140525X12003093
- 16. Pleskac, T. J. (2012). Comparability effects in probability judgments. *Psychological Science*, 23(8), 848–854. <a href="http://dx.doi.org/10.1177/0956797612439423">http://dx.doi.org/10.1177/0956797612439423</a>
- 15. McAuley, J. D., Henry, M. J., Wedd, A.\*, Pleskac, T. J., & Cesario J. (2012). Effects of musicality and motivational orientation on auditory category learning: A test of a regulatory-fit hypothesis. *Memory & Cognition*, 40, 231–251. <a href="http://dx.doi.org/10.3758/s13421-011-0146-4">http://dx.doi.org/10.3758/s13421-011-0146-4</a>
- 14. Liu, T., & Pleskac, T. J. (2011). Neural correlates of evidence accumulation in a perceptual decision task. *Journal of Neurophysiology*, *106*, 2383–2398. <a href="http://dx.doi.org/10.1152/in.00413.2011">http://dx.doi.org/10.1152/in.00413.2011</a>
- 13. Pleskac, T.J., Keeney, J.\*, Merritt, S., Schmitt, N., & Oswald, F. (2011). A detection model of college withdrawal. *Organizational Behavior & Human Decision Processes*, *115*, 85–98. <a href="http://dx.doi.org/10.1016/j.obhdp.2010.12.001">http://dx.doi.org/10.1016/j.obhdp.2010.12.001</a>
- Pleskac, T.J., & Busemeyer, J. (2010). Two-stage dynamic signal detection: A theory of choice, decision time, and confidence.
   Psychological Review, 117, 864–901. <a href="http://dx.doi.org/10.1037/">http://dx.doi.org/10.1037/</a> a0019737
- 11. Hertwig, R. & Pleskac, T. J. (2010). Decisions from experience: Why small samples? *Cognition*, 115, 225–237. http://dx.doi.org/ 10.1016/j.cognition.2009.12.009
- 10. Hau, R.\*, Pleskac, T. J., & Hertwig, R. (2009). Decisions from experience and statistical probabilities: Why they trigger different

& Liu)

Agency submitted: NSF Period: 2018–2021

Total Direct Cost: \$644,589

#### Pending

HDR DSC: Kansas Data Science

Corps

PIs: Pleskac, T. J., Ginther, D., &

Vitevitch, M. Agency: NSF

Proposal #1923671

Period: 8/15/2019 - 8/14/2022

Total Costs: \$1,343,304

#### Past External Funding

ISTART: Neural Mechanisms of Preference Formation During Risky

Decision Making.

Pls: Pleskac, T. J. & Liu, T.

Agency: NIDA

Grant #1R03DA033455-01A1 Period 4/1/2013 - 3/31/2014

Total Direct Costs: \$150,000.

CAREER: Bringing a dynamic, stochastic, and computational, understanding to subjective probabilities.

PI: Pleskac, T.J. Agency: NSF

Proposal #: 0955410

Period: 2010-15

Performance.

Total Costs: \$510,444

Follow-up of Participants in College Board Study of Noncognitive Determinants of College Student

PIs: Schmitt, N., & Oswald, F.

Role: co-investigator Agency: College Board

Period 2008-2010

Total Direct Costs \$258,260

- choices than a priori probabilities? *Journal of Behavioral Decision Making*, *23*, 48–69. <a href="http://dx.doi.org/10.1002/bdm.665">http://dx.doi.org/10.1002/bdm.665</a>
- Schmitt, N., Keeney, J., Oswald, F. L., Pleskac, T. J., Quinn, A., Sinha, R., & Zorzie, M. (2009). Prediction of 4-year college student performance using cognitive and noncognitive predictors and the impact on demographic status of admitted students. *Journal of Applied Psychology*, 94, 1479–1497. <a href="http://dx.doi.org/10.1037/a0016810">http://dx.doi.org/10.1037/a0016810</a>
- Bishara, A. J., Pleskac, T. J., Fridberg, D. J., Yechiam, E., Lucas, J., Busemeyer, J. R., Finn, P. R., & Stout, J. C. (2009). Similar processes despite divergent behavior in two commonly used measures of risky decision making. *Journal of Behavioral Decision Making*, 22, 435–454. <a href="http://dx.doi.org/10.1002/bdm.641">http://dx.doi.org/10.1002/bdm.641</a>
- 7. Busemeyer, J. R. & Pleskac, T.J. (2009) Theoretical tools for understanding and aiding dynamic decision making. *Journal of Mathematical Psychology*, *53*, 126–138. <a href="http://dx.doi.org/10.1016/j.jmp.2008.12.007">http://dx.doi.org/10.1016/j.jmp.2008.12.007</a>
- 6. Pleskac, T. J., Dougherty, M. P., Rivadeneira, A. W., & Wallsten, T. S. (2009). Random error in judgment: The contribution of encoding and retrieval processes. *Journal of Memory & Language*, *60*, 165–179. http://dx.doi.org/10.1016/j.jml.2008.08.003
- Pleskac, T. J., Wallsten, T. S., Wang, P., & Lejuez, C. W. (2008). Development of an automatic response mode to improve the clinical utility of sequential risk-taking tasks. *Experimental & Clinical Psychopharmacology*, 16, 555–564. <a href="http://dx.doi.org/10.1037/a0014245">http://dx.doi.org/10.1037/a0014245</a>
- 4. Hau, R.\*, Pleskac, T. J., Kiefer, J., & Hertwig, R. (2008). The description—experience gap in risky choice: The role of sample size and experienced probabilities. *Journal of Behavioral Decision Making*, *21*, 493–518. <a href="http://dx.doi.org/10.1002/bdm.598">http://dx.doi.org/10.1002/bdm.598</a>
- 3. Pleskac, T. J. (2008). Decision making and learning while taking sequential risks. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, *34*, 167–185. http://dx.doi.org/10.1037/0278-7393.34.1.167
- 2. Pleskac, T. J. (2007). A signal detection analysis of the recognition heuristic. *Psychonomic Bulletin & Review*, *14*, 379–391. http://dx.doi.org/10.3758/BF03194081

Advisor for Peter Kvam's NSF Graduate Research Fellowship Grant #: DGE-142871 Period 2014–2017

#### Past Internal Funding

Center for Adaptive Rationality Period: 2014–2018 Agency: <u>Max Planck Society</u> Pls: Hertwig, R.; Pachur, T.; Pleskac, T. J.

Bayesian Data Analysis Workshop PI: Pleskac, T. J. Collaborative Initiative from the MSU Psychology Department Total Costs: \$2.500

The secret to my success is search: Investigating the cognitive processes of search
PI: Pleskac, T. J. & Zang, D.
Award: Provost Undergraduate
Research Initiative
Total Direct Costs: \$2,000

Midwest Cognitive Science Meeting PI: Pleskac, T. J. (lead), McAuley, D., Fenn, K., Eden, A., & Arsznov, B. Sponsor: Collaborative Initiative from the MSU Psychology Department Total Costs: \$4,000

### TECH REPORTS

Schmitt, N., Billington, A., Golubovich, J., Keeney, J., Pleskac, T. J., Reeder, M., Sinha, R., & Zorzie, M. (2009). Report of the first-year follow up of college applicants at twelve universities. Report submitted to MSU College Board.

- Republished in Homo heuristicus: Simple rules in a complex world, Gigerenzer, R. Hertwig, & T. Pachur.
- Wallsten, T. S., Pleskac, T. J., & Lejuez, C. W., (2005). Modeling behavior in a clinically diagnostic sequential risk-taking task. *Psychological Review*, 12, 862–880. <a href="http://dx.doi.org/10.1037/0033-295X.112.4.862">http://dx.doi.org/10.1037/0033-295X.112.4.862</a>

### BOOK CHAPTERS

Pleskac, T. J., (2015). Learning models in decision making. In G. Keren & G. Wu (Eds.), *The Wiley Blackwell handbook of judgment & decision making* (pp.629–657). Chichester, United Kingdom: John Wiley & Sons. http://dx.doi.org/10.1002/9781118468333.ch22

Pleskac, T. J., Diederich, A., & Wallsten, T. S. (2015). Models of decision making under risk and uncertainty. In J. R. Busemeyer, J. T. Townsend, Z. J. Wang, & A. Eidels (Eds.), *Oxford Handbook of Computational and Mathematical Psychology* (pp. 209–231). New York, NY: Oxford University Press. <a href="http://dx.doi.org/10.1093/oxfordhb/9780199957996.013.10">http://dx.doi.org/10.1093/oxfordhb/9780199957996.013.10</a>

Pleskac, T. J. (2012). Decision and Choice: Luce's Choice Axiom. In P. Bona (Eds.), *International Encyclopedia of Social and Behavioral Sciences, 2nd Ed.*, Vol. 5, 895–900. <a href="http://dx.doi.org/10.1016/B978-0-08-097086-8.43031-X">http://dx.doi.org/10.1016/B978-0-08-097086-8.43031-X</a>

Hertwig, R. & Pleskac, T. J. (2008). The game of life: How small samples render choice simpler. In Chater, N. & Oaksford, M. (Eds.), *The Probabilistic Mind: Prospects for Bayesian cognitive science* (pp. 209–236). New York, NY: Oxford University Press. <a href="http://dx.doi.org/10.1093/acprof:oso/9780199216093.003.0010">http://dx.doi.org/10.1093/acprof:oso/9780199216093.003.0010</a>

### CONFERENCE PROCEEDINGS

Leuker, C., Pleskac, T. J., Pachur, T., & Hertwig, R. (2017). How the mind exploits risk-reward structures in decisions under risk. In G. Gunzelmann, A. Howes, T. Tenbrink, E. Davelaar (Eds.), *Proceedings of the 39th Annual Conference of the Cognitive Science Society* (pp. 2543–2549). London, UK. Cognitive Science Society. <u>PDF</u>

Dai, J., Pleskac, T. J., & Pachur, T., (2017). A dynamic tradeoff model of

Quinn, A., Fandre, J., Sinha, R., Zorzie, M., Oswald, F., Pleskac, T. J., & Schmitt, N. (2008). Longitudinal multi-institutional validation effort 2004-2008: Biodata and Situational Judgment Inventory as predictors of college student performance. Report submitted to MSU College Board.

Fandre, J., Pleskac, T. J., Quinn, A., Schmitt, N., Sinha, R., & Zorzie, M. (2008). Comparison of the responses of college applicants and college students to biodata and situational judgment measures. Report submitted to MSU College Board.

Pleskac, T. J. & Wallsten, T. S. (December 2004). Response mode, experience, and prior knowledge effects on information search and response mapping in judgment.

Norman, K. L. & Pleskac, T. J. (January 2002). Conditional branching in computerized self-administered questionnaires: An empirical study. LAP-2002-01, HCIL-2002-02, CSTR-4323, UMIACS-TR-2002-05.

Norman, K. L., Pleskac, T.J., Norman, K. (May 2001) Navigational issues in the design of online selfadministered questionnaires: The effect of training and familiarity. LAP-2001-01, HCIL-2001-09, CS-TR-4255, UMIACS-TR-2001-38. intertemporal choice. In G. Gunzelmann, A. Howes, T. Tenbrink, E. Davelaar (Eds.), *Proceedings of the 39th Annual Conference of the Cognitive Science Society* (pp. 265–271). London, UK. Cognitive Science Society. <u>PDF</u>

Markant, D.\*, Pleskac, T. J., Diederich, A., Pachur, T., & Hertwig, R. (2015). Modeling choice and search in decisions from experience: A sequential sampling approach. In D. C. Noelle, et al. (Eds.), *Proceedings of the 37th Annual Conference of the Cognitive Science Society* (pp. 1512–1517). Austin, TX: Cognitive Science Society. <u>PDF</u>

Kvam, P. D.\*, Pleskac, T. J., Busemeyer, J. R., & Yu, S.\* (2014). Interference in choice and confidence: Using the quantum random walk to model distributions of confidence. In H. Atmanspacer, et al. (Eds.), *Proceedings of Quantum Interaction Conference*, *8369*, 225–230. <a href="http://dx.doi.org/10.1007/978-3-642-54943-4\_20">http://dx.doi.org/10.1007/978-3-642-54943-4\_20</a>

Bucci, D. J., Acharya, S., Pleskac, T. J., & Kam, M. (2014). Subjective confidence and source reliability in soft data fusion. *Proceedings of the 48th Annual Conference on Information Sciences and Systems (CISS)*, (pp. 1-6). http://dx.doi.org/10.1109/ciss.2014.6814173

Bucci, D. J., Acharya, S., Pleskac, T. J., & Kam, M. (2014). Performance of probability transformations using simulated human opinions. *Proceedings of the 17th International Conference on Information Fusion (FUSION)*, (pp. 1-8).

Wershbale, A.\*, & Pleskac, T. J. (2010). Making assessments while taking sequential risks. In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society* (pp. 326–331). Austin, TX: Cognitive Science Society. <u>PDF</u>

Pleskac, T. J. & Busemeyer, J. R. (2007). A dynamic, stochastic theory of confidence, choice, and response time. In D. S. McNamara & J. G. Trafton (Eds.), *Proceedings of the 29th Annual Cognitive Science Society* (pp. 563–568). Austin, TX: Cognitive Science Society. <u>PDF</u>

Pleskac, T. J., Dougherty, M. R., Busemeyer, J. R., Rieskamp, J., & Tenenbaum J. (2007). Cognitive decision theory: Developing models of real-world decision behavior. In D. S. McNamara & J. G. Trafton (Eds.), *Proceedings of the 29th Annual Cognitive Science Society* (pp. 39–40). Austin, TX: Cognitive Science Society. <u>PDF</u>

### SOCIETY MEMBERSHIP

- American Psychological Association (APA)
- Association for Psychological Science (APS) Fellow
- European Association for Decision Making (EADM)
- Psychonomic Society
- Society for Judgment and Decision Making (SJDM)
- Society for Mathematical Psychology

### INVITED PRESENTATIONS (SINCE 2012)

#### 2018

- Pittsburgh, Pennsylvania. Invited talk at Carnegie Mellon University,
   Center for Behavioral Decision Research. Talk XII
- Lincoln, NE. Invited talk at the University of Nebraska, Center for Brain, Biology, and Behavior, Talk XII

#### 2017

- Lawrence, Kansas. Invited talk at the University of Kansas, Department of Psychology, Talk XII.
- lowa City, lowa. Invited talk at the University of Iowa, Department of Psychology, Talk XIV.
- London, UK. Invited talk at the University College London, Institute of Cognitive Neuroscience, Talk XI.
- East Lansing, Michigan. Invited talk at Michigan State University, Department of Psychology, Talk XII.
- Coventry, UK. Quantum Cognition Workshop, hosted at the University of Warwick in collaboration with the 2017 MathPsych/ ICCM Conference, Talk XIII.

#### 2016

- Barcelona, Spain. Conference and Workshop on Neural Information Processing Systems (NIPS). NIPS 2016 Workshop "Imperfect Decision Makers: Admitting Real-World Rationality", Talk X.
- Paris, France. Brain & Spine Institute (ICM), Symposium on Biology of Decision Making, Talk IX.
- Emmetten, Switzerland. Workshop on Sequential Sampling Models hosted by University of Basel, Switzerland, Talk IX.
- Potsdam, Germany. Workshop hosted by University of Warwick on the Nature of Preferences, Talk VIII.
- Newcastle, Australia. Invited talk at the University of Newcastle, Psychology Department, Talk X.
- Newcastle, Australia. Invited talk at the University of Newcastle, Center for Computer Assisted Research Mathematics and its Applications, Talk VI.
- Sydney, Australia. Invited talk at the University of New South Wales,

### TALKS GIVEN

- XIV. Modeling adaptive exploration in decisions from experience
- XIII. Quantum random walks
- XII. Building a science of small yet significant decisions
- XI. How an adaptive mind tames uncertainty with experience
- X. Rationality and quantum models of decision making
- IX. The dynamic nature of confidence
- VIII. Modeling the construction of preference with quantum theory
- VII. Modeling the effect of stereotypes on the decision to use deadly force
- VI. Modeling belief formation one step at a time
- V. How an adaptive mind exploits the relationship between risks and rewards
- IV. Ecologically rational choice in a structured environment
- III. Post decisional processing: Its effects on confidence and belief
- II. How people make decisions under uncertainty
- I. Modeling belief formation...one time step at a time

- Psychology Department, Talk VII.
- Heidelberg, Germany. Symposium on the Quantity of Information and Quality of Decisions, hosted by the University of Heidelberg, Alfred Weber Institute, Economics Department, Talk V.

#### 2015

- Chicago, Illinois. Invited talk at the University of Chicago, Booth School of Business. Marketing Department, Talk V.
- Budapest, Hungary. Invited talk for receiving the Jane Beattie
   Scientific Recognition Award presented at the Conference on
   Subjective Probability, Utility and Decision Making (SPUDM),
   hosted by the European Association for Decision Making, Talk IV.
- Provence, France. Conference on Subjective Confidence: Psychology, Physiology, Theory, hosted by Les Treilles Foundation, Talk III.
- Basel, Switzerland. Invited talk at the University of Basel, Psychology Department, Tak III.

#### 2014

- Berlin, Germany. Cognitive Neuroscience Forum, hosted by the Frei Universität, Berlin, Talk III.
- Coventry, UK. Decision Research Forum, hosted by the University of Warwick. Talk IV.
- Barcelona, Spain. Invited talk, Pompeu Fabra University,
   Department of Economics and Business, Talk IV.
- Ann Arbor, Michigan. Decision Consortium, hosted by the University of Michigan, Talk II.

#### 2012

- Chicago, Illinois. Invited talk at the University of Chicago, Booth School of Business, Center for Decision Research, Talk I.
- Irvine, California. Invited talk at the University of California, Irvine,
   Department of Cognitive Sciences, Talk I.

### TALKS GIVEN (continued)

- XIV. Modeling adaptive exploration in decisions from experience
- XIII. Quantum random walks
- XII. Building a science of small yet significant decisions
- XI. How an adaptive mind tames uncertainty with experience
- X. Rationality and quantum models of decision making
- IX. The dynamic nature of confidence
- VIII. Modeling the construction of preference with quantum theory
- VII. Modeling the effect of stereotypes on the decision to use deadly force
- VI. Modeling belief formation one step at a time
- V. How an adaptive mind exploits the relationship between risks and rewards
- IV. Ecologically rational choice in a structured environment
- III. Post decisional processing:Its effects on confidence and belief
- II. How people make decisions under uncertainty
- I. Modeling belief formation...one time step at a time

### EDITORIAL & REVIEWER EXPERIENCE

Since becoming an Associate Editor, my primary focus has been on *Psych Science* and *JEP: General*, yet the list to the right shows the wide variety of journals for which I have reviewed.

#### ASSOCIATE EDITOR

- Psychological Science, 2016–
- Journal of Experimental Psychology: General, 2015–2017
- Guest Associate Editor Journal of Mathematical Psychology, 2019

#### EDITORIAL BOARD

- Journal of Mathematical Psychology, 2018
- Decision, 2016
- Psychological Science, 2012, 2013, 2014, 2015
- Journal of Experimental Psychology: General, 2012, 2013, 2014
- Journal of Behavioral Decision Making, 2015 -

#### STEERING COMMITTEE

- Judgment & Decision Making, 2017-

#### REVIEW BOARD

Frontiers in Cognitive Science, 2010–2014

#### **GUEST EDITOR**

 Special issue: Markov Decision Models of Human Dynamic Decision Making, Journal of Mathematical Psychology, 2009

#### AD HOC MANUSCRIPT REVIEWER

Over 40 journals, see list to the right

#### AD HOC GRANT REVIEWER

- National Science Foundation
- United States Air Force Office of Scientific Research
- Israel National Science Foundation
- United States-Israel Binational Science Foundation
- Swiss National Science Foundation

#### CONFERENCE PAPER SUBMISSION REVIEWER

Annual meeting of the Cognitive Science Society, 2008, 2009

#### PROGRAM COMMITTEE MEMBER

Annual meeting of the Cognitive Science Society, 2010–2012

### AD HOC REVIEWER

- Acta Psychologica
- Attention, Perception & Psychophysics
- Behavior Research Methods
- Brain Research
- Cognition
- Cognitive, Affective, and Behavioral
- Neuroscience
- Cognitive Psychology
- Cognitive Systems Research
- Decision
- Emotion
- European Journal of Social Psychology
- Frontiers in Cognitive Science
- Human Brain Mapping
- Journal for the Society of Judgment and Decision Making
- Journal of Applied Research in Memory and Cognition
- Journal of Behavioral Decision Making
- Journal of Behavioral Research
- Journal of Experimental Psychology (JEP): General
- JEP: Human Perception & Performance
- JEP: Learning, Memory, & Cognition
- Journal of Mathematical Psychology
- Journal of Research in Personality
- Management Science
- Memory and Cognition
- Nature
- Neuron
- Organizational Behavior & Human Decision Processes
- Personality Disorders: Theory, Research, and Treatment
- PLOSOne
- PNAS
- Psychological Review
- Psychological Science
- Psychonomic Bulletin & Review
- Social, Cognitive, & Affective Neuroscience
- Topics in Cognitive Science
- Theory & Decision
- WIRE Cognitive Science

### TEACHING

\* developed course and course material (e.g., modeling exercises)

#### PROFESSIONAL WORKSHOPS

- Decision making across the lifespan (1, three-hour session).
- Bayesian data analysis for everyday researchers (6, one-hour sessions)
- Sequential sampling models with an emphasis on drift diffusion models (2, day-long sessions).
- Computational models of decision making (8, one-hour sessions)

#### UNIVERSITY OF KANSAS

#### Undergraduate

- Judgment and Decision Making

#### Graduate

- Bayesian Data Analysis

#### MICHIGAN STATE UNIVERSITY

#### Undergraduate

- Research Design and Methods\*
- Data analysis in Psychological Research
- Introduction to Psychology

#### Graduate

- Current Topics in Cognitive Science\*
- Higher-Order Cognitive Processes\*
- Cognitive Modeling\*

#### **Online Programming Course**

- Psychology Experiments with E-Prime\*

#### UNIVERSITY OF BASEL, SWITZERLAND

#### Graduate

- Negotiation Theory
- Behavioral Game Theory (Ungraduate & Graduate)\*
- Mathematical Models in Psychology

### TEACHING AWARDS

- Michigan State University,
   College of Social Science
   Alumni Association Outstanding
   Teaching Award, 2013
- University of Maryland
   Distinguished Teaching
   Assistant, 2002

### TEACHING INTERESTS

- Judgment and decision making
- Computational modeling
- Statistical methods for behavioral and social sciences
- Strategic decision making (negotiation & game theory)

### TEACHING PHILOSOPHY

As scientists we seek to separate ideas that work from ideas that do not. The ideas can be about how our physical world functions or how our mind operates. The ideas can also come in more applied forms like a particular medical treatment, a business practice, or an educational method. The scientific method does not discriminate. It helps us, in the words of Richard Feynman, "not fool ourselves" and not fool others in believing an idea works when it doesn't. A common objective throughout my teaching is to teach students this method and help them apply it to the problems they are interested in.

#### UNIVERSITY OF MARYLAND, COLLEGE PARK

#### Lab Instructor

- Quantitative Methods I and II (graduate)
- Introduction to Statistics (undergraduate)

#### **Teaching Assistant**

- Memory & Cognition

### ADVISING

#### **Postdoctoral Advisor**

Josh Abbott, 2017-18

Shuli Yu, 2015-17

Dirk Wulff, 2015–16

Junyi Dai, 2014-17

Doug Markant, 2014-17

Matt Zeigenfuse, 2011–12

#### **Graduate Student Advisor**

Charley Wu, PhD expected 2019

Christina Leuker, PhD 2018

Peter Kvam, PhD 2017

David Johnson, PhD 2017

Shuli Yu, PhD 2015

Avi Wershbale, Masters 2010

### SERVICE

#### Professional

- Chair de Finetti Young Investigator Award 2018
- Organizing committee for SPUDM 2021, Aarhus, Denmark
- Tenure and promotion external evaluator, 2017, 2018
- Executive Board, Society for Mathematical Psychology, 2017–2019
- Executive Board, European Association for Decision Making, 2017–
   2019
- Jane Beatie scientific recognition award committee, 2016
- Ad hoc reviewer for SJDM meeting, 2016
- Chair of Einhorn young investigator award committee for SJDM, 2012, 2013, 2014
- Einhorn young investigator award committee, SJDM, 2010, 2011
- Chair of organizing committee for the first annual Midwest Cognitive Meeting (~100 attendees), 2011
- Co-chair of first bi-annual conference on Cognitive Decision Theory
   / Wallsten Festschrift (~ 40 attendees) 2012
- Program committee for annual meeting of the Cognitive Science Society, 2010, 2011, 2012
- Poster judge committee for SJDM annual meeting 2009

### COMMITTEE WORK

Committee work for Michigan State University's Department of Psychology unless otherwise noted.

\* Chaired committee

#### **Doctoral**

Zachary Roman

**Trevor Swanson** 

Richard Kinai

Mark Anderson

Hiroaki Sakaguchi

Warwick University

Helen Steingröver

University of Amsterdam

Peter Kvam\*

Shuli Yu\*

David Johnson

Ash Luckman

University of New South Wales

Matt Grizzard, Communications

Jonathan Hakun

James Grand

John Dewey

Emily Darowski

#### **Comprehensive Exam**

Peter Kvam,\* Shuli Yu,\* Avi Wershbale,\* John Dewey,\* Jon Hakun, Emily Darowski

#### Masters

Peter Kvam\*

Shuli Yu\*

Avi Wershbale\*

Alan Wedd

Paul Cornwell, *Computer Science*Matt Grizzard, *Communications* 

David Clare, Communications

Briana DeAngelis, Communications

Poster judge for SJDM annual meeting, 2006, 2008, 2009

#### University of Kansas

- Program Director Brain, Behavior, and Quantitative Science, 2018-
- KU Office of Research Committee on Promotions, 2018
- CLAS Quantitative Pathways Work Group, 2019
- Chair of Visiting Assistant Professor Position, 2019

#### Max Planck Society

- Co-lead Center for Adaptive Rationality, 2014–2018
- Center for Lifespan Psychology hiring committe, 2014-2016

#### Department of Psychology, Michigan State University

- Chair of Quantitative Search Committee, 2012
- Chair Quantitative Methods and Evaluation Science Concentration, 2011–2013
- Opportunity Hire Committee, MSU, 2008
- Member of Cognitive Science Program at MSU, 2007–2014
- Cognitive Science Distinguished Speaker Committee, MSU, 2008
- Cognition & Cognitive Neuroscience Interest Group at MSU
- Comps Revision Committee, 2010
- Cognitive Interest Group Website Committee, Department of Psychology, MSU, 2007, 2008, 2009, 2010

#### Other Institutions

- University of Maryland-College Park Senator, 2002–2003
- APA-Graduate Student Campus Representative, 2001–2002

#### **Psychology Undergrad Honors**

Andrii Zakharov,
Patricia Zdziarska,\*
Claudia Passalacqua,\*
Aaron Levin,\*
Torrin Liddell,\*
Alex Jendrusina,\*
J. Ryan Brunton,\*
Pierra Jones.