

Clinton P. Davis-Stober

CONTACT INFORMATION 219 McAlester Hall 217-714-9270
Columbia, MO 65211 stoberc@missouri.edu

PROFESSIONAL POSITIONS **Professor** September 2019 to present
Department of Psychological Sciences,
University of Missouri
Columbia, MO

Associate Professor August 2015 to August 2019
Department of Psychological Sciences,
University of Missouri
Columbia, MO

Assistant Professor August 2009 to July 2015
Department of Psychological Sciences,
University of Missouri
Columbia, MO

APPOINTMENTS **Core Faculty Member** December 2018 to present
MU Institute for Data Science and Informatics,
University of Missouri
Columbia, MO

Adjunct Senior Research Fellow June 2015 to December 2018
Institute for Choice,
Business School
University of South Australia
Adelaide, South Australia

EDUCATION **University of Illinois, Urbana-Champaign, IL**
Ph.D., Quantitative Psychology, 2009
M.S., Mathematics, 2007
M.A., Psychology, 2007

University of Oregon, Eugene, OR
B.S., Psychology (Dept. Honors)/Mathematics minor, 2003

University of Iowa, Iowa City, IA
B.A., Journalism, 1999

AWARDS

National Recognition

- Fellow of the Psychonomic Society 2019
- Clifford T. Morgan Best Article Award, Psychonomic Society 2014
(with Dr. Dana)
- William K. Estes Early Career Award, 2012
Society for Mathematical Psychology
- Exeter Prize for Best Paper in Experimental Economics, 2012
Decision Theory, and Behavioral Economics,
University of Exeter Business School
(with Drs. Dana and Regenwetter)
- R. Duncan Luce Outstanding Paper Award, 2011
Journal of Mathematical Psychology
- Distinguished Dissertation Award, APA Division 5 2010

University Recognition — University of Missouri

- MU Top Faculty Achievers 2016; 2017
- Faculty Fellowship, College of Arts and Sciences 2014
- Robert S. Daniels Outstanding Junior Faculty Teaching Award 2014
- Provost Outstanding Junior Faculty Research 2013
and Creative Activity Award (campus-wide award)
- Max Meyer Outstanding Junior Faculty Research Award 2012

Graduate School Recognition — University of Illinois, Urbana-Champaign

- Dissertation Completion Fellowship 2008-2009
- Nancy Hirschberg Memorial Award for Scholarship and Research 2007
- Jeffrey Tanaka Memorial Award for Scholarship and Research 2007
- Pre-doctoral Traineeship, Institutional National Research 2006-2008
Service Award, National Institutes of Mental Health (NIMH)
- University of Illinois Graduate Fellowship 2004-2005

EDITORIAL
APPOINTMENTS

Co-Guest Editor (Special Issue in honor Peter Fishburn) 2021-present
Journal of Mathematical Psychology

Co-Guest Editor (Special Issue in honor of R. Duncan Luce) 2014-2016
Journal of Mathematical Psychology

Associate Editor 2013-present
British Journal of Mathematical and Statistical Psychology

Associate Editor 2019-present
Journal of Mathematical Psychology

Editorial Board 2015-present
Decision

Editorial Board 2013-present
Judgment and Decision Making

- PROFESSIONAL MEMBERSHIPS
- Executive Board Member (Elected), Society for Mathematical Psychology, 2015-2021
 - Psychonomic Society, 2016-present
 - Association for Psychological Science, 2019-present
 - American Psychological Association, Division 5: Evaluation, Measurement and Statistics, 2019-present
- INTERNATIONAL SERVICE
- Co-organizer, Computational Approaches to Memory and Decision Making Symposium, Mathematical Psychology Satellite Day, Psychonomic Society Annual Meeting, 2017; 2018; 2019
 - Co-organizer, QTest Workshop, European Mathematical Psychology Group Meeting, Copenhagen, 2016
 - Co-organizer, International Workshop and Symposium on Probabilistic Specification and Quantitative Testing of Decision Theories, Society for Mathematical Psychology Annual Meeting, Madison, WI, USA, 2018
- GRANT PANEL REVIEWING
- National Science Foundation (NSF)
- AD HOC GRANT REVIEWING
- National Science Foundation (NSF)
 - Air Force Office of Scientific Research (AFSOR)
 - Swiss National Science Foundation (SNSF)
 - Social Sciences and Humanities Research Council of Canada (SSHRC)
- AD HOC JOURNAL REVIEWING
- Proceedings of the National Academy of Sciences
 - American Psychologist
 - Psychological Review
 - Management Science
 - Operations Research
 - Topics in Cognitive Science
 - Psychological Science
 - Perspectives on Psychological Science
 - Psychonomic Bulletin and Review
 - Journal of Mathematical Psychology
 - Mathematical Social Sciences
 - Psychometrika
 - Psychological Methods
 - Multivariate Behavioral Research
 - Behavior Research Methods
 - Decision Analysis
 - Judgment and Decision Making
 - Journal of Behavioral Decision Making
 - American Journal of Political Science
 - Methodology: European Journal of Research Methods in Behavioral and Social Sciences
 - Frontiers in Psychology
 - Order

- Applied Psychological Measurement
- Journal of Integer Sequences
- Communication in Statistics - Simulation and Computation
- Clinical Psychological Sciences
- Journal of Experimental Psychology: Learning, Memory, and Cognition

CURRENT

GRANT FUNDING

National Institutes of Health (NIH)

- *Advanced Mathematical Modeling of Decision Making, in Alcohol Research* 2016-2022

National Institute on Alcohol Abuse and Alcoholism (NIAAA)

ID# K25AA024182

Total costs: \$633,084

Role: Principal Investigator

Department of Defense (DoD)

- *Quantitative ambulatory assessment and prognosis of the impact of severe upper limb injuries on real world behavior* 2021-2023

Total costs: \$1,500,000

Role: Co-Investigator (Frey, PI)

Centers for Disease Control and Prevention (CDC)

2020-2023

- *Culture, Longitudinal Patterns, and Safety Promotion of Handgun Carrying Among Rural Adolescents: Implications for Injury Prevention*

The National Center for Injury Prevention and Control,
Division for Violence Prevention

First year award: \$461,284

Role: Advisory Board Member (Rowhani-Rahbar, PI)

National Institutes of Health (NIH)

- *Psychology of Alcohol Use and Dependence Training* 2017-2022

National Institute for Alcohol Abuse and Alcoholism (NIAAA)

T32 Training Grant

Role: Preceptor (McCarthy, PI; Sher, PI)

National Institutes of Health (NIH)

- *Mathematical Models of Intoxicated Risky Decision Making* 2019-2022

National Institute for Alcohol Abuse and Alcoholism (NIAAA)

F31 Pre-doctoral Grant

Role: Co-Mentor (L. Hatz, PI)

COMPLETED
GRANT FUNDING

- National Science Foundation (NSF)
- *Collaborative Research: Invariants of Decision Making, Decision, Risk and Management Sciences (DRMS).* 2015-2019
SES# 1459866 (Davis-Stober, PI)
Total costs to Davis-Stober: \$200,120
Total costs across all institutions: \$500,000
Role: Principal Investigator
- National Institutes of Health (NIH)
- *Neural Correlates of Decision Making Under Risk and Substance Misuse* 2018-2021
National Institute for Alcohol Abuse and Alcoholism (NIAAA)
F31 Pre-doctoral Grant
Role: Consultant (K. McCarty, PI)
- National Center for Responsible Gambling
- *Unique Research Opportunities in the Genetics and Epidemiology of Disordered Gambling* 2017-2020
Center of Excellence in Gambling Research Grant
Role: Preceptor (W. Slutske, PI)
- National Institutes of Health (NIH)
- *Alcohol and Adult Development: Understanding Etiology and Consequences* 2015-2018
5K05AA017242
National Institute for Alcohol Abuse and Alcoholism (NIAAA)
Total costs: \$195,139
Role: Mentee (Sher, PI)
- Subcontract from the University of Victoria
- Social Sciences and Humanities Research Council 2014-2017
Insight Program #435-2012
Total costs: \$19,126
Role: Co-Investigator (Marley, McCausland, PIs)
- Institute for Choice, University of South Australia
- Visiting Scholar Fellowship, 2015-2016
Improving Choice Models (Swait, PI)
Total costs: \$20,000 (AUD)
- University of Missouri Research Board
- *Inference Strategies and Information Search in Financial Decision Making* 2012-2014
Total costs: \$32,000
Role: Principal Investigator (Yilmazer, Co-PI)
- Subcontract from Applied Research Associates

- Intelligence Advanced Research Projects Activity, 2012-2013
Office of the Director of National Intelligence
Aggregative Contingent Estimation System
Total costs: \$155,019
Role: Co-Principal Investigator (Merkle, PI)

University of Missouri Research Board

- *Empirical Tests of Decision Models Based on Lexicographic Semiorders* 2010-2012
Total costs: \$33,748
Role: Principal Investigator

University of Missouri

- Arts and Sciences Alumni Organization Faculty Incentive Grant
Evaluating Models of Risk 2013-2014
Total costs: \$1,500
Role: Principal Investigator

- University of Missouri Research Council 2012-2013
Understanding Individuals' Ability to Search, Process and Interpret Financial Information
Total costs: \$7,500
Role: Principal Investigator

- Seeding Interdisciplinary Research Collaborations (SIRC) 2011-2012
Understanding Decision Strategies and Information Search in the Context of Borrowing
Total costs: \$1,000
Role: Co-Investigator (Yilmazer, PI)

- Arts and Sciences Alumni Organization Faculty Incentive Grant
An Empirical Analysis of Decision Making Models Based on Lexicographic Semiorders 2010-2011
Total costs: \$1,500
Role: Principal Investigator

MANUSCRIPTS
UNDER REVIEW

1. Singmann, H., Kellen, D., Cox, G. E., Chandramouli, S. H., **Davis-Stober, C. P.**, Dunn, J. C., Gronau, Q. F., Kalish, M. L., McMullin, S. D., Navarro, D. J., & Shiffrin, R. M. (under review). Statistics in the service of science: Don't let the tail wag the dog.
2. McMullin, S. D., Motschman, C., Hatz, L., McCarthy, D., & **Davis-Stober, C. P.** (under review). Decision strategies while intoxicated relate to alcohol-impaired driving attitudes and intentions.

PEER-REVIEWED
JOURNAL
ARTICLES
(STUDENTS
LISTED IN
ITALICS)

55. Regenwetter, M., **Davis-Stober, C. P.**, Smeulders, B., Fields, B., & Wang, C. (in press). (Ir)rationality of animal choice? A guide to testing transitivity. *The Quarterly Review of Biology*.

54. Brusco, M., **Davis-Stober, C. P.**, & Steinley, D. (2021). Ising formulations of some graph-theoretic problems in psychological research: Models and methods. *Journal of Mathematical Psychology, 110*, 102536.
53. McCarthy, D. M., McCarty, K. N., Hatz, L., Prestigiacomio, C. J., Park, S., & **Davis-Stober, C. P.** (2021). Applying Bayesian cognitive models to decisions to drive after drinking. *Addiction, 116*, 1424-1430.
52. Kellen, D., **Davis-Stober, C. P.**, Dunn, J. C., & Kalish, M. L. (2021). The problem of coordination and the pursuit of structural constraints in psychology. *Perspectives on Psychological Science, 16*, 767-778.
51. *Chen, M.*, Regenwetter, M., & **Davis-Stober, C. P.** (2021). Collective choice may tell nothing about anyone's individual preferences. *Decision Analysis, 18*, 1-24.
50. Kazmierczak, R. A., Dhagat-Mehta, B., Gulden, E., Lee, L., Ma, L., **Davis-Stober, C. P.**, Barnett, A. A., & Chabu, Y. C. (2020). Evaluations of CRC2631 toxicity, tumor colonization, and genetic stability in the TRAMP prostate cancer model. *Oncotarget, 11*, 3943-3958.
49. Motschman, C. A., Warner, O. M., Wycoff, A. M., **Davis-Stober, C. P.**, & McCarthy, D. M. (2020). Context, acute tolerance, and subjective response affect alcohol-impaired driving decisions. *Psychopharmacology, 237*, 3603-3614.
48. Merkle, E. C., Saw, G., & **Davis-Stober, C. P.** (2020). Beating the average forecast: Regularization based on forecaster attributes. *Journal of Mathematical Psychology, 98*, 102419.
47. *Hatz, L., Park, S., McCarty, K., McCarthy, D., & Davis-Stober, C. P.* (2020). Young adults make rational sexual decisions. *Psychological Science, 31*, 944-956.
46. McCausland, W. J., **Davis-Stober, C. P.**, Marley, A. A. J., *Park, S., & Brown, N.* (2020). Testing the random utility hypothesis directly. *The Economic Journal, 130*, 183-207.
45. Kellen, D., Steiner, M., **Davis-Stober, C. P.**, & Pappas, N. (2020). Modeling choice paradoxes under risk: From prospect theories to sampling-based accounts. *Cognitive Psychology, 118*, 101258.
44. *Park, S., Davis-Stober, C. P., Synder, H., Messner, W., & Regenwetter, M.* (2019). Cognitive aging and tests of rationality. *The Spanish Journal of Psychology, 22*, E57.
43. **Davis-Stober, C. P.** & Regenwetter, M. (2019). The 'paradox' of converging evidence. *Psychological Review, 126*, 865-879.
42. *Segert, S., & Davis-Stober, C. P.* (2019). A general approach to prior adjustment. *Journal of Mathematical Psychology, 91*, 103-118.

41. Heck, D. W., & **Davis-Stober, C. P.** (2019) Multinomial models with linear inequality constraints: Overview and improvements of computational methods for Bayesian inference. *Journal of Mathematical Psychology, 91*, 70-87.
40. Rouder, J. N., Haaf, J. M., **Davis-Stober, C. P.**, & Hilgard, J. (2019). Beyond overall effects: A Bayesian approach to finding constraints across a collection of studies in meta-analysis. *Psychological Methods, 24*, 606-621.
39. Zhao, W. J., Bhatia, S., & **Davis-Stober, C. P.** (2019). Optimal cue aggregation in the absence of criterion knowledge. *Journal of Behavioral Decision Making, 32*, 415-430.
38. Brusco, M. J., Steinley, D., Hoffman, M., **Davis-Stober, C. P.**, & Wasserman, S. W. (2019). On Ising models and algorithms for the construction of symptom networks in psychopathological research. *Psychological Methods, 24*, 735-753.
37. **Davis-Stober, C. P.**, McCarty, K. N., & McCarthy, D. M. (2019). Decision making and alcohol: Health policy implications. *Policy Insights from the Brain and Behavioral Sciences, 6*, 64-71.
36. **Davis-Stober, C. P.**, McCarthy, D., Cavagnaro, D. R., Price, M., Brown, N., & Park, S. (2019). Is cognitive impairment related to violations of rationality? An alcohol intoxication study testing transitivity of preference. *Decision, 6*, 134-144.
35. Cavagnaro, D. R., & **Davis-Stober, C. P.** (2018). A model-based test for treatment effects with probabilistic classifications. *Psychological Methods, 23*, 672-689.
34. **Davis-Stober, C. P.**, Dana, J., & Rouder, J. (2018). Estimation accuracy in the psychological sciences. *PLoS ONE, 13*, e0207239.
33. **Davis-Stober, C. P.**, Doignon, J.-P., Fiorini, S., Glineur, F., & Regenwetter, M. (2018). Extended formulations for order polytopes through network flows. *Journal of Mathematical Psychology, 87*, 1-10.
32. Smeulders, B., **Davis-Stober, C. P.**, Regenwetter, M., & Spijkens, F. C. R. (2018). Testing probabilistic models of choice using column generation. *Computers & Operations Research, 95*, 32-43.
31. Regenwetter, M., & **Davis-Stober, C. P.** (2018). The role of independence and stationarity in probabilistic models of binary choice. *Journal of Behavioral Decision Making, 31*, 100-114.
30. Brown, N., Park, S., Steinley, D., & **Davis-Stober, C. P.** (2018). Modeling between-subject variability in decision strategies via statistical clustering: A p -median approach. *Journal of Behavioral Decision Making, 31*, 250-264.

29. Kellen, D., Mata, R., & **Davis-Stober, C. P.** (2017). Individual classification of strong risk attitudes: An application across lottery types and age groups. *Psychonomic Bulletin & Review*, *24*, 1341-1349.
28. **Davis-Stober, C. P.**, Brown, N., Park, S., & Regenwetter, M. (2017). Recasting a biologically motivated computational model within a Fechnerian and random utility framework. *Journal of Mathematical Psychology*, *77*, 156-164.
27. Tierney, W., et al. (82 authors). (2016). Data from a pre-publication independent replication initiative examining ten moral judgement effects. *Scientific Data*, *3*, article number: 160082.
26. **Davis-Stober, C. P.**, Park, S., Brown, N., & Regenwetter, M. (2016). Reported violations of rationality may be aggregation artifacts. *Proceedings of the National Academy of Sciences of the United States of America*, *113* E4761-E4763.
25. **Davis-Stober, C. P.**, Morey, R. D., Gretton, M., & Heathcote, A. (2016). Bayes factors for state-trace analysis. *Journal of Mathematical Psychology*, *72*, 116-129.
24. Schweinsberg, M., et al. (81 authors). (2016). The pipeline project: Pre-publication independent replications of a single laboratory's research pipeline. *Journal of Experimental Social Psychology*, *66*, 55-67.
23. Dana, J., & **Davis-Stober, C. P.** (2016). Rational foundations for fast and frugal heuristics: An improper linear models approach. *Minds and Machines*, *26*, 61-86.
22. **Davis-Stober, C. P.**, Doignon, J.-P., & Suck, R. (2015). A note on the eigensystem of the covariance matrix of dichotomous Guttman items. *Frontiers in Psychology*, *6*, 1767.
21. **Davis-Stober, C. P.**, Budescu, D. V., Broomell, S. B., & Dana, J. (2015). The composition of optimally wise crowds. *Decision Analysis*, *12*, 130-143. **Selected for INFORMS Editor's Cut, Wisdom of the crowd: Crowdsourcing analytics.**
20. Brown, N., **Davis-Stober, C. P.**, & Regenwetter, M. (2015). Commentary: "Neural signatures of intransitive preferences." *Frontiers in Human Neuroscience*, *9*, 509.
19. **Davis-Stober, C. P.**, Brown, N., & Cavagnaro, D. R. (2015). Individual differences in the algebraic structure of preference. *Journal of Mathematical Psychology*, *66*, 70-82.
18. Cavagnaro, D. R., & **Davis-Stober, C. P.** (2014). Transitive in our preferences, but transitive in different ways: An analysis of choice variability. *Decision*, *1*, 102-122.
17. **Davis-Stober, C. P.**, Budescu, D. V., Dana, J., & Broomell, S. B. (2014). When is a crowd wise? *Decision*, *1*, 79-101. [Lead Article]

16. Regenwetter, M., **Davis-Stober, C. P.**, Lim, S. H., Guo, Y., Popova, A., Zwillig, C., Cha, Y.-C., & Messner, W. (2014). QTEST: Quantitative Testing of theories of binary choice. *Decision, 1*, 2-34. [Lead Article]
15. **Davis-Stober, C. P.**, & Dana, J. (2014). Comparing the accuracy of experimental estimates to guessing: A new perspective on replication and the “crisis of confidence” in psychology. *Behavior Research Methods, 46*, 1-14. **Awarded a Clifford T. Morgan Best Article Award.** [Lead Article]
14. **Davis-Stober, C. P.**, & Brown, N. (2013). Evaluating decision maker “type” under p -additive utility representations. *Journal of Mathematical Psychology, 57*, 320-328.
13. Regenwetter, M., & **Davis-Stober, C. P.** (2012). Behavioral variability of choices versus structural inconsistency of preferences. *Psychological Review, 119*, 408-416.
12. **Davis-Stober, C. P.** (2012). A lexicographic semiorder polytope and probabilistic representations of choice. *Journal of Mathematical Psychology, 56*, 86-94.
11. Regenwetter, M., Dana, J., **Davis-Stober, C. P.**, & Guo, Y. (2011). Parsimonious testing of transitive or intransitive preferences: Reply to Birnbaum (2011). *Psychological Review, 118*, 684-688.
10. **Davis-Stober, C. P.**, & Brown, N. (2011). A shift in strategy or “error”? Strategy classification over multiple stochastic specifications. *Judgment and Decision Making, 6*, 800-813.
9. **Davis-Stober, C. P.** (2011). A geometric analysis of when fixed weighting schemes will outperform ordinary least squares. *Psychometrika, 76*, 650-669.
8. Regenwetter, M., Dana, J., & **Davis-Stober, C. P.** (2011). Transitivity of preferences. *Psychological Review, 118*, 42-56. **Awarded the 2012 Exeter Prize for Best Paper in Experimental Economics, Decision Theory, and Behavioral Economics, University of Exeter Business School.**
7. **Davis-Stober, C. P.** (2010). A bijection between a set of lexicographic semiorders and pairs of non-crossing Dyck paths. *Journal of Mathematical Psychology, 54*, 471-474. [Lead Article]
6. Regenwetter, M., Dana, J., & **Davis-Stober, C. P.** (2010). Testing transitivity of preferences on two-alternative forced choice data. *Frontiers in Psychology, 1*, 148.
5. **Davis-Stober, C. P.**, Dana, J., & Budescu, D. V. (2010). A constrained linear estimator for multiple regression. *Psychometrika, 75*, 521-541.

4. **Davis-Stober, C. P.**, Dana, J., & Budescu, D. V. (2010). Why recognition is rational: Optimality results on single-variable decision rules. *Judgment and Decision Making*, 5, 216-229. [Lead Article]
3. **Davis-Stober, C. P.** (2009). Multinomial models under linear inequality constraints: Applications to measurement theory. *Journal of Mathematical Psychology*, 53, 1-13. **Awarded the R. Duncan Luce Outstanding Paper Award for 2008-2010.** [Lead Article]
2. Regenwetter, M., Grofman, B., Popova, A., Messner, W., **Davis-Stober, C. P.**, & Cavagnaro, D. R. (2009). Behavioral social choice: A status report. *Philosophical Transactions of the Royal Society of London B*, 364, 833-843.
1. Rueda, M. R., Posner, M. I., Rothbart, M. K., & **Davis-Stober, C. P.** (2004). Development of the time course for processing conflict: An event-related potentials study with 4 year olds and adults. *BioMed Central Neuroscience*, 5, 39.

BOOK CHAPTERS

2. Regenwetter, M., & **Davis-Stober, C. P.** (2011). Ternary paired comparisons induced by semi- or interval order preferences. In E. Dzhafarov, L. Perry (Eds.), *Descriptive and normative approaches to human behavior*. World Scientific.
1. Regenwetter, M., & **Davis-Stober, C. P.** (2008). There are many models of transitive preference: A tutorial review and current perspective. In T. Kugler, J. C. Smith, T. Connolly, and Y. J. Son (Eds.), *Decision modeling and behavior in uncertain and complex environments*. New York: Springer.

OTHER PUBLICATIONS

3. Marley, A. A. J., **Davis-Stober, C. P.**, & Steingrimsson, R. (2016). Editors' forward for the special issue in honor of R. Duncan Luce. *Journal of Mathematical Psychology*, 75, 1-2.
2. **Davis-Stober, C. P.** (2008). Review of the book: The mathematics of behavior. *Psychometrika* 73, 341.
1. **Davis-Stober, C. P.**, Broomell S., & Lorenz, F. (2006). Review of the book: Exploratory data analysis with MATLAB. *Psychometrika* 71, 107-108.

INVITED TALKS

38. **Davis-Stober, C. P.** (2021, July). *An investigation of rational decision making*. Invited talk for the Mellenbergh lecture series, Psychological Methods Department of the University of Amsterdam.
37. **Davis-Stober, C. P.** (2021, April). *Investigating rational decision making across multiple domains*. Invited talk at the Zurich Center for Neuroeconomics, Department of Economics, University of Zurich.

36. **Davis-Stober, C. P.** (2021, April). *The paradox of converging evidence and possible remedies*. Invited talk at the Department of Psychology at the University of Oklahoma as part of the 50th anniversary celebration of OU quantitative psychology.
35. **Davis-Stober, C. P.** (2021, February). *A new perspective on modeling decision making within the addiction sciences*. Invited talk at Johns Hopkins University Behavioral Pharmacology Research Unit.
34. **Davis-Stober, C. P.** (2020, November). *Understanding the wisdom of crowds*. Invited talk at the Department of Psychology, University of Illinois, Urbana-Champaign, IL.
33. **Davis-Stober, C. P.** (2019, November). *The ‘paradox’ of converging evidence*. Invited talk at the University of Memphis, Memphis, TN.
32. **Davis-Stober, C. P.** (2019, September). *The ‘paradox’ of converging evidence*. Invited talk at the University of Kansas, Lawrence, KS.
31. **Davis-Stober, C. P.** (2019, September). *The ‘paradox’ of converging evidence*. Invited talk at the University of Mannheim, Mannheim, Germany.
30. **Davis-Stober, C. P.** (2019, February). *Understanding the individual within the crowd: An analysis of how individual forecasters contribute to ideal group forecasts*. Invited talk at the Santa Fe Institute, Santa Fe, NM.
29. **Davis-Stober, C. P.** (2018, November). *More rational than a rational person might guess*. Invited talk at the Department of Psychology, University of California, San Diego, CA.
28. **Davis-Stober, C. P.** (2018, October). *Linking axiomatic perspectives on decision making to brain connectivity*. Mathematical models of decision making processes: State of the art and challenges, advanced international seminar, Universidad Complutense de Madrid, Madrid, Spain.
27. **Davis-Stober, C. P.**, Cavagnaro, D. R., Heck, D. W., & Park, S. (2018, October). *Testing the separable representation of utility theories: An experiment evaluating monotonicity, transitivity, and double cancellation*. CIREQ Montreal Microeconomic Theory Conference: Foundations of discrete choice, Montreal, CA.
26. **Davis-Stober, C. P.** (2017, November). *Tests of rationality across multiple experimental domains*. Computational approaches to memory and decision making symposium, Psychonomics Annual Meeting, Vancouver, CA.
25. **Davis-Stober, C. P.** (2017, February). *Understanding the individual within the crowd: An analysis of how individual forecasters contribute to ideal group forecasts*. Invited talk at Microsoft Research, New York City.
24. **Davis-Stober, C. P.** (2016, January). *A new perspective on identifying and testing invariants of decision making*. Invited talk at the Department of Psychology, University of Michigan, Ann Arbor.
23. **Davis-Stober, C. P.** (2016, January). *A new perspective on identifying and testing invariants of decision making*. Invited talk at the Department of Social and Decision Sciences, Carnegie Mellon University, Pittsburgh.
23. **Davis-Stober, C. P.** (2015, December). *A new perspective on identifying and testing invariants of decision making*. Invited talk at the University of Kansas.
22. **Davis-Stober, C. P.** (2015, December). *A new perspective on identifying and testing invariants of decision making*. Invited talk at the University of

California at Davis.

21. **Davis-Stober, C. P.** (2015, November). *The composition of optimally wise crowds*. Invited talk at the Institute for Choice, University of South Australia.
20. **Davis-Stober, C. P.** (2015, November). *The composition of optimally wise crowds*. Invited talk at the University of New South Wales, Australia.
19. **Davis-Stober, C. P.** (2015, October). *The composition of optimally wise crowds*. Invited talk at the University of Tasmania, Australia.
18. **Davis-Stober, C. P.** (2015, October). *The composition of optimally wise crowds*. Invited talk at the University of Melbourne, Australia.
17. **Davis-Stober, C. P.** (2015, April). *The composition of optimally wise crowds*. Invited talk at the University of Illinois, Urbana-Champaign.
16. **Davis-Stober, C. P.** (2014, October). *A new perspective on identifying and testing invariances of decision-making*. Invited talk for the department of Psychology, Purdue University.
15. **Davis-Stober, C. P.** (2014, May). *A new perspective on identifying and testing invariances of decision-making*. Invited talk for the department of Psychology, University of California, Irvine.
14. **Davis-Stober, C. P.** (2014, February). *Optimal group configuration and member weighting*. Invited talk for the Good Judgment Group, Department of Psychology, University of Pennsylvania, Philadelphia.
13. **Davis-Stober, C. P.** (2013, December). *A new perspective on the algebraic structure of decision-making: Theoretic and empirical results*. Invited talk at the departments of Psychology and Statistics, University of Minnesota, Minneapolis.
12. **Davis-Stober, C. P.** (2013, August). *Evaluating fixed weighting rules*. Invited talk at the Max Planck Institute for Human Development, Berlin, Germany.
11. **Davis-Stober, C. P.** (2013, August). *A new perspective on non-compensatory decision-making: theoretic and empirical results*. Keynote address presented at the 46th annual meeting of the Society for Mathematical Psychology, Potsdam, Germany.
10. **Davis-Stober, C. P., & Brown, N.** (2013, July). *Evaluating the risk attitude of decision makers under p -additive model representations*. Invited talk at the Centre for the Study of Choice (CenSoc), University of Technology Sydney, Sydney, Australia.
9. **Davis-Stober, C. P., Budescu, D. V., Dana, J., & Broomell, S. B.** (2012, May). *When is a crowd wise?* Paper presented at the 2012 APS annual convention as part of the symposium "A closer look at the wisdom of crowds," Chicago, IL.
8. **Davis-Stober, C. P.** (2011, February). Invited discussant of the paper *Muddling Through and Making Do: Bounded Rationality and Its Impact on How We Decide* by Dr. Elke Weber. Presented at the University of Missouri Symposium on Realistic Decision Making, Columbia, MO.
7. **Davis-Stober, C. P., & Brown, N.** (2011, October). *A shift in strategy or error? Strategy classification over multiple stochastic specifications*. Paper presented to the Max Planck Institute for Collective Goods, Bonn, Germany.
6. **Davis-Stober, C. P.** (2010, August). *Evaluating Decision-Making Models*

and New Perspectives on Choice Variability. Paper presented to APA Division 5 during acceptance of Distinguished Dissertation Award, 118th Annual Convention of the American Psychological Association, San Diego, CA.

5. **Davis-Stober, C. P.** (2009, October). *The never-ending robust beauty of improper linear models*. Paper presented as part of the Quantitative Division Brownbag Series, Department of Psychology, University of Illinois at Urbana-Champaign, Champaign, IL.
4. **Davis-Stober, C. P.** (2009, January). *Why Dewey Decimal won't cut it: A lexicographic model of individual and group decision making*. Paper presented to the Strategic Resources Department at State Farm Insurance Corporate Headquarters, Bloomington, IL.
3. **Davis-Stober, C. P.** (2008, December). *Why Dewey Decimal won't cut it: A lexicographic model of individual decision making*. Paper presented to the Department of Psychological Sciences at the University of Missouri at Columbia, Columbia, MO.
2. **Davis-Stober, C. P.** (2007, November). *Analysis of choice probabilities under inequality constraints*. Paper presented at the annual meeting for the Institute for Operations Research and the Management Sciences (INFORMS), Seattle, WA.
1. **Davis-Stober, C. P.** (2006, August). *Frequentist axiom testing: A generalization of Iverson and Falmagne's likelihood ratio technique*. In J. Myung (Chair), Intransitivity of preference: Revisited. Symposium conducted at the 39th annual meeting of the Society for Mathematical Psychology, Vancouver, British Columbia, Canada.

SELECTED
PRESENTATIONS

- **Davis-Stober, C. P.** (2019, November). *The 'paradox' of converging evidence*. Annual meeting of the Psychonomic Society, Montreal, CA.
- Hatz, L., McCarty, K., Park, S., McCarthy, D. M., & **Davis-Stober, C. P.** (2019, July). *Associations between sexual decision making, behavior, and expectancies using order constrained Bayesian inference*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Montreal, CA.
- Heck, D., **Davis-Stober, C. P.**, & Cavagnaro, D. (2019, July). *Testing informative hypotheses about latent classes of strategy users based on probabilistic classifications*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Montreal, CA.
- McCarty, K., Hatz, L., Segert, S., McCarthy, D. M., & **Davis-Stober, C. P.** (2019, July). *Applying dynamic cognitive models of intertemporal choice to addiction*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Montreal, CA.
- **Davis-Stober, C. P.**, Cavagnaro, D., Heck, D., & Park, S. (2019, July). *Testing the separable representation of utility theories: An experiment evaluating monotonicity, transitivity, and double cancellation*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Montreal, CA.
- **Davis-Stober, C. P.**, Marley, A. A. J., McCausland, W. J., & Turner, B. (2018, July). *An illustrated guide to context effects*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Madison, WI.

- Regenwetter, M., & **Davis-Stober, C. P.** (2018, July). *The ‘paradox’ of converging evidence*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Madison, WI.
- **Davis-Stober, C. P.**, Park, S., & Regenwetter, M. (2018, July). *Cognitive aging and tests of rationality*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Madison, WI.
- Fields, B. R., Regenwetter, M., Smeulders, B., **Davis-Stober, C. P.**, & Wang, C. (2018, July). *Rational mate choice in fruit flies? A re-analysis*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Madison, WI.
- McCausland, W. J., **Davis-Stober, C. P.**, & Marley, A. A. J. (2018, July). *Testing axioms of stochastic discrete choice using population choice probabilities*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Madison, WI.
- Hatz, L., McCarty, K., Park, S., McCarthy, D. M., & **Davis-Stober, C. P.** (2018, July). *Mathematical modeling of sexual decision making strategies*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Madison, WI.
- McCarty, K. N., Hatz, L., Park, S., McCarthy, D. M., & **Davis-Stober, C. P.** (2018, July). *Applying Bayesian cognitive models to decision to drive after drinking*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Madison, WI.
- **Davis-Stober, C. P.** (2017, August). *A large-scale study examining differences in risk attitude across three choice contexts: financial, health care, and climate change policies*. Paper presented at the annual meeting of the Society for Mathematical Psychology, Coventry, UK.
- **Davis-Stober, C. P.**, Budescu, D. V., Broomell, S. B., & Dana, J. (2014, June). *When is a crowd wise?* Paper presented at the Collective Intelligence Conference, MIT. Cambridge, MA
- **Davis-Stober, C. P.**, & Dana, J. (2013, November). *When are our experimental findings better than a guess?* Paper presented at the 34th annual meeting of the Society for Judgment and Decision Making, Toronto, Canada.
- **Davis-Stober, C. P.**, & Brown, N. (2013, July). *Evaluating the risk attitude of decision makers under p-additive model representations*. Paper presented at the 46th annual meeting of the Society for Mathematical Psychology, Potsdam, Germany.
- **Davis-Stober, C. P.**, Brown, N., & Cavagnaro, D. R. (2013, July). *Evaluating decision makers’ preferences via lexicographic semiorders*. Paper presented at the International Choice Modeling Conference, Sydney, Australia.
- **Davis-Stober, C. P.**, & Dana, J. (2013, July). *When are our experimental findings better than a guess?* Paper presented at the Efficient Science: Methodological Controversies in Judgment and Decision Making Research Small Group Meeting, Bonn, Germany.
- **Davis-Stober, C. P.**, & Dana, J. (2012, August). *Acceptable measurement accuracy in psychology*. Paper presented at the 45th annual meeting of the Society for Mathematical Psychology, Columbus, OH.
- **Davis-Stober, C. P.**, & Dana, J. (2012, July). *Acceptable measurement accuracy in psychology*. Paper presented at the annual meeting of the Psychometric

Society, Lincoln, NE.

- **Davis-Stober, C. P.**, & Dana, J. (2011, November). *When should we trust our results? A new perspective on replication*. Paper presented at the 32nd annual meeting of the Society for Judgment and Decision Making, Seattle, WA.
- **Davis-Stober, C. P.**, & Dana, J. (2011, July). *When should we trust our data? A new perspective on power and replication*. Paper presented at the 44th annual meeting of the Society for Mathematical Psychology, Medford, MA.
- **Davis-Stober, C. P.** (2011, January). *Underpowered and Out of Luck*. Paper presented at the 49th annual Ward Edwards Bayesian Conference, Fullerton, CA.
- **Davis-Stober, C. P.**, & Brown, N. (2010, November). *Changing Minds: Estimation of Multiple Preference States Via Normalized Maximum Likelihood*. Paper presented at the 31st annual conference of the Society for Judgment and Decision Making, St. Louis. MO.
- **Davis-Stober, C. P.** (2010, August). *Changing Minds: Estimation of Multiple Preference States Via Normalized Maximum Likelihood*. Paper presented at the 43rd annual meeting of the Society for Mathematical Psychology, Portland, OR.
- **Davis-Stober, C. P.** (2010, July). *Changing Minds: Estimation of Multiple Preference States Via Normalized Maximum Likelihood*. Paper presented at the 75th annual meeting of the Psychometric Society, Athens, GA.
- **Davis-Stober, C. P.** (2008, July). *A lexicographic semiorder polytope*. Paper presented at the 41st annual meeting of the Society for Mathematical Psychology, Washington, D.C.
- **Davis-Stober, C. P.** (2007, December). *Love in the time of convex geometry*. Paper presented at the Quantitative Psychology Brownbag Seminar, University of Illinois at Urbana-Champaign.
- **Davis-Stober, C. P.**, & Regenwetter, M. (2007, September). *Ternary choice data and order polytopes*. Paper presented at the 38th annual meeting of the European Mathematical Psychology Group, Luxembourg City, Luxembourg.
- **Davis-Stober, C. P.**, Dana, J., & Budescu, D. V. (2007, September). *An improper weighted model*. Paper presented at the 38th annual meeting of the European Mathematical Psychology Group. Luxembourg City, Luxembourg.
- **Davis-Stober, C. P.**, & Regenwetter, M. (2007, August). *Ternary choice data and order polytopes*. Paper presented at the 40th annual meeting of the Society for Mathematical Psychology, Costa Mesa, CA.
- Regenwetter M., Dana, J., & **Davis-Stober, C. P.** (2007, August). *Testing intransitivity of preference: A status report*. Paper presented at the 40th annual meeting of the Society for Mathematical Psychology, Costa Mesa, CA.
- **Davis-Stober, C. P.** & Verkuilen, J. (2007, January). *P-rep and you*. Paper presented at the Quantitative Psychology Brownbag Seminar, University of Illinois at Urbana-Champaign.
- **Davis-Stober, C. P.**, Dana, J., & Budescu, D. V. (2007, January). *The benefits of being improper*. Paper presented at the 45th annual Ward Edwards Bayesian Conference, Fullerton, CA.

- **Davis-Stober, C. P.**, & Regenwetter, M. (2006, September). *Frequentist axiom testing: A generalization of Iverson and Falmagne's likelihood ratio technique*. Paper presented at the 37th annual European Mathematical Psychology Group meeting, Brest, France.
- **Davis-Stober, C. P.** (2006, May). *Frequentist axiom testing: Analysis of choice data under convex polytope constraints*. Paper presented at the Discrete Mathematics and Computer Science (DIMACS) Workshop on Polyhedral Combinatorics of Random Utility, Piscataway, NJ.
- **Davis-Stober, C. P.**, & Regenwetter, M. (2006, April). *Tversky's intransitivity of preference revisited*. Paper presented at the Air Force Office of Scientific Research (AFOSR) Cognitive and Decision Making Program Review, Fairborn, OH.
- **Davis-Stober, C. P.** (2006, January). *Axiom testing "Bayesed" on frequentist methods*. Paper presented at the 44th annual Ward Edwards Bayesian Conference, Fullerton, CA.
- **Davis-Stober, C. P.**, & Regenwetter, M. (2005, August). *Maximum likelihood estimation for convex polytopes: Applications to axiom testing and probabilistic measurement theory*. Paper presented at the 38th annual meeting of the Society for Mathematical Psychology, Memphis, TN.
- Rueda-Cuerva, M. R., Rothbart, M. K., **Davis-Stober, C. P.**, & Posner, M.I. (2005, April). *Effects of development and training on executive attention in 4 to 6 year old children*. Paper presented at the biannual meeting of the Society for Research in Child Development, Atlanta, GA.

CONFERENCE
POSTERS

- *Brown, N.*, **Davis-Stober, C. P.**, McCarthy, D. M., Cavagnaro, D., & Price, M. (2014, November). *Robust rationality: Alcohol-induced decision makers do not violate fundamental property of rational choice*. Poster presented at the Society for Judgment and Decision Making, Long Beach, CA.
- *Park, S.-H.*, & **Davis-Stober, C. P.** (2013, August). *Evaluating the estimation accuracy of Ordinary Least Squares: Predicting how the sign changes across repeated samples*. Poster presented at the 46th annual meeting of the Society for Mathematical Psychology, Potsdam, Germany.
- *Brown, N.*, & **Davis-Stober, C. P.** (2011, July). *When 'improper' is proper: A comparison of different weighting rules to ordinary least squares*. Poster presented at the 44th annual meeting of the Society for Mathematical Psychology, Medford, MA. (NB presenter)
- Messner, W., Regenwetter, M., & **Davis-Stober, C. P.** (2007, August). *Evaluating the priority heuristic: a comparison of decision making models*. Poster presented at the 40th annual meeting of the Society for Mathematical Psychology, Irvine, CA. (WM presenter)
- **Davis-Stober, C. P.**, Regenwetter, M., Kim, A., & Kantor, A., (2005, November). *Did Tversky really prove intransitivity of preference?* Poster presented at the 26th annual conference of the Society for Judgment and Decision Making, Toronto, Ontario, Canada.
- **Davis-Stober, C. P.**, & Arrow, H. (2004, February). *Emergent leadership in focus group settings*. Poster presented at the annual conference of the Society for Personality and Social Psychology, Austin, TX.

- GRADUATE STUDENT ADVISEES
- Dr. Nicholas Brown, graduated 2017, Data Scientist, Adobe Systems Inc.
 - Mr. Sang Hyuk Park, Fall 2012-present
 - Mr. Simon Segert, Fall 2016-Fall 2017
- COURSES TAUGHT
- RESEARCH METHODS II, Taught during semesters: Spring 2010, Spring 2016, Summer 2017 and Spring 2018. This undergraduate course covers basic statistical estimation and inference. Topics include: basic probability theory, t-tests, ANOVA, and linear regression.
 - TOPICS IN DECISION THEORY, Taught during semesters: Spring 2011, Spring 2013, Spring 2015 and Spring 2016. This is a graduate course on decision theory that I developed. Topics include a rigorous derivation of expected utility theory, wisdom of the crowds, basic game theory, and related topics.
 - GENERAL LINEAR MODELS I, Taught during semesters: Fall 2011, Fall 2012, Fall 2013 and Fall 2014. This course is the first part of a two semester sequence on graduate statistics for psychology doctoral students. Topics include: the general linear model, estimation and inference.
 - GENERAL LINEAR MODELS II, Taught during semesters: Spring 2012, Spring 2014 and Spring 2015. This course is the second part of a two semester sequence on graduate statistics for psychology doctoral students. Topics include: the general linear model, experimental design, MANOVA, ANCOVA and related topics.
 - PROFESSIONAL DEVELOPMENT, Taught during Spring 2015. This is a graduate course on professional development that I developed. Topics include: how to give a job talk, interviewing skills, professional issues in the workplace and related topics.
- DEPARTMENTAL AND UNIVERSITY SERVICE
- Campus Faculty Committee on Tenure, Fall 2021-present
 - Advisory Committee to the Department Chair, Fall 2018-Spring 2019
 - Big Data Search Committee, Department of Engineering, Fall 2017-Spring 2018
 - Member of Dissertation Committee, Dr. Meredith Phinzey, Spring 2018
 - Member of Master's Committee for Hope Synder, Fall 2017
 - Advisory Committee to the Department Chair, Fall 2017-present
 - Participant in Campus-wide Conference on Big Data, Fall 2017
 - Chair of Dissertation Committee, Dr. Nicholas Brown, Spring 2017
 - Chair of Master's Committee, Sanghyuk Park, Spring 2016
 - Member of Distinguished Lecture Committee, Fall 2014-Spring 2016

- Member of Dissertation Committee, Dr. April Swagman, Spring 2016
- Member of Dissertation Committee, Dr. Michela Hoffman, Spring 2016
- Advisory Committee to the Department Chair, Fall 2011-Spring 2013
- Departmental Chair Search Committee, Fall 2013-present
- Quantitative Faculty Search Committee, Fall 2010-Spring 2011
- Quantitative Training Committee, Fall 2009-Present
- Chair of Master's Committee for Mr. Nicholas Brown, Spring 2013
- Member of Dissertation Committee, Dr. Kiero Guerrra, Spring 2012
- Computing Committee, Fall 2010-Spring 2011