

Richard D. Morey

Curriculum Vitae

Psychological methods, statistical innovation and education, and cognitive modelling

Research interests

I am interested in the development and use of inferential methods in scientific research. My primary research interests are twofold: developing usable, epistemically-oriented, inferential methods for use in psychological research, and in exploring how researchers understand and extract evidence from commonly-used statistics. I also develop teaching tools to aid researchers and students in understanding statistical concepts.

Education

- 2002–2008 **Doctor of Philosophy**, *University of Missouri*, Columbia, Missouri, USA. Cognition and Neuroscience
- 2002–2004 **Master of Arts**, *University of Missouri*, Columbia, Missouri, USA. Cognition and Neuroscience
- 2005–2008 **Master of Arts**, *University of Missouri*, Columbia, Missouri, USA. Statistics
- 1997–2001 **Bachelor of Arts**, *The Florida State University*, Tallahassee, Florida, USA. Music

Professional certifications

- 2014– University of Groningen, Basiskwalificatie Onderwijs // University teaching certification
- 2016- Royal Statistical Society, Chartered statistician
- 2016- Science Council, Chartered scientist
- 2016- British Psychological Society, Chartered psychologist

Academic positions

2015–Present **Reader**, CARDIFF UNIVERSITY, College of Biomedical and Life Sciences, School of Psychology.

Research and teaching appointment. Responsible for statistical curriculum development, lecturing in statistics courses, small group practical and tutorial teaching. Administrative duties include School of Psychology Athena Swan (gender equality) committee, Staff/Student board, and University Equal Pay working group.

2008–2014 Assistant/Associate Professor, UNIVERSITY OF GRONINGEN, Faculty of Behavioural and Social Sciences, Psychometrics and Statistics. Research and teaching appointment. Responsible for statistical curriculum development, lecturing in statistics courses. Administrative duties included hiring/managing teaching assistants, hiring committees. Promoted to Associate Professor in 2014.

Funding, honors, and awards

- 2018 Psychonomics Early Career Impact Award, Federation of Associations in Behavioral & Brain Sciences
- 2013 R. Duncan Luce Outstanding Paper of 2010-2012, with colleagues Jeffrey Rouder, Paul Speckman, and Jory Province
- 2011 € 250,000 from the Netherlands Organisation for Scientific Research Innovational Research Incentives Scheme: Veni (for "A modeling-based approach to testing item-based versus resource-based working memory storage")
- 2011 \$AUS 544,155 from the Australian Research Council: Discovery grant (for "Choice models for learning and memory"; PI: Andrew Heathcote)
- 2010 Best article of the year" by the Psychonomic Society
- 2009 Winemiller Award for Significant Collaboration between Statistics and Psychology (University of Missouri). With colleagues Jeffrey Rouder, Paul Speckman, Dongchu Sun, and Jun Lu
- 2007 Winemiller Award for Significant Collaboration between Statistics and Psychology (University of Missouri). With colleagues Jeffrey Rouder, Paul Speckman, Dongchu Sun, Jun Lu, and Moshe Naveh-Benjamin.
- 2005 Fellow, Summer Institute in Cognitive Neuroscience, Dartmouth College
- 2004 Third place for presentation of research, University of Missouri-Columbia Graduate Professional Council Research and Creative Activities Forum
- 2002–2007 Hoffman Fellowship, University of Missouri
- 1997–2001 Florida State University Music Scholarship
 - 1996 (United States) National Merit Scholarship semi-finalist

Press and non-peer-reviewed work

Authored

2016 Morey, R. D., Morey, C. C. (2016). Habits and Open Science APS Observer. (to appear in April 2016)

2015 Love, J., ..., **Morey, R. D.**, Rouder, J. N. (2015). Software to sharpen your stats. *APS Observer*. [link]

Authored by others

- 2018 Gelitz, C. (2018). Statistik auf dem Prüfstand: Gleiche Daten, anderes Ergebnis Spektrum.de. [link].
- 2015 Lewandowsky, S. (2015). The 95% Stepford Interval: Confidently not what it appears to be. *Psychonomic Society Digital Feature*. [link].

Peck, J. (2015). New Bayesian Extension Commands for SPSS Statistics. *IBM SPSS Predictive Analytics*. [link].

2011 Carey, B. (2011). Journal's paper on ESP expected to prompt outrage. *The New York Times.* [link].

Paulus, J. (2011). Übersinnliches und die Tücken der Statistik. *Stuttgarter Zeitung*. [link].

United Press International. (2011). Study: Odds against existence of ESP . UPI Science News. [link].

Science Daily. (2011). Odds are against ESP: New statistical approach doesn't support claims that extra-sensory perception exists. *Science Daily*. [link].

Science Daily. (2011). Odds are against ESP: New statistical approach doesn't support claims that extra-sensory perception exists. *Science Daily*. [link].

2008 Moskowitz, C. (2008). Mind's limit found: 4 things at once. *livescience*. [link].

Academic articles and book chapters

Published

2019 Rouder, J. N., Morey, R. D., & Pratte, M. S. (2019). Hierarchical Bayesian models. In W. H. Batchelder, H. Colonius, E. Dzhafarov, and J. I. Myung, (Eds.), *The New Handbook of Mathematical Psychology, Volume 1: Measurement and Methodology.* London: Cambridge University Press.

Rouder, J. **Morey, R. D.** (2019). Teaching Bayes' Theorem: Strength of Evidence as Predictive Accuracy. *The American Statistician*.

van Dongen, N. N. N., van Doorn, J. B., Gronau, Q. F., van Ravenzwaaij, D., Hoekstra, R., Haucke, M. N., Lakens, D., Hennig, C. **Morey, R. D.**, Homer S., Gelman, A., Sprenger, J., Wagenmakers E. J. (2019). Multiple perspectives on inference for two simple statistical scenarios. *The American Statistician*.

2018 Monden, R., Roest, A. M., van Ravenzwaaij, D., Wagenmakers, E.-J., Morey, R. D., Wardenaar, K. J., & de Jonge, P. (2018). The comparative evidence basis for the efficacy of second-generation antidepressants in the treatment of depression in the US: A Bayesian meta-analysis of Food and Drug Administration reviews. Journal of Affective Disorders, 235, 393-398.

Wagenmakers, E.-J., Love, J., Marsman, M., Jamil, T., Ly, A., Verhagen, J., ..., **Morey, R. D.**, (2018). Bayesian inference for psychology. Part II: Example applications with JASP. Psychonomic Bulletin & Review, 25(1), 58-76.

Morey, R. D. (2018). Statistical Inference. Stevens' Handbook of Experimental Psychology and Cognitive Neuroscience, 5, 1-42.

Morey, R. D., Homer, S., & Proulx, T. (2018). Beyond statistics: accepting the null hypothesis in mature sciences. Advances in Methods and Practices in Psychological Science, 1(2), 245-258.

Wagenmakers, E.-J., Marsman, M., Jamil, T., Ly, A., Verhagen, J., Love, J., ..., **Morey, R. D.**, ..., Epskamp, S. (2018). Bayesian inference for psychology. Part I: Theoretical advantages and practical ramifications. Psychonomic Bulletin & Review, 25(1), 35-57.

Silberzahn, R., Uhlmann, E. L., Martin, D. P., Anselmi, P., Aust, F., Awtrey, E., ..., **Morey, R. D.**, ..., Bonnier, E. (2018). Many analysts, one data set: Making transparent how variations in analytic choices affect results. *Advances in Methods and Practices in Psychological Science*.

2017 Rouder, J. N., Morey, R. D., Verhagen, J., Swagman, A. R., & Wagenmakers, E.-J. (2017). Bayesian analysis of factorial designs. Psychological Methods, 22(2), 304.

Sense, F., Morey, C. C., Prince, M., Heathcote, A., & **Morey, R. D.** (2017). Opportunity for verbalization does not improve visual change detection performance: A state-trace analysis. Behavior Research Methods, 49(3), 853-862.

Wagenmakers, E.-J., Verhagen, J., Ly, A., Matzke, D., Steingroever, H., Rouder, J. N., & **Morey, R. D.** (2017). The need for Bayesian hypothesis testing in psychological science. Psychological Science under Scrutiny: Recent Challenges and Proposed Solutions, 123-138.

Marsman, M., Schönbrodt, F. D., **Morey, R. D.**, Yao, Y., Gelman, A., & Wagenmakers, E.-J. (2017). A Bayesian bird's eye view of 'Replications of important results in social psychology'. Royal Society Open Science, 4(1), 160426.

Jamil, T., Ly, A., **Morey, R. D.**, Love, J., Marsman, M., & Wagenmakers, E.-J. (2017). Default 'Gunel and Dickey' Bayes factors for contingency tables. Behavior Research Methods, 49(2), 638-652.

Jamil, T., Marsman, M., Ly, A., **Morey, R. D.**, & Wagenmakers, E.-J. (2017). What are the odds? Modern relevance and Bayes factor solutions for MacAlister's problem from the 1881 Educational Times. Educational and Psychological Measurement, 77(5), 819-830.

2016 Morey, R. D., Rouder, J. N., & Wagenmakers, E.-J. (2016). "Calibrated" Bayes factors should not be used: a reply to Hoijtink, van Kooten, and Hulsker. *Multivariate Behavioral Research*.

Morey, R. D., Romeijn, J.-W., & Rouder, J. N. (2016). The philosophy of Bayes factors and the quantification of statistical evidence. Journal of Mathematical Psychology, 72, 6-18.

de Vries, R. M., Meijer, R. R., van Bruggen, V., & **Morey, R. D.** (2016). Improving the analysis of routine outcome measurement data: what a Bayesian approach can do for you. *International Journal of Methods in Psychiatric Research*.

Morey, R. D., Hoekstra, R., Rouder, J. N., & Wagenmakers, E.-J. (2016). Continued misinterpretation of confidence intervals: response to Miller and Ulrich. Psychonomic Bulletin & Review, 23(1), 131-140.

Rouder, J. N., Engelhardt, C. R., McCabe, S., & Morey, R. D. (2016). Model comparison in ANOVA. Psychonomic Bulletin & Review, 23(6), 1779-1786.

Morey, R. D., Chambers, C. D., Etchells, P. J., Harris, C. R., Hoekstra, R., Lakens, D., Lewandowsky, S., Morey, C. C., Newman, D. P., Schönbrodt, F. D., Vanpaemel, W., Wagenmakers, E.-J., & Zwaan, R. A. (2016). The peer reviewers' openness initiative: Incentivising open research practices through peer review. *Royal Society Open Science*.

Morey, R. D., Hoekstra, R., Rouder, J. N., Lee, M. D., & Wagenmakers, E.-J. (2016). The fallacy of placing confidence in confidence intervals. *Psychonomic Bulletin & Review*.

Wagenmakers, E.-J., **Morey, R. D.**, & Lee, M. D. (2016). Bayesian benefits for the pragmatic researcher. Current Directions in Psychological Science, 25(3), 169-176.

2015 Wagenmakers, E.-J., Verhagen, A. J., Ly, A., Bakker, M., Lee, M. D., Matzke, D., Rouder, J. N., & Morey, R. D. (2015). A power fallacy. *Behavior Research Methods*, 47, 913-917 3

Heck, D., Wagenmakers, E.-J., **Morey, R. D.** (2015) Testing order constraints: Qualitative differences between Bayes factors and normalized maximum likelihood. *Statistics and Probability Letters*, 105, 157-162.

de Vries, R. M., Hartogs, B. M. A., & **Morey, R. D.** (2015) A tutorial on computing Bayes factors for single-subject designs. *Behavior Therapy*, 46, 809-823.

Nieuwenstein, M. R., Wierenga, H. T., **Morey, R. D.**, Wicherts, J. M., Blom, T. N., Wagenmakers, E.-J., & van Rijn, H. (2015). On making the right choice: A meta-analysis and large-scale replication study of the unconscious thought advantage. *Judgment and Decision Making*, 10, 1-17

Rouder, J. N., **Morey, R. D.**, Gomez, P. I. and Heathcote, A. (2015). The lognormal race: A cognitive-process model of choice and latency with desirable psychometric properties. *Psychometrika*, 80, 491-513 🕄

2014 Morey, R. D., & Wagenmakers, E.-J. (2014). Simple relation between Bayesian order-restricted and point-null hypothesis tests. *Statistics and Probability Letters*, 92, 121-124.

Morey, R. D., Rouder, J. N., Verhagen, J., & Wagenmakers E.-J. (2014). Why hypothesis tests are essential for psychological science: A Comment on Cumming (2014). *Psychological Science*, 25, 1289-1290.

Hoekstra, R., **Morey, R. D.**, Rouder, J. N., & Wagenmakers E.-J. (2014). Robust misinterpretation of confidence intervals. *Psychonomic Bulletin & Review*, 21, 1157-1164.

Elliott, E. M., Morey C. C., **Morey, R. D.**, Eaves, S. D. and Shelton, J. T., & Lutfi-Proctora D. (2014). The role of modality: Auditory and visual distractors in Stroop interference. *Journal of Cognitive Psychology*, 26, 15-26.

2013 Morey, R. D. (2013). The consistency test does not – and cannot – deliver what is advertised: A comment on Francis (2013). *Journal of Mathematical Psychology*, 57, 180-183.

Morey, C. C., **Morey, R. D.**, van der Reijden, M. & Holweg, M. (2013). Asymmetric cross-domain interference between two working memory tasks: Implications for models of working memory. *Journal of Memory and Language*, 69, 324-348.

de Vries, R. M. & **Morey, R. D.** (2013). Bayesian hypothesis testing for singlesubject designs. *Psychological Methods*, 18, 165-185.

Morey, R. D., Romeijn, J.-W., & Rouder, J. N. (2013). The humble Bayesian: model checking from a fully Bayesian perspective *British Journal of Mathematical and Statistical Psychology*, 66, 68-75.

Rouder, J. N., **Morey, R. D.**, & Province, J. M. (2013). A Bayes factor meta-analysis of recent extrasensory perception experiments: Comment on Storm, Tressoldi, and Di Risio (2010). *Psychological Bulletin*, 139, 241-247.

2012 Rouder, J. N., Speckman, P., **Morey, R. D.**, & Province, J. (2012). Bayes factors for ANOVA designs with default priors. *Journal of Mathematical Psychology*, 56, 356-374.

Rouder, J. N. & **Morey, R. D.** (2012). Default Bayes factors for model selection in regression. *Multivariate Behavioral Research*, 46, 877-903.

Morey, R. D., Morey, C. C., Brisson, B. & Tremblay, S. (2012). A critical evaluation of *c* as a measure of mnemonic resolution. *Journal of Experimental Psychology: Human Perception and Performance*, 38, 1069-1072.

2011 Morey, R. D., Rouder, J. N., Pratte, M. S., & Speckman, P. (2011). Using MCMC chain outputs to efficiently estimate Bayes factors. *Journal of Mathematical Psychology*, 55, 368-378.

Rouder, J. N. & **Morey, R. D.** (2011). A Bayes factor meta-analysis of Bem's ESP claim. *Psychonomic Bulletin & Review*, 18, 682-689.

Morey, R. D. & Morey, C. C. (2011). WoMMBAT: A user interface for hierarchical Bayesian estimation of working memory capacity. *Behavior Research Methods*, 43, 1044-1065.

Morey, R. D. & Rouder, J. N. (2011). Bayes factor approaches for testing interval null hypotheses. *Psychological Methods*, 16, 406-419.

Morey, C. C., Cowan, N., **Morey, R. D.**, & Rouder, J. N. (2011). Flexible attention allocation to visual and auditory working memory tasks: Manipulating reward induces a trade-off. *Attention, Perception, & Psychophysics*, 73, 458-472.

Morey, R. D. (2011). Hierarchical Bayesian models of working memory capacity. *Journal of Mathematical Psychology*, 55, 8-24.

Rouder, J. N., **Morey, R. D.**, Morey, C. C., & Cowan, N. (2011). How to measure working memory capacity in the change detection paradigm. *Psychonomic Bulletin & Review*, 18, 324-330.

2010 Pratte, M. S., Rouder, J. N., & Morey, R. D. (2010). Separating mnemonic process from participant and item effects in the assessment of ROC asymmetries. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 36, 224-232.

Rouder, J. N., Speckman, P., Steinley, D., Pratte, M.S., & **Morey, R. D.** (2010). A resampling test of shape invariance across distributions. In S. Kolenikov, D. Steinley, & L. Thombs, (Eds.), *Current methodological developments of statistics in the social sciences*, New York: Wiley.

Rouder, J. N., Pratte, M. S., & **Morey, R. D.** (2010). Latent mnemonic strengths are latent: A comment on Mickes, Wixted, and Wais (2007). *Psychonomic Bulletin & Review*, 14, 858-865.

Pratte, M. S., Rouder, J. N., **Morey, R. D.**, & Feng, C. (2010). Exploring the differences in distributional properties between Stroop and Simon effects using delta plots. *Attention, Perception & Psychophysics*, 72, 2013-2025.

Rouder, J. N., Speckman, P., Sun, D., Iverson, G., & Morey, R. D. (2009). Bayesian t tests for accepting and rejecting the null hypothesis. *Psychonomic Bulletin & Review*, 16, 225-237. 3

Rouder, J. N. & **Morey, R. D.** (2009). The nature of psychological thresholds. *Psychological Review*, 116, 655-660.

Morey, R. D., Rouder, J. N., & Speckman, P. (2009). A truncated-probit item response model for estimating psychophysical thresholds. *Psychometrika*, 74, 603-618.

2008 Rouder, J. N., Lu, J., Morey, R. D., Sun, D., & Speckman, P. L. (2008). A hierarchical process dissociation model. *Journal of Experimental Psychology: General*, 137, 370-389.

Morey, R. D., Rouder, J. N., & Speckman, P. (2008). A statistical model for discriminating between subliminal and near-liminal performance. *Journal of Mathematical Psychology*, 52, 21-36.

Rouder J., **Morey, R. D.**, Cowan, N., Zwilling, C. E., Morey, C. C., & Pratte, M. S. (2008). An assessment of fixed-capacity models of visual working memory. *Proceedings of the National Academy of Sciences of the United States of America*, 105, 5976-5979.

Morey, R. D., Pratte, M. S., & Rouder, J. N. (2008). Problematic effects of aggregation in *z*ROC analysis and a hierarchical modeling solution. *Journal of Mathematical Psychology*, 52, 376-388. S

Morey, R. D. (2008). Confidence intervals from normalized data: A correction to Cousineau (2005). *Tutorials in Quantitative Methods in Psychology*, 4, 61-64.

Speckman, P., Rouder, J. N., **Morey, R. D.**, & Pratte, M. S. (2008). Delta plots and coherent distribution ordering. *The American Statistician*, 62, 262-266.

2007 Rouder, J. N., Morey, R. D., Speckman, P. L., & Pratte, M. S. (2007). Detecting chance: A solution to the null sensitivity problem in subliminal priming. *Psychonomic Bulletin & Review*, 14, 597-605.

Rouder, J. N., Lu, J., Speckman, P. L., Sun, D., **Morey, R. D.**, & Naveh-Benjamin, M. (2007). Signal detection models with random participant and item effects. *Psychometrika*, 72, 621-642.

- 2005 Rouder, J. N. & Morey, R. D. (2005). Relational and arelational confidence intervals: A comment on Fidler et al. (2004). *Psychological Science*, 16, 77-79.
- 2004 Rouder, J. N., **Morey, R. D.**, Cowan, N., & Pfaltz, M. (2004). Learning in a unidimensional absolute identification task. *Psychonomic Bulletin and Review*, 11, 932-938.

Software

- 2012 Morey, R. D. & Rouder, J. N. *BayesFactor*: An R package for computing Bayes factor for a variety of psychological research designs (available on the Comprehensive R Archive Network).
- 2012 Morey, R. D. & deVries, R. M. *BayesSingleSub*: An R package for computing Bayes factor for single subject research designs (available on the Comprehensive R Archive Network). GitHub
- 2009 Morey, R. D. *HybridMC*: An R package for sampling from joint probability distributions using hybrid Monte Carlo (available on the Comprehensive R Archive Network).

- 2009 Morey, R. D. *WoMMBAT*: Working Memory Modelling using Bayesian Analysis Techniques. An R package for fitting working memory models to change detection data (available on the Comprehensive R Archive Network).
- 2007 Morey, R. D. *Confidence Ratings Signal Detection Analysis*: Windows executable and C code for analyzing confidence ratings data. GitHub

Invited talks and workshops

- 2009 Morey, R. D. Truly subliminal primes do not produce priming effects. University of Freiberg, Germany.
- 2009 Morey, R. D. Bayes factors for interval null hypotheses. University of Amsterdam, The Netherlands.
- 2009 Morey, R. D. A Bayesian hierarchical model for estimating working memory capacity. Invited symposium talk at the 2009 joint meeting of the European Mathematical Psychology Group and the Society for Mathematical Psychology in Amsterdam, the Netherlands.
- 2011 Morey, R. D. Bayes factors for evaluating statistical evidence in data from common statistical designs. Macquarie University, Sydney, Australia.
- 2011 Morey, R. D. Bayes factors for evaluating statistical evidence in data from common statistical designs. University of Newcastle, Newcastle, Australia.
- 2012 Morey, R. D. An introductory workshop in the use of the R statistical environment. Presented at the 2012 meeting of the International Test Commission, Amsterdam, The Netherlands.
- 2012 Morey, R. D. Bayesian data analysis: a workshop. Netherlands Institute in Government.
- 2012 Morey, R. D. The humble Bayesian: model checking from a fully Bayesian perspective. University of Newcastle, Newcastle, Australia.
- 2013 Morey, R. D. The analysis of data using BayesFactor: A workshop. University of Newcastle, Newcastle, Australia.
- 2013 Morey, R. D. The analysis of data using BayesFactor: A workshop. University of Melbourne, Melbourne, Australia.
- 2013 Morey, R. D. The analysis of data using BayesFactor: A workshop. University College London, London, United Kingdom.
- 2013 Morey, R. D. The analysis of data using BayesFactor: A workshop. University of Zurich.
- 2014 Morey, R. D. Perceptions of evidence in common statistics among scientific researchers. University of Freiburg.

- 2014 Morey, R. D. Bayesian data analysis. Royal Statistical Society Professional Development Seminar.
- 2014 Morey, R. D. Perceptions of evidence in common statistics among scientific researchers. University of Edinburgh.
- 2014 Morey, R. D. The analysis of data using BayesFactor: A workshop. University of Potsdam.
- 2014 Morey, R. D. Open science, healthy science: Being part of the solution rather than part of the problem. Talk for the Graduate School of Medical Sciences, University of Groningen.
- 2014 Morey, R. D. Perceptions of evidence in common statistics among scientific researchers. Edinburgh Royal Statistical Society / University of Edinburgh Business School.
- 2014 Morey, R. D. The analysis of data using BayesFactor: A workshop. Radboud University Nijmegen.
- 2014 Morey, R. D. The analysis of data using BayesFactor: A workshop. University of California, Irvine.
- 2015 Morey, R. D. The fallacy of placing confidence in confidence intervals. University of Groningen.
- 2015 Morey, R. D. The analysis of data using BayesFactor: A workshop. University of Leuven.
- 2015 Love, J., Wagenmakers, E.-J. & Morey, R. D. Bayesian Hypothesis Testing Using JASP: An invited workshop for the 2015 International Convention for Psychological Science in Amsterdam, The Netherlands.
- 2015 Love, J., Wagenmakers, E.-J. & Morey, R. D. Bayesian Hypothesis Testing Using JASP: An invited workshop for the 2015 meeting of the Society for Applied Research in Memory and Cognition in Victoria, British Columbia.
- 2015 Morey, R. D. BayesFactor and JASP: A fresh way to do statistics: An invited workshop for the 2015 meeting of the Association for Psychological Science in New York, NY.
- 2015 Discussant for "The Philosophy of Statistics: Bayesianism, Frequentism and the Nature of Inference," with Deborah G. Mayo, Stephen Senn, and Andrew Gelman. Special session at the 2015 meeting of the Association for Psychological Science in New York, NY.
- 2015 Morey, R. D. The analysis of data using BayesFactor: A workshop. University of Tasmania.
- 2015 Morey, R. D. The fallacy of placing confidence in confidence intervals. University of Tasmania.

- 2015 Morey, R. D. The fallacy of placing confidence in confidence intervals. University of Adelaide.
- 2015 Morey, R. D. The analysis of data using BayesFactor: A workshop. University of Cologne.
- 2015 Morey, R. D. The analysis of data using BayesFactor: A workshop. Bryn Mawr College.
- 2015 Morey, R. D. The analysis of data using BayesFactor: A workshop. University of Limerick.
- 2015 Morey, R. D. The fallacy of placing confidence in confidence intervals. University of Bristol.
- 2016 Morey, R. D. The Peer Reviewers' Openness Initiative. Talk in special symposium at the 2016 international meeting of the Psychonomic society in Granada, Spain.
- 2016 Morey, R. D. Future of Methodology in Psychological Science. Invited talk for the 2016 meeting of the Association for Psychological Science in Chicago, IL.
- 2016 Morey, R. D. BayesFactor and JASP: A fresh way to do statistics: An invited workshop for the 2016 meeting of the Association for Psychological Science in Chicago, IL.
- 2016 Morey, R. D. The fallacy of placing confidence in confidence intervals. University College London.

Conference presentations

- 2003 Morey, R. D. Learning in unidimensional absolute identification. Presented at the Annual Show Me Mental State Conference on Cognition in Columbia, Missouri.
- 2003 Rouder, J. N., Lu, J., Speckman, P. L., & Morey, R. D. Statistical Models of Skill Learning. Presented at the 2003 meeting of the Psychonomic Society, Vancouver, BC.
- 2004 Rouder, J. N., Lu, J., Speckman, P. L., & Morey, R. D. Statistical Models of Skill Learning. Presented at the 2004 meeting of the American Psychological Society, Chicago, IL.
- 2004 Morey, R. D., & Rouder, J. N. Models of Absolute Identification. Poster presented at the 2004 meeting of the American Psychological Society, Chicago, IL.
- 2004 Morey, R. D. & Rouder, J. N. Unidimensional absolute identification: paired associate learning or magnitude estimation? Presented at the 2004 Show Me Mental State Conference on Cognition in Columbia, Missouri.
- 2005 Rouder, J. N., Lu, J., Sun, D., Speckman, P. L. & Morey, R. D. Hierarchical Models of Process Dissociation. Presented at the 2005 meeting of the Psychonomic Society, Toronto, ON.

- 2006 Morey, R. D., Rouder, J. N., Speckman, P., & Pratte, M. S. The Mass-at-Chance model. Poster presented at the 2006 meeting Psychonomic Society, Houston, TX.
- 2007 Morey, R. D. & Rouder, J. N. A Mass-At-Chance model for assessing subliminal perception. Poster presented at the Experimental Psychology Society, Edinburgh, Scotland.
- 2007 Pratte, M. S., Rouder, J. N. & Morey, R. D. Modeling participant and item effects in the theory of signal detection. Presented at the 2007 meeting of the Society for Mathematical Psychology, Costa Mesa, CA.
- 2007 Morey, R. D., Rouder, J. N., & Speckman, P. A Mass-At-Chance model for assessing subliminal perception. Poster presented at the 2007 meeting of the Psychonomic Society, Long Beach, CA.
- 2008 Morey, R. D., Rouder, J. N., & Speckman, P. A truncated-probit item response model for estimating psychophysical thresholds. Presented at the 2008 meeting of the European Mathematical Psychology Group, Graz, Austria.
- 2008 Morey, R. D. Truly subliminal primes do not cause priming effects. Poster presented at the 2008 meeting of the Psychonomic Society, Chicago, IL.
- 2009 Morey, R. D. A hierarchical Bayesian model for measuring working memory capacity. Presented at the joint meeting of the European Mathematical Psychology Group and the Society for Mathematical Psychology in Amsterdam, the Netherlands.
- 2009 Morey, R. D. Generalized mass at chance models. Poster presented at the 2009 meeting of the Psychonomic Society, Boston, MA.
- 2010 Morey, R. D. A hierarchical model for estimating working memory capacity. Presented at the 2010 annual meeting of the Working Memory Discussion Group in Appletreewick, England.
- 2010 Morey, R. D. A Bayesian hierarchical model for estimating working memory capacity. Poster presented at the 2010 meeting of the Psychonomic Society, St. Louis, MO.
- 2010 Morey, R. D. WoMMBAT: a GUI for hierarchical Bayesian estimation of working memory capacity. Poster presented at the 2010 meeting of the Society for Psychology in Computing, St. Louis, MO.
- 2011 Morey, R. D. Default Bayes factors for ANOVA designs. Presented at the 2011 meeting of the European Mathematical Psychology Group, Paris, France.
- 2011 Morey, C. C., Morey, R. D., van der Reijden, M., & Holweg, M. Interference between verbal and visual memories is asymmetric: Implications for models of working memory. Presented at the 2011 meeting of the Psychonomic society, Seattle, WA.
- 2012 de Vries, R. & Morey, R. D. (2012). Bayes factors for single-subject data. Presented at the 2012 summer conference of the Interuniversity Graduate School of Psychometrics and Sociometrics (IOPS), Maastricht, the Netherlands.

- 2012 Elliott, E. M., Morey, C. C., Morey, R. D., Eaves, S. D., Shelton, J. T. & Lutfi-Proctor, D. A. Assessing Interference Across Modalities: Print-based versus Auditory Stroop Conflicts. Presented at the 2012 meeting of the Psychonomic society, Minneapolis, MN.
- 2012 de Vries, R. & Morey, R. D. Bayes factors for single-subject data. Presented at the 2012 International Meeting Psychometric Society in Lincoln, NE.
- 2013 Verhagen, J., Wagenmakers, E.-J. & Morey, R. D. Default Bayes factors for crossed random effects designs. Presented at the 2013 joint meeting of the European Mathematical Psychology Group and the Society for Mathematical Psychology in Potsdam, Germany.
- 2013 Bora, B., Morey, R. D. & Heathcote, A. (2013). Confidence judgments in recognition memory. Presented at the 2013 joint meeting of the European Mathematical Psychology Group and the Society for Mathematical Psychology in Potsdam, Germany.
- 2013 Sense, F., van Rijn, Hedderik & Morey, R. D. Optimizing Learning by hierarchical Bayesian estimation of individual learning parameters. Presented at the 2013 meeting of the Dutch Psychonomic Society, Egmond aan Zee, the Netherlands.
- 2013 Sense, F., Morey, C. C., Morey, R. D., Prince, M., & Heathcote, A. (2013). Opportunity for verbalization does not improve visual change detection performance: a state trace analysis. Poster presented at the 2013 meeting of the Dutch Psychonomic Society, Egmond aan Zee, the Netherlands.
- 2013 Morey, R. D. & Hoekstra, R. Statistical Evidence and Science. Presented at the 2013 summer conference of the Interuniversity Graduate School of Psychometrics and Sociometrics, Groningen, the Netherlands.
- 2013 Hoekstra, R., Morey, R. D., Rouder, J. N. & Wagenmakers, E.-J. Robust misinterpretation of confidence intervals. Poster presented at the 2013 meeting of the Psychonomic society, Toronto, ON.
- 2013 Morey, R. D. and Hoekstra, R. Perceptions of statistical evidence among scientists. Presented at the 2013 meeting of the Psychonomic society, Toronto, ON.
- 2013 de Vries, R. and Morey, R. D. A Bayesian multi-level model for change. Presented at the International Meeting Psychometric Society in Arhem, the Netherlands.
- 2014 Morey, C.C., Cong, Y., Morey, R.D., Price, M., & Zheng, Y. Explaining the repetitionbased bonus in visual working memory. Poster presented at the 2014 International Conference on Working Memory, Cambridge, UK
- 2014 Morey, R. D. (2014). Bayes factors for linear mixed models. Presented at the 2014 Bayes Lectures conference, University of Edinburgh, Scotland
- 2014 Morey, R. D., Hoekstra, R., Rouder, J. N., Lee, M. D., & Wagenmakers, E.-J. The fallacy of placing confidence in confidence intervals. Presented at the 2014 meeting of the Psychonomic society, Long Beach, CA.

- 2014 Morey, C.C., Cong, Y., Zheng, Y., Price, M., & Morey, R. D. Repetitions boost visual working memory capacity via strategic, domain-general rehearsal.. Presented at the 2014 meeting of the Psychonomic society, Long Beach, CA.
- 2015 Morey, R. D. Open Science: Practical Guidance for Psychological Scientists. Presented at the 2015 meeting of the European Society for Cognitive Psychology, Cyprus.
- 2015 Morey, R. D. & Morey, C. C. The misalignment of scientific thought and statistical practice: Deep problems and workable solutions. Presented at the 2015 meeting of the Psychonomic society, Chicago, IL.
- 2015 Hoekstra, R., Morey, R. D., & Wagenmakers, E.-J. Improving the interpretation of confidence and credible intervals. Poster presented at the 2015 meeting of the Psychonomic society, Chicago, IL.
- 2015 Rouder, J. N. & Morey, R. D. The need for Bayesian hierarchical models in cognition: assessing subliminal priming. Presented at the 2015 Joint Statistical Meetings, Seattle, WA.

Teaching experience

- 2014 University Teaching Qualification ("Basis Kwalificatie Onderwijs"), University of Groningen.
- 2005–Present Undergraduate and postgraduate statistics and research methods, *Instructor*. I have extensive experience teaching both undergraduate and postgraduate statistics and research methods. I have taught:
 - Introductory statistics (e.g., data description and visualization, probability, basic statistical inference, linear and nonlinear models, analysis of contingency tables)
 - Introductory programming using the R language
 - Bayesian statistics

2012-Present Bayesian data analysis workshops, Instructor.

For the past several years, I have given day-long workshops of novel material on Bayesian data analysis for a variety of audiences, including academic (e.g. University College London, University of California Irvine, and the Association for Psychological Science) and non-academic (e.g. the Royal Statistical Society Professional Development Seminar). See the section "Invited talks and workshops" for a comprehensive list.

2011–Present Bayesian analysis for the social sciences, *Instructor*.

Since 2011, I have taught a two-week course in Bayesian data analysis for the Essex Summer School for Social Science Data Analysis. The students can be at any level from advanced undergraduate to full professor; typically they are PhD students. Fields of study vary, but most student are studying political science or econometrics.

2013 Graduate workshop on research ethics, Instructor and organizer.

This workshop was organized and given for the Dutch Psychonomic Society, jointly with Maarten Derksen, Jelte Wicherts, and Rolf Zwaan.

2012 Workshop in data analysis with R, Instructor.

This introductory workshop on the use of the R statistical environment was organized and given for the 2012 International Test Commission conference.

2004–2005 Robert S. Daniel Teaching Fellow, Teaching Fellow.

For one year, I taught the second level undergraduate research methods and statistics course in conjunction with participating in the University of Missouri School of Psychology Teaching of Psychology Practicum, a program designed to enhance teaching skills.

Professional society membership

- 2014-Present Association for Psychological Science
- 2012-Present American Statistical Association
- 2008–Present Psychonomic Society, Fellow
- 2004–Present American Psychological Association
 - 2008–2014 Interuniversity Graduate School of Psychometrics and Sociometrics
 - 2003–2008 Midwestern Psychological Association

Service and administration

- 2016-Present Digital Features Editor for Methods for the Psychonomic Society.
- 2016–Present Statistical Advisor for the journal Psychological Science.
- 2015–Present Cardiff University School of Psychology Athena Swan committee for gender equality.
- 2015–Present Cardiff University equal pay working group.
- 2015–Present Editor, Collabra (journal).
- 2014-Present Chair, Bayesian analysis panel, Open Science Framework Reproducibility Project.
- 2014-Present Consulting Editor, Journal of Mathematical Psychology.
- 2005–Present ad hoc reviewer for academic journals including Acta Psychologica; Journal of Mathematical Psychology; Psychometrika; International Journal of Testing; Psychological Methods; Journal of Experimental Psychology: Learning, Memory, and Cognition; Memory & Cognition; European Psychologist; Attention, Perception & Psychophysics; Psychonomic Bulletin & Review; Statistica Neerlandica; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Human Perception & Performance; European Scientist; European Journal of the Philosophy of Science; British Journal of Mathematical Psychology; European Journal of Social Psychology.
- 2008–Present Reviewer for research funding organizations including Nederlandse Organisatie voor Wetenschappelijk (the Netherlands); National Science Foundation (United States); Australian Research Council (Australia).
 - 2003–2008 Member, Steering Committee, Annual "Show Me Mental State" Conference on Cognition.
 - 2005 Member, Steering Committee, University of Missouri Brain Imaging Symposium.