

Joseph Gerald Johnson

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Educational background

- Joint Ph.D. (2004) – Cognitive Psychology & Cognitive Science, w/ certification in Mathematical Modeling – Indiana University; Bloomington, Indiana
- B.A. (1998) – Psychology – University of Toledo; Toledo, Ohio (Cum Laude)
- B.A. (1998) – Economics – University of Toledo; Toledo, Ohio (Cum Laude)

Honors, awards, and fellowships

- E. Phillips Knox Teaching Award, Miami University (2010)
- Excellence in Education honoree, *Ohio Magazine* (2011)
- Finalist, Decision Analysis Society Publication Award (2007)
- Nominee, New Investigator Award, Society for Mathematical Psychology (2006)
- Einhorn New Investigator Award, Society for Judgment and Decision Making (2004)
- Postdoctoral fellowship, NIMH Quantitative Methods Training Grant, University of Illinois (2004 – 2005)
- J. R. Cantor Graduate Award (outstanding psychology student), Indiana University (2004)
- Cognitive Science Research Achievement Award, Indiana University (2004)
- Predoctoral fellowship, Center for Adaptive Behavior and Cognition, Max Planck Institute for Human Development; Berlin, Germany (2001-2002)
- Predoctoral fellowship, NIMH Mathematical Modeling Training Grant, Indiana University (1999-2001)
- National Science Foundation Graduate Fellowship, Honorable mention (2000)
- National Merit Scholarship, University of Toledo (1994-1998)

Funding awarded

- Principal Investigator (w/ Ana Franco-Watkins): Decision making under stress. National Science Foundation (2009 – 2012); \$429,869.
- Senior Personnel (Robin Thomas, PI): Major research instrumentation: Acquisition of dense array EEG for research and training across the disciplines. National Science Foundation (2010); \$222,750.
- Co-Principal Investigator (w/ Markus Raab), TransCoop program; Alexander von Humboldt Foundation, Germany (2005 – 2008); 27,000€ (approx. \$33,000)
- Howe Center for Writing Excellence grant, Miami University (2011); \$5,000
- CFR Summer Research Award, Miami University (2009); \$6,200
- CAS Summer Research Grant, Miami University (2005); \$3,000

Instructional experience

- Associate Professor – Department of Psychology, Miami University (2011 – present)
- Assistant Professor – Department of Psychology, Miami University (2005 – 2011)
 - Statistics, Research methods, Judgment/decision making, Mathematical modeling
- Faculty Teaching Associate – Center for the Enhancement of Learning and Teaching and University Assessment, Miami University (2010 – present)
- Instructor – Department of Psychology, Indiana University (2003 – 2004)
 - Cognitive neuroscience, Research methods

Professional organizations and national service

- Society for Judgment and Decision Making, member
 - Chair, Student Poster Award Committee (2006 – present)
- Association for Psychological Science, member
- European Association for Decision Making, member
- Psychonomic Society, member
- Society for Mathematical Psychology, member
- Economic Science Association, former member
- *Frontiers in Cognitive Science*, Review editor (2010 – present)
- Ad hoc reviewer: *Psychological Science*, *Journal of Experimental Psychology: General*; *Journal of Experimental Psychology: Learning, Memory, and Cognition*; *Journal of Mathematical Psychology*; *Management Science*; *Cognition*; *Cognitive Psychology*; *Cognitive Science*; *Psychonomic Bulletin and Review*; *Cognitive Systems Research*; *Judgment and Decision Making*; *Journal of Behavioral Decision Making*; *Organizational Behavior and Human Decision Processes*; *Journal of Risk and Uncertainty*; *Economic Journal*; *Journal of Economic Psychology*; *International Journal of Business and Economics*; *Acta Psychologica*; *Health Psychology*; *Psychology of Sport and Exercise*
- Grant proposal review (external; ad hoc): National Science Foundation (2009, 2010, 2011), American Institute of Biological Sciences (2009), Air Force Office of Scientific Research (2006), Israeli Science Foundation (2006).
- Conference program review: Cognitive Science Society (2005, 2007), Society for Judgment and Decision Making (2008, 2010).

Symposia, conferences, workshops organized

- Organizer: Recent methodological and analytic advances in decision research. Symposium held at the annual meeting of the European Association for Decision Making (SPUDM), London, England. July 21-25, 2011.
- Instructor: Computational modeling of decision processes. Short course offered at the annual meeting of the Society for Medical Decision Making, Los Angeles, CA. October 18-21, 2009.
- Organizer: Applied Dynamic Modeling. Symposium held at annual meeting of Society for Mathematical Psychology, Amsterdam, Netherlands. August 2, 2009.
- Organizer: Computer techniques in decision research. Symposium held at annual meeting of Society for Judgment and Decision Making, Chicago, IL. November 15, 2008.
- Co-organizer (w/ Markus Raab, Hauke Heekeren): Mind and motion – The bidirectional link between thought and action. Workshop held at the Center for Interdisciplinary Research, University of Bielefeld, Germany. May 28-31, 2008.
- Co-organizer (w/ Thomas Otter, Greg Allenby, Jörg Rieskamp): Process model accounts of violations of Luce’s choice axioms. Workshop held at Seventh Triennial Invitational Choice Symposium, Wharton School of Business, University of Pennsylvania. June 13-17, 2007.
- Co-organizer (w/ Markus Raab): Decision making in sports. Symposium held at annual meeting of North American Society for Psychology of Sport and Physical Activity, San Diego, CA. June 7, 2007.

Peer-reviewed articles, book chapters, proceedings papers

- Franco-Watkins, A., & Johnson, J. G. (in press). Applying the decision moving window to risky choice: Comparison of eye-tracking and mouse-tracking methods. *Judgment and Decision Making*.
- Koop, G. J. & Johnson, J. G. (in press). Response dynamics: A new window on the decision process. *Judgment and Decision Making*.

- Glöckner, A., Heinen, T., Johnson, J. G., & Raab, M. (in press). Network approaches for expert decisions in sports. *Human Movement Science*.
- Koop, G. J., & Johnson, J. G. (2012). The use of multiple reference points in risky decision making. *Journal of Behavioral Decision Making*. DOI: 10.1002/bdm.713.
- Franco-Watkins, A. M., & Johnson, J. G. (2011). Decision moving window: Using interactive eye tracking to examine decision processes. *Behavioral Research Methods*, 43, 853-863.
- Johnson, J. G., & Busemeyer, J. R. (2010). Decision making under risk and uncertainty. *Wiley Interdisciplinary Reviews (Cognitive science)*.
- Johnson, J. G. (2009). Embodied cognition of movement decisions: A computational modeling approach. In M. Raab, J. G. Johnson, and H. Heekeren (Eds.), *Mind and motion: The bidirectional link between thought and action*. New York: Elsevier. 137-150.
- Johnson, J. G. (2009). Cognitive models of athlete decision making. In D. Araujo, H. Ripoll, & M. Raab (Eds.), *Perspectives on Cognition and Action in Sport*. Hauppauge, NY: Nova Science Publishers. 171-180.
- Johnson, J. G., Raab, M., and Heekeren, H. (2009). Mind and motion: Surveying successes and stumbles in looking ahead. In M. Raab, J. G. Johnson, and H. Heekeren (Eds.), *Mind and motion: The bidirectional link between thought and action*. New York: Elsevier. 319-328.
- DeCaro, D. A., Bar-Eli, M., Conlin, J., Diederich, A., Johnson, J. G., & Plessner, H. (2009). How do motoric realities shape, and become shaped by, the way people evaluate and select potential courses of action? Towards a unitary framework of embodied decision making. In M. Raab, J. G. Johnson, and H. Heekeren (Eds.), *Mind and motion: The bidirectional link between thought and action*. New York: Elsevier. 189-203.
- Otter, T., Johnson, J. G., Rieskamp, J., Allenby, G., et al. (2008). Sequential sampling models of choice: Some recent advances. *Marketing Letters*, 19, 255-267.
- Busemeyer, J. R., & Johnson, J. G. (2008). Micro-process models of decision making. In R. Sun (Ed.), *Cambridge handbook of computational psychology*, 302-321. Cambridge University Press.
- Raab, M., & Johnson, J. G. (2007). Expertise-based differences in search and option generation strategies. *Journal of Experimental Psychology: Applied*, 13, 158-170.
- Raab, M., & Johnson, J. G. (2007). Implicit learning as a means to intuitive decision making in sports. In H. Plessner, C. Betsch, & T. Betsch (Eds.), *A new look on intuition in judgment and decision making*, 119-133. Mahwah, NJ: Lawrence Erlbaum.
- Johnson, J. G. (2006). Cognitive modeling of decision making in sports. *Psychology of Sport and Exercise*, 7, 631-652.
- Hanoch, Y., Johnson, J. G., & Wilke, A. (2006). Domain specificity in experimental measures and participant recruitment: An application to risk-taking behavior. *Psychological Science*, 17, 300-304.
- Johnson, J. G., & Busemeyer, J. R. (2006). A unified computational modeling approach to decision making. In D. Fum, F. Del Missier, & A. Stocco (Eds.), *Proceedings of the Seventh International Conference on Cognitive Modeling*, 154-159.
- Busemeyer, J. R., Jessup, R. K., Johnson, J. G., & Townsend, J. T. (2006). Building bridges between neural models and complex decision making behavior. *Neural Networks*, 19, 1047-1058.
- Busemeyer, J. R., Johnson, J. G., & Jessup, R. K. (2006). Preferences constructed from dynamic micro-processing mechanisms. In P. Slovic & S. Lichtenstein (Eds.), *The Construction of Preference*, 220-234. New York, NY: Cambridge University Press.
- Busemeyer, J. R., & Johnson, J. G. (2006). A coherent computational framework for modeling component decision processes. In R. Sun (Ed.), *Proceedings of the Twenty-eighth Annual Conference of the Cognitive Science Society*, 2643.

- Johnson, J. G., & Busemeyer, J. R. (2005). A dynamic, stochastic, computational model of preference reversal phenomena. *Psychological Review*, 112, 841-861.
- Johnson, J. G. & Busemeyer, J. R. (2005). Rule-based Decision Field Theory: A dynamic computational model of transitions among decision-making strategies. In Betsch, T., & Haberstroh, S. (Eds.), *The Routines of Decision Making*, 3-20. Mahwah, NJ: Lawrence Erlbaum Associates.
- Busemeyer, J. R. & Johnson, J. G. (2004). Computational models of decision making. In D. Koehler & N. Harvey (Eds.), *Blackwell Handbook of Judgment and Decision Making*. Oxford, UK: Blackwell Publishing Co. 133-154.
- Raab, M. & Johnson, J. G. (2004). Individual differences of action-orientation for risk-taking in sports. *Research Quarterly for Exercise and Sport*, 75(3), 326-336.
- Johnson, J. G., Wilke, A. & Weber, E. U. (2004). Beyond a trait view of risk-taking: A domain-specific scale measuring risk perceptions, expected benefits, and perceived-risk attitude in German-speaking populations. *Polish Psychological Bulletin*, 35(3), 153-163.
- Johnson, J. G. & Raab, M. (2003). Take the first: Option generation and resulting choices. *Organizational Behavior and Human Decision Processes*, 91(2), 215-229.
- Johnson, J. G. (2003). Incorporating motivation, individual differences, and other psychological variables in utility-based choice models. *Utility Theory and Applications*. Università di Trieste, Italy. 123-142.
- Johnson, J. G. & Busemeyer, J. R. (2001). Multiple-stage decision-making: The effect of planning horizon length on dynamic consistency. *Theory and Decision*, 51(2-4), 217-246.

Books, edited volumes

- Raab, M., Johnson, J. G., and Heekeren, H. (Eds.) (2009). *Mind and Motion: The Bidirectional link between thought and action*. Progress in Brain Research, vol. 174. New York: Elsevier.
- Johnson, J. G. & Weber, A. (2006). *Introduction to Psychology (2nd Edition)*. New York, NY: Harper Collins.

Manuscripts under review

- Johnson, J. G. & Busemeyer, J. R. (under revision). A computational model of attention processes to generate decision weights.
- Wang, X. T., & Johnson, J. G. (under review). Tri-reference point theory: Evaluation and the origins of the value function in risky decision making.
- DeCaro, D. A., & Johnson, J. G. (under revision). Refining self-determination theory one construct at a time: The Self-Determined Motivation Inventory (SDMI).
- DeCaro, D. A., & Johnson, J. G. (under review). In pursuit of procedural utility: The role of autonomy in felt utility during decision making.

Manuscripts in preparation

- Koop, G. J., & Johnson, J. G. (in preparation). Beyond process tracing: Response dynamics in preferential choice.
- Johnson, J. G., & Marley, A.A.J. (in preparation). A process account of health utility assessments.
- Johnson, J. G., & Koop, G. J. (in preparation). Decision making under time pressure: Implications for (dual) process theories.
- Johnson, J. G., & Koop, G. J. (in preparation). Critical assessment of metrics and assumptions underlying process-tracing methods in decision making.
- DeCaro, D. A., & Johnson, J. G. (in preparation). On the problem-solving behavior of extrinsically-motivated intrinsics: Qualification and expansion of the undermining effect.

- Johnson, J. G., & DeCaro, D. A. (in preparation). Innovating through inverting: Enhancing quantitative literacy in a disciplinary statistics course.

Invited addresses, talks, and lectures

- Johnson, J. G., & Koop, G. J. (2011, March). Observing the time course of emerging preference in decision making. Invited talk presented at Indiana University, Bloomington, IN.
- Johnson, J. G. (2009, October). Process-tracing methods: Contributions, problems, and neglected research questions... 20 years later. Invited talk presented at Michigan State University, East Lansing, MI.
- Johnson, J. G. (2009, July). A unified process account of decision making phenomena. Invited talk presented at Max Planck Institute for Research on Collective Goods, Bonn, Germany.
- Johnson, J. G. (2009, February). Computational models of decision making. Invited talk presented at University of Cincinnati, OH.
- Johnson, J. G., and Marley, A. A. J. (2008, October). A novel account of dependencies in health utility assessment. Invited talk presented at 30th Annual Meeting of the Society for Medical Decision Making.
- Johnson, J. G., & Busemeyer, J. R. (2008, April). Decision weighting: A computational process approach. Invited talk presented at The Ohio State University.
- Johnson, J. G. (2006, November). Mind and motion: The relation between thought and action in ball sports. Keynote address presented at the 5th Sports Symposium of the German Association for Sports Science, Flensburg, Germany.
- Johnson, J. G., & Raab, M. (2006, March). Mind and Motion: Using movement process data to model generation and selection of options. Invited talk presented at Max Planck Institute for Human Development, Berlin, Germany.
- Johnson, J. G. (2005, April). Computational modeling of decision processes: Explaining “paradoxes” of decision making. Invited talk presented at Northwestern University, Evanston, IL.
- Johnson, J. G. (2004, November). Computational modeling of decision processes: An alternative approach applied to preference reversal phenomena. Invited talk presented at 2004 Annual Meeting of the Society for Judgment and Decision Making, Minneapolis, MN.
- Johnson, J. G. (2003, July). Option generation and resulting choices. Invited talk presented at University of Flensburg, Germany.

Selected paper presentations, talks, and posters

- Koop, G. J., & Johnson, J. G. (2011, November). Response dynamics: How continuous response monitoring can test modern process models. Talk presented at Society for Judgment and Decision Making annual meeting. Seattle, WA.
- Fisher, C. R., Wolfe, C. R., & Johnson, J. G. Double Down: A new paradigm for investigating risky decision making. Poster presented at Society for Judgment and Decision Making annual meeting. Seattle, WA.
- Duberstein, A. J., Koop, G. J., & Johnson, J. G. (2011, November). Effects of monetary and nonmonetary incentives on persistence and accuracy. Poster presented at Society for Judgment and Decision Making annual meeting. Seattle, WA.
- Johnson, J. G., Franco-Watkins, A., Koop, G. J., & Bristow, R. E. (2011, November). Not all stress is created equal: Comparing the effects of different stressors on decision

- making. Poster presented at Society for Judgment and Decision Making annual meeting. Seattle, WA.
- Johnson, J. G., & Koop, G. J. (2011, November). Response dynamics in decision making: Tracking the online development of preferences. Talk presented at Psychonomic Society annual meeting. Seattle, WA.
 - Franco-Watkins, A., & Johnson, J. G. (2011, November). Interactive eye tracking captures dynamic attention in choice tasks. Talk presented at Psychonomic Society annual meeting. Seattle, WA.
 - Johnson, J. G., Franco-Watkins, A. & Koop, G. J. (2011, August). All stress is not created equal: Effect of stressors on decision making. Talk presented at European Association for Decision Making annual meeting (SPUDM). London, England.
 - Koop, G. J., & Johnson, J. G. (2011, August). Response dynamics: How continuous response monitoring can test modern process models. Talk presented at European Association for Decision Making annual meeting (SPUDM). London, England.
 - Franco-Watkins, A., & Johnson, J. G. (2011, August). Interactive eye-tracking for decision research: Decision moving-window methodology. Talk presented at European Association for Decision Making annual meeting (SPUDM). London, England.
 - Franco-Watkins, A., & Johnson, J. G. (2011, August). Now you see it, now you don't: Integrating attention theories in information processing approaches to decision making. Talk presented at European Association for Decision Making annual meeting (SPUDM). London, England.
 - Johnson, J. G., Franco-Watkins, A. & Koop, G. J. (2010, November). Extending process-tracing methods and metrics: An application to decisions under time pressure. Poster presented at Society for Judgment and Decision Making Annual Meeting. St. Louis, MO.
 - Koop, G. J., Johnson, J. G., & Duberstein, A. (2010, November). Embodied decision making: Measuring choice preferences dynamically during risky decision-making. Poster presented at Society for Judgment and Decision Making Annual Meeting. St. Louis, MO.
 - Bristow, R. E., & Johnson, J. G. (2010, November). There's more to life than expected values: Results of free distributions of repeated plays. Poster presented at Society for Judgment and Decision Making Annual Meeting. St. Louis, MO.
 - Johnson, J. G., & Koop, G. J. (2009, November). Beyond process-tracing: Response dynamics in risky decision-making. Poster presented at Society for Judgment and Decision Making Annual Meeting. Boston, MA.
 - DeCaro, D. A., & Johnson, J. G. (2009, November). Chronic Intrinsic motivation qualifies the effect of situational extrinsic incentives on problem solving. Talk presented at Psychonomic Society Annual Meeting, Boston, MA.
 - Koop, G & Johnson, J.G (2009, November). Descriptions, experiences, and memories: The effects of presentation and representation on choice. Poster presented at Society for Judgment and Decision Making Annual Meeting. Boston, MA.
 - Bristow, R. E., & Johnson, J. G. (2009, November). Longitudinal effects of media messages on risk assessments of, attitudes towards, and behaviors combating climate change. Poster presented at Society for Judgment and Decision Making Annual Meeting. Boston, MA.
 - Johnson, J. G. (2009, August). Modeling intention from attention. Talk presented at 42nd Annual Meeting of the Society for Mathematical Psychology.
 - Johnson, J. G., DeCaro, D. A., & Koop, G. J. (2008, November). Effects of time pressure on decision making: Implications for dual systems and strategy switching. Talk presented at 29th Annual Meeting of the Society for Judgment and Decision Making.

- DeCaro, D. A., & Johnson, J. G. (2008, November). In pursuit of procedural utility: The role of autonomy in felt utility during decision making. Talk presented at 29th Annual Meeting of the Society for Judgment and Decision Making.
- Koop, G., & Johnson, J. G. (2008, November). The simultaneous use of multiple reference points in risky decision making. Poster presented at 29th Annual Meeting of the Society for Judgment and Decision Making.
- Johnson, J. G. (2008, July). Decision making under time pressure: Implications for (dual) process theories. Poster presented at 41st Annual Meeting of the Society for Mathematical Psychology.
- DeCaro, D., & Johnson, J. G. (2007, November). Motivation in judgment and choice: Strategy, duration, and accuracy of judgment as a function of intrinsic and extrinsic motives. Talk presented at 28th Annual Meeting of the Society for Judgment and Decision Making.
- Johnson, J. G. (2007, January). Developing a modular, interactive, learner-centered course in psychological statistics. Poster presented at the National Institute on the Teaching of Psychology.
- Johnson, J. G., & Wang, X. T. (2006, November). Multiple reference points as the carriers of value in risky decision making. Poster presented at the 27th Annual Meeting of the Society for Judgment and Decision Making.
- Johnson, J. G., & Busemeyer, J. R. (2006, April). A unified computational modeling approach to decision making. Talk presented at 7th International Conference on Cognitive Modeling, Trieste, Italy.
- Johnson, J. G., & Busemeyer, J. R. (2005, November). Decision weighting: A computational process approach. Talk presented at 2005 Annual Meeting of the Society for Judgment and Decision Making, Toronto, Canada.
- Jessup, R. K., Johnson, J. G., & Busemeyer, J. R. (2005, November). Effects of learning and gamble variance on preference reversals using a within subject design. Poster presented at 2005 Annual Meeting of the Society for Judgment and Decision Making, Toronto, Canada.
- Hanoch, Y., Johnson, J., & Wilke, A. (2005, August). Domain specificity in experimental measures and participant recruitment: An application to risk-taking behavior. Talk presented at 20th Subjective Probability and Utility in Decision Making conference (SPUDM20), Stockholm, Sweden.
- Busemeyer, J. R., & Johnson, J. G. (2005, March). A process model for generating decision weights. Invited talk presented by J. R. Busemeyer at University of Chicago, IL.
- Johnson, J. G. (2004, November). Computational modeling of deliberation processes. Talk presented at University of Illinois, Urbana-Champaign, IL.
- Johnson, J. G., & Busemeyer, J. R. (2004, April). Decision Field Theory account of preference reversal phenomena. Poster presented at 9th Behavioral Decision Research in Management conference, Duke University, Raleigh-Durham, NC.
- Johnson, J. G., & Busemeyer, J. R. (2003, December). Beyond biases and bandages: A novel dynamic process account of robust preference reversal patterns. Talk presented at Indiana University, Bloomington, IN.
- Johnson, J. G., & Busemeyer, J. R. (2003, November). Decision Field Theory account for preference reversals. Talk presented by J. R. Busemeyer at 44th Annual Meeting of the Psychonomic Society, Vancouver, BC, Canada.
- Johnson, J. G., & Busemeyer, J. R. (2003, November). A comprehensive framework for modeling choice. Poster presented at 2003 Annual Meeting of the Society for Judgment and Decision Making, Vancouver, BC, Canada.
- Johnson, J. G., & Busemeyer, J. R. (2003, July). Beyond biases and bandages: A novel dynamic modeling account of robust preferential choice phenomena. Talk presented

at 36th Annual Meeting of the Society for Mathematical Psychology, Weber State University, Ogden, UT.

- Busemeyer, J. R., & Johnson, J. G. (2003, May). A computational modeling approach to decision making. Talk presented by J. R. Busemeyer at University of California, Irvine.
- Johnson, J. G. (2003, March). Decision field theory account of loss aversion and reference point effects. Talk presented at Hoosier Mental Life, Purdue University, West Lafayette, IN.
- Johnson, J. G. (2003, February). What black box? On the contributions of neuroimaging to cognitive modeling. Talk presented at Indiana University, Bloomington, IN.
- Johnson, J. G. (2002, July). A unified framework for comparing models of individual preferential choice. Talk presented at 35th Annual Meeting of the Society for Mathematical Psychology, Miami University, Oxford, OH.
- Johnson, J. G. (2002, June). Incorporating motivation and individual differences in utility-based choice models. Paper presented at Utility Theory and Applications conference, Trieste, Italy.
- Johnson, J. G. (2002, May). Comparing simple and complex mathematical models of preferential choice. Talk presented at University of Osnabrück, Germany.
- Johnson, J. G. & Busemeyer, J. R. (2001, June). Multistage decision-making: The effect of planning horizon on dynamic consistency. Paper presented at Foundations of Utility and Risk X, University of Turin, Italy.
- Johnson, J. G. (2000, October). Dynamic consistency and planning horizon. Talk presented at Indiana University, Bloomington, IN.