

Z. JOYCE WANG

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Columbus, OH 43210

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Academic Appointments

2017-present Full Professor
2013-2017 Associate Professor (with tenure)
2007-2013 Assistant Professor

Faculty, School of Communication, OSU

Director, Communication and Psychophysiology Lab (CAPLab)

Affiliated faculty, Center for Cognitive and Brain Sciences

Affiliated faculty, Decision Science Collaborative

Faculty leadership team, Translational Data Analytics Institute

Associate Editor: *Journal of Communication* (2018-present), *Computers in Human Behavior* (2021-present)

Education

Ph.D. Communications & Cognitive Science, double-major (2007)
Indiana University, Bloomington, IN, USA

B. A. Journalism & Mass Communications (2001), *summa cum laude*
China Youth University for Political Sciences, Beijing, China

Research Expertise

- Motivation, emotion, and cognition in media processing and choice behavior; media design and evaluation.
- Reciprocal dynamics of choice behavior and information processing; mHealth (mobile health) applications.
- Psychophysiological methods; dynamic computational modeling methods.
- Quantum probabilistic and dynamic models of cognition, decision, and communication; contextualized communication, decision and choices; extending the work to modeling communication networks and data fusion.

I've been especially interested in pursuing new ideas and approaches from cognitive science to the study of communication.

- One new direction is the use of real-time data (e.g., psychophysiological measures, longitudinal experience sampling) in conjunction with formal dynamic models to study how people process, select, and are affected by the information. This has led to the development of new dynamic models of information processing and choice behaviors. My current focus is to identify **dynamic reciprocal effects** between media use/choices and their impacts on emotion, cognition, and social relations over time. I have employed the approach to study media entertainment, ads and health campaign messages, program context effects, news selection, media multitasking, media and diet, social media and social networks, etc. They help design more effective messages and media environment, and increase social support. Also, they help better understand the long-term dynamic reciprocal influences between media use, communications, cognitive functions and neuro-substrates, personal traits, social networks from a dynamic, developmental perspective.
- Another new direction is to study contextual influences on cognition, decision, and communication, by **building new probabilistic and dynamic systems** based upon quantum rather than traditional classical probability theory. Quantum probability theory is shown to be highly suitable for explaining paradoxical findings accumulated in literature associated with the highly contextual nature of cognition and communication. I have applied the quantum models to study paradoxical findings that have resisted coherent theoretical explanations, including categorization-decision interference effects, sequential effects of measurements (e.g., in attitude judgments, narrative and jury decisions), and episodic memory overdistribution effects. We are extending the work to better understand the influence of information flow and communication networks on human interactions and information processing.

Recent Teaching Experience

Full, Associate & Assistant Professor, School of Communication, the OSU (2007-present):
Advanced Statistics for Communication (graduate), Cognition & Communication (graduate)
Communication Industry Research Methods (graduate and undergraduate)
Communication Research Methods (undergraduate), Mass Communication and Society (undergraduate)
Strategic Media Planning (undergraduate)

Associate Instructor, Dept. of Telecommunications, IU (2001-2007):
Electronic Media Advertising (undergraduate), Cable & Broadcast Advertising (undergraduate)
Living in the Information Age (undergraduate), Programming Strategies (undergraduate)

Selected Academia Professional Service and Leadership

International Professional Organizations

International Communication Association (ICA)
2020-2021 ICA Task Force for Interest Groups' Application Development
2019-2020 ICA Task Force for Interest Groups
2018-2019 ICA Task Force for Membership
2017-2019 ICA Board of Directors
2017-2019 Chair for Information Systems, 2015-2017 Vice Chair elected for Information Systems

The university, OSU:

College of Arts & Science, Faculty Research and Creative Expression Committee, 2021-
Center for Cognitive and Brain Sciences, Executive Committee, 2019-present
Mershon Center for International Security Studies, Search Committee, 2020-2021
Translational Data Analytics (TDA) Faculty Advisory Board, 2015-2016; Leadership team, 2017-present
Cognitive and Brain Sciences Graduate Interdisciplinary Specialization, Graduate Studies Committee, 2015-present
Behavioral and Social Sciences Institutional Review Board, 2012-2017

The School of Communication:

Chair, Promotion & Tenure Committee, 2017-present
Executive Committee, 2017-present
Director Search Committee, 2013-2014, 2017
Faculty Search Committee, 2008-2009 (5 positions); 2013-2014 (2 positions); 2015-2016 (2 positions)
Research Committee, 2013-2014
Promotion & Tenure Reading Committee, 2013-present
Graduate Studies Committee, 2010-2013, 2015-present

Student life enrichment:

Host, supporting recruitment & training activities of OSU, research lab, 2007-present
Graduate Faculty Representative, OSU, 2008-present
Judge, Denman Undergraduate Research Forum, OSU, 2012-present
Faculty and speaker, Humanities and Cognitive Sciences High School Summer Institute (annually), 2014-present
Faculty and speaker, Mentoring Young Women in Data Science (annually), 2018-

Academic Honors

Distinguished Teaching and Service Award
Humanities and Cognitive Sciences High School Summer Institute, 2018
The Best Research Award
American Society of Trial Consultants, 2017

Denis McQuail Award (2016) and ASCoR Honorary Fellow (2017-2018).
Amsterdam School of Communication Research. Selected by an international award committee. Awarded for the best article advancing communication theory published in a peer-reviewed journal or a university press published book in the previous two years. ("Multi-dimensions of media multitasking and adaptive media selection." *Human Communication Research*, 2015)

Top Paper Award
International Communication Association, Information Systems, 2016

Mattox Award for research productivity and impact (\$10,000), SoC, OSU, 2015

ScienceDirect Top 25 hottest article in *Journal of Mathematical Psychology*
(Continuously ranked every quarter, 2006-2016)

Most Cited Article in the Past Five Years (2009-2014)
Journal of Mathematical Psychology

Most Cited Article in the Past Five Years (2006-2011)
Journal of Mathematical Psychology

Top Faculty Paper Award
International Communication Association, Communication and Technology, 2013

Top Paper Award
National Communication Association, Human Communication and Technology, 2012

Top Paper Award
International Communication Association, Information Systems, 2008

Outstanding Dissertation Award (Bi-annual)
Cognitive Science, IU, 2008

Top Research Paper Competition Winner
ICR and Dept. of Telecommunications, IU, 2005, 2006

The Summer Research Fellowship
Cognitive Science Program, IU, 2004

Outstanding University Graduate of the Year
Beijing, China, 2001

The Highest Fellowship
China Youth University for Political Sciences, Beijing, China, 1998-2001

External Research Grants

PI (the OSU subaward), U.S. Air Force Office of Scientific Research (AFOSR)
Computational Cognition and Machine Intelligence program:
"Applications of quantum probability theory to human-machine communication networks"
\$398,638 to Wang and \$1,200,000 in total across research sites, 2020-2022

Co-PI, Carnegie Corporation of New York
Quantum Boot Camp for Social Scientists
\$399,000, 2020-2022

PI, National Science Foundation (NSF)
Methodology, Measurement, & Statistics; and Perception, Action, & Cognition
"Construct a General Hilbert Space Multi-dimensional Model" (SES-1560501)
\$236,592 to Wang and \$500,000 in total across research sites, 2016-2019

PI (the OSU subaward), U.S. Air Force Office of Scientific Research (AFOSR)
“Applications of Quantum Probability Theory to Strategic Decision Making” (FA9550-15-1-0343)
\$181,972 to Wang and \$592,302 in total across research sites, 2015-2019

PI (the OSU subaward), National Science Foundation (NSF)
Electrical, Communications, and Cyber Systems; Integrative Strategies for Understanding Neural and Cognitive Systems
“Fully-Passive and Wireless Multi-Channel Neural Recording for Chronic In-Vivo Studies in Animals”
\$128,108 to Wang and \$569,087 in total, 2017-2019

William K. and Katherine W. Estes Fund in Advanced Training in Mathematical and Computational Modeling for Psychological Science, The Psychonomic Society, \$7,500, 2017
For organizing a one-day workshop, “Computational Tools for Developing and Testing Models of Quantum Cognition”

PI (the OSU subaward), U.S. Air Force Office of Scientific Research (AFOSR)
“Applications of Quantum Probability Theory to Dynamic Decision Making” (FA9550-12-1-0397)
\$161,157 to Wang and \$607,712 in total across research sites, 2012-2015

PI, National Science Foundation (NSF)
Methodology, Measurement, & Statistics; and Decision, Risk & Management Sciences
“Quantum Decision Theory” (SES 1153846)
\$40,622 to Wang and \$50,000 in total across research sites, 2012-2014

PI, National Science Foundation (NSF)
Methodology, Measurement, & Statistics; and Decision, Risk & Management Sciences
“Quantum Information Processing” (SES 0818277)
\$238,434 to Wang and \$450,000 in total across research sites, 2009-2012

Internal Research Grants (Selected)

PI, Collaborative Research Grant
“Addressing Societal Communication Problems through a Three-Layer Approach to Observational Data: Counteracting Political Polarization as an Exemplar Application”
Other PIs: Robert Bond, Silvia Knobloch-Westerwick
\$116,243, School of Communication, OSU, 2019-2022

PI, Collaborative Research Seed Grant
“The Weapon Effects: A Physiological, Neural, and Computational Examination”
Other PIs: Brad J. Bushman, Richard Huskey,
\$50,000, School of Communication, OSU, 2019-2020

Advisor, Decision Sciences Collaborative Grant (\$3000) (Graduate student: Lorraine Borghetti)
OSU, 2016

Advisor, The OSU Research Scholar Award (\$1000)
Advisor, Arts & Sciences Undergraduate Research Scholarship (\$1500) (undergraduate student: Yilu Sun)
OSU, 2015

PI, the Director’s Award for successful external grants
\$160,020, School of Communication, OSU, 2013-2014

Advisor, The Mayers Summer Research Scholarships in the Natural & Mathematical Sciences (\$3500)
Advisor, OSU Summer Research Fellowship (\$3500) (undergraduate student: Zhengjie Li), OSU, 2013

Advisor, Pelotonia Fellowship for Cancer Research (undergraduate student: Linghan Wang)
\$12,000, OSU, 2010-2011

Advisor, Undergraduate Research Office Summer Research Fellowship (undergraduate student: Xuyan Zhao)
\$3,500, OSU, 2011

PI, Miller Research Award
\$6,330, School of Communication, OSU, 2008-2009

The Dissertation Research Fellowship
\$4,800, Cognitive Science, IU, 2007

Research Assistant Grant Competition Winner
\$500, ICR, IU, 2005

Conference Travel Grant
\$500, ICR, IU, 2003, 2004, 2005, 2006, 2007

The Summer Research Fellowship
\$2,800, Cognitive Science, IU, 2004

The President's Summer Research Initiative Grant
\$3,000, IU, 2002

Editorial & Review Service

Associate Editor

Journal of Communication (2018-present)

Computers in Human Behaviors (2021-present)

Action Editor

Topics in Cognitive Science, special issue: The Potential of Quantum Probability for Modeling Cognitive Processes (2013)

Commentaries on the special issue (2014)

Journal of Communication, special issue: Open Communication Research (2021)

Consulting Editor/Editorial Board

Communication Methods and Measures

Communication Monographs

Communication Research

Decision

Frontiers in Cognitive Science

Human Communication Research

Journal of Experimental Psychology: General

Journal of Information Society

Media Psychology

Perspectives on Psychological Science

Grant proposal reviewer:

Canada Foundation for Innovation, Canada

Netherlands Organization for Scientific Research (NWO), Netherlands

Research Foundation—Flanders (FWO), Belgium

The Royal Society, UK

U.S. National Science Foundation (NSF), Decision, Risk & Management Science; Methodology, Measurement, & Statistics

Ad-hoc Journal reviewer:

Cognitive Science

Communication Methods & Measures

Communication Monographs

Computers in Human Behavior

Communication Research

Entertainment Computing

Frontiers in Cognitive Science
Frontiers in Psychology
Health Communication
Human Communication Research
Human-Computer Interaction
International Journal of Listening
Internet Research
Journal of Advertising
Journal of Communication
Journal of Computer-Mediated Communication
Journal of Health Communication
Journal of Mathematical Psychology

Journal of Media Psychology
Media Psychology
Mathematical Social Sciences
Mind and Matter
New Media & Society
Political Behavior
Psychonomic Bulletin & Review
Psychology Assessment
Psychological Review
Sociological Forum
Topics in Cognitive Science

Conference Planner & Committee

Annual Conference planner, International Communication Association (2015-2017)
Program Committee, International Conference on Quantum Interaction (2014)

Conference reviewer:

Cognitive Science Society, International Communication Association, National Communication Association, Society for Consumer Psychology, Quantum Interaction

Affiliations

International Communication Association
National Communication Association
The Association for Education in Journalism and Mass Communication
Chinese Communication Association
Cognitive Science Society
Society for Mind-Matter Research
The Society for Mathematical Psychology
The Society for Psychophysiological Research

Media Coverage

My research has received national and international media coverage, including the *NSF Highlights* and its affiliated *Science360*, *Economists*, *Forbes*, *The Atlantic*, *Popular Science*, *The Independent (UK)*, *Scientific American*, *Inside Science*, *ABC news*, *USA Today*, *WebMD*, *Prevention*, *Glamour*, *Chicago Daily Herald*, *Columbus Dispatch*, *Psychology Today*, *Insurance Journal*, *IEEE Spectrum*, and news websites such as *Huffington Post*, *The Verge*, *Yahoo News*, *phys.org*, and *United Press International (UPI)*.

Academic Publications (Books, Journal Articles, Chapters, Proceedings, etc.)

Books

Wang, Z., & Busemeyer, J. R. (2021). *Cognitive choice modeling*. Cambridge, MA: MIT Press.

Busemeyer, J. R., **Wang, Z.**, Townsend, J. T., & Eidels, A. (2015). *Oxford handbook of computational and mathematical psychology*. New York, NY: Oxford University Press.

Journal Articles (Peer-Reviewed)

(^a undergraduate or graduate student; impact factor = five years impact factor)

- J47. ^a Xu, S., & **Wang, Z.** (in press). Multiple selves and multitasking: A dynamic longitudinal study. *Communication Research*. Online first: <https://journals.sagepub.com/doi/10.1177/0093650221991493>
- J46. **Wang, Z.**, & Busemeyer, J. (in press). Beliefs, actions, and rationality in strategic decisions. *Topics in Cognitive Science*.
- J45. Busemeyer, J., Zhang, Q., Balakrishnan, S.N., & **Wang, Z.** (2020). Application of quantum–Markov open system models to human cognition and decision. *Entropy*, *22*, 990.
- J44. Atmanspacher, H., Basieva, I., Busemeyer, J., Khrennikov, A., Pothos, E., Shiffrin, R., & **Wang, Z.** (2020). What are the appropriate axioms of rationality for reasoning under uncertainty with resource-constrained systems? *Behavioral and Brain Sciences*, *43*, E2. doi:10.1017/S0140525X19001535
- J43. ^a Xu, S., **Wang, Z.** & ^a Woods, K. (2019). Multitasking and dual motivational systems: A dynamic longitudinal study. *Human Communication Research*. Online first. doi:10.1093/hcr/hqz009
[Impact Factor: 3.67]
- J42. Busemeyer, J. R. & **Wang, Z.** (2019). Hilbert space multidimensional modeling of continuous variables. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, *377*, 20190142.
**Authors contributed to the article equally.*
[Impact Factor: 3.42]
- J41. Busemeyer, J. R., & **Wang, Z.** (2019). Primer on quantum cognition. *The Spanish Journal of Psychology*, *22*, e53. Doi:10.1017/sjp.2019.51
[Impact Factor: .67]
- J40. Busemeyer, J. R., & **Wang, Z.** (2018). Hilbert space multi-dimensional modeling. *Psychological Review*, *125*, 572-591. doi: dx.doi.org/10.1037/rev0000106
[Impact Factor: 9.51]
- J39. Busemeyer, J. R., & **Wang, Z.** (2018). Data fusion using Hilbert space multi-dimensional models. *Theoretical Computer Science*, *752*, 41-55. doi: doi.org/10.1016/j.tcs.2017.12.007
[Impact Factor: 0.82]
- J38. Busemeyer, J. R., & **Wang, Z.** (2017). Is there a problem with quantum models of psychological measurements? *PLoS ONE*, *12*, e0187733. <https://doi.org/10.1371/journal.pone.0187733>
**Authors contributed to the article equally.*
[Impact Factor: 3.39]
- J37. Banjo, O., **Wang, Z.**, Appiah, O., ^a Brown, C., ^a Walther-Martin, W., ^a Tchernev, J., ^a Hedstrom, A., & ^a Irwin, M. (2017). Experiencing racial humor with out-groups: A psychophysiological examination of co-viewing effects. *Media Psychology*, *20*, 607-631.
[Impact Factor: 2.15]
- J36. ^a Anderegg, C., ^a Alade, S., Ewoldsen, D., & **Wang, Z.** (2017). Comprehension models of audiovisual discourse processing. *Human Communication Research*, *43*, 344-362. doi:10.1111/hcre.12107
[Impact Factor: 3.71]

- J35. **Wang, Z.**, & Busemeyer, J. R. (2016). Interference effects of categorization on decision making. *Cognition*, *150*, 133-149.
[Impact factor: 4.31]
- J34. ^a Xu, S., **Wang, Z.**, & David, P. (2016). Media multitasking and well-being of university students. *Computers in Human Behavior*, *55*, 242-250.
[Impact Factor: 3.72]
- J33. **Wang, Z.**, & Busemeyer, J. R. (2015). Reintroducing the concept of complementarity into psychology. *Frontiers in Psychology*, *6*, Article 1822. <https://doi.org/10.3389/fpsyg.2015.01822>
[Impact Factor: 2.89]
- J32. **Wang, Z.**, & Busemeyer, J. R. (2015). Comparing quantum versus Markov random walk models of judgments measured by rating scales. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, *374*, 20150098. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4685762/>
[Impact Factor: 3.05]
- J31. Brainerd, C. J., **Wang, Z.**, Reyna, V. F., & ^a Nakamura, K. (2015). Episodic memory does not add up: Verbatim-gist superposition predicts violations of the additive law of probability. *Journal of Memory and Language*, *84*, 224-245.
[Impact Factor: 4.36]
- J30. Bruza, P. D., **Wang, Z.**, & Busemeyer, J. R. (2015). Quantum cognition: A new theoretical approach to psychology. *Trends in Cognitive Sciences*, *19*(7), 383-393. doi:10.1016/j.tics.2015.05.001
**Feature review. Authors contributed to the article equally.*
[Impact Factor: 23.87]
- J29. Busemeyer, J. R., & **Wang, Z.** (2015). What is quantum cognition, and how is it applied to psychology? *Current Directions in Psychological Science*, *24*(3), 163-169. doi: 10.1177/0963721414568663
[Impact Factor: 6.63]
- J28. Banjo, O., Appiah, O., **Wang, Z.**, ^a Brown, C., & ^a Walther, W. (2015). Co-viewing effects of ethnic-oriented programming: An examination of in-group bias and racial comedy exposure. *Journalism and Mass Communication Quarterly*, *92*(3), 662-680. doi: 10.1177/1077699015581804
[Impact Factor: 1.63]
- J27. **Wang, Z.**, ^a Vang, M. H., ^a Lookadoo, K. L., ^a Tchernev, J., & ^a Cooper, C. (2015). Engaging high-sensation seekers: The dynamic interplay of sensation seeking, message visual-auditory complexity and arousing content. *Journal of Communication*, *65*, 101-124. doi:10.1111/jcom.12136
[Impact Factor: 4.41]
- J26. Busemeyer, J. R., **Wang, Z.**, Pothos, E. M. & Trueblood, J. S. (2015). The conjunction fallacy, confirmation, and quantum theory: Comment on Tentori, Crupi & Russo (2013). *Journal of Experimental Psychology: General*, *144*, 236-243. doi:http://dx.doi.org/10.1037/xge0000035
[Impact Factor: 5.11]
- J25. **Wang, Z.**, ^a Irwin, M., ^a Cooper, C., & ^a Srivastava, J. (2015). Multi-dimensions of media multitasking and adaptive media selection. *Human Communication Research*, *41*, 102-127. doi:10.1111/hcre.12042
[Impact Factor: 3.71]
- J24. Busemeyer, J. R., **Wang, Z.**, & Shiffrin, R. (2015). Bayesian comparison of a quantum versus a traditional model of human decision making. *Decision*, *2*, 1-12.

- J23. **Wang, Z.**, ^a Solloway, T., Shiffrin, R. M., & Busemeyer, J. (2014). Context effects produced by question orders reveal quantum nature of human judgments. *Proceedings of the National Academy of Sciences*, *111*(26), 9431-9436. doi: 10.1073/pnas.1407756111
<http://www.pnas.org/content/111/26/9431.short>
 [Impact Factor: 10.29]
- J22. **Wang, Z.** (2014). Bridging media processing and selective exposure: A dynamic motivational model of media choices and choice response time. *Communication Research*, *41*(8), 1064-1087. doi: 10.1177/0093650214534963
 [Impact Factor: 3.47]
- J21. Busemeyer, J. R., **Wang, Z.**, Khrennikov, A., & Basieva, I. (2014). Applying quantum principles to psychology. *Physica Scripta*, *T163*, 014007.
 [Impact Factor: 1.09]
- J20. Busemeyer, J. R., & **Wang, Z.** (2014). Quantum cognition: Key issues and discussion. *Topics in Cognitive Science*, *6*, 1-4.
 [Impact Factor: 2.85]
- J19. **Wang, Z.**, ^a Morey, A. C., & ^a Srivastava, J. (2014). Motivated selective attention during political ad processing: The dynamic interplay between emotional ad content and candidate evaluation. *Communication Research*, *41*, 119-156. doi: 10.1177/0093650212441793
 [Impact Factor: 3.47]
- J18. **Wang, Z.**, Busemeyer, J. R., Atmanspacher, H., & Pothos, E. M. (2013). The potential of using quantum theory to build models of cognition. *Topics in Cognitive Science*, *5*, 672-688. doi: 10.1111/tops.12043
 [Impact Factor: 2.85]
- J17. **Wang, Z.**, & Busemeyer, J. R. (2013). A quantum question order model supported by empirical tests of an a priori and precise prediction. *Topics in Cognitive Science*, *5*, 689-710. doi: 10.1111/tops.12040
 [Impact Factor: 2.85]
- J16. Brainerd, C., **Wang, Z.**, & Reyna, V. (2013). Superposition of episodic memories: Overdistribution and quantum models. *Topics in Cognitive Science*, *5*, 773-799. doi: 10.1111/tops.12039
 [Impact Factor: 2.85]
- J15. Lang, A., Sanders-Jackson, A., **Wang, Z.**, & Rebenking, B. (2013). Motivated message processing: How motivational activation influences resource allocation, encoding, and storage of TV messages. *Motivation and Emotion*, *37*, 508-517. doi: 10.1007/s11031-012-9329-y
 [Impact Factor: 2.36]
- J14. **Wang, Z.**, ^a Solloway, T., ^a Tchernev, J., & ^a Barker, B. (2012). Dynamic motivational processing of anti-marijuana messages: Coactivation begets attention. *Human Communication Research*, *38*, 485-509.
 [Impact Factor: 3.71]
- J13. **Wang, Z.**, ^a Tchernev, J., & ^a Solloway, T. (2012). A dynamic longitudinal examination of social media use, needs, and gratifications among college students. *Computers in Human Behavior*, *28*, 1829-1839. doi: 10.1016/j.chb.2012.05.001
 [Impact Factor: 3.72]

- J12. **Wang, Z.**, & Tchernev, J. (2012). The “myth” of media multitasking: Reciprocal dynamics of media multitasking, personal needs, and gratifications. *Journal of Communication*, *62*, 493-513. doi:10.1111/j.1460-2466.2012.01641.x
[Impact Factor: 4.41]
- J11. **Wang, Z.**, David, P., Srivastava, J., Powers, S. R., D’Ángelo, J., Brady, C., & Moreland, J. (2012). Behavioral performance and visual attention in communication multitasking: A comparison between instant messaging and online voice chat. *Computers in Human Behavior*, *28*, 968-975. doi: 10.1016/j.chb.2011.12.018
[Impact Factor: 3.72]
- J10. **Wang, Z.**, & Lang, A. (2012). Reconceptualizing excitation transfer as motivational activation changes and a test of the television program context effects. *Media Psychology*, *15*, 68-92. doi: 10.1080/15213269.2011.649604
[Impact Factor: 2.15]
- J9. **Wang, Z.**, Lang, A., & Busemeyer, J. R. (2011). Motivational processing and choice behavior during television viewing: An integrative dynamic approach. *Journal of Communication*, *61*, 71-93. doi: 10.1111/j.1460-2466.2010.01527.x
[Impact Factor: 4.41]
- J8. **Wang, Z.**, & Gantz, W. (2010). Health content in local television news: A current appraisal. *Health Communication*, *25*, 230–237. doi: 10.1080/10410231003698903
[Impact Factor: 1.93]
- J7. Busemeyer, J., **Wang, Z.**, & Lampert-Mogiliansky, A. L. (2009). Empirical comparison of Markov and quantum models of decision making. *Journal of Mathematical Psychology*, *53*, 423-433. doi: 10.1016/j.jmp.2009.03.002 **[Most Cited Article in the Past Five Years, JMP]**
[Impact Factor: 2.61]
- J6. Gantz, W., & **Wang, Z.** (2009). Coverage of cancer in local television news. *Journal of Cancer Education*, *24*, 65-72. doi:10.1080/08858190802664727
[Impact Factor: 1.28]
- J5. **Wang, Z.**, & Gantz, W. (2007). Health content in local television news. *Health Communication*, *21*, 213-221. doi: 10.1080/10410230701307527
[Impact Factor: 1.93]
- J4. Lang, A., Park, B. H., Sanders, A., Wilson, B., & **Wang, Z.** (2007). Cognition and emotion in TV message processing: How valence, arousing content, structural complexity, and information density affect the availability of cognitive resources. *Media Psychology*, *10*, 317-338. doi: 10.1080/15213260701532880
[Impact Factor: 2.15]
- J3. Busemeyer, J. R., **Wang, Z.**, & Townsend, J. T. (2006). Quantum dynamics of human decision-making. *Journal of Mathematical Psychology*, *50*, 220-241. doi: 10.1016/j.jmp.2006.01.003 **[Most Cited Article in the Past Five Years, JMP]**
[Impact Factor: 2.61]

- J2. Gantz, W., **Wang, Z.**, Paul, B., & Potter, R.F. (2006). Sports versus all comers: Comparing TV sports fans with fans of other programming genres. *Journal of Broadcasting & Electronic Media*, 50, 95-118. doi: 10.1207/s15506878jobem5001_6 [Impact Factor: 1.71]
- J1. Lang, A., Shin, M., Bradley, S.D., **Wang, Z.**, Lee, S., & Potter, D. (2005). Wait! Don't turn that dial! More excitement to come! The effects of story length and production pacing in local television news on channel changing behavior and information processing in a free choice environment. *Journal of Broadcasting & Electronic Media*, 49, 3-22. doi: 10.1207/s15506878jobem4901_2 [Impact Factor: 1.71]

Book Chapters (Invited)

(^a undergraduate or graduate student)

- C15. ^a Lorrain, B., **Wang, Z.**, & Busemeyer, J.R. (2020). Communication and quantum cognition. In K. Floyd & R. Weber (Eds). *Handbook of Communication Science and Biology*.
- C14. Busemeyer, J. R., & **Wang, Z.** (2019). Introduction to Hilbert space multi-dimensional modeling. In D. Aerts, A. Khrennikov, M. Melucci, & B. Toni (Eds.). *Quantum-like models for information retrieval and decision making* (pp.41-49). Springer.
- C13. ^a Xu, S., & **Wang, Z.** (2017). Multitasking: Does it actually exist? P. Vorderer, D. Hefner, L. Reinecke, C. Klimmt (Eds.), *Permanently online, permanently connected: Living and Communicating in a POPC World*(pp. 72-82). New York: Routledge.
- C12. ^a Irwin, M., & **Wang, Z.** (2017). Dynamic systems modeling. International encyclopedia of communication research methods. In J. Matthes, R. Potter, & C. Davis (Eds), *International Encyclopedia of Communication Research Methods*, San Francisco, CA: Wiley. <http://onlinelibrary.wiley.com/doi/10.1002/9781118901731.iecrm0074/full>
- C11. ^a Xu, S., & Wang, Z. (2017). Multitasking. In P. Rossler (Ed.), *The international encyclopedia of media effects*. San Francisco, CA: Wiley.
- C10. **Wang, Z.**, & Busemeyer, J. R. (2016). Order effects in sequential judgments and decisions. In H. Atmanspacher & S. Maasen (Eds), *Reproducibility: Principles, practices, and problems* (pp.391-406). San Francisco, CA: Wiley.
- C9. ^a Irwin, M., & **Wang, Z.** (2015). Media multitasking. In R. Scott & S. Kosslyn (Eds.), *Emerging trends in the social and behavioral sciences*. San Francisco, CA: Wiley.
- C8. Busemeyer, J. R., **Wang, Z.**, Pothos, E. (2015). Quantum models of cognition and decision. In J. R. Busemeyer, Z. Wang, J. T. Townsend, & A. Eidels (Eds), *Oxford handbook of computational and mathematical psychology* (pp.369-389). NY: Oxford University Press.
- C7. Busemeyer, J. R., **Wang, Z.**, Eidels, A., & Townsend, J. T. (2015). Review of basic mathematical concepts used in mathematical psychology. In J. R. Busemeyer, Z. Wang, J. T. Townsend, & A. Eidels (Eds), *Oxford handbook of computational and mathematical psychology* (pp.1-10). NY: Oxford University Press.
- C6. **Wang, Z.**, & Gantz, W. (2014). Media content: Televised News. In T. L., Thompson (Ed.), *Encyclopedia of health communication*. Thousand Oaks, CA : SAGE.
- C5. **Wang, Z.**, & Gantz, W. (2014). Media content: Newspaper. In T. L., Thompson (Ed.), *Encyclopedia of health communication*. Thousand Oaks, CA : SAGE.

- C4. **Wang, Z.** (2013). Excitation transfer theory. In M. S. Eastin (Ed.), *Encyclopedia of media violence*. Thousand Oaks, CA : SAGE.
- C3. Busemeyer, J. R., **Wang, Z.** (2010). Quantum probability applied to social and behavioral sciences. In C. Rangacharyulu & E. Haven (Eds.), *Proceedings of the first Interdisciplinary CHESS Interactions Conference* (pp. 115-126). Singapore: World Scientific.
- C2. Bucy, E., Gantz, W., & **Wang, Z.** (2007). News and new technology: Contending with the 24-hour news cycle. In C. A. Lin & D. Atkin (Eds.), *Communication technology and social change* (pp.143-163). Mahwah, NJ: Erlbaum.
- C1. Gantz, W., **Wang, Z.**, & Bradley, S.D. (2006). Televised NFL games, the family, and domestic violence. In A. A. Raney & J. Bryant (Eds.), *Handbook of sports and media* (pp.365-381). Mahwah, NJ: Erlbaum.

Book Translation (Invited)

- Zhan, J., **Wang, Z.**, & Wang, T. (2005). *A Free and Responsible Press* (Translated from English to Chinese). Beijing, China: Renmin University Press.

Conference Proceedings (Peer-Reviewed, Full-Text)

- P5. **Wang, Z.**, Solloway, T., & Busemeyer, J. (2013). New empirical tests of a quantum model for question order effects. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.), *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (pp. 1575-1580). Austin TX: Cognitive Science Society.
- P4. Busemeyer, J. R., **Wang, Z.**, & Trueblood, J. (2012). Hierarchical Bayesian estimation of quantum decision model parameters. In J. R. Busemeyer, F. Dubois, A. Lambert-Mogiliansky, & M. Melucci (Eds.), *Quantum interaction. Lecture Notes in Computer Science, Vol. 7620* (pp. 80-89). Springer.
- P3. Busemeyer, J. R., & **Wang, Z.** (2007). Quantum information processing explanation for interactions between inferences and decisions. In P. D. Bruza, W. Lawless, K. van Rijbergen, & D. A. Sofge (Eds.), *Quantum interaction, AAAI Spring Symposium, Technical Report, SS-07-08* (pp. 91-97). Menlo Park, CA: AAAI Press.
- P2. **Wang, Z.**, Busemeyer, J.R., & Lang, A. (2006). Grazing or staying tuned: A dynamic stochastic model of channel changing behavior. In R. Sun & N. Miyake (Eds.), *The 28th Annual Conference of the Cognitive Science Society & the 5th International Conference of the Cognitive Science* (pp.870-875). Mahwah, NJ: Erlbaum.
- P1. Busemeyer, J.R., Matthew, M.R., & **Wang, Z.** (2006). A quantum information processing explanation of disjunction effects. In R. Sun & N. Miyake (Eds.), *The 28th Annual Conference of the Cognitive Science Society & the 5th International Conference of the Cognitive Science* (pp.131-135). Mahwah, NJ: Erlbaum.

Journal or Conference Proceedings Abstracts (Peer-Reviewed)

- A19. Jerome Busemeyer, Peter Bruza, Peter Kvam, & **Wang, Z.** (2019). Full day tutorial on quantum models of cognition and decision. In T.T. Rogers, M. Rau, X. Zhu, & C. W. Kalish (Eds.), *Proceedings of the 40th Annual Conference of the Cognitive Science Society* (pp. 13-14). Austin, TX: Cognitive Science Society.
- A19. Peter Bruza, Jerome Busemeyer, Peter Kvam, & **Wang, Z.** (2018). Full day tutorial on quantum models of cognition and decision. In Papafragou, A., Grodner, D., Trueswell, J., & Mirman, D. (Eds.), *Proceedings of*

the 39th Annual Meeting of the Cognitive Science Society(pp. 1-2). Austin, TX: Cognitive Science Society.

- A18. Trueblood, J. T., Yearsley, J., Kvam, P., **Wang, Z.**, & Busemeyer, J. R. (2016). Full day tutorial on quantum models of cognition and decision. In Papafragou, A., Grodner, D., Trueswell, J., & Mirman, D. (Eds.), *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*(pp. 1-2). Austin, TX: Cognitive Science Society.
- A17. Trueblood, J. T., Yearsley, J., **Wang, Z.**, & Busemeyer, J. R. (2015). Full day tutorial on quantum models of cognition and decision. In Noelle, D. C., Dale, R., Warlaumont, A. S., Yoshimi, J., Matlock, T., Jennings, C. D., & Maglio, P. P. (Eds.), *Proceedings of the 37th Annual Meeting of the Cognitive Science Society* (pp.17-18). Austin, TX: Cognitive Science Society.
- A16. **Wang, Z.**, Busemeyer, J. R., & Trueblood, J. T. (2014). Full day tutorial on quantum models of cognition and decision. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Conference of the Cognitive Science Society*(pp. 62-63). Austin, TX: Cognitive Science Society.
- A15. Pothos, E. M., **Wang, Z.**, & Busemeyer, J. R. (2013). Half day tutorial on using quantum probability theory to model cognition. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.), *Proceedings of the 35th Annual Conference of the Cognitive Science Society*(pp.45-46). Austin TX: Cognitive Science Society.
- A14. **Wang, Z.**, Solloway, T., Tchernev, J., & Barker, B. (2011). Dynamic motivational processing of anti-drug messages: Mixed feelings and attention. *Psychophysiology*, 48.
- A13. Pothos, E. M., Busemeyer, J. R., Shiffrin, R. M., Trueblood, J. S., **Wang, Z.**, Blutner, R. K., & Atmanspacher, H. (2011). The potential of quantum probability for modeling cognitive processes. In L. Carlson, C. Hoelscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*(pp.1336-1337). Austin, TX: Cognitive Science Society. (a symposium)
- A12. **Wang, Z.**, Morey, A. C., & Srivastava, J. (2010). Processing political ads: Dynamic interactions between emotional appeals and political attitude. *Psychophysiology*, 47, S34.
- A11. Busemeyer, J. R. & **Wang, Z.** (2010). Interactions between categorization and decision making. *Abstracts of the Psychonomic Society 51st Annual Meeting* (Vol. 15), p.23.
- A10. **Wang, Z.**, & Busemeyer, J.R.(2007). Motivation, emotion, and attention: A dynamic approach. *Abstracts of the Psychonomic Society 48th Annual Meeting* (Vol. 12), p.11.
- A9. Busemeyer, J.R., **Wang, Z.** & Matthew, M.R. (2007). A quantum information processing explanation of disjunction effects. *Abstracts of the Psychonomic Society 48th Annual Meeting* (Vol. 12), p.2.
- A8. Gantz, W., & **Wang, Z.** (2006). Cancer information in local television news: From an information seeking perspective. *Frontiers in Cancer Prevention Research* conference proceedings.
- A7. **Wang, Z.**, & Lang, A. (2006). Ad placement matters: A psychophysiological examination of program context effects on advertising processing. *Psychophysiology*, 43, S104.
- A6. Potter, R.F., **Wang, Z.**, Angelini, J.R., Sanders-Jackson, A., Kurita, S., Koruth, J., & Lang, A. (2006). The effect of structural complexity and information density on cognitive effort and arousal during audio message processing. *Psychophysiology*, 43, S79.
- A5. Lang, A., Sparks, J., Bradley, S.D., Lee, S.K., & **Wang, Z.** (2004). Processing arousing information: Psychophysiological predictors of motivated attention. *Psychophysiology*, 41, S61.

- A4. Bradley, S.D., Shin, M., **Wang, Z.**, Lee, S.J., & Lang, A. (2003). Processing the nightly news: How shot and story length affect effort, arousal, and encoding. *Psychophysiology*, *40*, S27.
- A3. Shin, M., Bradley, S.D., Lee, S.J., **Wang, Z.**, & Lang, A. (2003). Why people change: Does physiology predict channel changing behavior? *Psychophysiology*, *40*, S78.
- A2. Fox, J.R., Chung, Y., Lee, S.W., Schwartz, N., Haverhals, L., **Wang, Z.**, Lang, A., & Potter, D. (2003). Effects of graphics on processing television news. *Psychophysiology*, *40*, S41.
- A1. Fox, J.R., Lang, A., Chung, Y., Lee, S.W., Schwartz, N., Haverhals, L., **Wang, Z.**, Bradley, S. D., & Potter, D.(2002). Effects of text and animated graphics in television news stories on viewer attention, arousal, and memory. *Psychophysiology*, *39*, S36.

Technical Reports, Academic Tutorials, and Workshops

(Peer-reviewed and competitive, unless noted otherwise)

- T13. Peter Bruza, Jerome Busemeyer, Peter Kvam, & **Wang, Z.** (2018). Quantum models of cognition and decision. A full-day tutorial at The 39th Annual Conference of the Cognitive Science Society, August, Madison, WI.
- T12. Busemeyer, J. R., Pleskac, T., Pothos E., Trueblood, J. T., & **Wang, Z.** (2017). Computational tools for developing and testing models of quantum cognition. A full-day workshop, University of Warwick, UK. 2017 William K. and Katherine W. Estes Fund Advanced Training in Mathematical and Computational Modeling of Psychological Science.
- T11. Trueblood, J. T., Yearsley, J., Kvam, P., **Wang, Z.**, & Busemeyer, J. R. (2016). Quantum models of cognition and decision. A full-day tutorial at The 38th Annual Conference of the Cognitive Science Society, August, Philadelphia, PA.
- T10. Trueblood, J. T., Yearsley, J., **Wang, Z.**, & Busemeyer, J. R. (2015). Quantum models of cognition and decision. A full-day tutorial at The 37th Annual Conference of the Cognitive Science Society, July, Pasadena, CA.
- T9. **Wang, Z.**, Busemeyer, J. R., & Trueblood, J. (2014). Using quantum probability theory to model cognition. A full-day tutorial at The 36th Annual Conference of the Cognitive Science Society, July, Quebec City, Canada.
- T8. Busemeyer, J. R., & **Wang, Z.** (2014). Contextualized probability theories. Invited symposium at the Society for Mathematical Psychology annual meeting, July 2014, Quebec City, Canada.
- T7. Pothos, E. M., **Wang, Z.**, & Busemeyer, J. R. (2013). Using quantum probability theory to model cognition. A half-day tutorial at The 35th Annual Conference of the Cognitive Science Society, July, Berlin, Germany.
- T6. Busemeyer, J.R. & **Wang, Z.** (July 21, 2012). *To build human cognitive models using quantum probability and dynamics*. A half-day workshop at the 45th Annual Meeting of the Society for Mathematical Psychology, July, Columbus, OH
- T5. Lang, A., **Wang, Z.**, Kurita, S., Bradley, S. D., & Rubenking, B. (2009). *Motivational Activation Measurement (MAM): Technical manual and normative ratings (Version 2)*. Technical Report, Institute for Communication Research, Indiana University, Bloomington.
- T4. Busemeyer, J.R. & **Wang, Z.** (July 29, 2009). *Quantum information processing theory*. A full day tutorial at The 31th Annual Conference of the Cognitive Science Society, July, Amsterdam, The Netherlands.

- T3. Busemeyer, J.R., & **Wang, Z.** (July 23, 2008). *Quantum information processing theory*. A full day tutorial at The 30th Annual Conference of the Cognitive Science Society, July, Washington, D. C.
- T2. Busemeyer, J.R., & **Wang, Z.** (August 1, 2007). *Quantum information processing theory*. A full day tutorial at The 29th Annual Conference of the Cognitive Science Society, August, Nashville, TN.
- T1. Lang, A., **Wang, Z.**, & Bradley, S.D. (2004). *Motivational Activation Measurement (MAM): Technical manual and normative ratings*. Technical Report, Institute for Communication Research, Indiana University, Bloomington.

Selected Conference Presentations (Peer-Reviewed)

- Wang, Z.**, Li, Y., Hu, X.D., & Ross, M. (2020). Bridging or Bonding: Social Networking, Social Support, and Solitude among College Students. Paper presented to the International Communication Association, May 2020, virtual meeting.
- Lorrain, B., & **Wang, Z.** (2019). Communication and Quantum Cognition. Paper presented to the International Communication Association, May 2019, Washington, DC.
- Yu, W. Y., Tao, C.C., & **Wang, Z.** (2018). The word Power: Verbal labeling effect of product placements. Paper presented to the International Communication Association, May 2018, Prague, Czech Republic.
- Hu, X. D., Slater, M. D., **Wang, Z.**, & Tchernev, J. (2018). Heartfelt stories: Cardiac vagal reactivity and eudaimonic narratives. Paper presented to the International Communication Association, May 2018, Prague, Czech Republic.
- Borghetti, L., & **Wang, Z.** (2018). Neural correlates during communication and cognitive dissonance. Paper presented to the International Communication Association, May 2018, Prague, Czech Republic.
- Busemeyer, J. R., & **Wang, Z.** (2017). Hilbert space multi-dimensional modeling. Paper presented at the Society for Mathematical Psychology annual meeting, July 2017, Warwick, England.
- Wang, Z.**, Borghetti, L., & Hu, X.D. (2017). Influence of symptom specificity and order on online medical diagnoses. Paper presented to the International Communication Association, May 2017, San Diego, CA.
- Polavin, N., & **Wang, Z.** (2017). How atypical communication influences jury verdicts. Paper presented to the International Communication Association, May 2017, San Diego, CA.
- Davidson, E., **Wang, Z.**, Wang, T., Tchernev, J., & Collier, J. (2017). Dynamic measures of narrative transportation experience. Paper presented to the International Communication Association, May 2017, San Diego, CA.
- Borghetti, L., **Wang, Z.**, & deBuys B. (2017). What's the benefit? The influence of argument strength and order presentation on judgments about public land use. Paper presented to the International Communication Association, May 2017, San Diego, CA.
- Borghetti, L., & **Wang, Z.** (2017). Categorization and decision-making in humans teaming with machines. Paper presented to the International Communication Association, May 2017, San Diego, CA.
- Borghetti, L., **Wang, Z.**, & Davidson, E. (2017). Neural sensitivity to explicit versus implicit categorization. Paper presented to the International Communication Association, May 2017, San Diego, CA.
- Polavin, N., & **Wang, Z.** (2016). The influence of the unpacking effect on non-economic damages awards. Paper presented to the National Communication Association, November 2016, Philadelphia, PA.

- Irwin, M., & **Wang, Z.** (2016). Dynamic modeling in communication research. Paper presented to the International Communication Association, June 2016, Fukuoka, Japan.
(Top Faculty Paper Award)
- Collier, J., Tchernev, J., **Wang, Z.**, & Tyranski, J. (2016). Toward a dynamic model of empathy, narrative transportation, and autobiographical memory. Paper presented to the International Communication Association, June 2016, Fukuoka, Japan.
- Lloyd, J., Crano, W. D., **Wang, Z.**, Schmaelzle, R., Evans, W., & Alvaro, E. (2016). Transdisciplinary research to inform the next generation of drug use prevention messages. A roundtable presented to the Society for Prevention Research annual meeting, June, 2016, San Francisco, CA.
- Hedstrom, A., **Wang, Z.**, & Irwin, M. (2015). Emotional eating and social support. Paper presented to the National Communication Association, November 2015, Las Vegas.
- Irwin, M., **Wang, Z.**, & Hedstrom, A. (2015). The dynamics of media multitasking and food consumption: An experience sampling study. Paper presented to the National Communication Association, November 2015, Las Vegas.
- Cooper, C., **Wang, Z.**, Solloway, T., Hedstrom, A., & Irwin, M. (2015). Explore the effects of communication on decision making. Paper presented to the National Communication Association, November 2015, Las Vegas.
- Busemeyer, J. R., & **Wang, Z.** (2015). Multi-dimensional Hilbert space modeling of tables extracted from big data. Paper presented at the Society for Mathematical Psychology annual meeting, July 2015, Newport Beach, California.
- Wang, Z.**, Woods, K. W., Xu, S., & Cooper, C. (2015). Does media multitasking make food taste bland? Paper presented to the International Communication Association, May 2015, Puerto Rico.
- Irwin, M., **Wang, Z.**, & Hedstrom, A. (2015). Mismatched gratifications of media multitasking and its impacts on food intake: A dynamic experience sampling study. Paper presented to the International Communication Association, May 2015, Puerto Rico.
- Cooper, C., & **Wang, Z.** (2015). Formally modeling attention allocation in a dynamic media environment. Paper presented to the International Communication Association, May 2015, Puerto Rico.
- Xu, S., **Wang, Z.**, David, P., & Xie, T. (2015). Media multitasking and wellbeing of college students. Paper presented to the International Communication Association, May 2015, Puerto Rico.
- Tyranski, J. A., & **Wang, Z.** (2015). The framing effects of user-generated comments on online news stories. Paper presented to the International Communication Association, May 2015, Puerto Rico.
- Banjo, O., **Wang, Z.**, Appiah, O., Walther, W., & Brown, C. (2015). Wait, can I laugh at this? Group viewing and racial humor message. Paper presented to the International Communication Association, May 2015, Puerto Rico.
- Wang, Z.** (2014). What is complementarity and compatibility in quantum cognition? Paper presented to Society for Mathematical Psychology annual meeting, July 2014, Quebec City, Canada.
- Wang, Z.**, Solloway, T., & Cooper, C. (2014). Communication can reduce stereotyping behavioral decision. Paper presented to the International Communication Association, May 2014, Seattle, WA.
- Wang, Z.**, Li, Z.J., Hedstrom, A., & Irwin, M. (2014). Social media, social support, and solitude among college students. Paper presented to the International Communication Association, May 2014, Seattle, WA.

- Anderegg, C., Alade, S., Ewoldsen, D., & **Wang, Z.** (2014). Comprehension models of audiovisual discourse processing. Paper presented to the International Communication Association, May 2014, Seattle, WA.
- Busemeyer, J., **Wang, Z.**, Pleskac, T., Kvam, P. (2013). Markov versus quantum random walk models of decision making. Paper presented at the Society for Mathematical Psychology annual meeting, August 2013, Potsdam, Germany.
- Wang, Z.**, Irwin, M., Cooper, C., & Srivastava, J. (2013). Multi-dimensions of media multitasking. Paper presented to the International Communication Association, June 2013, London, UK.
(Top One Faculty Paper Award)
- Wang, Z.**, & Solloway, T. (2013). An *a priori* and parameter-free quantum model for cognitive measurement order effects. Paper presented at the Midwestern Cognitive Science Conference, May 2013, Columbus, OH.
- Wang, Z.**, Tchernev, J., & Solloway, T. (2012). A dynamic longitudinal examination of social media use, needs, and gratifications among college students. Paper presented to the National Communication Association annual meeting, November 2012, Orlando, FL.
(Top Paper Award)
- Wang, Z.**, & Busemeyer, J. R. (2012). Entangling beliefs and actions during interpersonal interactions. Paper presented at the Society for Mathematical Psychology annual meeting, July 2012, Columbus, OH.
- Busemeyer, J. R., **Wang, Z.**, & Shiffrin, R. (2012). Bayesian model comparison of quantum versus traditional models of decision making for explaining violations of the dynamic consistency principle. Paper presented at the Foundations and Applications of Utility, Risk and Decision Theory (FUR) XV international conference, June 2012, Atlanta, GA.
- Wang, Z.**, Vang, M. H., Lookadoo, K. L., & Cooper, C. (2012). Enticing high sensation seekers: The dynamic interplay of sensation seeking, information complexity and arousing content. Paper presented to the International Communication Association, May 2012, Phoenix, AZ.
- Wang, Z.**, Tyrawski, J. A., Schumaker, E.M., Cooper, C., Zhao, X., & Bishop, L. (2012). Supporting the cigarette graphic warning policy on the web: An examination of health-political attitude interaction. Paper presented to the International Communication Association, May 2012, Phoenix, AZ.
- Solloway, T., Tyrawski, J.A., & **Wang, Z.** (2012). The worth of pictures in print ads. Paper presented to the International Communication Association, May 2012, Phoenix, AZ.
- Wang, Z.**, Solloway, T., Tchernev, J., & Barker, B. (2011). Dynamic motivational processing of anti-drug messages: Mixed feelings and attention. Paper presented to Society for Psychophysiological Research annual conference, September 2011, Boston, MA.
- Busemeyer, J., Shiffrin, R., & **Wang, Z.** (2011). Model selection applied to quantum probability models. Paper presented at the Society for Mathematical Psychology annual meeting, July 2011, Boston, MA.
- Pothos, E., Busemeyer, J. R., Shiffrin, R. M., Trueblood, J., **Wang, Z.**, Blutner, R. K., & Atmanspacher, H. (2011). The potential of quantum probability for modeling cognitive processes. Paper presented at the 33rd Annual Conference of the Cognitive Science Society, July 2011, Boston, MA.
- Wang, Z.**, Collier, J. & Barker, B. (2011). Revisit the impact of question order on the third person effects. Paper presented to the International Communication Association, June 2011, Boston, MA.

- Wang, Z.**, & Tchernev, J. (2011). The myth of media multitasking: A dynamic panel analysis of media multitasking, personal needs, and gratifications. Paper presented to the International Communication Association, June 2011, Boston, MA.
- Wang, Z.**, & Morey, A. C. (2011). The decisive moments in emotional political ads processing: A multilevel analysis of the peak-and-end rule, political attitudes, and perceived persuasion. Paper presented to the International Communication Association, June 2011, Boston, MA.
- Wang, Z.** & Busemeyer, J. R. (2011). Explaining and predicting question order effects using a quantum probability model. Paper presented to the International Communication Association, June 2011, Boston, MA..
- Powers, S. R., **Wang, Z.**, Morey, A. C., Solloway, T., & Whitaker, J. (2011). Desensitization to violent images: Individual differences in habituation responses. Paper presented to the International Communication Association, June 2011, Boston, MA.
- Wang, Z.**, Morey, A. C., & Srivastava, J. (2010). Processing political ads: Dynamic interactions between emotional appeals and political attitude. Paper presented to Society for Psychophysiological Research annual conference, September-October 2010, Portland, OR.
- Wang, Z.**, Srivastava, J., David, P., D'Ángelo, J., Moreland, J., Brady, C., & Powers, S. R. (2010). Multitasking within same modality and between modalities: An examination of task performance and eye movement. Paper presented to the International Communication Association, June 2010, Singapore.
- Wang, Z.** (2009). Coactivation: An examination on subjective feelings, physiological responses, and adaptive functions. Paper presented to the International Communication Association, May 2009, Chicago, IL.
- Wang, Z.**, Morey, A. C., Srivastava, J., & Kruczkowski, A. (2009). Dynamics of processing emotional political ads. Paper presented to the International Communication Association, May 2009, Chicago, IL.
- Kurita, S., Lang, A., Potter, R., **Wang, Z.**, Weaver, A., Bae, S., Lee, S., & Koruth, J. (2009). Gender differences in motivational activation. Paper presented to the International Communication Association, May 2009, Chicago, IL.
- Wang, Z.**, Lang, A., & Busemeyer, J. R. (2008). Motivational processing and choice behavior during television viewing: An integrative dynamic approach. Paper presented to the International Communication Association, May 2008, Montreal, Quebec, Canada. **(Top Paper Award)**
- Kurita, S., Lee, S., **Wang, Z.**, & Lang, A. (2008). How much is too much? Media structure, content, cognitive load, and overload. Paper presented to the International Communication Association, May 2008, Montreal, Quebec, Canada.
- Yeghyan, N., Wilson, B., Gao, Y., Mayell, S., **Wang, Z.**, & Lang, A. (2008). Approach? Avoid? Or both? Processing coactive motivational media messages. Paper presented to the International Communication Association, May 2008, Montreal, Quebec, Canada.
- Wang, Z.** & Busemeyer, J.R.(2007). Motivation, emotion, and attention: A dynamic approach. Paper presented to the Psychonomic Society 48th Annual Meeting, November 2007, Long Beach, CA.
- Busemeyer, J.R., **Wang, Z.** & Matthew, M.R. (2007). A quantum information processing explanation of disjunction effects. Paper presented to the Psychonomic Society 48th Annual Meeting, November 2007, Long Beach, CA.

- Wang, Z.** (2007). Method is message: Dynamic signal detection theory and its application to media memory research. Paper presented to the International Communication Association, May 2007, San Francisco, CA.
- Gantz, W. & **Wang, Z.** (2007). Health content in local television news: A current appraisal. Paper presented to the International Communication Association, May 2007, San Francisco, CA.
- Busemeyer, J. R., & **Wang, Z.** (2007). Quantum information processing explanation for interactions between inferences and decisions. Paper presented to the Quantum Interaction Symposium of the American Association for Artificial Intelligence, March, Stanford University, 2007.
- Wang, Z.** (2006). The effects of emotional television programming on advertising processing. Paper presented to the International Communication Association, June 2006, Dresden, Germany.
- Wang, Z.** (2006). The effects of message arousal and valence on implicit and explicit memory. Paper presented to the International Communication Association, June 2006, Dresden, Germany.
- Wang, Z.,** Fox, J., & Bradley, S.D (2006). Emotional context and typicality in encoding and reality assessment of television scenarios. Paper presented to the International Communication Association, June 2006, Dresden, Germany.
- Wang, Z.,** Busemeyer, J.R., & Lang, A. (2006). A dynamic model of decision making and channel changing behavior during television viewing. Paper presented to the International Communication Association, June 2006, Dresden, Germany.
- Wang, Z.,** & Lang, A. (2006). Ad placement matters: A psychophysiological examination of program context effects on advertising processing. Paper presented to Society for Psychophysiological Research annual conference, October 2006, Vancouver, BC, Canada.
- Potter, R.F., **Wang, Z.,** Angelini, J.R., Sanders-Jackson, A., Kurita, S., Koruth, J., & Lang, A. (2006). The effect of structural complexity and information density on cognitive effort and arousal during audio message processing. Paper presented to Society for Psychophysiological Research annual conference, October 2006, Vancouver, BC, Canada.
- Potter, R., **Wang, Z.,** Lee, S.K., Koruth, K.J., Banerjee, M., & Kobach, M.(2006). Sounds like a winner: Examining structural features and basic content in five years of award-winning radio ads. Paper presented to the International Communication Association, June 2006, Dresden, Germany.
- Busemeyer, J. R., & **Wang, Z.** (2006). Application of quantum computing to psychology. Paper presented to the Society for Mathematical Psychology Annual Meeting, July 2006, Vancouver, BC, Canada.
- Wang, Z.,** Busemeyer, J.R., & Lang, A. (2006). Grazing or staying tuned: A dynamic stochastic model of channel changing behavior. Paper presented to Annual Conference of the Cognitive Science Society, Vancouver, BC, Canada.
- Busemeyer, J.R., Matthew, M.R., & **Wang, Z.** (2006). A quantum information processing explanation of disjunction effects. Paper presented to Annual Conference of the Cognitive Science Society, Vancouver, BC, Canada.
- Gantz, W., & **Wang, Z.** (2006). Local television news coverage of health. Paper presented to American Academy on Communication in Healthcare Research and Teaching Forum, October 2006, Atlanta, GA.

- Gantz, W., & **Wang, Z.** (2006). Cancer information in local television news: From an information seeking perspective. Paper presented to American Association for Cancer Research International Conference on Frontiers in Cancer Prevention Research, November 2006, Boston, MA.
- Wang, Z.** (2005). Ad placement matters: A psychophysiological re-examination of program context effects on ad processing. Paper presented to the International Communication Association, May 2005, New York City, NY.
- Bradley, S. D., & **Wang, Z.** (2005). Euclidean distance as a theory of perceived reality. Paper presented to the International Communication Association, May 2005, New York City, NY.
- Potter, R.F., **Wang, Z.**, Kurita, S., Sanders-Jackson, A., Koruth, J., Tao, C., & Lang, A. (2005). I² audio: Does examining information introduced by auditory structural features help clarify perplexing research findings? Paper presented to the International Communication Association, May 2005, New York City, NY.
- Gantz, W., **Wang, Z.**, Potter, R., & Paul, B. (2005). Sports vs. all comers: Comparing TV sport fans with fans of other programming genres. Paper presented to the International Communication Association, May 2005, New York City, NY.
- Wang, Z.**, Bradley, S.D., & Lang, A. (2004). Measuring individual variation and motivational activation: MAM, mini-MAM, YO-MAM. Paper presented to International Communication Association, May 2004, New Orleans, LA.
- Angelini, J.R., **Wang, Z.**, Bradley, S.D., & Lang, A. (2004). Measuring motivation activation in children: A look at sensation seeking, motivation, and substance use. Paper presented to the International Communication Association, May 2004, New Orleans, LA.
- Lang, A., Sparks, J., Bradley, S.D., Lee, S.K., & **Wang, Z.** (2004). Processing arousing information: Psychophysiological predictors of motivated attention. Paper presented to Society for Psychophysiological Research annual conference, October, 2004, Santa Fe, NM.
- Wang, Z.**, & Gantz, W. (2004). Health content in local television news. Paper presented to the Association for Education and Mass Communication annual conference, August 2004, Toronto, Canada.
- Bradley, S.D., Angelini, J.R., **Wang, Z.**, & Lang, A. (2003). Processing AIDS/HIV prevention messages: Arousing content, production pacing, and sexual experience. Paper presented to the Association for Education in Journalism and Mass Communication, July-August 2003, Kansas City, MO.
- Bradley, S.D., Shin, M., **Wang, Z.**, Lee, S.J., & Lang, A. (2003). Processing the nightly news: How shot and story length affect effort, arousal, and encoding. Paper presented to Society for Psychophysiological Research annual conference, October, 2003, Chicago, IL.
- Fox, J.R., Chung, Y., Lee, S.W., Schwartz, N., Haverhals, L., **Wang, Z.**, Lang, A., & Potter, D. (2003). Effects of graphics on processing television news. Paper presented to Society for Psychophysiological Research annual conference, October, 2003, Chicago, IL.
- Shin, M., Bradley, S.D., Lee, S.J., **Wang, Z.**, & Lang, A. (2003). Why people change: Does physiology predict channel changing behavior? Paper presented to Society for Psychophysiological Research annual conference, October, 2003, Chicago, IL.
- Gantz, W., Bradley, S. D., & **Wang, Z.** (2003). Televised NFL games and domestic violence: A 12 city study. Paper presented to the International Communication Association, May 2003, San Diego, CA.

Wang, Z., Yang, X.Y., & Liu, Y.Y. (2002). Print advertisement features, imagery, and memory. Presented to the Indiana University Research Conference, November 2002, Indianapolis, IN.

Fox, J.R., Lang, A., Chung, Y., Lee, S.W., Schwartz, N., Haverhals, L., **Wang, Z.**, Bradley, S. D., & Potter, D.(2002). Effects of text and animated graphics in television news stories on viewer attention, arousal, and memory. Paper presented to Society for Psychophysiological Research annual conference, October, 2003, Chicago, IL.

Selected Invited Plenary/Colloquium Talks

Wang, Z. (2018). Dynamics of media use and processing, Stanford University, CA.

Wang, Z. (2018). Hilbert space multidimensional model for data fusion, Department of Statistics, the Ohio State University, OH.

Wang, Z. (2018). Contextuality in strategic games, Purdue Winer Memorial Lectures 2018, Purdue University, IN.

Wang, Z. (2018). Empirical foundations of quantum cognition, Advanced International Seminar, The Spanish Journal of Psychology and University of Complutense de Madrid, Spain.

Wang, Z. (2018). Quantum cognition and Hilbert space model for information retrieval, Department of Information Engineering, University of Padova, Italy.

Wang, Z. (2016). Multidimensions of media multitasking. Amsterdam School of Communication Research, University of Amsterdam, Netherlands. (The annual McQuail Lecture by the McQuail Award winner)

Wang, Z. (2016). The dynamics of media processing and use: Personalized message design and delivery based on dynamic methods and models. Tobacco Centers of Regulatory Science, University of Pennsylvania, Philadelphia, PA.

Wang, Z. (2015). Personalized message design and delivery based on dynamic methods and models. NIDA workshop on neuro-imaging and media messages for adolescents, Rockville, MD.

Wang, Z. (2015). Quantum decision theory. The Program for Economic Research and the Center for Decision Science, Columbia University, NY.

Wang, Z. (2015). Multi-dimensional Hilbert space model of order effects in perspective changing. The Quantum Probability and the Mathematical Modeling of Decision Making conference, University of Toronto, Canada.

Wang, Z. (2014). Measurement order effects and compatibility in cognition. Purdue Winer Memorial lectures, Purdue University, Lafayette.

Wang, Z. (2014). Order effects in sequential judgments and decisions. Munich center for Technology in Society, Technology University Munich, Munich, Germany.

Wang, Z. (2014). Contextualized probability and measurement compatibility in cognition. Society for Mathematical Psychology annual meeting, Quebec City, Canada.

Wang, Z. (2013). Quantum Probabilistic and Dynamic Models of Cognition and Decision. Institute for Mathematical Behavioral Sciences, UC-Irvine, CA.

Wang, Z. (2013). Reciprocal Dynamics between Media Processing and Media Choices. Department of Communication, Michigan State University, East Lansing, MI.

- Wang, Z.** (2012). Toward a Theory of Complementarity in Psychology. Quantum Cognition roundtable, Institute for Frontier Areas of Psychology, Germany.
- Wang, Z.** (2012). Dynamic Media Use and Processing. Department of Telecommunications, Indiana University, Bloomington, IN.
- Wang, Z.** (2012). Quantum Dynamic Models of Cognition. Center for Cognition, Action & Perception, University of Cincinnati, OH.
- Wang, Z.** (2011). The Potential of Quantum Probability for Modeling Cognitive Processes. Center for Cognition, Action & Perception, University of Cincinnati, OH.
- Wang, Z.** (2011). Quantum Decision Theory. Department of Psychological and Brain Sciences, Indiana University, Bloomington, IN.
- Wang, Z.** (2008). The Use of Psychophysiological Measure in Media Research. School of Digital Contents, Kyungsoong University, South Korea.
- Wang, Z.** (2008). The Use of Dynamic Cognitive Models in Media Research. School of Digital Contents, Kyungsoong University, South Korea.
- Wang, Z.** (2005). Quantitative Communication Research. China Youth University for Political Sciences, Beijing, China.

Graduate and Honors Undergraduate Students Advising

Post-Doctoral Fellow:

Wan-Yun Yu (2017-2019) Tenure-track Assistant Professor, National Chiao Tung University, Taiwan, China

Ph.D. Advisor & Committee Chair:

Tyler Solloway (2014)	Vice President, Marketing and Data Science, Liberman Research Worldwide
John Tchernev (2015)	Tenure-track Assistant Professor, University of Miami, Oxford, OH
Bethany Barker (2017)	Senior Lecturer, The Ohio State University, Columbus, OH
Matthew Irwin (2017)	Senior Consumer Research Scientist, Nationwide Insurance, Columbus, OH
Emily Davidson (2018)	Senior Lecturer, The Ohio State University, Columbus, OH
Shan Xu (2019)	Tenure-track Assistant Professor, University of Texas Tech, TX
Lorraine Borghetti (2019)	Post-doc fellow, U. S. Air Force Research Lab, Dayton, OH
Nicholas Polavin (2019)	Senior jury consultant
Alex Hedstrom (2019)	Senior Data scientist, Verizon, Columbus, OH
Cody Cooper (exp. 2020)	Senior Data Scientist, Liberman Research Worldwide, Los Angeles, CA
Brahm deBuys (exp. 2020)	Senior Data scientist, Verizon, Columbus, OH
Xiaodan Hu	In progress
Yue Li	in progress

Ph.D. Dissertation Committee Member:

Rachel Ralston (2016)
 Angela Palmer-Wackerly (2015)
 Jennifer Tyrawski (2015)
 Mao Vang-Corne (2015)
 James Collier (2013)

Alyssa Morey (2012)
Jatin Srivastava (2010)
Tingting Lu (2008)

Ph.D. Candidacy Exam Committee Member:

Rachel Ralston (2015)
Angela Palmer-Wackerly (2014)
Jennifer Tyrawski (2014)
Mao Vang-Corne (2014)
James Collier (2012)
Alyssa Morey (2011)
Jatin Srivastava (2009)

M.A. Advisor & Committee Chair:

Alex Hedstrom (2014)	Data scientist, Verizon, Columbus, OH
Linghan Wang (2014)	Senior Marketing Analyst for Nielsen
Cody Cooper (2013)	Senior Marketing Scientist for Liberman Research Worldwide, Los Angeles, CA
Bethany Barker (2012)	Senior Lecturer, The Ohio State University, Columbus, OH
Caryn Ragin (2012)	Attorney

M. A. Committee Member:

Jonathan Anderson (2011)
James Collier (2010)

Undergraduate Honors Thesis Advisor:

Yilu Sun (2016) Communication & Economics (double-major); graduate program, Cornell University
Zhengjie Li (2014) Communication and Mathematics (double-major); Senior Analyst for Kantar, Shanghai, China