



Exponent[®]
Engineering & Scientific Consulting

Young Bui, Ph.D.

Senior Managing Scientist | Human Factors
Denver
+1-303-802-3408 | dbui@exponent.com

Professional Profile

Dr. Bui uses his experience related to human cognition, including attention, reaction time, memory, and decision making to evaluate perceptual and behavioral issues that contribute to accidents. He has specialized expertise in assessing visibility and conspicuity issues, and has applied this knowledge to incidents involving automobiles, pedestrians, motorcycles, bicycles/scooters, and tractor-trailers. He performs general assessments of roadway environments that include analyses of lighting, glare and sightline evaluations as they may relate to human behavior in vehicle accidents and pedestrian slip/trip-and-fall scenarios, and other premises liability claims. Dr. Bui is also active in research on various topics in human factors, including driver looking behavior, perception of hazards, divided attention, and witness memory of events.

As a trained psychologist, Dr. Bui applies his education and expertise to evaluate risk perception and decision-making as it relates to premises use, product interactions, and warnings compliance. He combines his knowledge of human behavior with his industrial training (OSHA, CXL T) to evaluate how the behavior of individuals may contribute to industrial and occupational accidents.

Additionally, Dr. Bui oversees projects employing various methodologies (human-subjects testing, inclusive literature reviews, quantitative injury and risk analyses) and has experience coordinating and carrying out large-scale usability testing of consumer products. He combines this experience with customized programming methods that leverage online platforms for various applications, including questionnaire surveys, experimental studies, and comprehension testing to help understand human behavior across a variety of different contexts.

Dr. Bui received his Ph.D. from Washington University in St. Louis, where his research focused on how cognitive processes and decision making are influenced by individual limitations in age, attention, speed, experience, and memory. His work has addressed various topics regarding human behavior, including memory accuracy, visual-spatial learning, metacognition, and complex skill acquisition. Dr. Bui has also been extensively involved in the development and publishing of crowdsourcing techniques used to collect large-scale datasets, which has allowed researchers to supplement traditional laboratory methods with more cost- and time-efficient procedures.

Academic Credentials & Professional Honors

Ph.D., Psychology, Washington University in St. Louis, 2015

M.A., Psychology, Washington University in St. Louis, 2011

B.A., Psychology, University of California, Los Angeles (UCLA), 2008

Dissertation Fellowship Award, Washington University in St. Louis

Outstanding Teaching Assistant Award, Washington University in St. Louis

Graduate Fellowship Award, Washington University in St. Louis

Research Fellowship Award, University of California, Los Angeles

Licenses and Certifications

Certified Forklift Operator for Sit-Down Counterbalanced Forklifts

Certified English XL Tribometrist (CXLT)

OSHA #510 Occupational Safety And Health Standards For The Construction Industry

OSHA #511 Occupational Safety and Health Standards for General Industry

Academic Appointments

Instructor, Department of Psychology, Washington University in St. Louis

Professional Affiliations

Human Factors and Ergonomics Society (HFES)

Society of Automotive Engineers (SAE)

The Psychonomic Society

International Association for Metacognition

Publications

Forensic Aspects of Driver Perception and Response (5th ed.), (2026) D. Krauss (Ed.). Tucson, AZ: Lawyers and Judges Publishing Company, Inc. (contributing author).

- Ch. 9: Trucks & Large Vehicles
- Ch. 10: Motorcycles
- Ch. 11: Bicycles
- Ch. 14: Micromobility

Phillips KB, Byrne KN, Kolarik BS, Krake AK, Bui Y, Krauss D. Impacts of social distancing on pedestrian behavior and risk perception. Proceedings of the 65th Annual Meeting of the Human Factors and Ergonomics Society. Sage Journals 2021; 65(1):1302–1306.

Myerson J, Featherston KG, Flores C, Lilienthal L, Bui Y, Hale S. Guilty, innocent, or just not proven? Bayesian verdicts in the case of inhibitory deficits. Experimental Aging Research 2021; 47(3):203–219.

Crump C, Bui Y. Speeds of child cyclists. SAE Technical Paper 2019-01-0419. SAE International 2019.

Bui Y, Pyc MA, Bailey H. When people's judgments of learning (JOLs) are extremely accurate at predicting subsequent recall: the "Displaced-JOL effect". *Memory* 2018; 26(6):771–783.

Todd JJ, Bui YC, Tavassoli A, Krauss D. Quantitative method for estimating driver eye height. *Proceedings, 61st Annual Meeting of the Human Factors and Ergonomics Society. Sage Journals* 2017; 61(1):1443–1446.

Tavassoli A, Perlmutter S, Bui Y, Todd J, et al. Development of a robust database for measuring human gaze behavior and performance during naturalistic driving. *SAE Technical Paper 2017-01-1369. SAE Mobilus* 2017.

Storm BC, Bui Y. Retrieval-practice task affects relationship between working memory capacity and retrieval-induced forgetting. *Memory* 2016; 24(10):1407–1418.

Storm BC, Bui Y. Individual differences in mind wandering while reading predict lower rates of spontaneous transfer in an analogical reasoning task. *Journal of Learning and Individual Differences* 2016; 51:427–432.

Bui Y, Myerson J, Hale S. Demonstrating age-related declines in processing speed using online samples. *The Psychological Record* 2015; 65:649–655.

McDonough IM, Bui Y, Friedman MC, Castel AD. Retrieval monitoring is influenced by information value: the interplay between motivation and confidence on false memory. *Acta Psychologica* 2015; 161:7–17.

Bui Y, McDaniel MA. Enhancing of learning in lecture note-taking: outlining and illustrative diagrams. *Journal of Applied Research in Memory and Cognition* 2015; 4:129–135.

Nestojko JF, Bui Y, Kornell N, Bjork EL. Expecting to teach enhances organization of knowledge in free recall of text passage. *Memory & Cognition* 2014; 42(7): 1038–1048.

Bui Y, Myerson J. The role of working memory ability in lecture note-taking. *Journal of Learning and Individual Differences* 2014; 33:12–22.

Bui Y, Maddox GB, Zou F, Hale SS. Examining the lag effect under incidental encoding: contributions of semantic priming and reminding. *Quarterly Journal of Experimental Psychology* 2014; 67(11):2134–2148.

Bui Y, Friedman MC, McDonough IM, Castel AD. False memory and importance: can we prioritize without consequence? *Memory & Cognition* 2013; 41:1012–1020.

Bui Y, Maddox GB, Balota DA. The roles of working memory and intervening task difficulty in determining the benefits of repetition. *Psychonomic Bulletin & Review* 2013; 20:341–347.

Bui Y, Myerson J, Hale S. Notetaking with computers: exploring alternative strategies for improved recall. *Journal of Educational Psychology* 2013; 105(2):299–309.

Abstracts

Crump C, Bui Y. Speeds of child cyclists. Presented at the Annual Meeting of the Society of Automotive Engineers, Detroit, MI, 2019.

Todd JJ, Bui Y, Tavassoli A, Krauss D. Quantitative method for estimating driver eye height. *Proceedings, Presented at the 61st Annual Meeting of the Human Factors and Ergonomics Society, Austin, TX, 2017.*

Tavassoli A, Perlmutter S, Bui Y, Todd JJ, et al. Development of a robust database for measuring human gaze behavior and performance during naturalistic driving. Presented at the Annual Meeting of the

Society of Automotive Engineers, Detroit, MI, 2017.

Bui Y, Hale S, Myerson J. Using encoding specificity to assess the nature of the secondary memory component of working memory. Presented at the 55th Annual Meeting of the Psychonomic Society, Long Beach, CA, 2014.

Flores C, Bui Y, Lilienthal L, Myerson J, Hale S. Age-related declines in simple and complex visuospatial tasks in online samples. Presented at the 55th Annual Meeting of the Psychonomic Society, Long Beach, CA, 2014.

Maddox GB, Bui Y, Hale S. Different contributions of encoding variability and reminding to the benefit of spacing in recognition and recall testing. Presented at the 55th Annual Meeting of the Psychonomic Society, Long Beach, CA, 2014.

Flores C, Bui Y, Myerson J, Hale S. Age-related cognitive slowing in online samples. Presented at the 15th Biennial Cognitive Aging Conference, Atlanta, GA, 2014.

McDonough IM, Bui Y, Castel AD. Reducing false memories takes more time with age: age-related differences in value-directed processing. Presented at the 15th Biennial Cognitive Aging Conference, Atlanta, GA, 2014.

McDonough IM, Bui Y, Friedman MC, Castel AD. Initiation and effectiveness of retrieval monitoring depends on information value. Presented at the 54th Annual Meeting of the Psychonomic Society, Toronto, ON, 2013.

Maddox GB, Zou F, Bui Y, Hale S. the influence of incidental encoding and levels of processing on the spacing effect. Presented at the 53rd Annual Meeting of the Psychonomic Society, Minneapolis, MN, 2012.

Bui Y, Maddox GB, Zou F, Balota DA. The roles of working memory and intervening task difficulty in determining the benefits of repetition. Presented at the 24th Annual Meeting of the Association for Psychological Science, Chicago, IL, 2012.

Bui Y, Storm BC. Exploring the relationship between working memory capacity and retrieval-induced forgetting. Presented at the 23rd Annual Meeting of the Association for Psychological Science, Washington, DC, 2011.

Advisory Appointments

Instructor, Department of Psychology, Washington University in St. Louis

Peer Reviews

Accident Analysis & Prevention

Applied Cognitive Psychology

Contemporary Education Psychology

Experiment Psychology

International Journal of Education in Mathematics, Science, and Technology

Journal of Computer Assisted Learning

Journal of Educational Psychology

Journal of Experimental Child Psychology

Journal of Memory and Language

Journal of Neuropsychology

Memory & Cognition

PLoS ONE

Psychology Learning & Teaching Journal

Reading & Writing