

# Exponent® Engineering & Scientific Consulting

# Christine Yu, Ph.D.

Scientist | Human Factors Washington DC +1-202-772-4952 | cyu@exponent.com

# **Professional Profile**

Dr. Yu is a Cognitive Psychologist who excels in quantitative research methods, statistical modeling, and human subject testing. Her expertise in the coupling of perception and action has generated multiple published journal articles, book chapters, conference posters, and presentations.

Dr. Yu has extensive experience with a variety of psychology experimental techniques, as well as machine learning analyses, survey research, data integration, and psychophysiological measures. Her expertise and research versatility allows for unique and comprehensive insights on projects involving driver behavior, mental load, attention and distraction, visibility, trip-and-fall incidents, and other human factors issues.

Dr. Yu earned her Ph.D. in Cognitive Psychology from Arizona State University. During her doctoral studies, she investigated linguistic biases stemming from facial movements during verbal communication and conducted machine learning analyses to identify key facial cues in emotional verbal communication. Her research at Arizona State University also included producing virtual and mixed-reality games aimed at enhancing STEM learning. Dr. Yu also completed an internship as a UX Research Scientist at a multinational technology company. During her internship, she measured mental load caused by Augmented Reality headset notifications. She is skilled in scientific writing and communication, experimental design, project management, and collaborating within interdisciplinary teams. She is also fluent in both Mandarin and English.

## Academic Credentials & Professional Honors

Ph.D., Psychology, Arizona State University, 2023

B.S., Psychology, University of Washington, 2017

Samuel Leifheit Service Award, Arizona State University Psychology Department, 2022

The Graduate & Professional Student Association Travel Grant, Arizona State University, 2022

### Academic Appointments

Affiliate Faculty, Psychology, Arizona State University, 2024 to present

### **Professional Affiliations**

Human Factors and Ergonomics Society

#### **Publications**

Johnson-Glenberg MC, Yu CSP, Liu FW, Amador C, Bao Y, Yu S, LiKamWa R. Embodied mixed reality with passive haptics in STEM education: Randomized control study with chemistry titration. Frontiers Virtual Reality 2023; 4. https://doi.org/10.3389/frvir.2023.1047833

Yu CSP, McBeath MK, Glenberg AM. The gleam-glum effect: /i/ versus /// phonemes generically carry emotional valence. Journal of Experimental Psychology: Learning, Memory, and Cognition 2021; 47(7): 1173–1185. https://doi.org/10.1037/xlm0001017

Yu CSP, McBeath MK, Glenberg AM. Phonemes convey embodied emotion. In: Robinson MD, Thomas LE (eds) Handbook of Embodied Psychology 2021; Springer, Cham. https://doi.org/10.1007/978-3-030-78471-3\_10

#### Presentations

Quimpo N, Wang YW, Monahan M, Zhao Y, Abebe I, Yu CSP. Hopes and Fears about Generative AI Among College Students: Implications for Psychology and Education. Poster at The American Psychological Association (APA) Convention, Denver, CO, 2025, August.

Wang YW, Abebe I, Wachowski C, Yu CSP, Kumbayoni I. Assessing Students' Awareness and Utilization of the Campus Pantry. Regional College Hunger Conference (RCHC), Annandale, VA; 2024, October.

Li Y, Yu CSP, Kuo J, Randall J, Keefer S, Sather A, McBeath MK, Benitez V. The "Gleam-Glum" Sound Symbolic Effect: Children and Adults Link Phonemic Vowel Sounds with Emotional Valence. Poster at 89th Annual Meeting of Society for Research in Child Development, Salt Lake City, UT, 2023, March.

Johnson-Glenberg MC, Kapadia A, Liu F, Likamwa R, Yu S, Bennett A, Kosa M, Bao Y, Balanzat B, Yu CSP. XR - Titration and Civil Engineering: Design Issues & Preliminary Results. Poster at 106th Annual Meeting of American Educational Research Association, San Diego, CA, 2022, April.

Yu CSP, McBeath MK. Say Cheese: Sensorimotor Representations of Vowel Phonetic Articulation Includes Orofacial Muscle Movements Resulting in Emotional Sound Symbolism. The 20th Annual Auditory Perception, Cognition, and Action Meeting (APCAM), Virtual, 2021, November.

McBeath MK, Yu CSP, Barnes H, Benitez V. Visual-emotional association with vowel phonemes: Support for the Gleam-Glum Effect when paired with visual imagery. 21st Annual Vision Sciences Society Meeting, Virtual, 2021, May.

Yu CSP, Stone G, McBeath M, Benitez V. Bouba-Kiki Effect Applies to Meaning as Well as Shape: /i:/ vs /^/ Phonemes Generically Carry Affective Valence. Poster at the Sigma Xi Annual Meeting & Student Research Conference, Virtual, 2020, November.

Yu CSP, Stone G, McBeath M, Benitez V. Bouba-Kiki Effect Applies to Meaning as Well as Shape: /i:/ vs /^/ Phonemes Generically Carry Affective Valence. Poster at the 61st Annual Meeting of Psychonomic Society, Virtual, 2020, November.

Yu CSP, McBeath MK, Glenberg AM. Interrelations in emotion and speech physiology lead to a sound symbolic case. ASUofA Cognitive Science Conclave, Tucson, AZ, 2019, December.

Yu CSP, McBeath MK, Glenberg AM. Interrelations in emotion and speech physiology lead to a sound symbolic case. The 18th Annual Auditory Perception, Cognition, and Action Meeting (APCAM), Montréal, Québec, Canada, 2019, November.

Yu CSP, McBeath MK, Glenberg AM. Interrelations in emotion and speech physiology lead to a sound symbolic case. Poster at the 60th Annual Meeting of Psychonomic Society, Montréal, Québec, Canada,

2019, November.

McBeath MK, Yu CSP, Greenstein E, Lobato T, Patten KJ, Glenberg AM. Vowel phoneme space maps onto Russell's circumplex model of emotion. The 60th Annual Meeting of Psychonomic Society, Montreal, Canada, 2019, November.

Yu CSP, McBeath MK, Glenberg AM. Gleam-Glum effect: embodied emotions to language. ASUofA Cognitive Science Conclave, Tempe, AZ, 2018, December.

Yu CSP, McBeath MK, Glenberg AM. Embodied meaning contributes to sound symbolism in English and Mandarin. Poster at the 59th Annual Meeting of Psychonomic Society, New Orleans, LA, 2018, November.

Yu S, Greenwald AG. Trying to reduce implicit biases by actively memorizing the less preferred. Poster session presented at the Annual University of Washington Undergraduate Research Symposium, Seattle, WA, 2017, May.

#### **Peer Reviews**

Journal of Experimental Psychology: Learning, Memory and Cognition

Language Sciences