

JACK W SILCOX

CURRICULUM VITAE

380 S 1530 E, Salt Lake City, UT | jack.silcox@utah.edu

EDUCATION

2023 (expected)	Ph.D.	Cognitive & Neural Sciences, University of Utah, Salt Lake City, UT
2020	M.S.	Cognitive & Neural Sciences, University of Utah, Salt Lake City, UT
2018	M.S.	Applied Statistics, Loyola University Chicago, Chicago, IL
2016	B.S.	Neuroscience, Brigham Young University, Provo, UT

GRANTS AND AWARDS

Spring 2020	Frederick T. Rhodewalt Award for Innovative Scholarship, Psychology Department, University of Utah Fund: \$1,000
Summer 2019	Clayton Summer Research Fellowship, Psychology Department, University of Utah Fund: \$5,500
2015-2016	<i>Assessing Diagnostic Capacity of Event Related Potentials In Mild Alzheimer's Disease</i> PI: Jack W Silcox Office of Research and Creative Activities Research Grant Brigham Young University Fund: \$1,500
2013-2014	<i>Assessing Gender Differences in Cognitive Processes Using Event Related Potentials</i> PI: Jack W Silcox

Office of Research and Creative Activities Research Grant
Brigham Young University
Fund: \$1,500

PEER-REVIEWED PUBLICATIONS

Payne, B.R., Silcox, J.W., Crandall, H.A., Lash, A., Ferguson, S.H., & Lohani, M. (under review). Text captioning buffers against the effects of background noise and hearing loss on memory for speech.

LoTempio, S., Silcox, J.W., Federmeier, K.D., & Payne, B.R. (under review). Inter- and intra-individual coupling between pupillary, electrophysiological, and behavioral responses in a visual oddball task.

O'Brien, T.E., & Silcox, J. (under review). Efficient Experimental Design for Dose Response Modelling.

Payne, B. R., & Silcox, J. W. (2019). Aging, context processing, and comprehension. *The Psychology of Learning and Motivation*, 215.

O'Brien, T.E., & Silcox, J. (2019): Practical Design Approaches for Assessing Parallelism in Dose Response Modelling. *Contemporary Biostatistics with Biopharmaceutical Applications. ICSA Book Series in Statistics*. Springer, Cham

Brown, B.L., Hendrix, S.B., Cecchi, M., Scott, J.M., Silcox, J.W., Brighton, K.D., & Hedges, D. (2015): A Novel Eigenvector-Based Method to Detect Mild Alzheimer's Disease Using Event-Related Potentials. *The Journal of Prevention of Alzheimer's Disease (JPAD)*.
<http://dx.doi.org/10.14283/jpad.2015.79>

RESEARCH PRESENTATIONS

Silcox, J.W., Mickey, B.J., & Payne, B.R. (2020) *Disruption of left inferior frontal cortex eliminates the word predictability benefit in memory: An event-related rTMS study*. 12th Annual Meeting of the Society for the Neurobiology of Language. Virtual.

Silcox, J., & Payne, B.R. (2020) *Changes in listening effort, the benefits and costs to context processing: A study utilizing behavioral, electrophysiological, and pupillometric measures*. 60th Annual Meeting of the Society for Psychophysiological Research. Virtual.

Lopes, C.L., Silcox, J.W., & Payne, B.R. (2020) *Probing prediction costs & benefits: What response times and ERPs reveal about the role of volitional control in context processing*. 60th Annual Meeting of the Society for Psychophysiological Research. Virtual.

LoTemplo, S., Silcox, J., Federmeier, K., & Payne, B.R. (2020) *Distinct pupillary and neural responses to semantic and syntactic violations in sentence processing*. 60th Annual Meeting of the Society for Psychophysiological Research. Virtual.

Stoker, J.¹, Silcox, J., Mickey, B., & Payne, B. (2020) *Does the language production system play a role in predictive processes during language comprehension?* Spring Undergraduate Research Symposium at the University of Utah. Salt Lake City, UT

Anderson, J.¹, Silcox, J., & Payne, B. (2020) *Does the linguistic context help to alleviate detrimental effects of effortful listening?* Spring Undergraduate Research Symposium at the University of Utah. Salt Lake City, UT

LoTemplo, S., Silcox, J., Federmeier, K., & Payne, B. (2019) *A test of coupling between electrophysiological and pupillary responses in a visual oddball task*. Snowbird Neuroscience Symposium 2019. Snowbird, UT

Silcox, J.W., Lopes, C., Mickey, B., & Payne, B. (2019) *The role of left inferior frontal cortex in memory for predictable and unpredictable words: An event-related rTMS study*. Snowbird Neuroscience Symposium 2019. Snowbird, UT. **Best graduate student poster award.**

LoTemplo, S., Silcox, J., Federmeier, K., & Payne, B. (2019) *A test of coupling between electrophysiological and pupillary responses in a visual oddball task*. 59th Annual Meeting of the Society for Psychophysiological Research. Washington, DC

Finlay, W.¹, Silcox, J.W., & Payne, B.R. (2019) *The role of left inferior frontal gyrus in memory for predictable and unpredictable words: An event-related transcranial magnetic stimulation study*. Summer Undergraduate Research Symposium at the University of Utah. Salt Lake City, UT

Payne, B.R., Silcox, J., Lash, A., Ferguson, S.H., & Lohani, M. (2018). *Text captioning reduces the effects of perceptual effort on speech memory*. Annual Meeting of Psychonomic Society. 3.

¹ Undergraduate mentee

Payne, B.R., Silcox, J., Lash, A., Ferguson, S.H., & Lohani, M. (2018). *Assistive text captioning offsets the effects of background noise on speech memory and pupillometry*. Academy of Rehabilitative Audiology Institute. 2018.

Brown, B.L., Hedges, D. and Silcox, J.W. 2016. *Whole-Wave EEG Analysis in the Identification of Neuropsychiatric Illness*. Presented at the Forty-First Annual Interdisciplinary Conference. Breckenridge, CO

Brown, Hendrix, Wolf, Silcox, Lloyd, Mickelson, and Hedges. 2014. *An Eigenvector-Based EEG Analysis Method for Diagnosing Neurodegenerative and Neuropsychiatric Diseases and for Monitoring and Assessing Treatment Response*. Presented at the BioUtah Summit. Salt Lake City, UT

RESEARCH EXPERIENCE

2018 - Present **Graduate Research Assistant for Dr. Brennan Payne**, University of Utah, Salt Lake City, UT

2017 - 2018 **Graduate Assistant for Dr. Timothy E. O'Brien**, Loyola University Chicago, Chicago, IL

2017 - 2018 **Graduate Assistant for Dr. Gregory Matthews**, Loyola University Chicago, Chicago, IL

2013 - 2016 **Research Assistant for Dr. Bruce Brown**, Brigham Young University, Provo, UT

TEACHING EXPERIENCE

March 2019 **Guest Lecturer**, Psychology as a Science & Profession, University of Utah, Salt Lake City, UT

February 2019 **Guest Lecturer**, Human Factors, University of Utah, Salt Lake City, UT

2013 - 2015 **Teaching Assistant**, Brigham Young University, Provo, UT

Courses: Psych 111: General Psychology; Psych 210: History of Psychology; Psych 308: Psychological Statistics;

MENTORING EXPERIENCE

Undergraduate Mentorship

Mariah Erickson, UROP Program. Fall 2020. Psychology. University of Utah

Brett Smith, UROP Program. Fall 2019. Psychology. University of Utah

William Finlay, Summer Program for Undergraduate Research Mentor (co-mentor w/ Brennan Payne). Summer 2019. Linguistics. University of Utah.

COMMUNITY SERVICE EXPERIENCE

2020 - Present **Member** of the Committee to Promote Student Interests; Society for Psychophysiological Research

2020 - Present **Member** of the Psychology Department Diversity Committee; University of Utah

2019 - Present **Vice President** for Diversity Graduate School Application Advisory; University of Utah

2011 - 2012 **Y-Serve Program Director** for House of Hope; Brigham Young University

CONSULTING EXPERIENCE

2019 - 2020 **Experiment Programming Consultant for Jenna Alley (PhD Dissertation)**, University of Utah, Salt Lake City, UT

2017 - 2018 **Statistical Consultant for Phillip Whittington (Masters Thesis)**, Loyola University Chicago, Chicago, IL

2017 **Statistical Consultant for Kendra Frome (Masters Thesis)**, Northwestern University, Evanston, IL

HONORS

- April 2015 Dean's List, College of Life Sciences; Brigham Young University
- July 2011 Director of the Month; Y-Serve Program; Brigham Young University

TRAININGS/WORKSHOPS COMPLETED

- Spring 2019 **Undergraduate Research Mentor Development Program** hosted by the
Office of Undergraduate Research at the University of Utah

COMPETITIONS

- April 2017 **American Statistical Association Datafest** hosted by Loyola University
Chicago, Chicago, IL
- November 2016 **House Prices: Advanced Regression Techniques** hosted by Kaggle.com