Matthew B. Jané

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Bio

Current PhD student interested in quantitative methods for meta-analysis and psychological measurement. Specifically, my current research projects focus on correcting bias in effect size estimates caused by statistical artifacts. I am affiliated with the Systematic Health Action Research Program (SHARP) at the University of Connecticut where I am advised by Dr. Blair T. Johnson. I am also on the editorial board for Psychological Bulletin as a methodological reviewer.

Education

- 2022–*Present* | **Ph.D.** *Quantitative Psychology*, University of Connecticut, Storrs, Connecticut
- 2021–2022 | **M.S.** *Behavioral Neuroscience*, University of Connecticut, Storrs, Connecticut
- 2018–2020 | **B.S.** *Computational Neuroscience*, University of Connecticut, Storrs, Connecticut

Textbooks

- *In preparation* | **Correcting Effect Sizes for Statistical Artifacts**, *by Matthew B. Jané and Blair T. Johnson*. A guide for correcting bias in effect size estimates induced by artifacts. Includes applications in meta-analysis and implementation in R and Python.

Software

- 2023 | **{ThemePark}**, An R package for populat culture ggplot themes.

  - Featured on rweekly.org and flowingdata.com
  - Github Repository: MatthewBJane.github.io/theme_park

- 2023 | **{posc}** An R Package for generating Probability of Outcome Superiority Curves (POSCs).

  - Github Repository: MatthewBJane.github.io/posc

- 2023 | **OpenSynthesis**, website cataloging publicly available meta-analytic databases.

  - Github Repository: MatthewBJane.github.io/opensynthesis

- 2023 | **Artifact Simulator**, A Shiny App for Visualizing Statistical Artifacts.

  - Shiny App: matthewbjane.shinyapps.io/effect_size_artifact_bias

- 2023 | **Artifact Corrections for Effect Sizes**, A webpage documenting equations and code for effect size artifact corrections.

    – Webpage Link: MatthewBJane.com/ArtifactCorrections

- 2023 | **Project Analysis Code and Data**, All data and code for all of my publications.

    – Link: MatthewBJane.com/ArtifactCorrections

Publications

Jané, M. B., Harlow, T. J., Johnson, B. T. (2023). Temporal and Non-Temporal Sensory Discrimination and Fluid Intelligence: Artifact Correction Meta-Analysis. In preparation.

Jané, M. B., Johnson, B. T. (2023). Correcting Effect Sizes for Statistical Artifacts: Implementation in R and Python. In preparation.

Jané, M. B., Johnson, B. T. (2023). Methodological Quality in Research in Health Psychology. Under review at the Journal of Health Psychology.

Jané, M. B., Johnson, B. T. (2023). Correcting for Measurement Error in Repeated Measures Standardized Mean Differences. Manuscript in Preparation.

Harlow*, T. J., **Jané*, M. B.**, Read, H. L., & Chrobak, J. J. (2023). Memory retention following acoustic stimulation in slow-wave sleep: a meta-analytic review of replicability and measurement quality. Frontiers in Sleep.

Jané, M. B., Pisupati, S., Smith, K. E., Castro-Tonelli, L., Melo-Thomas, L., Schwarting, R. K., … & Read, H. L. (2022). Correlations across timing cues in natural vocalizations predict biases in judging synthetic sound burst durations. bioRxiv.