Matthew B. Jané

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Bio

Current PhD student interested in developing statistical methods and software for meta-analyses and primary studies. 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
  - Research involves statistical methods for meta-analysis and evidence synthesis. Primarily focusing on correcting bias in effect size estimates induced by statistical artifacts.
- 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 Artifacts in R**, *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.

Software

- R Package **ThemePark**, Generating popular culture styled ggplot themes. github.com/MatthewB-Jane/theme_park. Featured on rweekly.org and flowingdata.com
- R Package **POSC** An R Package for generating Probability of Outcome Superiority Curves (POSCs). github.com/MatthewBJane/theme_park
- Database **OpenSynthesis**, website cataloging publicly available meta-analytic databases. MatthewBJane.github.io/opensynthesis
- Shiny App **Artifact Simulator**, A Shiny App for Visualizing Statistical Artifacts. matthewb-jane.shinyapps.io/effect_size_artifact_bias

- Webpage **Artifact Corrections for Effect Sizes**, A webpage documenting equations and code for effect size artifact corrections. MatthewBJane.com/ArtifactCorrections
- Project Data & Code **Primary Study Data and Code**, Repository of data and code for all primary study projects. https://github.com/MatthewBJane/primary-project-data-code.
- Project Data & Code **Meta-Analysis Data and Code**, Repository of data and code for all meta-analytic projects. https://github.com/MatthewBJane/meta-analysis-project-data-code.

Publications

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

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

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.*

Jané, M. B., Harlow, T. J., Martinez-Berman, L., Johnson, B. T. (2023). Cognitive Ability Moderates the Accuracy of Self-Reported Perfect Pitch. *Manuscript in Preparation.*

Champion, G., **Jané, M. B.**, Johnson, B. T., and colleagues (2023). Efficacy of Mindfulness Based Stress Reduction Interventions on Anxiety and Depression in the United States: A Meta-Analysis. *Data being collected.*