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 developing statistical methods and software 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

- **Jané, M. B.**, Xiao, Q., Yeung, S. K., Caldwell, A. R., Dunleavy, D. J., … (2023) ***Guide to Effect Sizes and Confidence Intervals***. A collaborative guide to calculating, interpreting, and reporting effect sizes and confidence intervals. https://matthewbjane.quarto.pub/effect-size-and-confidence-intervals-guide/
- **Jané, M B.** (2023) ***Artifact Corrections for Effect Sizes***. An open-source book for correcting bias in effect size estimates contaminated by statistical artifacts. *In prepation*

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/ThemePark
- Database **OpenSynthesis**, website cataloging publicly available meta-analytic databases. matthew-bjane.com/opensynthesis
- Shiny App **Artifact Simulator**, A Shiny App for Visualizing Statistical Artifacts. matthewbjane.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.

Peer Reviews

- **Psychological Bulletin**, 2 reviews
- **Advances in Methods and Practices in Psychological Science**, 1 review

Publications

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

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

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

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.*

Jané, M. B., Uanhoro, J., Boika, N., Steele, J., Batinovic, L., Johnson, B. T. (2024). Predictive Validity of the Unified Tertiary Matriculation Examination on University Grades: A Living Meta-Analysis. https://matthewbjane.com/utme-validity-meta-analysis/ *Manuscript in Preparation.*