

Session Info

Ivan Jacob Agaloos Pesigan

Session

```
sessionInfo()

#> R version 4.5.1 (2025-06-13)
#> Platform: x86_64-pc-linux-gnu
#> Running under: Ubuntu 24.04.2 LTS
#>
#> Matrix products: default
#> BLAS:   /usr/lib/x86_64-linux-gnu/openblas-pthread/libblas.so.3
#> LAPACK: /usr/lib/x86_64-linux-gnu/openblas-pthread/libopenblas-p0.3.26.so; LAPACK version 3.12.0
#>
#> locale:
#>  [1] LC_CTYPE=en_US.UTF-8      LC_NUMERIC=C
#>  [3] LC_TIME=en_US.UTF-8      LC_COLLATE=en_US.UTF-8
#>  [5] LC_MONETARY=en_US.UTF-8  LC_MESSAGES=en_US.UTF-8
#>  [7] LC_PAPER=en_US.UTF-8     LC_NAME=C
#>  [9] LC_ADDRESS=C             LC_TELEPHONE=C
#> [11] LC_MEASUREMENT=en_US.UTF-8 LC_IDENTIFICATION=C
#>
#> time zone: Etc/UTC
```

```

#> tzcode source: system (glibc)
#>
#> attached base packages:
#> [1] stats      graphics  grDevices  utils      datasets  methods   base
#>
#> other attached packages:
#> [1] rProject_0.0.21
#>
#> loaded via a namespace (and not attached):
#> [1] backports_1.5.0  R6_2.6.1          lubridate_1.9.4  xfun_0.52
#> [5] magrittr_2.0.3   glue_1.8.0         stringr_1.5.1    knitr_1.50
#> [9] timechange_0.3.0 generics_0.1.4     lifecycle_1.0.4  xml2_1.3.8
#> [13] cli_3.6.5.9000   bibtex_0.5.1       compiler_4.5.1   highr_0.11
#> [17] rprojroot_2.1.0  plyr_1.8.9         httr_1.4.7       tools_4.5.1
#> [21] evaluate_1.0.4   Rcpp_1.1.0         RefManageR_1.4.0 rlang_1.1.6
#> [25] jsonlite_2.0.0   stringi_1.8.7

```

Packages

```

unname(installed.packages()[, 1])

#> [1] "betaMC"          "abind"           "Amelia"
#> [4] "arm"             "arrow"           "ash"
#> [7] "askpass"         "assertthat"      "backports"
#> [10] "base64enc"       "betaDelta"       "betaMC"
#> [13] "betaNB"          "betaSandwich"    "BH"
#> [16] "bibtex"          "BiocManager"     "bit"

```

```

#> [19] "bit64"          "bitops"          "blob"
#> [22] "bootStateSpace" "brew"            "brio"
#> [25] "broom"          "bslib"           "cachem"
#> [28] "callr"          "car"             "caracas"
#> [31] "carData"        "cellranger"      "cfr"
#> [34] "checkmate"      "cli"             "clipr"
#> [37] "clock"          "clusterGeneration" "coda"
#> [40] "c0de"           "collections"      "colorspace"
#> [43] "commonmark"     "conflicted"       "corpcor"
#> [46] "covr"           "cowplot"          "cpp11"
#> [49] "crayon"         "credentials"       "crosstalk"
#> [52] "cTMed"          "ctsem"            "curl"
#> [55] "data.table"     "DBI"              "dbplyr"
#> [58] "Deriv"          "desc"             "deSolve"
#> [61] "devtools"       "diagram"          "dials"
#> [64] "DiceDesign"     "diffobj"          "digest"
#> [67] "distributional" "distro"           "doBy"
#> [70] "docopt"         "doFuture"         "downlit"
#> [73] "dplyr"          "DT"               "dtplyr"
#> [76] "duckdb"         "dynr"             "dynUtils"
#> [79] "ellipse"        "ellipsis"         "evaluate"
#> [82] "expm"           "fansib"           "farver"
#> [85] "fastDummies"    "fastmap"          "fclust"
#> [88] "fda"            "fdrtool"          "fds"
#> [91] "fitDTVARmX"     "FNN"              "fontawesome"
#> [94] "forcats"        "foreach"          "Formula"
#> [97] "fs"             "fst"              "fstcore"

```

```

#> [100] "furrr"           "future"           "future.apply"
#> [103] "gargle"          "generics"         "gert"
#> [106] "ggplot2"         "ggrepel"          "gh"
#> [109] "gitcreds"        "glasso"           "glmnet"
#> [112] "globals"         "glue"             "googledrive"
#> [115] "googlesheets4"   "gower"            "GPArotation"
#> [118] "GPfit"           "graphicalVAR"     "gridExtra"
#> [121] "gsubfn"          "gtable"           "gtools"
#> [124] "hardhat"         "haven"            "hdcrcde"
#> [127] "here"           "highr"            "Hmisc"
#> [130] "hms"             "htmlTable"        "htmltools"
#> [133] "htmlwidgets"     "httpuv"           "httr"
#> [136] "httr2"           "ids"              "ifaTools"
#> [139] "igraph"          "infer"            "ini"
#> [142] "inline"          "ipred"            "isoband"
#> [145] "iterators"       "jomo"             "jpeg"
#> [148] "jquerylib"       "jsonlite"         "jsonvalidate"
#> [151] "kernlab"         "knitr"            "ks"
#> [154] "labeling"        "Lahman"           "languageserver"
#> [157] "later"           "latex2exp"        "lava"
#> [160] "lavaan"          "lazyeval"         "lhs"
#> [163] "lifecycle"       "lintr"            "listenv"
#> [166] "litedown"        "littler"          "lme4"
#> [169] "locfit"          "longMI"           "loo"
#> [172] "lubridate"       "magick"           "magrittr"
#> [175] "markdown"        "MatrixModels"     "matrixStats"
#> [178] "mclust"          "memoise"          "metaSEM"

```

```

#> [181] "metaVAR"          "mice"              "microbenchmark"
#> [184] "mime"             "miniUI"            "minqa"
#> [187] "mitml"            "mize"              "mlVAR"
#> [190] "mnormt"           "modeldata"         "modelenv"
#> [193] "modelr"           "MplusAutomation"  "multicool"
#> [196] "mvtnorm"          "nloptr"            "numDeriv"
#> [199] "nycflights13"     "OpenMx"            "openssl"
#> [202] "ordinal"          "pan"               "pander"
#> [205] "parallelly"       "parsnip"           "patchwork"
#> [208] "pbapply"          "pbivnorm"          "pbkrtest"
#> [211] "pcaPP"            "pdftools"          "pillar"
#> [214] "pkgbuild"         "pkgconfig"         "pkgdown"
#> [217] "pkgload"          "plogr"             "plyr"
#> [220] "png"              "posterior"         "pracma"
#> [223] "praise"           "prettyunits"       "printr"
#> [226] "processx"         "prodlim"           "profvis"
#> [229] "progress"         "progressr"         "promises"
#> [232] "proto"            "ps"                "psych"
#> [235] "purrr"            "qgraph"            "qpdf"
#> [238] "quadprog"         "quantreg"          "quarto"
#> [241] "QuickJSR"         "R.cache"           "R.methodsS3"
#> [244] "R.oo"             "R.utils"           "R6"
#> [247] "ragg"             "rainbow"           "rapports"
#> [250] "rbibutils"        "rcmdcheck"         "RColorBrewer"
#> [253] "Rcpp"             "RcppArmadillo"     "RcppEigen"
#> [256] "RcppGSL"          "RcppParallel"      "RcppTOML"
#> [259] "RCurl"            "Rdpack"            "readr"

```

#> [262]	"readxl"	"recipes"	"RefManager"
#> [265]	"reformulas"	"rematch"	"rematch2"
#> [268]	"remotes"	"reprex"	"reshape2"
#> [271]	"reticulate"	"rex"	"rhub"
#> [274]	"rjags"	"rlang"	"RMariaDB"
#> [277]	"rmarkdown"	"roxygen2"	"rpf"
#> [280]	"RPostgres"	"rProject"	"rprojroot"
#> [283]	"rsample"	"RSQLite"	"rstan"
#> [286]	"rstantools"	"rstudioapi"	"rversions"
#> [289]	"rvest"	"Ryacas"	"sass"
#> [292]	"scales"	"selectr"	"semlbci"
#> [295]	"semmcci"	"sessioninfo"	"sfd"
#> [298]	"shape"	"shiny"	"simStateSpace"
#> [301]	"slider"	"snow"	"snowfall"
#> [304]	"sourcetools"	"SparseM"	"sparsevctrs"
#> [307]	"SQUAREM"	"StanHeaders"	"stringi"
#> [310]	"stringr"	"styler"	"symSEM"
#> [313]	"sys"	"systemfonts"	"tensorA"
#> [316]	"testthat"	"texreg"	"textshaping"
#> [319]	"tibble"	"tidymodels"	"tidyr"
#> [322]	"tidyselect"	"tidyverse"	"timechange"
#> [325]	"timeDate"	"tinytex"	"tune"
#> [328]	"tzdb"	"ucminf"	"urlchecker"
#> [331]	"usethis"	"utf8"	"uuid"
#> [334]	"V8"	"vctrs"	"viridis"
#> [337]	"viridisLite"	"vroom"	"waldo"
#> [340]	"warp"	"whisker"	"whoami"

```

#> [343] "withr"          "workflows"      "workflowsets"
#> [346] "xfun"           "xml2"           "xmlparsedata"
#> [349] "xopen"          "xtable"         "yaml"
#> [352] "yardstick"      "zip"            "base"
#> [355] "boot"           "class"          "cluster"
#> [358] "codetools"      "compiler"       "datasets"
#> [361] "foreign"        "graphics"       "grDevices"
#> [364] "grid"           "KernSmooth"     "lattice"
#> [367] "MASS"           "Matrix"         "methods"
#> [370] "mgcv"           "nlme"           "nnet"
#> [373] "parallel"       "rpart"          "spatial"
#> [376] "splines"        "stats"          "stats4"
#> [379] "survival"       "tcltk"          "tools"
#> [382] "utils"

```

References

- Pesigan, I. J. A., & Cheung, S. F. (2023). Monte Carlo confidence intervals for the indirect effect with missing data. *Behavior Research Methods*, 56(3), 1678–1696. <https://doi.org/10.3758/s13428-023-02114-4>
- R Core Team. (2024). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. Vienna, Austria. <https://www.R-project.org/>