

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_0.53
#> [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_1.4.0
#> [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] "cTMed"           "rProject"         "abind"
#>   [4] "Amelia"          "arm"              "arrow"
#>   [7] "ash"             "askpass"          "assertthat"
#>  [10] "backports"       "base64enc"        "betaDelta"
#>  [13] "betaMC"          "betaNB"           "betaSandwich"
#>  [16] "BH"              "bibtex"           "BiocManager"

```

```

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

```

```

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

```

```

#> [181] "metaSEM"          "metaVAR"          "mice"
#> [184] "microbenchmark"   "mime"              "miniUI"
#> [187] "minqa"            "mitml"             "mize"
#> [190] "mlVAR"            "mnormt"            "modeldata"
#> [193] "modelenv"         "modelr"            "MplusAutomation"
#> [196] "multicool"        "mvtnorm"           "nloptr"
#> [199] "numDeriv"         "nycflights13"      "OpenMx"
#> [202] "openssl"          "ordinal"           "pan"
#> [205] "pander"           "parallelly"        "parsnip"
#> [208] "patchwork"        "pbapply"           "pbivnorm"
#> [211] "pbkrtest"         "pcaPP"             "pdftools"
#> [214] "pillar"           "pkgbuild"          "pkgconfig"
#> [217] "pkgdown"          "pkgload"           "plogr"
#> [220] "plyr"             "png"               "posterior"
#> [223] "pracma"           "praise"            "prettyunits"
#> [226] "printr"           "processx"          "prodlm"
#> [229] "profvis"          "progress"          "progressr"
#> [232] "promises"         "proto"             "ps"
#> [235] "psych"            "purrr"             "qgraph"
#> [238] "qpdf"             "quadprog"          "quantreg"
#> [241] "quarto"           "QuickJSR"          "R.cache"
#> [244] "R.methodsS3"      "R.oo"              "R.utils"
#> [247] "R2jags"           "R2WinBUGS"          "R6"
#> [250] "ragg"             "rainbow"           "rappdirs"
#> [253] "rbibutils"        "rcmdcheck"         "RColorBrewer"
#> [256] "Rcpp"             "RcppArmadillo"     "RcppEigen"
#> [259] "RcppGSL"          "RcppParallel"      "RcppTOML"

```

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

```

#> [343] "warp"          "whisker"       "whoami"
#> [346] "withr"         "workflows"     "workflowsets"
#> [349] "xfun"          "xml2"          "xmlparsedata"
#> [352] "xopen"         "xtable"        "yaml"
#> [355] "yardstick"     "zip"           "base"
#> [358] "boot"          "class"         "cluster"
#> [361] "codetools"     "compiler"      "datasets"
#> [364] "foreign"       "graphics"      "grDevices"
#> [367] "grid"          "KernSmooth"   "lattice"
#> [370] "MASS"          "Matrix"        "methods"
#> [373] "mgcv"          "nlme"          "nnet"
#> [376] "parallel"      "rpart"         "spatial"
#> [379] "splines"       "stats"         "stats4"
#> [382] "survival"      "tcltk"         "tools"
#> [385] "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. (2025). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. Vienna, Austria. <https://www.R-project.org/>