Extensions to Package 'gimme'

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Title gimmePlot and gimmeCompareSub

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Depends R (>= 4.1.3)

Imports lavaan (>= 0.6-9), iqgraph (>= 1.0-0), qgraph, data.tree,
MIIVsem (>= 0.5.4), imputeTS (>= 3.0), nloptr, graphics, stats,
MASS, aTSA, gtools, rstatix, dplyr, tibble

Description Extensions to the gimme package, including plot customization and subgroup comparisons.

R topics documented:

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gimmePlot *Plot pathway customization.*

Description

This function customizes the colors of path lines in the summary plot and individual plots created by the gimmeSEM function.

Usage

```
gimmePlot(object      = NULL,
          data        = NULL,
          out         = NULL,
```

```
group       = "black",
subgroup    = "green3",
individual  = "gray50",
positive    = "#FF0000FF",
negative    = "#0000FFFF",
filename1   = "Summary Plot.pdf",
filename2   = "Individual Plot")
```

Arguments

object	An object created by the gimmeSEM function containing model parameter estimates.
data	The path to the directory where the data files are located. The directory must contain only the data files for individuals.
out	The path to the directory where plots returned by the gimmePlot function will be saved. A new directory, gimmePlots, will be created in the specified directory and the customized plots will be saved there.
group	Color for the group-level paths in the summary plot. Can be a hex number or name of a color. Defaults to "black".
subgroup	Color for the subgroup-level paths in the summary plot. Can be a hex number or name of a color. Defaults to "green3".
individual	Color for the individual-level paths in the summary plot. Can be a hex number or name of a color. Defaults to "gray50".
positive	Color for the positively weighted paths in the individual-level plots. Can be a hex number or name of a color. Defaults to "#FF0000FF".
negative	Color for the negatively weighted paths in the individual-level plots. Can be a hex number or name of a color. Defaults to "#0000FFFF".
filename1	File name for the summary plot to be saved. Defaults to "Summary Plot.pdf".
filename2	File name for the individual-level plots to be saved. Defaults to "Individual Plot". Saved file name for plots will be "filename2" argument appended with "_i.pdf" where i is the number of the individual data file in the "data" directory.

Examples

```
## Not run:
gimmePlot(object = fit,
          data = "/Users/gimmeUser/Data Folder",
          out = "/Users/gimmeUser/Desktop/Gimme/",
          group = "pink1",
          subgroup = "#99badd",
          individual = "#FFA500",
          positive = "black",
          negative = "red")
## End(Not run)
```

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gimmeCompareSub	*Compare parameter estimates across subgroups*

Description

This function performs an independent t-test or ANOVA to compare subgroup means of individual parameter estimates. When the number of subgroups is 2, the function performs multiple independent t-tests with Bonferroni-adjusted significance levels for each significant path in common across subgroups. When the number of subgroups is greater than 2, the function performs ANOVA for each significant path in common across subgroups. Following ANOVA, the post-hoc test with Tukey HSD method is also conducted to provide insights into comparisons between two specific subgroups. Upon t-test, an output file "SigDiffPaths_tTest.csv" is created in the GIMME output folder. Upon ANOVA, an output file "SigDiffPaths_ANOVA.csv" is created in the GIMME output folder.

Usage

```
gimmeCompareSub(data = NULL)
```

Arguments

data	data is an object that imports “indivPathEstimates.csv”, one of the GIMME output files.

Examples

```
## Not run:


data_path = paste0(getwd(), "/Gimme/indivPathEstimates.csv")
data = read.csv(data_path, head = TRUE)
gimmeCompareSub(data = data)


## End(Not run)
```