

# Package ‘bayeslincom’

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**Type** Package

**Title** Linear Combinations of Bayesian Posterior Samples

**Version** 1.0.0

**Description** Computes point estimates, standard deviations, and credible intervals for linear combinations of posterior samples. Optionally performs region practical equivalence (ROPE) tests as described in Kruschke and Liddell (2018) <doi:10.3758/s13423-016-1221-4>.

**Depends** R (>= 4.0.0)

**License** GPL-2

**Encoding** UTF-8

**LazyData** true

**Imports** ggplot2 (>= 3.3.2), methods, stats, lifecycle

**Suggests** BBcor (>= 1.0.0), BGGM (>= 2.0.2), testthat

**RoxygenNote** 7.1.1

**RdMacros** lifecycle

**BugReports** <https://github.com/josue-rodriguez/bayeslincom/issues>

**NeedsCompilation** no

**Author** Josue E. Rodriguez [aut, cre],  
Donald Williams [aut]

**Maintainer** Josue E. Rodriguez <josue.rodriguez594@gmail.com>

**Repository** CRAN

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## R topics documented:

lin_comb . . . . .	2
plot.bayeslincom . . . . .	3
print.bayeslincom . . . . .	4
<b>Index</b>	<b>5</b>

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lin_comb	<i>Perform a linear combination of posterior samples</i>
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### Description

Perform a linear combination of posterior samples

### Usage

```
lin_comb(lin_comb, obj, cri_level = 0.9, rope = NULL)
```

### Arguments

lin_comb	A string specifying a linear combination of variables
obj	An object of class BGGM, bbcor, or a data.frame of posterior samples
cri_level	The level for which a credible interval should be computed
rope	Specify a ROPE. Optional.

### Value

An object of class lin\_comb

### Examples

```
# data
Y <- BGGM::ptsd

# names
colnames(Y) <- letters[1:20]

# estimate model
est <- BGGM::estimate(Y)

# test
bggm_comb <- lin_comb("a--c + a--d > b--c + b--d",
  obj = est,
  cri_level = 0.90,
  rope = c(-0.1, 0.1))

# print
bggm_comb
```

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plot.bayeslincom      *Perform a linear combination of posterior samples*

---

### Description

Perform a linear combination of posterior samples

### Usage

```
## S3 method for class 'bayeslincom'
plot(
  x,
  point_col = "black",
  hist_col = "black",
  hist_fill = "gray",
  bar_col = "steelblue",
  bins = 30,
  display_comb_strings = TRUE,
  ...
)
```

### Arguments

x	An object of class bayeslincom
point_col	Color for point indicating mean of posterior
hist_col	Color for histogram edges
hist_fill	Color for histogram bars
bar_col	Color of bar for credible interval
bins	Number of bins
display_comb_strings	If TRUE, displays full strings for combinations in ggplot facets when there is more than one combination in x
...	Currently ignored

### Value

An object of class ggplot

### Examples

```
Y <- BGM::ptsd
colnames(Y) <- letters[1:20]
est <- BGM::estimate(Y)
bggm_comb <- lin_comb("a--c + a--d > b--c + b--d",
  obj = est,
  cri_level = 0.90,
```

```
plot(bggm_comb)      rope = c(-0.1, 0.1))
```

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print.bayeslincom      *Print formatted summary of a bayeslincom object*

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### Description

Print formatted summary of a bayeslincom object

### Usage

```
## S3 method for class 'bayeslincom'  
print(x, ...)
```

### Arguments

x                    An object of class bayeslincom  
...                   Other arguments to be passed to print

### Value

A formatted summary of posterior samples

# Index

`lin_comb`, [2](#)

`plot.bayeslincom`, [3](#)

`print.bayeslincom`, [4](#)