

Package ‘iccde’

February 9, 2023

Type Package

Title Computation of the Double-Entry Intraclass Correlation

Version 0.3.5

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Description The functions compute the double-entry intraclass correlation, which is an index of profile similarity (Furr, 2010; McCrae, 2008). The double-entry intraclass correlation is a more precise index of the agreement of two empirically observed profiles than the often-used intraclass correlation (McCrae, 2008). The function transforms profiles comprising correlations according to the Fisher z-transformation before the double-entry intraclass correlation is calculated. If the profiles comprise scores such as sum scores from various personality scales, it is recommended to standardize each individual score prior to computation of the double-entry intraclass correlation (McCrae, 2008). See Furr (2010) <[doi:10.1080/00223890903379134](https://doi.org/10.1080/00223890903379134)> or McCrae (2008) <[doi:10.1080/00223890701845104](https://doi.org/10.1080/00223890701845104)> for details.

License GPL (>= 2)

Encoding UTF-8

NeedsCompilation no

Repository CRAN

Date/Publication 2023-02-09 08:20:02 UTC

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`icc.de.mat`*Computation of Double-Entry Intraclass Correlations for correlation matrices*

Description

This function computes pairwise double-entry intraclass correlations among all entries of a symmetric correlation matrix. Correlations between the compared variables as well as correlations of the constructs with themselves are thereby excluded (i.e., correlations between X and Y, correlation between X and X, and between correlation between Y and Y).

Usage

```
icc.de.mat(dat)
```

Arguments

`dat` A symmetric $c \times c$ correlation matrix. It can be easily computed with the basic R function `'cor()'`. Assymmetric matrices with different numbers of columns and rows are not supported.

Value

`iccde` Double-Entry Intraclass Correlation

Author(s)

Christian Blötner, Michael Paul Grosz <c.bloetner@gmail.com>

References

Furr, R. M. (2010). The Double-Entry Intraclass Correlation as an Index of Profile Similarity: Meaning, Limitations, and Alternatives. *Journal of Personality Assessment*, 92(1), 1–15. <https://doi.org/10.1080/0022389090>

McCrae, R. R. (2008). A Note on Some Measures of Profile Agreement. *Journal of Personality Assessment*, 90(2), 105–109. <https://doi.org/10.1080/00223890701845104>

Examples

```
## Not run:  
  
df <- data.frame(a = rnorm(100), b = rnorm(100), c = rnorm(100),  
                x = rnorm(100), y = rnorm(100), z = rnorm(100))  
dat <- cor(df)  
icc.de.mat(dat)  
  
## End(Not run)
```

iccde	<i>Computation of the Double-Entry Intraclass Correlation between two profiles</i>
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Description

The function computes the double-entry intraclass correlation, which is an index of profile similarity (Furr, 2010; McCrae, 2008). The double-entry intraclass correlation is a more precise index of the agreement of two empirically observed profiles than the often-used intraclass correlation (McCrae, 2008). The function transforms profiles comprising correlations according to the Fisher z-transformation before the double-entry intraclass correlation is calculated. If the profiles comprise scores such as sum scores from various personality scales, it is recommended to standardize each individual score prior to computation of the double-entry intraclass correlation (McCrae, 2008). See Furr (2010) <doi:10.1080/00223890903379134> or McCrae (2008) <doi:10.1080/00223890701845104> for details.

Usage

```
icc.de(prof1, prof2, input = c("cor", "score"), digits = 2)
```

Arguments

prof1	Vector of components of the nomological network of the first trait (input = "cor") or vector of components of the first profile (input = "score").
prof2	Vector of components of the nomological network of the second trait (input = "cor") or vector of components of the second profile (input = "score").
input	Do the profiles contain correlations (e.g., from nomological network; input = "cor") or scores from different scales (e.g., sum scores from diverse personality tests; input = "score")? The default is input = "cor".
digits	Number of digits in the output. The default is digits = 2.

Value

iccde	Double-Entry Intraclass Correlation for two given profiles
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Author(s)

Christian Blötner, Michael Paul Grosz <c.bloetner@gmail.com>

References

Furr, R. M. (2010). The Double-Entry Intraclass Correlation as an Index of Profile Similarity: Meaning, Limitations, and Alternatives. *Journal of Personality Assessment*, 92(1), 1-15. <https://doi.org/10.1080/00223890903379134>

McCrae, R. R. (2008). A Note on Some Measures of Profile Agreement. *Journal of Personality Assessment*, 90(2), 105-109. <https://doi.org/10.1080/00223890701845104>

Examples

```
icc.de(prof1 = c(.59, .48, .23), prof2 = c(.52, .76, .22), input = "cor")  
  
icc.de(prof1 = c(-1, -0.85, 2), prof2 = c(-0.93, 1, 1.26), input = "score",  
digits = 4)
```

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