

# Package ‘persval’

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**Type** Package

**Title** Computing Personal Values Scores

**Version** 1.0.0

**Description** Compute personal values scores from various questionnaires based on the theoretical constructs proposed by professor Shalom H. Schwartz. Designed for researchers and practitioners in psychology, sociology, and related fields, the package facilitates the quantification of different dimensions related to personal values from survey data. It incorporates the recommended statistical adjustment to enhance the accuracy and interpretation of the results.

Note: The package ‘persval’ is independently developed based on the personal values theoretical framework, and is not directly endorsed by professor Schwartz.

**URL** <https://github.com/g-corbelli/persval>

**BugReports** <https://github.com/g-corbelli/persval/issues>

**License** GPL-3

**Encoding** UTF-8

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## Contents

persval . . . . .	2
pvq21 . . . . .	3
pvq40 . . . . .	5
svs . . . . .	6
tivi . . . . .	7
twivi . . . . .	8

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persval

*Computing Personal Values Scores*

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## Description

The persval package provides functions to compute personal values scores from various questionnaires based on the theoretical constructs proposed by Schwartz (Schwartz, 1992, 1996, 2015; Schwartz et al., 2017). Designed for researchers and practitioners in psychology, sociology, and related fields, the package facilitates the quantification of different dimensions related to personal values from survey data. It incorporates the recommended statistical adjustment to enhance the accuracy and interpretation of the results.

## Details

Supported questionnaires within the package include:

- **svs**: SVS-57, the Schwartz Value Survey with 57 items (Schwartz, 1992).
- **pvq40**: PVQ-40, the Portrait Values Questionnaire with 40 items (Schwartz, 2006; Schwartz et al., 2001).
- **pvq21**: PVQ-21/ESS-21, the shortened version of PVQ used in the European Social Survey (Schwartz, 2003).
- **twivi**: TwIVI, the Twenty Item Values Inventory (Sandy et al., 2017).
- **tivi**: TIVI, the Ten Item Values Inventory (Sandy et al., 2017).

## Note

This package is independently developed based on Schwartz's theoretical framework and is not directly endorsed by Professor Schwartz. Researchers are advised to consult the original empirical studies and validation articles for comprehensive insights into the theoretical and empirical basis of the instruments used (e.g.: Closs, 1996; Cornwell & Dunlop, 1994; Rudnev, 2021; Saris, 1988; Schwartz, 1992, 1996, 2015; Schwartz et al., 2017; Smith, 2004; Van Rosmalen et al., 2010).

## Author(s)

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## References

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## See Also

Useful links:

- <https://github.com/g-corbelli/persval>
- Report bugs at <https://github.com/g-corbelli/persval/issues>

## Description

This function computes personal values scores and different higher-order dimensions related to Schwartz's theoretical framework based on the 21 items of the PVQ-21 European Social Survey Value Scale (Schwartz, 2003). By default, the function applies the recommended statistical adjustment (individual MRAT centering) as suggested by the authors, to correct for individual differences in response styles thus enhancing the interpretative validity of the scores.

**Usage**

```
pvq21(df, items = NULL, compute = "all", correction = TRUE, na.rm = TRUE)
```

**Arguments**

<code>df</code>	A Data frame containing the raw responses for the 21 PVQ items. If "items" is not provided, it must have exactly 21 columns, and their order must correspond to the PVQ-21 items.
<code>items</code>	An optional vector containing the names or indices of the columns that correspond to the PVQ-21 items. Must be exactly 21 items. If NULL, the function assumes the items are the only columns given in the "df" parameter.
<code>compute</code>	Character. Indicates which personal values scores to compute and return. Possible values are "all" (default), "ten.values", "four.higher", "two.foci", or "two.dynamics".
<code>correction</code>	Logical. When TRUE, the scores are corrected for individual differences in the use of the response scale. Default is TRUE.
<code>na.rm</code>	Logical. When TRUE, NAs are ignored in calculations; when FALSE, NAs are preserved and will affect calculations. Default is TRUE.

**Value**

A data frame with computed values. If both "df" and "items" parameters are provided, the returned data frame includes the original data with the calculations appended as new columns.

**Note**

Developed by Giuseppe Corbelli, email: [giuseppe.corbelli@uninettunouniversity.net](mailto:giuseppe.corbelli@uninettunouniversity.net), [giuseppe.corbelli@uniroma1.it](mailto:giuseppe.corbelli@uniroma1.it)

**Examples**

```
persval::pvq21(df = data.frame(
  pvq1 = c(3, 1, 4), pvq2 = c(2, 5, 3), pvq3 = c(1, 5, 2), pvq4 = c(4, 3, 5),
  pvq5 = c(5, 2, 1), pvq6 = c(3, 4, 2), pvq7 = c(1, 2, 4), pvq8 = c(3, 1, 5),
  pvq9 = c(2, 4, 1), pvq10 = c(5, 3, 2), pvq11 = c(1, 4, 3), pvq12 = c(2, 1, 5),
  pvq13 = c(3, 5, 4), pvq14 = c(1, 2, 3), pvq15 = c(4, 5, 1), pvq16 = c(2, 3, 4),
  pvq17 = c(5, 1, 2), pvq18 = c(3, 4, 1), pvq19 = c(2, 3, NA), pvq20 = c(1, 3, 4),
  pvq21 = c(2, 5, 1)
),
  correction = TRUE,
  compute = "all",
  na.rm = TRUE)
```

pvq40

*Compute personal values from PVQ-40 data***Description**

This function computes personal values scores and different higher-order dimensions related to Schwartz's theoretical framework based on the 40 items of the PVQ-40 Value Scale (Schwartz, 2006; Schwartz et al., 2001). By default, the function applies the recommended statistical adjustment (individual MRAT centering) as suggested by the authors, to correct for individual differences in response styles thus enhancing the interpretative validity of the scores.

**Usage**

```
pvq40(df, items = NULL, compute = "all", correction = TRUE, na.rm = TRUE)
```

**Arguments**

<code>df</code>	A Data frame containing the raw responses for the 40 PVQ items. If "items" is not provided, it must have exactly 40 columns, and their order must correspond to the PVQ-40 items.
<code>items</code>	An optional vector containing the names or indices of the columns that correspond to the PVQ-40 items. Must be exactly 40 items. If NULL, the function assumes the items are the only columns given in the "df" parameter.
<code>compute</code>	Character. Indicates which personal values scores to compute and return. Possible values are "all" (default), "ten.values", "four.higher", "two.foci", or "two.dynamics".
<code>correction</code>	Logical. When TRUE, the scores are corrected for individual differences in the use of the response scale. Default is TRUE.
<code>na.rm</code>	Logical. When TRUE, NAs are ignored in calculations; when FALSE, NAs are preserved and will affect calculations. Default is TRUE.

**Value**

A data frame with computed values. If both "df" and "items" parameters are provided, the returned data frame includes the original data with the calculations appended as new columns.

**Note**

Developed by Giuseppe Corbelli, email: [giuseppe.corbelli@uninettunouniversity.net](mailto:giuseppe.corbelli@uninettunouniversity.net), [giuseppe.corbelli@uniroma1.it](mailto:giuseppe.corbelli@uniroma1.it)

**Examples**

```
persval::pvq40(df = data.frame(
  pvq1 = c(3, 1, 4), pvq2 = c(2, 5, 3), pvq3 = c(1, 5, 2), pvq4 = c(4, 3, 5),
  pvq5 = c(5, 2, 1), pvq6 = c(3, 4, 2), pvq7 = c(1, 2, 4), pvq8 = c(3, 1, 5),
  pvq9 = c(2, 4, 1), pvq10 = c(5, 3, 2), pvq11 = c(1, 4, 3), pvq12 = c(2, 1, 5),
  pvq13 = c(3, 5, 4), pvq14 = c(1, 2, 3), pvq15 = c(4, 5, 1), pvq16 = c(2, 3, 4),
  pvq17 = c(5, 1, 2), pvq18 = c(3, 4, 1), pvq19 = c(2, 3, NA), pvq20 = c(1, 3, 4),
```

```

pvq21 = c(2, 5, 1), pvq22 = c(4, 1, 5), pvq23 = c(3, 4, 2), pvq24 = c(5, 1, 3),
pvq25 = c(4, 2, 5), pvq26 = c(1, 3, 2), pvq27 = c(5, 4, 1), pvq28 = c(2, 1, 4),
pvq29 = c(3, 5, 2), pvq30 = c(1, 4, 3), pvq31 = c(2, 3, 5), pvq32 = c(4, 1, NA),
pvq33 = c(3, 5, 4), pvq34 = c(1, 2, 3), pvq35 = c(4, 1, 5), pvq36 = c(2, 3, 4),
pvq37 = c(5, 2, 1), pvq38 = c(4, 3, 2), pvq39 = c(1, 5, 3), pvq40 = c(2, 4, 1)
),
correction = TRUE,
compute = "all",
na.rm = TRUE)

```

svs

*Compute personal values from SVS-57 data***Description**

This function computes personal values scores and different higher-order dimensions related to Schwartz's theoretical framework based on the 57 items of the Schwartz Value Survey (Schwartz, 1992). By default, the function applies the recommended statistical adjustment (individual MRAT centering) as suggested by the authors, to correct for individual differences in response styles thus enhancing the interpretative validity of the scores.

**Usage**

```
svs(df, items = NULL, compute = "all", correction = TRUE, na.rm = TRUE)
```

**Arguments**

<code>df</code>	A data frame containing the raw responses for the SVS items. If "items" is not provided, it must have exactly 57 columns, and their order must correspond to the SVS items.
<code>items</code>	An optional vector containing the names or indices of the columns that correspond to the SVS items. Must be exactly 57 items. If NULL, the function assumes the items are the only columns given in the "df" parameter.
<code>compute</code>	Character. Indicates which personal values scores to compute and return. Possible values are "all" (default), "ten.values", "four.higher", "two.foci", or "two.dynamics".
<code>correction</code>	Logical. When TRUE, the scores are corrected for individual differences in the use of the response scale. Default is TRUE.
<code>na.rm</code>	Logical. When TRUE, NAs are ignored in calculations; when FALSE, NAs are preserved and will affect calculations. Default is TRUE.

**Value**

A data frame with computed values. If both "df" and "items" parameters are provided, the returned data frame includes the original data with the calculations appended as new columns.

**Note**

Developed by Giuseppe Corbelli, email: [giuseppe.corbelli@uninettunouniversity.net](mailto:giuseppe.corbelli@uninettunouniversity.net), [giuseppe.corbelli@uniroma1.it](mailto:giuseppe.corbelli@uniroma1.it)

**Examples**

```
persval::svs(df = data.frame(
  sv1 = c(3, 1, 4), sv2 = c(2, 5, 3), sv3 = c(1, 5, 2), sv4 = c(4, 3, 5),
  sv5 = c(5, 2, 1), sv6 = c(3, 4, 2), sv7 = c(1, 2, 4), sv8 = c(3, 1, 5),
  sv9 = c(2, 4, 1), sv10 = c(5, 3, 2), sv11 = c(1, 4, 3), sv12 = c(2, 1, 5),
  sv13 = c(3, 5, 4), sv14 = c(1, 2, 3), sv15 = c(4, 5, 1), sv16 = c(2, 3, 4),
  sv17 = c(5, 1, 2), sv18 = c(3, 4, 1), sv19 = c(2, 3, NA), sv20 = c(1, 3, 4),
  sv21 = c(2, 5, 1), sv22 = c(4, 1, 5), sv23 = c(3, 4, 2), sv24 = c(5, 1, 3),
  sv25 = c(4, 2, 5), sv26 = c(1, 3, 2), sv27 = c(5, 4, 1), sv28 = c(2, 1, 4),
  sv29 = c(3, 5, 2), sv30 = c(1, 4, 3), sv31 = c(2, 3, 5), sv32 = c(4, 1, NA),
  sv33 = c(3, 5, 4), sv34 = c(1, 2, 3), sv35 = c(4, 1, 5), sv36 = c(2, 3, 4),
  sv37 = c(5, 2, 1), sv38 = c(4, 3, 2), sv39 = c(1, 5, 3), sv40 = c(2, 4, 1),
  sv41 = c(5, 1, 2), sv42 = c(3, 2, 4), sv43 = c(2, 5, 3), sv44 = c(4, 1, 5),
  sv45 = c(3, 2, 4), sv46 = c(1, 5, 3), sv47 = c(4, 3, 2), sv48 = c(5, 1, 2),
  sv49 = c(3, 4, 1), sv50 = c(2, 5, NA), sv51 = c(1, 4, 3), sv52 = c(2, 1, 5),
  sv53 = c(3, 5, 4), sv54 = c(1, 2, 3), sv55 = c(4, 5, 1), sv56 = c(2, 3, 4),
  sv57 = c(5, 1, 2)
),
correction = TRUE,
compute = "all",
na.rm = TRUE)
```

tivi

*Compute personal values from TIVI data***Description**

This function computes personal values scores and different higher-order dimensions related to Schwartz's theoretical framework based on the 10 items of the ultra-brief TIVI Questionnaire (Sandy et al., 2017). By default, the function applies the recommended statistical adjustment (individual MRAT centering) as suggested by the authors, to correct for individual differences in response styles thus enhancing the interpretative validity of the scores.

**Usage**

```
tivi(df, items = NULL, compute = "all", correction = TRUE, na.rm = TRUE)
```

**Arguments**

**df** A data frame containing the raw responses for the 10 TIVI items. If "items" is not provided, it must have exactly 10 columns, and their order must correspond to the TIVI items.

items	An optional vector containing the names or indices of the columns that correspond to the TIVI items. Must be exactly 10 items. If NULL, the function assumes the items are the only columns given in the "df" parameter.
compute	Character. Indicates which personal values scores to compute and return. Possible values are "all" (default), "ten.values", "four.higher", "two.foci", or "two.dynamics".
correction	Logical. When TRUE, the scores are corrected for individual differences in the use of the response scale. Default is TRUE.
na.rm	Logical. When TRUE, NAs are ignored in calculations; when FALSE, NAs are preserved and will affect calculations. Default is TRUE.

### Value

A data frame with computed values. If both "df" and "items" parameters are provided, the returned data frame includes the original data with the calculations appended as new columns.

### Note

Developed by Giuseppe Corbelli, email: giuseppe.corbelli@uninettunouniversity.net, giuseppe.corbelli@uniroma1.it

### Examples

```
persval::twivi(df = data.frame(
  tivi1 = c(3, 1, 4), tivi2 = c(2, 5, 3), tivi3 = c(1, 5, 2),
  tivi4 = c(4, 3, 5), tivi5 = c(5, 2, 1), tivi6 = c(3, 4, 2), tivi7 = c(1, 2, 4),
  tivi8 = c(3, 1, 5), tivi9 = c(2, 4, 1), tivi10 = c(5, 3, 2)
),
  correction = TRUE,
  compute = "all",
  na.rm = TRUE)
```

---

twivi

*Compute personal values from TwIVI data*

---

### Description

This function computes personal values scores and different higher-order dimensions related to Schwartz's theoretical framework based on the 20 items of the TwIVI Questionnaire (Sandy et al., 2017). By default, the function applies the recommended statistical adjustment (individual MRAT centering) as suggested by the authors, to correct for individual differences in response styles thus enhancing the interpretative validity of the scores.

### Usage

```
twivi(df, items = NULL, compute = "all", correction = TRUE, na.rm = TRUE)
```



## Arguments

<code>df</code>	A Data frame containing the raw responses for the 20 TwIVI items. If "items" is not provided, it must have exactly 20 columns, and their order must correspond to the TwIVI items.
<code>items</code>	An optional vector containing the names or indices of the columns that correspond to the TwIVI items. Must be exactly 20 items. If NULL, the function assumes the items are the only columns given in the "df" parameter.
<code>compute</code>	Character. Indicates which personal values scores to compute and return. Possible values are "all" (default), "ten.values", "four.higher", "two.foci", or "two.dynamics".
<code>correction</code>	Logical. When TRUE, the scores are corrected for individual differences in the use of the response scale. Default is TRUE.
<code>na.rm</code>	Logical. When TRUE, NAs are ignored in calculations; when FALSE, NAs are preserved and will affect calculations. Default is TRUE.

## Value

A data frame with computed values. If both "df" and "items" parameters are provided, the returned data frame includes the original data with the calculations appended as new columns.

## Note

Developed by Giuseppe Corbelli, email: [giuseppe.corbelli@uninettunouniversity.net](mailto:giuseppe.corbelli@uninettunouniversity.net), [giuseppe.corbelli@uniroma1.it](mailto:giuseppe.corbelli@uniroma1.it)

## Examples

```
persval::twivi(df = data.frame(
  twivi1 = c(3, 1, 4), twivi2 = c(2, 5, 3), twivi3 = c(1, 5, 2), twivi4 = c(4, 3, 5),
  twivi5 = c(5, 2, 1), twivi6 = c(3, 4, 2), twivi7 = c(1, 2, 4), twivi8 = c(3, 1, 5),
  twivi9 = c(2, 4, 1), twivi10 = c(5, 3, 2), twivi11 = c(1, 4, 3), twivi12 = c(2, 1, 5),
  twivi13 = c(3, 5, 4), twivi14 = c(1, 2, 3), twivi15 = c(4, 5, 1), twivi16 = c(2, 3, 4),
  twivi17 = c(5, 1, 2), twivi18 = c(3, 4, 1), twivi19 = c(2, 3, NA), twivi20 = c(1, 3, 4)
),
correction = TRUE,
compute = "all",
na.rm = TRUE)
```

# Index

[persval](#), [2](#)  
[persval-package \(persval\)](#), [2](#)  
[pvq21](#), [2](#), [3](#)  
[pvq40](#), [2](#), [5](#)  
  
[svs](#), [2](#), [6](#)  
  
[tivi](#), [2](#), [7](#)  
[twivi](#), [2](#), [8](#)