

Package ‘surveydata’

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Title Tools to manipulate survey data

LazyData true

LazyLoad true

Description Data obtained from surveys contains information not only about the survey responses, but also the survey metadata, e.g. the original survey questions and the answer options. The surveydata package makes it easy to keep track of this metadata, and to easily extract columns with specific questions.

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surveydata-package *Tools, classes and methods to manipulate survey data.*

Description

Tools, classes and methods to manipulate survey data.

Details

Surveydata objects have been designed to function with SPSS export data, i.e. the result of an SPSS import, [read.spss](#). This type of data is contained in a `data.frame`, with information about the questionnaire text in the `variable.labels` attribute. Surveydata objects keep track of the variable labels, by offering methods for renaming, subsetting, etc.

Coercion functions:

- [as.surveydata](#)
- [is.surveydata](#)
- [as.data.frame.surveydata](#)

To access and modify attributes:

- [pattern](#)
- [varlabels](#)

To subset or merge surveydata objects:

- [merge](#)
- [Extract](#)
- [cbind.surveydata](#)

To extract question text from varlabels:

- [qText](#)
- [qTextCommon](#)
- [qTextUnique](#)

To fix common encoding problems:

- [encToInt](#)
- [intToEnc](#)
- [fixCommonEncodingProblems](#)

To clean data:

- [removeDK](#) to remove "Don't know" responses
- [removeAllDK](#) to remove "Don't know" responses from all questions
- [fixLevels01](#) to fix level formatting of all question with Yes/No type answers

Miscellaneous tools:

- [dropout](#) to determine questions where respondents drop out

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Examples

```
# Create surveydata object

sdat <- data.frame(
  id = 1:4,
  Q1 = c("Yes", "No", "Yes", "Yes"),
  Q4_1 = c(1, 2, 1, 2),
  Q4_2 = c(3, 4, 4, 3),
  Q4_3 = c(5, 5, 6, 6),
  Q10 = factor(c("Male", "Female", "Female", "Male")),
  crossbreak = c("A", "A", "B", "B"),
  weight = c(0.9, 1.1, 0.8, 1.2)
)

varlabels(sdat) <- c(
  "RespID",
  "Question 1",
  "Question 4: red", "Question 4: green", "Question 4: blue",
  "Question 10",
  "crossbreak",
  "weight"
)

sv <- as.surveydata(sdat, renameVarlabels=TRUE)

# Extract specific questions
sv[, "Q1"]
sv[, "Q4"]

# Query attributes
varlabels(sv)
pattern(sv)

# Find unique questions

questions(sv)
which.q(sv, "Q1")
which.q(sv, "Q4")

# Find question text
qText(sv, "Q1")
qText(sv, "Q4")

qTextCommon(sv, "Q4")
qTextUnique(sv, "Q4")

# Basic operations on a surveydata object, illustrated with the example dataset membersurvey

class(membersurvey)

questions(membersurvey)
```

```
which.q(membersurvey, "Q1")
which.q(membersurvey, "Q3")
which.q(membersurvey, c("Q1", "Q3"))

qText(membersurvey, "Q3")
qTextUnique(membersurvey, "Q3")
qTextCommon(membersurvey, "Q3")

# Extracting columns from a surveydata object

head(membersurvey[, "Q1"])
head(membersurvey[,"Q1"])
head(membersurvey[, "Q3"])
head(membersurvey[, c("Q1", "Q3")])

# Note that the result is always a surveydata object, even if only one column is extracted

head(membersurvey[, "id"])
str(membersurvey[, "id"])
```

```
as.data.frame.surveydata
```

Coerces surveydata object to data.frame.

Description

Coerces surveydata object to data.frame.

Usage

```
## S3 method for class 'surveydata'
as.data.frame(x, ...,
             rm.pattern = FALSE)
```

Arguments

x	Surveydata object to coerce to class data.frame
...	ignored
rm.pattern	If TRUE removes pattern attributes from x

See Also

[surveydata-package](#)

as.surveydata *Coercion from and to surveydata.*

Description

Methods for creating "surveydata" objects, testing for class, and coercion from other objects.

Usage

```
as.surveydata(x, sep = "_", exclude = "other",
             ptn = pattern(x),
             defaultPtn = list(sep = sep, exclude = exclude),
             renameVarlabels = FALSE)
```

Arguments

x	Object to coerce to surveydata
sep	Separator between question and subquestion names
exclude	Excludes from pattern search
ptn	A list with two elements, sep and exclude. See pattern and which.q for more detail. By default
defaultPtn	The default for ptn, if it doesn't exist in the object that is being coerced.
renameVarlabels	If TRUE, turns variable.labels attribute into a named vector, using names(x) as names.

See Also

[surveydata-package](#), [is.surveydata](#)

Examples

```
# Create surveydata object

sdat <- data.frame(
  id = 1:4,
  Q1 = c("Yes", "No", "Yes", "Yes"),
  Q4_1 = c(1, 2, 1, 2),
  Q4_2 = c(3, 4, 4, 3),
  Q4_3 = c(5, 5, 6, 6),
  Q10 = factor(c("Male", "Female", "Female", "Male")),
  crossbreak = c("A", "A", "B", "B"),
  weight = c(0.9, 1.1, 0.8, 1.2)
)

varlabels(sdat) <- c(
  "RespID",
```

```
    "Question 1",
    "Question 4: red", "Question 4: green", "Question 4: blue",
    "Question 10",
    "crossbreak",
    "weight"
  )
)

sv <- as.surveydata(sdat, renameVarlabels=TRUE)

# Extract specific questions
sv[, "Q1"]
sv[, "Q4"]

# Query attributes
varlabels(sv)
pattern(sv)

# Find unique questions

questions(sv)
which.q(sv, "Q1")
which.q(sv, "Q4")

# Find question text
qText(sv, "Q1")
qText(sv, "Q4")

qTextCommon(sv, "Q4")
qTextUnique(sv, "Q4")

# Basic operations on a surveydata object, illustrated with the example dataset membersurvey

class(membersurvey)

questions(membersurvey)

which.q(membersurvey, "Q1")
which.q(membersurvey, "Q3")
which.q(membersurvey, c("Q1", "Q3"))

qText(membersurvey, "Q3")
qTextUnique(membersurvey, "Q3")
qTextCommon(membersurvey, "Q3")

# Extracting columns from a surveydata object

head(membersurvey[, "Q1"])
head(membersurvey[,"Q1"])
head(membersurvey[, "Q3"])
head(membersurvey[, c("Q1", "Q3")])

# Note that the result is always a surveydata object, even if only one column is extracted
```

```
head(membersurvey[, "id"])
str(membersurvey[, "id"])
```

<code>cbind.surveydata</code>	<i>Combines surveydata object by columns.</i>
-------------------------------	---

Description

Combines surveydata object by columns.

Usage

```
## S3 method for class 'surveydata'
cbind(..., deparse.level = 1)
```

Arguments

<code>...</code>	surveydata objects
<code>deparse.level</code>	ignored

<code>dropout</code>	<i>Calculates at which questions repondents drop out.</i>
----------------------	---

Description

The number of respondents for each question is calculated as the length of the vector, after omitting NA values.

Usage

```
dropout(x, summary = TRUE)
```

Arguments

<code>x</code>	surveydata object, list or data.frame
<code>summary</code>	If TRUE, returns a shortened vector that contains only the points where respondents drop out. Otherwise, returns the number of respondents for each question.

Value

Named numeric vector of respondent counts

Examples

```
dropout(membersurvey[-(127:128)])
```

encToInt	<i>Converts a character vector to an integer vector</i>
----------	---

Description

Conversion of character vector to integer vector. The encoding of the character vector can be specified but defaults to the current locale.

Usage

```
encToInt(x, encoding = localeToCharset())
```

Arguments

x	Character vector
encoding	A character string describing the encoding of x. Defaults to the current locale. See also iconvlist

Value

An integer vector

See Also

[iconv](#)

Other Functions to clean data: [fixCommonEncodingProblems](#), [fixLevels01](#), [fixLevels01R](#), [fixLevels01SPSS](#), [hasDK](#), [intToEnc](#), [leveltestR](#), [leveltestSPSS](#), [removeAllDK](#), [removedDK](#)

Examples

```
encToInt("\\xfa")
```

Extract	<i>Extract or replace subsets of surveydata, ensuring that the varlabels stay in synch.</i>
---------	---

Description

The surveydata package makes it easy to extract specific questions from a surveydata object. Because survey data typically has question names like Q1_a, Q1_b, Q1_c the extract method for a surveydata object makes it easy to extract all columns by simply specifying "Q1" as the argument to the column index.

Usage

```
## S3 method for class 'surveydata'
x[i, j, drop = FALSE]

## S3 replacement method for class 'surveydata'
x[i, j] <- value

## S3 replacement method for class 'surveydata'
x$name <- value
```

Arguments

i	row index
j	column index
drop	logical. Passed to <code> [.data.frame</code> . Note that the default is FALSE.
...	Other arguments passed to <code> [.data.frame</code>
x	surveydata object
name	Names of columns
value	New value

Details

Extraction is similar to data frames, with three important exceptions:

- The column argument `j` is evaluated using `which.q` and will return all columns where the column names match the `pattern`.
- The `drop` argument is FALSE. Thus the result will always be a surveydata object, even if only a single column is returned.
- All extraction methods retain the `pattern` and `varlabels` arguments.

See Also

[surveydata-package](#), [varlabels](#)

Examples

```
names(membersurvey)
head(membersurvey[["Q1"]])
head(membersurvey[c("Q1", "Q2")])
head(membersurvey[membersurvey$Q2=="2009", c("Q1", "Q2")])

# The pattern is used to extract columns

pattern(membersurvey)

grep("Q20", names(membersurvey), value=TRUE)
head(membersurvey[["Q20"]])
```

```
head(membersurvey["Q20_other"])
```

```
fixCommonEncodingProblems
```

Fix common encoding problems when working with web imported data.

Description

This function tries to resolve typical encoding problems when importing web data on Windows. Typical problems occur with pound and hyphen (-), especially when these originated in MS-Word.

Usage

```
fixCommonEncodingProblems(x)
```

Arguments

x A character vector

See Also

Other Functions to clean data: [encToInt](#), [fixLevels01](#), [fixLevels01R](#), [fixLevels01SPSS](#), [hasDK](#), [intToEnc](#), [leveltestR](#), [leveltestSPSS](#), [removeAllDK](#), [removedK](#)

```
fixLevels01
```

Fix level formatting of all question with Yes/No type answers.

Description

Fix level formatting of all question with Yes/No type answers.

Usage

```
fixLevels01(dat, origin = c("R", "SPSS"))
```

Arguments

dat surveydata object
origin Either "R" or "SPSS"

See Also

Other Functions to clean data: [encToInt](#), [fixCommonEncodingProblems](#), [fixLevels01R](#), [fixLevels01SPSS](#), [hasDK](#), [intToEnc](#), [leveltestR](#), [leveltestSPSS](#), [removeAllDK](#), [removedK](#)

`fixLevels01R`*Fix level formatting of all question with Yes/No type answers.*

Description

Fix level formatting of all question with Yes/No type answers.

Usage

```
fixLevels01R(dat)
```

Arguments

`dat` surveydata object

See Also

Other Functions to clean data: [encToInt](#), [fixCommonEncodingProblems](#), [fixLevels01](#), [fixLevels01SPSS](#), [hasDK](#), [intToEnc](#), [leveltestR](#), [leveltestSPSS](#), [removeAllDK](#), [removedK](#)

`fixLevels01SPSS`*Fix level formatting of all question with Yes/No type answers.*

Description

Fix level formatting of all question with Yes/No type answers.

Usage

```
fixLevels01SPSS(dat)
```

Arguments

`dat` Surveyor data object

See Also

Other Functions to clean data: [encToInt](#), [fixCommonEncodingProblems](#), [fixLevels01](#), [fixLevels01R](#), [hasDK](#), [intToEnc](#), [leveltestR](#), [leveltestSPSS](#), [removeAllDK](#), [removedK](#)

hasDK	<i>Tests whether levels contain "Don't know".</i>
-------	---

Description

Returns TRUE if x contains any instances of dk

Usage

```
hasDK(x, dk = "Don't Know")
```

Arguments

x	Character vector or Factor
dk	Character vector, containing search terms, e.g. c("Don't know", "Don't Know")

Value

TRUE or FALSE

See Also

Other Functions to clean data: [encToInt](#), [fixCommonEncodingProblems](#), [fixLevels01](#), [fixLevels01R](#), [fixLevels01SPSS](#), [intToEnc](#), [leveltestR](#), [leveltestSPSS](#), [removeAllDK](#), [removeDK](#)

intToEnc	<i>Converts an integer vector to a character vector.</i>
----------	--

Description

Conversion of integer vector to character vector. The encoding of the character vector can be specified but defaults to the current locale.

Usage

```
intToEnc(x, encoding = localeToCharset())
```

Arguments

x	Integer vector
encoding	A character string describing the encoding of x. Defaults to the current locale. See also iconvlist

Value

A character vector

See Also[iconv](#)

Other Functions to clean data: [encToInt](#), [fixCommonEncodingProblems](#), [fixLevels01](#), [fixLevels01R](#), [fixLevels01SPSS](#), [hasDK](#), [leveltestR](#), [leveltestSPSS](#), [removeAllDK](#), [removedK](#)

Examples

```
intToEnc(8212)
```

<code>is.surveydata</code>	<i>Tests whether an object is of class surveydata.</i>
----------------------------	--

Description

Tests whether an object is of class surveydata.

Usage

```
is.surveydata(x)
```

Arguments

<code>x</code>	Object to check for being of class surveydata
----------------	---

See Also[surveydata-package](#)

<code>lapplyNames</code>	<i>Applies function only to named elements of a list.</i>
--------------------------	---

Description

This is useful to clean only some columns in a list (or data.frame or surveydata object). This is just a wrapper around [lapply](#) where only the named elements are changed.

Usage

```
lapplyNames(x, names, FUN, ...)
```

Arguments

<code>x</code>	List
<code>names</code>	Character vector identifying which elements of the list to apply FUN
<code>FUN</code>	The function to apply.
<code>...</code>	Additional arguments passed to FUN

See Also

Other Tools: [qOrder](#)

leveltestR	<i>Fix level formatting of all question with Yes/No type answers.</i>
------------	---

Description

Fix level formatting of all question with Yes/No type answers.

Usage

```
leveltestR(x)
```

Arguments

x	Surveyor data object
---	----------------------

See Also

Other Functions to clean data: [encToInt](#), [fixCommonEncodingProblems](#), [fixLevels01](#), [fixLevels01R](#), [fixLevels01SPSS](#), [hasDK](#), [intToEnc](#), [leveltestSPSS](#), [removeAllDK](#), [removeDK](#)

leveltestSPSS	<i>Fix level formatting of all question with Yes/No type answers.</i>
---------------	---

Description

Fix level formatting of all question with Yes/No type answers.

Usage

```
leveltestSPSS(x)
```

Arguments

x	Surveyor data object
---	----------------------

See Also

Other Functions to clean data: [encToInt](#), [fixCommonEncodingProblems](#), [fixLevels01](#), [fixLevels01R](#), [fixLevels01SPSS](#), [hasDK](#), [intToEnc](#), [leveltestR](#), [removeAllDK](#), [removeDK](#)

membersurvey	<i>Data frame with survey data of member satisfaction survey.</i>
--------------	---

Description

Data frame with survey data of member satisfaction survey.

Format

data frame

merge	<i>Merge surveydata objects.</i>
-------	----------------------------------

Description

The base R merge will merge data but not all of the attributes. This function also merges the variable.labels attribute.

Usage

```
## S3 method for class 'surveydata'
merge(x, y, ...)
```

Arguments

x	surveydata object
y	surveydata object
...	Other parameters passed to merge

names<-	<i>Updates names and variable.labels attribute of surveydata.</i>
---------	---

Description

Updates names and variable.labels attribute of surveydata.

Usage

```
\method{names}{surveydata}(x) <- value
```


Arguments

x	surveydata object
value	New names

See Also

[surveydata-package](#), [is.surveydata](#)

pattern	<i>Returns and updates pattern attribute.</i>
---------	---

Description

The pattern attribute contains information about the separator character used to name subquestions in the data. Survey software typically makes use of underscores to distinguish subquestions in a grid of questions, e.g. Q4_1, Q4_2, Q4_3, Q4_other. The function pattern returns the pattern attribute, and pattern<- updates the attribute.

Usage

```
pattern(x)

pattern(x) <- value
```

Arguments

x	surveydata object
value	New value

See Also

[as.surveydata](#), [which.q](#)

Other Attribute functions: [varlabels](#), [varlabels<-](#)

Examples

```
# Extract the pattern from membersurvey

oldptn <- pattern(membersurvey)
oldptn

# The pattern is used to extract columns

names(membersurvey)
grep("Q20", names(membersurvey), value=TRUE)

head(membersurvey[["Q20"]])
```

```

head(membersurvey["Q20_other"])

# Define a new pattern

pattern(membersurvey) <- list(sep="_", exclude="")
head(membersurvey["Q20"])

# Reset original pattern

pattern(membersurvey) <- oldptn
rm(oldptn)

```

qOrder *Changes vector to ordered factor, adding NA levels if applicable.*

Description

Changes vector to ordered factor, adding NA levels if applicable.

Usage

```
qOrder(x)
```

Arguments

x Vector

See Also

Other Tools: [lapplyNames](#)

qText *Returns question text.*

Description

Given a question id, e.g. "Q4", returns question text for this question. Note that this returns. The functions [qTextUnique](#) and [qTextCommon](#) returns the unique and common components of the question text.

Usage

```
qText(x, Q)
```

Arguments

x A surveydata object
Q The question id, e.g. "Q4"

Value

character vector

See Also

Other Question functions: [qTextCommon](#), [qTextUnique](#), [questions](#), [splitCommonUnique](#), [which.q](#)

Examples

```
# Basic operations on a surveydata object, illustrated with the example dataset membersurvey
```

```
class(membersurvey)
```

```
questions(membersurvey)
```

```
which.q(membersurvey, "Q1")
```

```
which.q(membersurvey, "Q3")
```

```
which.q(membersurvey, c("Q1", "Q3"))
```

```
qText(membersurvey, "Q3")
```

```
qTextUnique(membersurvey, "Q3")
```

```
qTextCommon(membersurvey, "Q3")
```

```
# Extracting columns from a surveydata object
```

```
head(membersurvey[, "Q1"])
```

```
head(membersurvey[,"Q1"])
```

```
head(membersurvey[, "Q3"])
```

```
head(membersurvey[, c("Q1", "Q3")])
```

```
# Note that the result is always a surveydata object, even if only one column is extracted
```

```
head(membersurvey[, "id"])
```

```
str(membersurvey[, "id"])
```

qTextCommon

Returns common element of question text.

Description

Given a question id, e.g. "Q4", finds all subquestions, e.g. Q4_1, Q4_2, etc, and returns the question text that is common to each.

Usage

```
qTextCommon(x, Q)
```

Arguments

x	A surveydata object
Q	The question id, e.g. "Q4"

Value

character vector

See Also

Other Question functions: [qText](#), [qTextUnique](#), [questions](#), [splitCommonUnique](#), [which.q](#)

Examples

```
# Basic operations on a surveydata object, illustrated with the example dataset membersurvey

class(membersurvey)

questions(membersurvey)

which.q(membersurvey, "Q1")
which.q(membersurvey, "Q3")
which.q(membersurvey, c("Q1", "Q3"))

qText(membersurvey, "Q3")
qTextUnique(membersurvey, "Q3")
qTextCommon(membersurvey, "Q3")

# Extracting columns from a surveydata object

head(membersurvey[, "Q1"])
head(membersurvey[,"Q1"])
head(membersurvey[, "Q3"])
head(membersurvey[, c("Q1", "Q3")])

# Note that the result is always a surveydata object, even if only one column is extracted

head(membersurvey[, "id"])
str(membersurvey[, "id"])
```

qTextUnique

Returns unique elements of question text.

Description

Given a question id, e.g. "Q4", finds all subquestions, e.g. Q4_1, Q4_2, etc, and returns the question text that is unique to each

Usage

```
qTextUnique(x, Q)
```

Arguments

x	A surveydata object
Q	The question id, e.g. "Q4"

Value

character vector

See Also

Other Question functions: [qText](#), [qTextCommon](#), [questions](#), [splitCommonUnique](#), [which.q](#)

Examples

```
# Basic operations on a surveydata object, illustrated with the example dataset membersurvey

class(membersurvey)

questions(membersurvey)

which.q(membersurvey, "Q1")
which.q(membersurvey, "Q3")
which.q(membersurvey, c("Q1", "Q3"))

qText(membersurvey, "Q3")
qTextUnique(membersurvey, "Q3")
qTextCommon(membersurvey, "Q3")

# Extracting columns from a surveydata object

head(membersurvey[, "Q1"])
head(membersurvey["Q1"])
head(membersurvey[, "Q3"])
head(membersurvey[, c("Q1", "Q3")])

# Note that the result is always a surveydata object, even if only one column is extracted

head(membersurvey[, "id"])
str(membersurvey[, "id"])
```

questions	Returns a list of all the unique questions in the surveydata object.
-----------	--

Description

In many survey systems, subquestions take the form Q1_a, Q1_b, with the main question and subquestion separated by an underscore. This function conveniently returns all of the main questions in a [surveydata](#) object. It does this by using the [pattern](#) attribute of the surveydata object.

Usage

```
questions(x, ptn = pattern(x))
```

Arguments

x	Object to coerce to surveydata
ptn	A list with two elements, sep and exclude. See pattern and which.q for more detail. By default

Value

numeric vector

See Also

[which.q](#)

Other Question functions: [qText](#), [qTextCommon](#), [qTextUnique](#), [splitCommonUnique](#), [which.q](#)

Examples

```
# Basic operations on a surveydata object, illustrated with the example dataset membersurvey

class(membersurvey)

questions(membersurvey)

which.q(membersurvey, "Q1")
which.q(membersurvey, "Q3")
which.q(membersurvey, c("Q1", "Q3"))

qText(membersurvey, "Q3")
qTextUnique(membersurvey, "Q3")
qTextCommon(membersurvey, "Q3")

# Extracting columns from a surveydata object

head(membersurvey[, "Q1"])
head(membersurvey["Q1"])
```

```

head(membersurvey[, "Q3"])
head(membersurvey[, c("Q1", "Q3")])

# Note that the result is always a surveydata object, even if only one column is extracted

head(membersurvey[, "id"])
str(membersurvey[, "id"])

```

removeAllDK	<i>Removes "Do not know" and other similar words from factor levels in data frame.</i>
-------------	--

Description

Removes "Do not know" and other similar words from factor levels in data frame

Usage

```
removeAllDK(x, dk = NULL)
```

Arguments

x	List or data frame
dk	Character vector, containing search terms, e.g. c("Do not know", "DK"). These terms will be replaced by NA. If NULL, will default to c("I don't know", "Don't Know", "Don't know", "Dont know", "DK")

Value

A data frame

See Also

[hasDK](#) and [removedK](#)

Other Functions to clean data: [encToInt](#), [fixCommonEncodingProblems](#), [fixLevels01](#), [fixLevels01R](#), [fixLevels01SPSS](#), [hasDK](#), [intToEnc](#), [leveltestR](#), [leveltestSPSS](#), [removeDK](#)

removeDK *Removes "Don't know" from levels and replaces with NA.*

Description

Tests the levels of x contain any instances of "Don't know". If so, replaces these levels with NA

Usage

```
removeDK(x, dk = "Don't Know")
```

Arguments

x Vector or Factor
dk Character vector, containing search terms, e.g. c("Don't know", "Don't Know")

Value

A factor with "Dont know" removed

See Also

Other Functions to clean data: [encToInt](#), [fixCommonEncodingProblems](#), [fixLevels01](#), [fixLevels01R](#), [fixLevels01SPSS](#), [hasDK](#), [intToEnc](#), [leveltestR](#), [leveltestSPSS](#), [removeAllDK](#)

rm.attrs *Removes pattern and variable.labels from attributes list.*

Description

Removes pattern and variable.labels from attributes list.

Usage

```
rm.attrs(x)
```

Arguments

x Surveydata object

rm.pattern	<i>Removes pattern from attributes list.</i>
------------	--

Description

Removes pattern from attributes list.

Usage

```
rm.pattern(x)
```

Arguments

x	Surveydata object
---	-------------------

splitCommonUnique	<i>Get common and unique text in question based on regex pattern identification</i>
-------------------	---

Description

Get common and unique text in question based on regex pattern identification

Usage

```
splitCommonUnique(x, ptn = NULL)
```

Arguments

x	A character vector
ptn	A regex pattern that defines how the string should be split into common and unique elements

See Also

Other Question functions: [qText](#), [qTextCommon](#), [qTextUnique](#), [questions](#), [which.q](#)

strCommonUnique *Finds the common and unique elements in a character vector.*

Description

Function takes a character string as input and find the common and unique elements. Assumes that the common element is at start of string

Usage

```
strCommonUnique(string)
```

Arguments

string Character vector

Value

list of common and unique strings

Examples

```
test <- c("Q_1", "Q_2", "Q_3")
strCommonUnique(test)$common
strCommonUnique(test)$unique
```

varlabels *Returns and updates variable.labels attribute of surveydata object.*

Description

In a surveydata object, the variable.labels attribute store metadata about the original question text (see [read.spss](#) for details). The function varlabels returns the variable.labels attribute of data, and varlabels(x) <- value updates this attribute.

Usage

```
varlabels(x)
```

```
"varlabels(x) <- value"
```

Arguments

x surveydata object
value New value

Details

In a `surveydata` object, the `varlabels` attribute is a named character vector, where the names correspond to the names of the columns in

See Also

[surveydata-package](#)

Other Attribute functions: [pattern](#), [pattern<-](#)

Other Attribute functions: [pattern](#), [pattern<-](#)

Examples

```
# Extract the variable labels from membersurvey

ms <- membersurvey[, c("id", "Q1", "Q2")]

str(ms)
varlabels(ms)
varlabels(ms)["Q2"]

# Assign a new value to the text of question 2

varlabels(ms)["Q2"] <- "When did you join?"
varlabels(ms)
str(ms["Q2"])
```

which.q

Identifies the columns indices corresponding to a specific question.

Description

In many survey systems, subquestions take the form Q1_a, Q1_b, with the main question and subquestion separated by an underscore. This function conveniently returns column index of matches found for a question id in a `surveydata` object. It does this by using the `pattern` attribute of the `surveydata` object.

Usage

```
which.q(x, Q, ptn = pattern(x))
```

Arguments

Q	Character string with question number, e.g. "Q2"
x	Object to coerce to <code>surveydata</code>
ptn	A list with two elements, <code>sep</code> and <code>exclude</code> . See pattern and which.q for more detail. By default

See Also

[questions](#) to return all questions matching the [pattern](#)

Other Question functions: [qText](#), [qTextCommon](#), [qTextUnique](#), [questions](#), [splitCommonUnique](#)

Examples

```
# Basic operations on a surveydata object, illustrated with the example dataset membersurvey
```

```
class(membersurvey)
```

```
questions(membersurvey)
```

```
which.q(membersurvey, "Q1")
```

```
which.q(membersurvey, "Q3")
```

```
which.q(membersurvey, c("Q1", "Q3"))
```

```
qText(membersurvey, "Q3")
```

```
qTextUnique(membersurvey, "Q3")
```

```
qTextCommon(membersurvey, "Q3")
```

```
# Extracting columns from a surveydata object
```

```
head(membersurvey[, "Q1"])
```

```
head(membersurvey[,"Q1"])
```

```
head(membersurvey[, "Q3"])
```

```
head(membersurvey[, c("Q1", "Q3")])
```

```
# Note that the result is always a surveydata object, even if only one column is extracted
```

```
head(membersurvey[, "id"])
```

```
str(membersurvey[, "id"])
```

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