Package ‘ggparliament’

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description

ggparliament

calc_coordinates A function that calculates the coordinates of parliamentary seats in incomplete circular parliaments E.g. The US (semicircle) and Australian (horseshoe) shaped parliaments

description

A function that calculates the coordinates of parliamentary seats in incomplete circular parliaments E.g. The US (semicircle) and Australian (horseshoe) shaped parliaments

usage

calc_coordinates(N, M, limits, segment = 0.5)

arguments

- N the total of number of seats
- M the number of rows in parliament
- limits the limits to seq the radii between- controls the ’shape’ of the parliament
- segment the percentage of a full circle for the final plot- defaults to 0.5 (a semicircle)
**draw_majoritythreshold**

**Description**

Draw majority threshold

**Usage**

```r
draw_majoritythreshold(n = NULL, label = TRUE, type = c("horseshoe", "semicircle", "opposing_benches"), linecolour = "black", linesize = 1, linetype = 2, linealpha = 1)
```

**Arguments**

- `n`: The number of seats required for a majority
- `label`: A logical variable for labelling majority threshold. Defaults to TRUE.
- `type`: Type of parliament (horseshoe, semicircle, opposing benches)
- `linecolour`: The colour of the majority line. Defaults to gray.
- `linesize`: The size of the line. Defaults to 1.
- `linetype`: The style of the line. Defaults to 2, or a dashed line.
- `linealpha`: Set the transparency of the line. Defaults to 1.

**Author(s)**

Zoe Meers

**Examples**

```r
data <- election_data[
  election_data$country == "USA" &
  election_data$house == "Representatives" &
  election_data$year == "2016",
]
usa_data <- parliament_data(
  election_data = data,
  type = "semicircle",
  party_seats = data$seats,
  parl_rows = 8
)
ggplot2::ggplot(usa_data, ggplot2::aes(x, y, colour = party_long)) +
geom_parliament_seats() +
```
draw_majoritythreshold(
  n = 218,
  label = TRUE,
  type = 'semicircle'
) +
theme_ggparliament()

draw_partylabels

**Draw labels for political parties and seats per party**

**Description**

Draw labels for political parties and seats per party

**Usage**

draw_partylabels(type = c("semicircle", "horseshoe"), names = TRUE,
  seats = TRUE, party_names = party_names,
  party_colours = party_colours, party_seats = party_seats)

**Arguments**

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>Define type. Currently only supports semicircle and horseshoe style parliaments.</td>
</tr>
<tr>
<td>names</td>
<td>If TRUE, finds party names from data. Defaults to TRUE.</td>
</tr>
<tr>
<td>seats</td>
<td>If TRUE, finds party seats from data. Defaults to TRUE.</td>
</tr>
<tr>
<td>party_names</td>
<td>A column containing party names.</td>
</tr>
<tr>
<td>party_colours</td>
<td>A column containing party colours.</td>
</tr>
<tr>
<td>party_seats</td>
<td>A column containing party seats.</td>
</tr>
</tbody>
</table>

**Author(s)**

Zoe Meers

**Examples**

data <- election_data[
  election_data$country == "USA" &
  election_data$house == "Representatives" &
  election_data$year == "2016",
]
usa_data <- parliament_data(
  election_data = data,
  type = "semicircle",
  party_seats = data$seats,
  parl_rows = 8
)
draw_totalseats

ggplot2::ggplot(usa_data, aes(x, y, colour = party_long)) +
geom_parliament_seats() +
draw_partylabels(
  type = "semicircle",
  party_names = party_long,
  party_seats = seats,
  party_colours = colour
) +
ggplot2::scale_colour_manual(
  values = usa_data$colour,
  limits = usa_data$party_long) +
theme_ggparliament()

draw_totalseats
Draw total number of seats in the middle of the parliament

Description
Draw total number of seats in the middle of the parliament

Usage
draw_totalseats(n = NULL, size = 12, colour = "black",
  type = c("horseshoe", "semicircle", "opposing_benches", "circle",
    "classroom"))

Arguments
n The number of total seats in the legislature.
size Size of font
colour colour of label
type Type of parliament (horseshoe, semicircle, circle, opposing benches, classroom)

Author(s)
Zoe Meers

Examples
data <- election_data[  
election_data$country == "USA" &
election_data$house == "Representatives" &
election_data$year == "2016",
]
usa_data <- parliament_data(
  election_data = data,
  type = "semicircle",
  party_seats = data$seats,
geomparliamentseats

Description

A dataset containing the results of 3 elections for parliamentary houses from Russia, Australia, Germany, UK and USA. The variables are as follows:

Usage

data(election_data)

Format

A data frame with 167 rows and 8 variables

Details

• year. The year of the election (1990-2017)
• country. The country the election took place within (Russia, Australia, Germany, UK, USA)
• house. The parliamentary house of the election
• party_long. The full name of a party which had elected representatives
• party_short. The abbreviated name of a party which had elected representatives
• seats. The number of seats won by each party
• government. Whether or not that party was a part of the government following the election (1, NA)
• colour. A hex code indicating the colours of each party

geomparliamentseats ggplot2-ggproto

Description

ggplot2-ggproto
Emphasize certain parliamentarians (for example, female members of parliament) by increasing transparency on the remaining observations.

Usage

`geom_emphasize_parliamentarians(expr)`

Arguments

- `expr`: The observation that you wish to emphasize

Author(s)

Zoe Meers

Examples

```r
data <- election_data[
  election_data$country == "USA" &
  election_data$house == "Representatives" &
  election_data$year == "2016",
]
usa_data <- parliament_data(
  election_data = data,
  type = "semicircle",
  party_seats = data$seats,
  parl_rows = 8
)

women_in_congress <- c(1, 0, 0, 1)
number_of_women <- c(23, 218, 133, 61)

usa_data$women <- rep(women_in_congress, number_of_women)

ggplot2::ggplot(usa_data, ggplot2::aes(x, y, colour=party_long)) +
  geom_parliament_seats() +
  geom_emphasize_parliamentarians(women == 1) +
  theme_ggparliament(legend = FALSE) +
  ggplot2::scale_colour_manual(values = usa_data$colour, limits = usa_data$party_long) +
  ggplot2::labs(title = "Women in Congress")
```
geom_highlight_government

Highlight governments or parties in control of the legislature by encircling the points.

**Description**

Highlight governments or parties in control of the legislature by encircling the points.

**Usage**

```r
geom_highlight_government(expr, colour, size, shape, stroke)
```

**Arguments**

- `expr`  Expr refers to the observation that you wish to highlight.
- `colour`  Colour of the highlight
- `size`  Size of highlighter
- `shape`  Shape of highlight
- `stroke`  Size of stroke shape

**Author(s)**

Zoe Meers

**Source**

https://yutani.rbind.io/post/2017-11-07-ggplot-add/

**Examples**

```r
data <- election_data[
  election_data$country == "USA" &
  election_data$house == "Representatives" &
  election_data$year == "2016",
]
usa_data <- parliament_data(
  election_data = data,
  type = "semicircle",
  party_seats = data$seats,
  parl_rows = 8
)
ggplot2::ggplot(usa_data, ggplot2::aes(x, y, colour = party_long)) +
geom_parliament_seats() +
geom_highlight_government(government == 1) +
theme_ggparliament()
```
### Description

Draw overhang seats in mixed-member proportional (MMP) electoral systems

### Usage

`geom_overhang_seats(expr)`

### Arguments

- **expr**: Expr refers to the designated overhang seats.

### Author(s)

Zoe Meers

### Examples

```r
# Example code goes here
```
geom_parliament_bar  Add a bar showing proportion of seats by party in parliament

Description
Add a bar showing proportion of seats by party in parliament

Usage
geom_parliament_bar(colour = colourL party = partyL label = TRUE)

Arguments
- colour: The colours associated with each political party.
- party: The party name variable in your data frame.
- label: If label = TRUE, print the percentage above the bar.

Author(s)
Zoe Meers

Examples
```r
data <- election_data[election_data$country == "USA" &
election_data$house == "Representatives" &
election_data$year == "2016",]
usa_data <- parliament_data(election_data = data,
type = "semicircle",
party_seats = data$seats,
parl_rows = 8)
ggplot2::ggplot(usa_data, ggplot2::aes(x, y, colour = party_long)) +
geom_parliament_seats() +
geom_parliament_bar(colour, party_long) +
ggplot2::scale_colour_manual(values = usa_data$colour, limits = usa_data$party_long) +
theme_ggparliament()
```

geom_parliament_seats  Parliament seats The parliament seats geom is used for plotting data from parliament_data()

Description
Parliament seats The parliament seats geom is used for plotting data from parliament_data()
Usage

geom_parliament_seats(mapping = NULL, data = NULL, stat = "identity",
position = "identity", na.rm = FALSE, size = 3.5,
show.legend = NA, inherit.aes = TRUE)

Arguments

mapping Mapping the aesthetics (the x and y coordinates, as well as the colour of each political party).
data The parliament_data data frame.
stat "identity"
position "identity"
na.rm If ‘FALSE’, the default, missing values are removed with a warning. If ‘TRUE’, missing values are silently removed.
size Size of the point
show.legend If ‘TRUE’, print legend. If ‘FALSE’ do not print legend.
inherit.aes Inherit aes from other ggplot2 functions.

Author(s)

Zoe Meers

Examples

data <- election_data[
  election_data$country == "USA" &
  election_data$house == "Representatives" &
  election_data$year == "2016",
]
usa_data <- parliament_data(
  election_data = data,
  type = "semicircle", party_seats = data$seats,
  parl_rows = 8
)

ggplot2::ggplot(usa_data, ggplot2::aes(x = x, y = y, colour = party_long)) +
  geom_parliament_seats() +
  theme_ggparliament() 

parliament_data

A function that prepares data for parliamentary plots

Description

A function that prepares data for parliamentary plots
Usage

parliament_data(election_data = NULL, parl_rows = NULL,
party_seats = election_data$seats, group = NULL, plot_order = NULL,
type = c("horseshoe", "semicircle", "circle", "classroom",
"opposing_benches"))

Arguments

election_data    aggregate election results
parl_rows        number of rows in parliament
party_seats      seats per party
group            grouping variable for separate chunks. e.g. opposing benches in UK parliament
plot_order       plot the data in a specified order
type             type of parliament (horseshoe, semicircle, circle, classroom, opposing benches)

Author(s)

Zoe Meers, Rob Hickman

Examples

data <- election_data[
  election_data$country == "USA" &
  election_data$house == "Representatives" &
  election_data$year == "2016",]
usa_data <- parliament_data(
  election_data = data,
  type = "semicircle",
  party_seats = data$seats,
  parl_rows = 8
)

theme_ggparliament    A theme for ggparliament

Description

Calls the ggparliament theme. A reconstructed opinionated theme_void() ggplot2 theme.

Usage

theme_ggparliament(legend, background_colour, border)
Arguments

- **legend**: If legend = 'TRUE', add legend to plot. Defaults to 'TRUE'.
- **background_colour**: If background colour = 'TRUE', fill panel with a grey background. Defaults to 'FALSE'.
- **border**: If 'TRUE' add panel border. Defaults to 'FALSE'.

Author(s)

Zoe Meers

Examples

data <- election_data[
  election_data$country == "USA" &
  election_data$house == "Representatives" &
  election_data$year == "2016",
]
usa_data <- parliament_data(
  election_data = data,
  type = "semicircle",
  party_seats = data$seats,
  parl_rows = 8
)
ggplot2::ggplot(usa_data, ggplot2::aes(x, y, colour = party_long)) +
geom_parliament_seats() +
geom_highlight_government(government == 1) +
theme_ggparliament(legend = TRUE, background_colour = TRUE, border = TRUE)
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