

# Package ‘hrbrthemes’

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**Type** Package

**Title** Additional Themes, Theme Components and Utilities for 'ggplot2'

**Version** 0.1.0

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**Description** A compilation of extra 'ggplot2' themes, scales and utilities, including a spell check function plot label fields and an overall emphasis on typography. A copy of the 'Google' font 'Roboto Condensed' <<https://github.com/google/roboto/>> is also included to support one of the typography-oriented themes.

**URL** <http://github.com/hrbrmstr/hrbrthemes>

**BugReports** <https://github.com/hrbrmstr/hrbrthemes/issues>

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**Suggests** testthat, dplyr, knitr, rmarkdown, gridExtra

**Depends** R (>= 3.2.0)

**Imports** ggplot2 (>= 2.2.1), grid, scales, extrafont, hunspell, stringi, purrr

**RoxygenNote** 6.0.0

**VignetteBuilder** knitr

**NeedsCompilation** no

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Google [cph] (Roboto Condensed Font)

**Repository** CRAN

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## R topics documented:

font_an . . . . .	2
font_rc . . . . .	2

gg_check . . . . .	3
hrbrthemes . . . . .	4
hrbrthemes-exports . . . . .	4
import_roboto_condensed . . . . .	4
ipsum_pal . . . . .	5
scale_colour_ipsum . . . . .	5
scale_x_percent . . . . .	6
theme_ipsum . . . . .	7
theme_ipsum_rc . . . . .	9
update_geom_font_defaults . . . . .	11

<b>Index</b>	<b>12</b>
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font_an	<i>Arial Narrow font name R variable aliases</i>
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**Description**

font\_an == "Arial Narrow"

**Usage**

font\_an

**Format**

length 1 character vector

---

font_rc	<i>Roboto Condensed font name R variable aliases</i>
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---

**Description**

font\_rc == "Roboto Condensed"  
font\_fc\_light == "Roboto Condensed Light"

**Usage**

font\_rc  
  
font\_rc\_light

**Format**

length 1 character vector

---

gg\_check*Spell check ggplot2 plot labels*

---

## Description

Due to the way ggplot2 objects are created, this has to be used in a standalone context.

## Usage

```
gg_check(gg, dict = hunspell::dictionary("en_US"),
  ignore = hunspell::en_stats)
```

## Arguments

gg	ggplot2 object
dict	a dictionary object or string which can be passed to <a href="#">hunspell::dictionary</a>
ignore	character vector with additional approved words added to the dictionary

## Details

Current functionality only looks for misspelled words in the labels of ggplot2 objects. When misspelled words are found, a message is printed with the words and the label that they are in. No messages will be printed if there are no misspelled words.

## Value

the object that was passed in

## Examples

```
library(ggplot2)

df <- data.frame(x=c(20, 25, 30), y=c(4, 4, 4), txt=c("One", "Two", "Three"))

# not piping
ggplot(mtcars, aes(mpg, wt)) +
  geom_point() +
  labs(x="This is some txt", y="This is more text",
    title="Thisy is a titlle",
    subtitle="This is a subtitley",
    caption="This is a captien") -> gg

gg_check(gg)
```

---

hrbrthemes

*Additional Themes and Theme Components for 'ggplot2'*


---

### Description

A compilation of extra themes and theme components for 'ggplot2' with an emphasis on typography.

### Details

The core theme: theme\_ipsum ("ipsum" is Latin for "precise") uses Arial Narrow which should be installed on practically any modern system, so it's "free"-ish. This font is condensed, has solid default kerning pairs and geometric numbers. That's what I consider the "font trifecta" must-have for charts. An additional quality for fonts for charts is that they have a diversity of weights. Arial Narrow (the one on most systems, anyway) does not have said diversity but this quality is not (IMO) a "must have".

### Author(s)

Bob Rudis (bob@rud.is)

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hrbrthemes-exports

*hrbrthemes exported operators*


---

### Description

The following functions are imported and then re-exported from the hrbrthemes package to enable use of the magrittr pipe operator with no additional library calls

---

import\_roboto\_condensed

*Import Roboto Condensed font for use in charts*


---

### Description

Roboto Condensed is a trademark of Google.

### Usage

```
import_roboto_condensed()
```

### Note

This will take care of ensuring PDF/PostScript usage. The location of the font directory is displayed after the base import is complete. It is highly recommended that you install them on your system the same way you would any other font you wish to use in other programs.

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ipsum_pal	<i>A muted, qualitative color palette</i>
-----------	---

---

## Description

A muted, qualitative color palette

## Usage

```
ipsum_pal()
```

## Examples

```
library(scales)
scales::show_col(ipsum_pal()(9))
```

---

scale_colour_ipsum	<i>Discrete color &amp; fill scales based on the ipsum palette</i>
--------------------	--

---

## Description

See [ipsum\\_pal](#).

## Usage

```
scale_colour_ipsum(...)
```

```
scale_color_ipsum(...)
```

```
scale_fill_ipsum(...)
```

## Arguments

... Other arguments passed on to [discrete\\_scale](#) to control name, limits, breaks, labels and so forth.

---

scale_x_percent	<i>X &amp; Y scales with opinionated pre-sets for percent &amp; comma label formats</i>
-----------------	---

---

## Description

The `_comma` ones set comma format for axis text and `expand=c(0,0)` (you need to set limits).

## Usage

```
scale_x_percent(name = waiver(), breaks = waiver(),
  minor_breaks = waiver(), labels = scales::percent, limits = NULL,
  expand = c(0, 0), oob = censor, na.value = NA_real_,
  trans = "identity", position = "bottom", sec.axis = waiver())
```

```
scale_y_percent(name = waiver(), breaks = waiver(),
  minor_breaks = waiver(), labels = scales::percent, limits = NULL,
  expand = c(0, 0), oob = censor, na.value = NA_real_,
  trans = "identity", position = "left", sec.axis = waiver())
```

```
scale_x_comma(name = waiver(), breaks = waiver(), minor_breaks = waiver(),
  labels = scales::comma, limits = NULL, expand = c(0, 0), oob = censor,
  na.value = NA_real_, trans = "identity", position = "bottom",
  sec.axis = waiver())
```

```
scale_y_comma(name = waiver(), breaks = waiver(), minor_breaks = waiver(),
  labels = scales::comma, limits = NULL, expand = c(0, 0), oob = censor,
  na.value = NA_real_, trans = "identity", position = "left",
  sec.axis = waiver())
```

## Arguments

name	The name of the scale. Used as axis or legend title. If <code>NULL</code> , the default, the name of the scale is taken from the first mapping used for that aesthetic.
breaks	One of: <ul style="list-style-type: none"> <li>• <code>NULL</code> for no breaks</li> <li>• <code>waiver()</code> for the default breaks computed by the transformation object</li> <li>• A numeric vector of positions</li> <li>• A function that takes the limits as input and returns breaks as output</li> </ul>
minor_breaks	One of: <ul style="list-style-type: none"> <li>• <code>NULL</code> for no minor breaks</li> <li>• <code>waiver()</code> for the default breaks (one minor break between each major break)</li> <li>• A numeric vector of positions</li> <li>• A function that given the limits returns a vector of minor breaks.</li> </ul>

labels	One of: <ul style="list-style-type: none"> <li>• NULL for no labels</li> <li>• waiver() for the default labels computed by the transformation object</li> <li>• A character vector giving labels (must be same length as breaks)</li> <li>• A function that takes the breaks as input and returns labels as output</li> </ul>
limits	A numeric vector of length two providing limits of the scale. Use NA to refer to the existing minimum or maximum.
expand	A numeric vector of length two giving multiplicative and additive expansion constants. These constants ensure that the data is placed some distance away from the axes. The defaults are <code>c(0.05, 0)</code> for continuous variables, and <code>c(0, 0.6)</code> for discrete variables.
oob	Function that handles limits outside of the scale limits (out of bounds). The default replaces out of bounds values with NA.
na.value	Missing values will be replaced with this value.
trans	Either the name of a transformation object, or the object itself. Built-in transformations include "asn", "atanh", "boxcox", "exp", "identity", "log", "log10", "log1p", "log2", "logit", "probability", "probit", "reciprocal", "reverse" and "sqrt". A transformation object bundles together a transform, it's inverse, and methods for generating breaks and labels. Transformation objects are defined in the scales package, and are called <code>name_trans</code> , e.g. <code>boxcox_trans</code> . You can create your own transformation with <code>trans_new</code> .
position	The position of the axis. "left" or "right" for vertical scales, "top" or "bottom" for horizontal scales
sec.axis	specify a secondary axis

## Details

The `_percent` ones set percent format for axis text and `expand=c(0,0)` (you need to set limits).

---

theme_ipsum	<i>A precise &amp; pristine <a href="#">ggplot2</a> theme with opinionated defaults and an emphasis on typography</i>
-------------	---

---

## Description

A precise & pristine [ggplot2](#) theme with opinionated defaults and an emphasis on typography

## Usage

```
theme_ipsum(base_family = "Arial Narrow", base_size = 11,
  plot_title_family = base_family, plot_title_size = 18,
  plot_title_face = "bold", plot_title_margin = 10,
  subtitle_family = base_family, subtitle_size = 12,
  subtitle_face = "plain", subtitle_margin = 15,
```

```
strip_text_family = base_family, strip_text_size = 12,
strip_text_face = "plain", caption_family = base_family,
caption_size = 9, caption_face = "italic", caption_margin = 10,
axis_title_family = subtitle_family, axis_title_size = 9,
axis_title_face = "plain", axis_title_just = "rt",
plot_margin = margin(30, 30, 30, 30), grid = TRUE, axis = FALSE,
ticks = FALSE)
```

## Arguments

base_family, base_size	base font family and size
plot_title_family, plot_title_face, plot_title_size, plot_title_margin	plot title family, face, size and margin
subtitle_family, subtitle_face, subtitle_size	plot subtitle family, face and size
subtitle_margin	plot subtitle margin bottom (single numeric value)
strip_text_family, strip_text_face, strip_text_size	facet label font family, face and size
caption_family, caption_face, caption_size, caption_margin	plot caption family, face, size and margin
axis_title_family, axis_title_face, axis_title_size	axis title font family, face and size
axis_title_just	axis title font justification, one of [blmcr]t]
plot_margin	plot margin (specify with <a href="#">ggplot2::margin</a> )
grid	panel grid (TRUE, FALSE, or a combination of X, x, Y, y)
axis	add x or y axes? TRUE, FALSE, "xy"
ticks	ticks if TRUE add ticks

## Why Arial Narrow?

First and foremost, Arial Narrow is generally installed by default or readily available on any modern system, so it's "free"-ish; plus, it is a condensed font with solid default kerning pairs and geometric numbers.

## Building upon theme\_ipsum

The function is setup in such a way that you can customize your own one by just wrapping the call and changing the parameters. See source for examples.

## Gotchas

There are distinctions between font names and various devices. Names that work for display graphics devices and bitmap ones such as png may not work well for PostScript or PDF ones. You may need two versions of a font-based theme function for them to work in a particular situation. This



situation usually only arises when using a newer font with many weights but somewhat irregular internal font name patterns.

## Examples

```
## Not run:
library(ggplot2)
library(dplyr)

# seminal scatterplot
ggplot(mtcars, aes(mpg, wt)) +
  geom_point() +
  labs(x="Fuel efficiency (mpg)", y="Weight (tons)",
        title="Seminal ggplot2 scatterplot example",
        subtitle="A plot that is only useful for demonstration purposes",
        caption="Brought to you by the letter 'g'") +
  theme_ipsum()

# seminal bar chart

update_geom_font_defaults()

count(mpg, class) %>%
  ggplot(aes(class, n)) +
  geom_col() +
  geom_text(aes(label=n), nudge_y=3) +
  labs(x="Fuel efficiency (mpg)", y="Weight (tons)",
        title="Seminal ggplot2 bar chart example",
        subtitle="A plot that is only useful for demonstration purposes",
        caption="Brought to you by the letter 'g'") +
  theme_ipsum(grid="Y") +
  theme(axis.text.y=element_blank())

## End(Not run)
```

---

theme_ipsum_rc	<i>A precise &amp; pristine <a href="#">ggplot2</a> theme with opinionated defaults and an emphasis on typography</i>
----------------	---

---

## Description

You should `import_roboto_condensed` first and also install the fonts on your system before trying to use this theme.

## Usage

```
theme_ipsum_rc(base_family = "Roboto Condensed", base_size = 11,
  plot_title_family = base_family, plot_title_size = 18,
  plot_title_face = "bold", plot_title_margin = 10,
  subtitle_family = "Roboto Condensed Light", subtitle_size = 12,
```

```

subtitle_face = "plain", subtitle_margin = 15,
strip_text_family = base_family, strip_text_size = 12,
strip_text_face = "plain", caption_family = "Roboto Condensed Light",
caption_size = 9, caption_face = "plain", caption_margin = 10,
axis_title_family = base_family, axis_title_size = 9,
axis_title_face = "plain", axis_title_just = "rt",
plot_margin = margin(30, 30, 30, 30), grid = TRUE, axis = FALSE,
ticks = FALSE)

```

## Arguments

base_family, base_size	base font family and size
plot_title_family, plot_title_face, plot_title_size, plot_title_margin	plot title family, face, size and margin
subtitle_family, subtitle_face, subtitle_size	plot subtitle family, face and size
subtitle_margin	plot subtitle margin bottom (single numeric value)
strip_text_family, strip_text_face, strip_text_size	facet label font family, face and size
caption_family, caption_face, caption_size, caption_margin	plot caption family, face, size and margin
axis_title_family, axis_title_face, axis_title_size	axis title font family, face and size
axis_title_just	axis title font justification one of [blmcr]t]
plot_margin	plot margin (specify with <a href="#">ggplot2::margin</a> )
grid	panel grid (TRUE, FALSE, or a combination of X, x, Y, y)
axis	add x or y axes? TRUE, FALSE, "xy"
ticks	ticks if TRUE add ticks

## Why Roboto Condensed?

It's free, has tolerable kerning pairs and multiple weights. It's also different than Arial Narrow and the fonts most folks use in ggplot2 charts.

## Examples

```

## Not run:
library(ggplot2)
library(dplyr)

# seminal scatterplot
ggplot(mtcars, aes(mpg, wt)) +
  geom_point() +
  labs(x="Fuel efficiency (mpg)", y="Weight (tons)",

```

```

        title="Seminal ggplot2 scatterplot example",
        subtitle="A plot that is only useful for demonstration purposes",
        caption="Brought to you by the letter 'g'") +
    theme_ipsum_rc()

# seminal bar chart

update_geom_font_defaults(family=font_rc_light)

count(mpg, class) %>%
  ggplot(aes(class, n)) +
  geom_col() +
  geom_text(aes(label=n), nudge_y=3) +
  labs(x="Fuel effiency (mpg)", y="Weight (tons)",
        title="Seminal ggplot2 bar chart example",
        subtitle="A plot that is only useful for demonstration purposes",
        caption="Brought to you by the letter 'g'") +
  theme_ipsum_rc(grid="Y") +
  theme(axis.text.y=element_blank())

## End(Not run)

```

---

update\_geom\_font\_defaults

*Update matching font defaults for text geoms*


---

## Description

Updates [ggplot2::geom\_label] and [ggplot2::geom\_text] font defaults

## Usage

```
update_geom_font_defaults(family = "Arial Narrow", face = "plain",
  size = 3.5)
```

## Arguments

family, face, size  
font family name, face and size

# Index

## \*Topic **datasets**

- font\_an, [2](#)
- font\_rc, [2](#)
- %>%(hrbrthemes-exports), [4](#)
- boxcox\_trans, [7](#)
- discrete\_scale, [5](#)
- font\_an, [2](#)
- font\_rc, [2](#)
- font\_rc\_light(font\_rc), [2](#)
- gg\_check, [3](#)
- ggplot2, [7](#), [9](#)
- ggplot2::margin, [8](#), [10](#)
- hrbrthemes, [4](#)
- hrbrthemes-exports, [4](#)
- hrbrthemes-package(hrbrthemes), [4](#)
- hunspell::dictionary, [3](#)
- import\_roboto\_condensed, [4](#)
- ipsum\_pal, [5](#)
- scale\_color\_ipsum(scale\_colour\_ipsum),  
[5](#)
- scale\_colour\_ipsum, [5](#)
- scale\_fill\_ipsum(scale\_colour\_ipsum), [5](#)
- scale\_x\_comma(scale\_x\_percent), [6](#)
- scale\_x\_percent, [6](#)
- scale\_y\_comma(scale\_x\_percent), [6](#)
- scale\_y\_percent(scale\_x\_percent), [6](#)
- theme\_ipsum, [7](#)
- theme\_ipsum\_rc, [9](#)
- trans\_new, [7](#)
- update\_geom\_font\_defaults, [11](#)