ggconventions: Easy graphical conventions in ggplot2

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Graphical conventions
▶ There are many cultural conventions that can be used to facilitate graphical understanding:
  ▶ Color: Girl / Boy or Profit / Loss
  ▶ Shape: ♂ for female, ♀ for male
▶ We implement a framework for easily adding conventions to R ggplot2 graphs
▶ Framework developed as an R package at https://bitbucket.org/trevorld/ggconventions/
Can install development version right now:
devtools::install_bitbucket("ggconventions", user="trevorld")

A normal ggplot2 graph

```r
library("ggplot2")
data("gender_data", package="ggconventions")
ggplot(gender_data,
aes(x=class, y=survivors, colour=gender,
shape=gender)) + geom_point(size=7) +
ggtitle("# adult survivors of Titanic")
```

A conventions aware ggplot2 graph using ggconventions

```r
source(system.file("conventions/gender.R", package="ggconventions"))
cr_ggplot(gender_data,
aes(x=class, y=survivors, colour=gender,
shape=gender)) + geom_point(size=7)
```

Can set up configurable conventions

```r
options(gender_shape = "bathroom")
cr_ggplot(gender_data, aes(x=class, y=survivors,
colour=gender, shape=gender)) + geom_point(size=7)
```

Future Work
▶ Assemble libraries of popular conventions
▶ Experimentally test which conventions have the greatest cognitive savings
▶ Patch ggplot2 to automatically dispatch on custom scales when there are facets