ggdist.R

Alexandros

2022-10-21

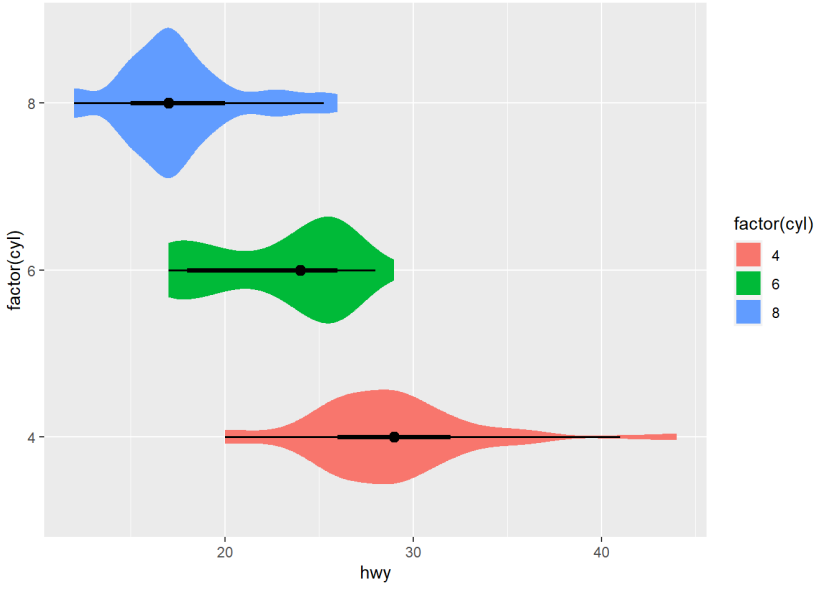
```
pacman::p_load(ggdist,tidyverse,tidyquant)

#https://www.business-science.io/r/2021/07/22/ggdist-raincloud-plots.html
#data
mpg
```

```
## # A tibble: 234 x 11
##    manufacturer model    displ  year   cyl trans   drv     cty   hwy fl    class
##    <chr>        <chr>    <dbl> <int> <int> <chr>   <chr> <int> <int> <chr> <chr>
##  1 audi         a4         1.8  1999     4 auto(l~ f        18    29 p     comp~
##  2 audi         a4         1.8  1999     4 manual~ f        21    29 p     comp~
##  3 audi         a4         2    2008     4 manual~ f        20    31 p     comp~
##  4 audi         a4         2    2008     4 auto(a~ f        21    30 p     comp~
##  5 audi         a4         2.8  1999     6 auto(l~ f        16    26 p     comp~
##  6 audi         a4         2.8  1999     6 manual~ f        18    26 p     comp~
##  7 audi         a4         3.1  2008     6 auto(a~ f        18    27 p     comp~
##  8 audi         a4 quat~   1.8  1999     4 manual~ 4        18    26 p     comp~
##  9 audi         a4 quat~   1.8  1999     4 auto(l~ 4        16    25 p     comp~
## 10 audi         a4 quat~   2    2008     4 manual~ 4        20    28 p     comp~
## # ... with 224 more rows
```

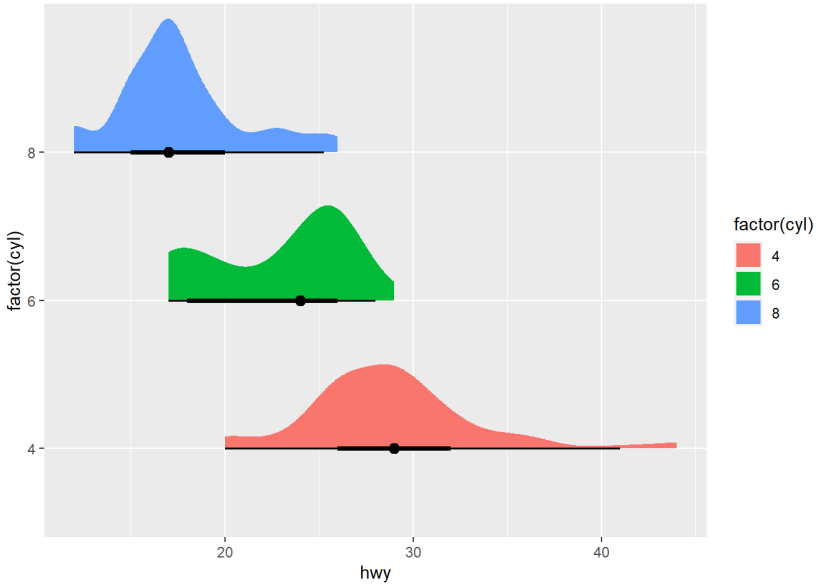
```
#Eye plots combine densities (as violins) with intervals to give a more detailed picture
#of uncertainty than is available just by looking at intervals.
#half eye plots plot half the eye

table(mpg$cyl)
```

```
##
##  4  5  6  8
## 81  4 79 70
```

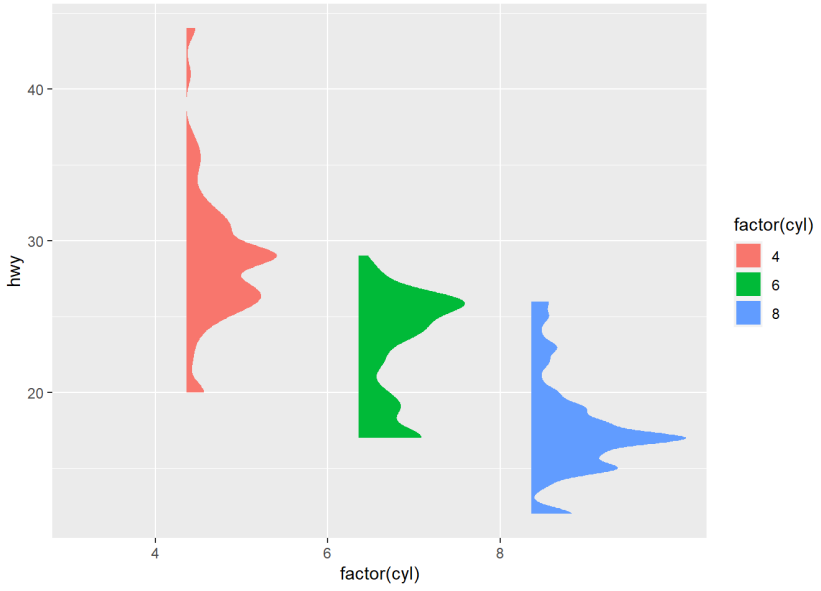
```
mpg %>%
  filter(cyl %in% c(4,6,8)) %>%
  ggplot(aes(x=hwy,y=factor(cyl),fill=factor(cyl)))+
   stat_eye() ###Gives violins
```



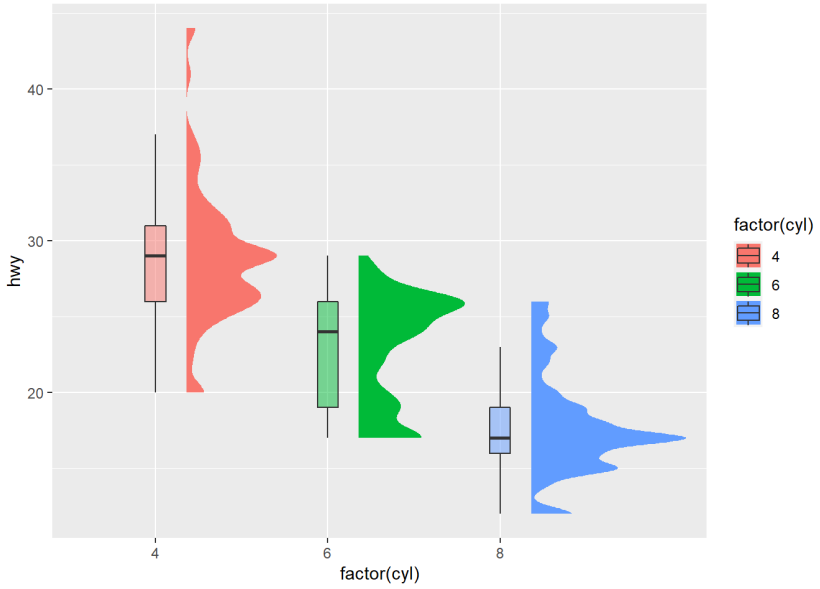

```
mpg %>%
  filter(cyl %in% c(4,6,8)) %>%
  ggplot(aes(x=hwy,y=factor(cyl),fill=factor(cyl)))+
  stat_halfeye() ###gives densities
```



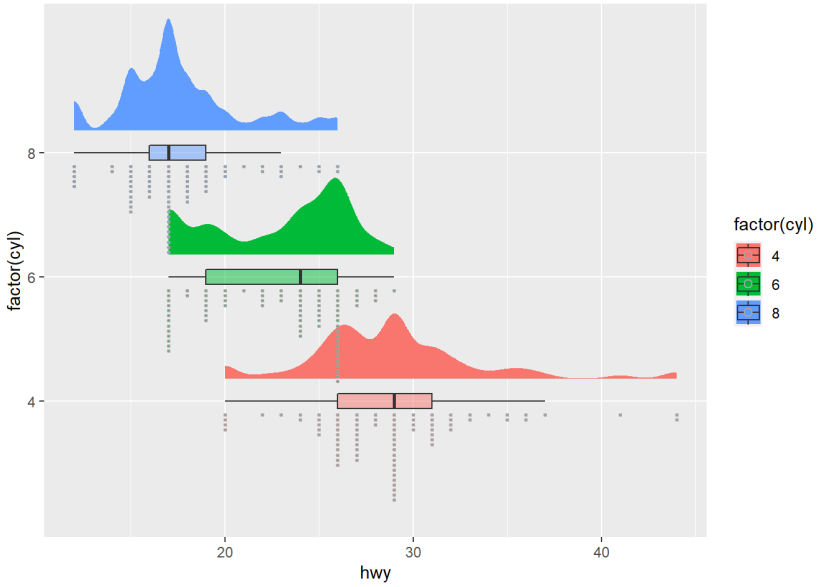

```
mpg %>%
  filter(cyl %in% c(4,6,8)) %>%
  ggplot(aes(x=factor(cyl),y=hwy,fill=factor(cyl)))+
  ggdist::stat_halfeye(
    #custom bandwidth
    adjust=0.5,
    #move geom to the right
    justification=-0.2,
    #remove slab interval
    .width=0,
    point_colour=NA

  )
```



```
#add boxplot

mpg %>%
  filter(cyl %in% c(4,6,8)) %>%
  ggplot(aes(x=factor(cyl),y=hwy,fill=factor(cyl)))+
  ggdist::stat_halfeye(
    #custom bandwidth
    adjust=0.5,
    #move geom to the right
    justification=-0.2,
    #remove slab interval
    .width=0,
    point_colour=NA

  )+
  geom_boxplot(
    width=.12,
    #remove outliers
    outlier.color = NA,
    alpha=0.5
  )
```




```
##add dots

mpg %>%
  filter(cyl %in% c(4,6,8)) %>%
  ggplot(aes(x=factor(cyl),y=hwy,fill=factor(cyl)))+
  ggdist::stat_halfeye(
    #custom bandwidth
    adjust=0.5,
    #move geom to the right
    justification=-0.2,
    #remove slab interval
    .width=0,
    point_colour=NA

  )+
  geom_boxplot(
    width=.12,
    #remove outliers
    outlier.color = NA,
    alpha=0.5
  )+
  ggdist::stat_dots(
    side='left',
    #move geom to the left
    justification=1.1,
    #adjust grouping (bining) of observations
    binwidth=.25

  )+
  coord_flip()
```


factor(cyl)
8
6
4
20
30
40
hwy
factor(cyl)
4
6
8