

MA615_Assignment_2

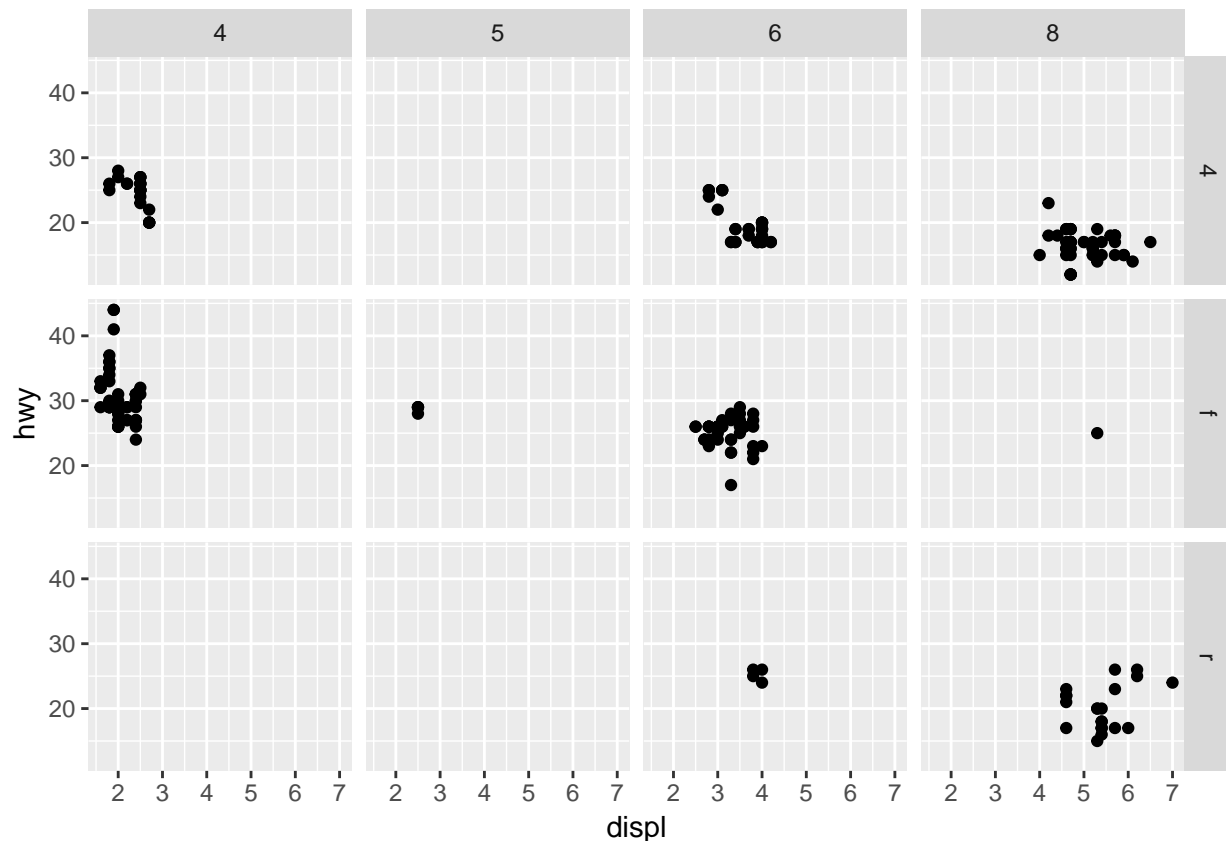
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R4DS Exercises

3.5.1.2. What do the empty cells in plot with `facet_grid(drv ~ cyl)` mean? How do they relate to this plot?

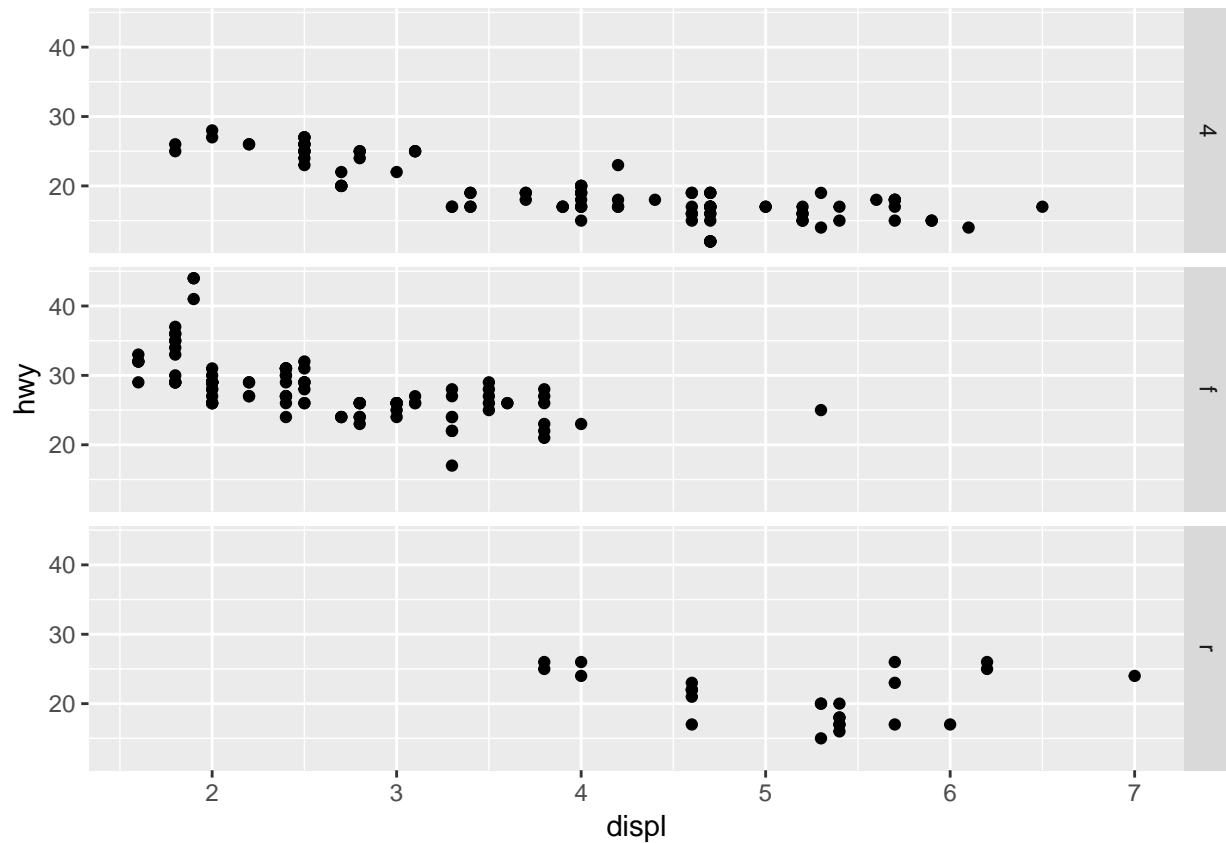
```
ggplot(data = mpg) +  
  geom_point(mapping = aes(x = displ, y = hwy)) +  
  facet_grid(drv ~ cyl)
```



It means there is no valid data meeting the requirement of `drv` and `cyl`, that is, the number of cylinders and the way of driven. " In this way, we can divide the data into specific groups with specific factors so we can compare the correlation of variables better."

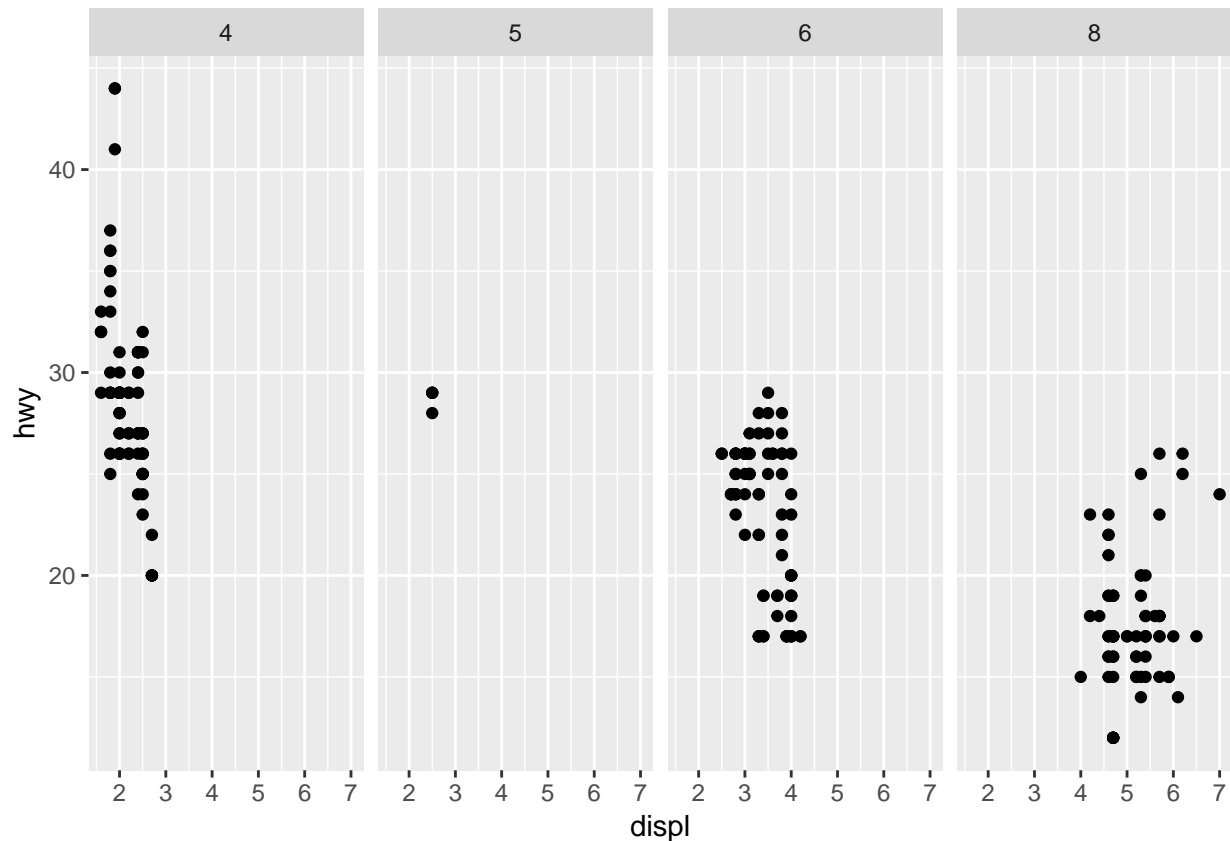
3.5.1.3. What plots does the following code make? What does `.` do?

```
ggplot(data = mpg) +  
  geom_point(mapping = aes(x = displ, y = hwy)) +  
  facet_grid(drv ~ .)
```



The plot adds the third variable the way of driven on the row.

```
ggplot(data = mpg) +  
  geom_point(mapping = aes(x = displ, y = hwy)) +  
  facet_grid(. ~ cyl)
```



The plot adds the third variable the number of cylinders on the column.

Rewrite the shiny app

Lake Huron

```
#Load the data of Lake Huron
LakeHuron <- data.frame("year" = 1875:1972, "level" = LakeHuron)
#Plot broken line
ggplot(data = LakeHuron, aes(x <- year, y <- level)) +
  geom_line()
```

Don't know how to automatically pick scale for object of type ts. Defaulting to continuous.



```
#Add smooth line  
ggplot(data = LakeHuron, aes(x <- year, y <- level)) +  
  geom_point() +  
  geom_line() +  
  geom_smooth()
```

```
## Don't know how to automatically pick scale for object of type ts. Defaulting to continuous.  
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```

