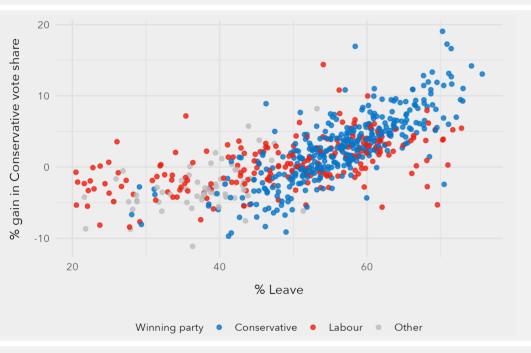


## plot grammar -> ggplot2 spec

data types, channels, marks

```
leave_hanretty: ratio
con_1719: ratio
leave_hanretty -> x-position
con_1719 -> y-position
mark -> geom_point
```

```
data_ge |>
  ggplot(data=.) +
  geom_point(
    mapping=
    aes(
         x=leave_hanretty,
         y=con_1719
    )
)
```



leave\_hanretty: ratio
con\_1719: ratio
winning\_party: nominal
leave\_hanretty -> x-position
con\_1719 -> y-position
winning\_party -> colour
mark -> geom\_point

leave\_hanretty: ratio
con\_1719: ratio
winning\_party: nominal
flipped: ordinal
leave\_hanretty -> x-position
con\_1719 -> y-position
winning\_party -> colour
flipped -> alpha
mark -> geom\_point

data\_ge |>
 ggplot(data=.) +
 geom\_point(
 mapping=
 aes(
 x=leave\_hanretty,
 y=con\_1719,
 colour=winning\_party,
 alpha=flipped
 )
)