DRAWING A CIRCLE

```
# Wrap functionality in function
create_circle ← function(data, n) {
  angles ← seq(
    from = 0,
    to = 2*pi,
    length.out = n + 1
  )
  data.frame(
    x = cos(angles) * data$r + data$x0,
    y = sin(angles) * data$r + data$y0,
    data
  )
}
```

- Easier to reuse
- Easier to debug
- Easier to document

DRAWING A CIRCLE

- Always subclass an existing class
- Piggyback as much as possible

```
# Create a Stat subclass
StatCirc ← ggproto('StatCirc', Stat,
  setup_data = function(data, params) {
    if (data$group[1] == -1) {
      nrows ← nrow(data)
      data$group ← seq_len(nrows)
    }
    data
  },
  compute_group = function(data, scales,
                           n = 360) {
    create_circle(data, n)
  },
  required_aes = c('x0', 'y0', 'r')
)
```