Debugging in R

Previously:
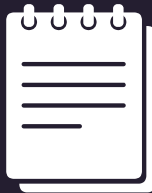
Minimal reproducible examples

- Demo: https://gist.github.com/karawoo/93437f51b32c621a7011fac703f218ca
- Jenny Bryan's slides: https://speakerdeck.com/jennybc/object-of-type-closure-is-not-subsettable?slide=20

Currently:

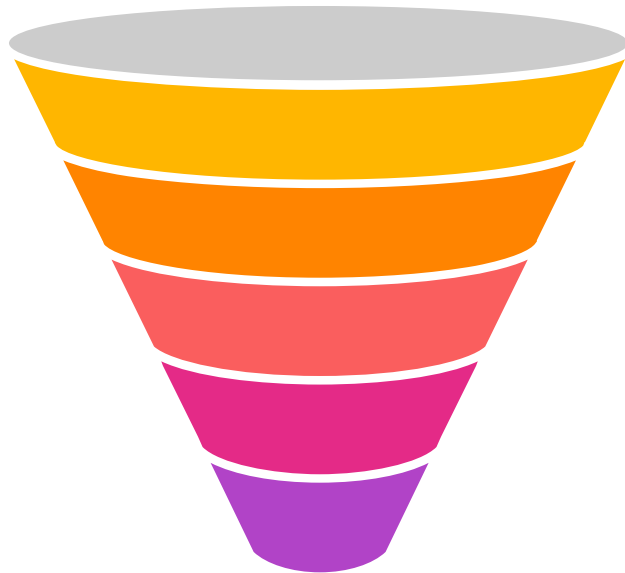- Demo: https://github.com/karawoo/sage-r-debugging-demo
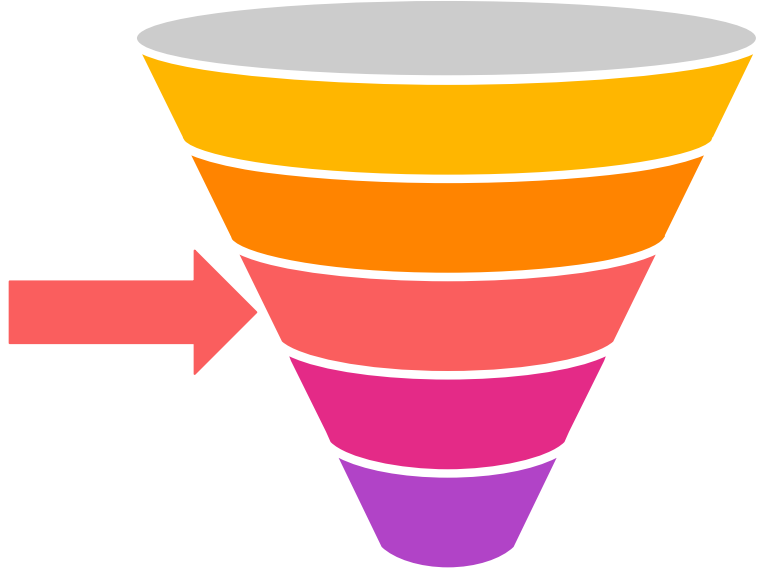
```
traceback()
debug()
browser()
```

traceback() prints the call stack

debug() lets you step through a function one line at a time

**browser():
place in a
function body
to enter the
function at
that point**

~ demo ~

Useful commands

- **n**: evaluate the next statement
- **c**: exit browser and continue execution
- **Q**: exit browser and return to top-level prompt

Getting fancier with rlang

```r
options(error = rlang::entrace)
rlang::last_error()
rlang::last_trace()
```

Further resources:

- *Advanced R* debugging chapter: https://adv-r.hadley.nz/debugging.html
- Jenny Bryan's slides again: https://speakerdeck.com/jennybc/object-of-type-closure-is-not-subsettable
- What They Forgot to Teach You About R: https://rstats.wtf/debugging-r-code.html
- Self promotion: https://rstudio.com/resources/rstudioconf-2019/box-plots-a-case-study-in-debugging-and-perseverance/