

Common Coding Issues and How to Debug

Strategies to Debug

- Run your code often so that you can spot errors early. Don't try to code everything at once and then run the whole thing. The earlier you spot a mistake, the easier it will be to debug.
- Read the error message very carefully. I know, there's a lot there and it's hard to weed out the important info from the excess text, but the more you practice the better you'll get at it!
- Run code one line at a time until you triangulate the location of the bug. Don't run the whole pipeline or ggplot sequence. Run it in parts.
- Do not run the whole chunk.
- Try restarting R with `Session > Restart R`. Sometimes, the error is caused because you changed something important (like redefining an important function by mistake).
- If you are having trouble Knitting:
 - Knit often so that you can spot errors early. The earlier you spot a bug the easier it will be to fix.
 - **Restart R** and *then* run the code one line at a time. When you knit, it will start from a blank R environment, so you want to reproduce that behavior to triangulate the bug.
 - Comment out sections of the document until it starts knitting. Uncomment sections until you find the issue.

Common Bugs

- Missing/extra Parentheses.
- Missing/extra commas
- Missing + (for ggplot)
- Missing pipe `%>%`
- Misspelled a function/variable name (using a lot of tab-completion helps limit the occurrence of this bug.)