

Factors Lab

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Learning Objectives

- Practice `forcats`

Exercise 1: Factor Coding Exercises

Consider the factor vector

```
fc <- factor(c("D", "C", "C", "A", "A",  
              "C", "D", "A", "C", "C",  
              "A", "A", "C", "A", "C",  
              "B", "C", "A", "C", "B"))
```

1. `fc` should also have a level called `E`. Add this level to `fc`.
2. Plot the distribution of `fc`, ordering levels from left to right by frequency (so most frequent is on the right).
3. Put the levels in *reverse* alphabetical order.
4. Remove all "C"s from `fc` then drop this level.
5. Combine the "A" and "B" levels into the new level "AB".

Exercise 2: Sex, Lies, and Religion

The data frame in https://dgerard.github.io/stat_412_612/data/sexliere1.txt, taken from Clayton (1971), contain the following variables:

- `gender`: The gender of the individual. 1 = Female, 2 = Male.
- `scale`: Different scales of sexual permissiveness. 1 = Ritualistic, 2 = Experiential, 3 = Ideological, 4 = Composite.
- `perm`: The level of sexual permissiveness. 1 = Low, 2 = High.
- `lie`: The propensity to lie. 1 = Lower, 2 = Higher.
- `relig`: How religious a person is. 1 = Low, 2 = High
- `count`: The number of individuals satisfying the conditions of the other variables.

1. Read the data into R.
2. Change the level names to something more informative.
3. Flip the order of the levels in `perm`.
4. For males, for what scales does there appear to be an association between religiosity and permissiveness? Use one plot to explore.

References

Clayton, Richard R. 1971. "Religiosity and Premarital Sexual Permissiveness: Elaboration of the Relationship and Debate." *Sociological Analysis* 32 (2). Oxford University Press: 81–96. doi:[10.2307/3710137](https://doi.org/10.2307/3710137).