Quantitative Sociological Analysis

Inferential Statistics
Multivariate Statistics

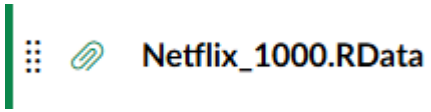
Exercise 8

April 26, 2025

Netflix survey data: multivariate linear regression

- I augmented our dataset with 1,000 synthetic responses
  - retaining same data structure

- Download this augmented dataset, and
  - save in location where you can retrieve again



- Download the new Rscript, and

  - save in a location where you can retrieve again

- Recode comedy preference to better reflect a continuous variable, so we can
  - assume slope coefficients β_j from LRM reflect Y units

```
10 comedy_pret<-6-comedy
```

Let's run some LRM models with these augmented Netflix survey data…

Netflix survey data: multivariate linear regression

- First, practice interpreting simple linear regression models
  - try using a different independent variable (x) in each model
    - note how interpretation of slope coefficient(s) (β_j) differs based on level of measurement
- Next, practice interpreting multivariate linear regression models
  - see how the intercept intercept (β_0) changes after adding another independent variable (x)
    - note how interpretation of slope coefficient(s) (β_j) now must consider holding all other Xs "constant"
- Consider including interaction terms, and practice interpreting moderation effects
  - where the effect of one predictor X_1 depends on the value of another X_2