

# Andy's Modeling Updates

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# Agenda 4/6/2023

- Discuss R Project workflow and data pre-processing script
- Andy's updates on modeling
- "Evaluating situational decomposition" qualms
- Discuss structure of report

# R Projects

- “Sandbox” workspace for a specific project
- Main advantage is there is no need to change working directories or paths
- There is only 1 R project: code
- To open the project, double click `code.Rproj` (should open a new RStudio window)
- You must have open the `.Rproj` file before opening and running any `.R` or `.Rmd` file

# Data pre-processing

- There is an R script in the code/ directory

## Section 1

# Replicating Felson Study 1: Effect of intoxication on sexual intercourse

# Judgment calls

*Note:* all of the code can be found in the accompanying `.Rmd` file for these slides

- Removing NAs in outcome (intercourse)
- People who refused to respond were categorized in the reference category (no for sex, never for alcohol)

# Total Association with logistic regression

Table 1: Total association logistic regression odds ratios (Andy).

| Gender     | Occasionally | Frequently | OR_diff |
|------------|--------------|------------|---------|
| all_gender | 5.1          | 7.3        | 2.2     |
| male       | 4.3          | 6.9        | 2.7     |
| female     | 6.2          | 7.6        | 1.4     |

Table 2: Total association logistic regression odds ratios (Felson et al.).

| Gender     | Occasionally | Frequently | OR_diff |
|------------|--------------|------------|---------|
| all_gender | 4.0          | 8.5        | 4.5     |
| male       | 3.6          | 8.7        | 5.1     |
| female     | 4.4          | 7.7        | 3.3     |

# Spurious effect using multinomial logistic regression