

# Andy's Modeling Updates

Andy Shen

2023-04-04

# 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
- Judgment calls and decision rules

## 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	4.4	8.8	4.3
male	4.0	8.1	4.2
female	4.9	9.3	4.4

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

# Takeaways

- Let's assume this subsample is representative of the larger sample used in the paper
- In this case, our analysis has “closed the gap” in terms of odds ratios
- Perhaps the tendency to have sex isn't *that* drastic for occasional vs frequent drinkers?
- How does this relate to spuriousness?



# Spuriousness of intoxication on sober sex

## Summary

- x
- y
- z

# Spuriousness of intoxication on sober sex

Table 3: Our spuriousness values

	Occasionally	Frequently
all_gender	91.0	84.4
males	88.7	84.0
females	92.7	84.6

Table 4: Felson's spuriousness values

	Occasionally	Frequently
all_gender	95.7	91.6
males	95.3	91.2
females	97.3	93.6

# Issues with situational decomposition

- What happens when there is above 100% spuriousness?