Supplement

Joe Hilgard

March 25, 2016

### Censored regression.

To attempt to ameliorate the potential ceiling effect, a censored regression model was fit with the ‘censReg’ package for R (Henningsen, 2013). This fits a censored-regression Tobit model and attempts to model values that exceed the maximum of the scale.

library(hilgard)  
library(broom)  
library(tidyverse)

## -- Attaching packages ------------------------------------------------------------------------------- tidyverse 1.2.1 --

## v ggplot2 2.2.1 v purrr 0.2.4   
## v tibble 1.4.2 v dplyr 0.7.4.9002  
## v tidyr 0.7.2 v stringr 1.2.0   
## v readr 1.1.1 v forcats 0.3.0

## -- Conflicts ---------------------------------------------------------------------------------- tidyverse\_conflicts() --  
## x dplyr::filter() masks stats::filter()  
## x dplyr::lag() masks stats::lag()

load(".Rdata")  
# summary(censModel1)  
# summary(censModel1.1)  
# summary(censModel2)  
# summary(censModel2.1)

As before, the analysis found no significant effects of violence, difficulty, 2D4D, or any higher-order interaction. A significant effect of irritation with the partner's feedback was observed, but applying this as a covariate did not affect the primary results.

### Logistic regression.

Another possibility is that participants completed the coldpressor assignment in one of two ways: either they followed instructions and randomly assigned the other participant to a value between 1 and 9, or they decided to aggress and assign the other participant the maximum value. To model this possibility, I treated the response variable as a dichotomous outcome. Participants assigning values 1-8 were treated as one category (nonaggressive response) and participants assigning value 9 were treated as the other (aggressive response). Logistic regression was performed to test whether the odds of aggressing were influenced by the experimental assignment.

We conducted a 2 Violence × 2 Difficulty ANOVA with a logistic link function. Violence did not appear to influence aggression, *z* = 0.21, *p* = .836, *OR* = 1.03 [0.79, 1.34]. Difficulty also had a minimal effect on aggression, *z* = 1.55, *p* = .121, *OR* = 1.23 [0.95, 1.61]. Application of composite irritation as a covariate to these models revealed an effect of composite irritation, *z* = 4.17, *p* < .001, *OR* = 2.11 [1.5, 3.03], but did not increase the estimated effects of violence, difficulty, or their interaction.

Main effects of 2D:4D on aggression were again negligible. Left 2D:4D did not predict aggression, *z* = -0.38, *p* = .703, *OR* = 0.95 [0.72, 1.24], nor did right 2D:4D, *z* = 0.4, *p* = .689, *OR* = 1.06 [0.81, 1.39]. Application of composite irritation as a covariate did not influence the estimated effect. Higher-order interactions of 2D:4D with factors of Violence or Difficulty were not supported by the results (all |t| < 1.53).