Hypothesis Testing

Jason Neumeyer

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Load Data and Packages -

```
## Packages

##install.packages("here")
library(here)
##install.packages("readr")
library(readr)
library(tidyverse)
library(ggplot2)
##install.packages("expss")
library(expss)
##install.packages("broom")
library(broom)
##install.packages("purrr")
library(purrr)
##install.packages("stargazer")
library(stargazer)
library(lmtest)

setwd("C:/Users/Owner/Desktop/UW-Milwaukee Graduate Year 2/Lab Meeting/Data")

dat <- read_csv("immigration_20191219_clean.csv")

## View(dat)
```

Preference Variable -

```
tv_prefer <- dat$tv_msnbc - dat$tv_fox
dat["tv_prefer"] <- tv_prefer
```

Hypothesis Testing -

H1a-c

```
libimm_data <- dat %>% select(immig_increased, taxes_pos, jobs_pos, condition, sales_correct, employ_co
libimm_data$condition <- as.factor(libimm_data$condition)

libimm <- rowMeans(subset(libimm_data, select = c(immig_increased, taxes_pos, jobs_pos)), na.rm = TRUE)
libimm_data <- cbind(libimm_data, libimm)
libimm_data$libimm <- as.numeric(libimm_data$libimm)


libimm_data$condition <- relevel(libimm_data$condition, ref = "control")
```

```r
##View(libimm_data)
h1 <- lm(libimm ~ condition + sales_correct + employ_correct, data = libimm_data)
```

```r
stargazer(h1, type = "text")
```

```
##
## ================================================
##                         Dependent variable:
##                     ---------------------------
##                                libimm
## ------------------------------------------------
## conditionassigned            0.072***
##                               (0.025)
##
## conditionchoice               0.045*
##                               (0.025)
##
## sales_correct                 0.045**
##                               (0.022)
##
## employ_correct                 0.002
##                               (0.023)
##
## Constant                     0.509***
##                               (0.018)
##
## ------------------------------------------------
## Observations                    600
## R2                             0.028
## Adjusted R2                    0.021
## Residual Std. Error      0.241 (df = 595)
## F Statistic           4.260*** (df = 4; 595)
## ================================================
## Note:               *p<0.1; **p<0.05; ***p<0.01
```

```r
coeftest(h1)
```

```
##
## t test of coefficients:
##
##                      Estimate Std. Error t value  Pr(>|t|)
## (Intercept)         0.5091644  0.0181801 28.0067 < 2.2e-16 ***
## conditionassigned   0.0724533  0.0252664  2.8676  0.004283 **
## conditionchoice     0.0452449  0.0251851  1.7965  0.072923 .
## sales_correctTRUE   0.0452195  0.0215424  2.0991  0.036230 *
## employ_correctTRUE 0.0020777  0.0229707  0.0904  0.927961
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

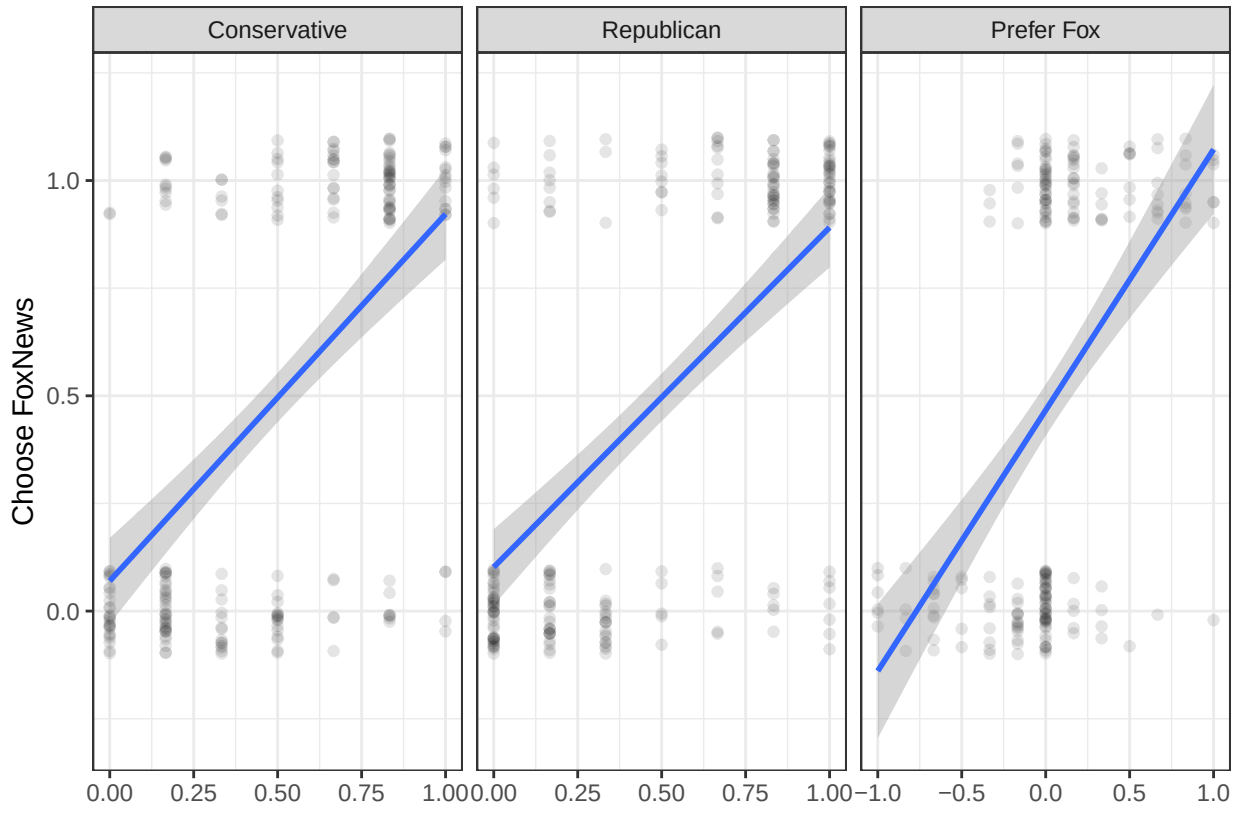
H2a-c

```r
## Choose Fox

labels_FOX <- c(ideol_con = "Conservative", pid_rep = "Republican", prefer_fox = "Prefer Fox")
```

```r
choose_fox <- dat %>%
  filter(condition == "choice") %>%
  mutate(prefer_fox = tv_fox - tv_msnbc,
         choose_fox = as.numeric(tweet == "fox")) %>%
  select(choose_fox, ideol_con, pid_rep, prefer_fox) %>%
  gather(variable, value, -choose_fox) %>%
  ggplot(aes(x=value, y = choose_fox)) +
  geom_jitter(alpha = .1, height = .1) + geom_smooth(method = "lm") +
  facet_grid(~variable, scales = "free_x", labeller = labeller(variable = labels_FOX)) +
  theme_bw() + labs(y = "Choose FoxNews", x = "")

## Choose MSNBC

ideol_lib <- 1 - dat$ideol_con
dat["ideol_lib"] <- ideol_lib

pid_dem <- 1 - dat$pid_rep
dat["pid_dem"] <- pid_dem

labels_MSNBC <- c(ideol_lib = "Liberal", pid_dem = "Democrat", prefer_msnbc = "Prefer MSNBC")

choose_msnbc <- dat %>%
  filter(condition == "choice") %>%
  mutate(prefer_msnbc = tv_msnbc - tv_fox,
         choose_msnbc = as.numeric(tweet == "msnbc")) %>%
  select(choose_msnbc, ideol_lib, pid_dem, prefer_msnbc) %>%
  gather(variable, value, -choose_msnbc) %>%
  ggplot(aes(x=value, y = choose_msnbc)) +
  geom_jitter(alpha = .1, height = .1) + geom_smooth(method = "lm") +
  facet_grid(~variable, scales = "free_x", labeller = labeller(variable = labels_MSNBC)) +
  theme_bw() + labs(y = "Choose MSNBC", x = "")

choose_fox
```

```
## Warning: Removed 4 rows containing non-finite values (stat_smooth).
```

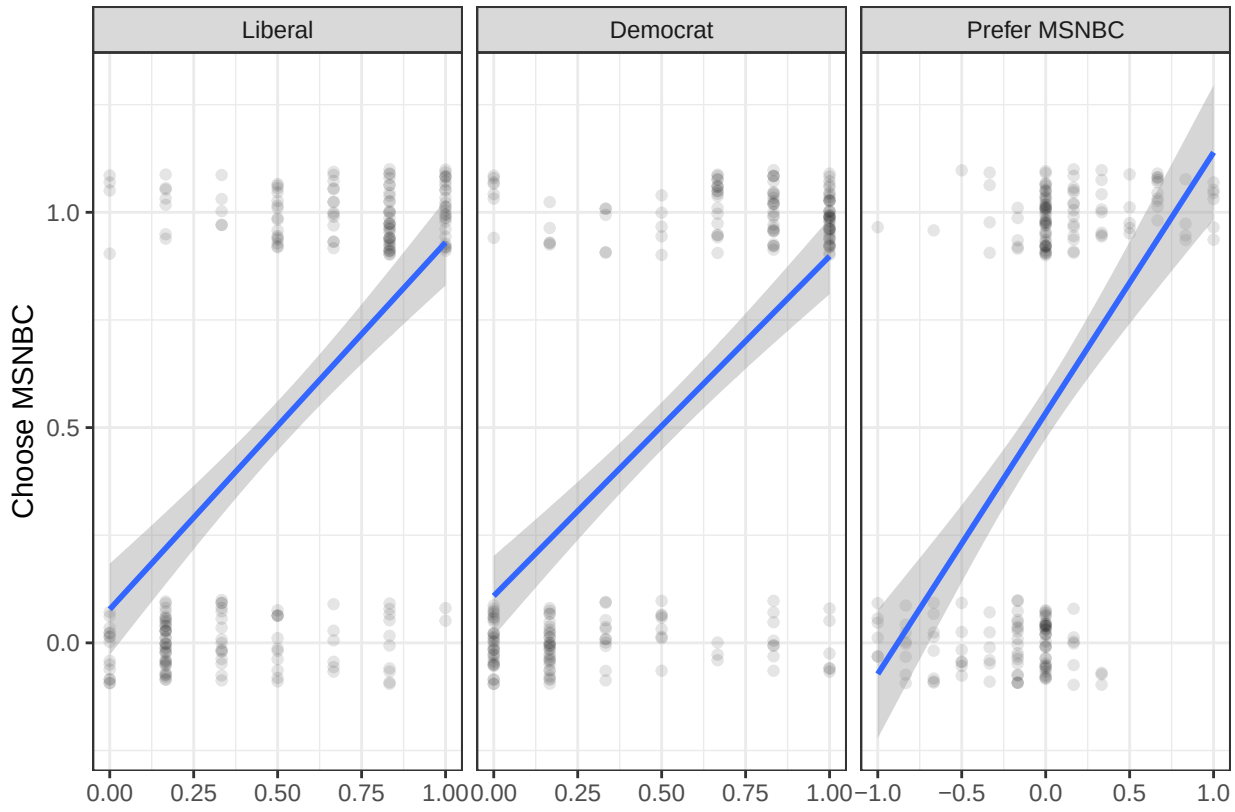
```
## Warning: Removed 4 rows containing missing values (geom_point).
```




```
choose_msnbc
```

```
## Warning: Removed 4 rows containing non-finite values (stat_smooth).
```

```
## Warning: Removed 4 rows containing missing values (geom_point).
```


Liberal
Democrat
Prefer MSNBC
Choose MSNBC
1.0
0.5
0.0
0.00
0.25
0.50
0.75
1.00
−1.0
−0.5
0.0
0.5
1.0

H3a-c