Main Replication Code

Eddy S. F. Yeung, Weifang Xu

September 24, 2024

```
### Set-up ----
## Clean the working environment and set up the working directory
rm(list = ls())
setwd("~/Desktop/IR_polarization/replication") # set your own directory here

## Load the required packages and functions
library(tidyverse)  # version 2.0.0
```

```
## Warning: package 'readr' was built under R version 4.0.5
```

```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.3     v readr     2.1.2
## v forcats   1.0.0     v stringr   1.5.0
## v ggplot2   3.4.3     v tibble    3.2.1
## v lubridate 1.9.3     v tidyr     1.3.0
## v purrr     1.0.2
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to bec
```

```
library(estimatr)   # version 1.0.0
library(cowplot)    # version 1.1.1
```

```
## Warning: package 'cowplot' was built under R version 4.0.2
```

```
##
## Attaching package: 'cowplot'
##
## The following object is masked from 'package:lubridate':
##
##     stamp
```

```
library(texreg)     # version 1.37.5
```

```
## Warning: package 'texreg' was built under R version 4.0.2
```

```
## Version:  1.37.5
## Date:     2020-06-17
```

```
## Author:   Philip Leifeld (University of Essex)
##
## Consider submitting praise using the praise or praise_interactive functions.
## Please cite the JSS article in your publications -- see citation("texreg").
##
## Attaching package: 'texreg'
##
## The following object is masked from 'package:tidyr':
##
##     extract
```

```
library(multcomp)   # version 1.4.17
```

```
## Warning: package 'multcomp' was built under R version 4.0.2
```

```
## Loading required package: mvtnorm
```

```
## Warning: package 'mvtnorm' was built under R version 4.0.2
```

```
## Loading required package: survival
## Loading required package: TH.data
```

```
## Warning: package 'TH.data' was built under R version 4.0.2
```

```
## Loading required package: MASS
```

```
## Warning: package 'MASS' was built under R version 4.0.2
```

```
##
## Attaching package: 'MASS'
##
## The following object is masked from 'package:dplyr':
##
##     select
##
##
## Attaching package: 'TH.data'
##
## The following object is masked from 'package:MASS':
##
##     geyser
```

```
library(interflex)  # version 1.2.6
```

```
## Warning: package 'interflex' was built under R version 4.0.2
```

```
## ## Syntax has changed since v.1.2.1.
##
## ## See http://bit.ly/interflex for more info.
## ## Comments and suggestions -> zyliu2020@uchicago.edu.
```

```
rescale <- function(x, min, max) {(x - min) / (max - min)}

## Import the dataset
```

```r
df <- read.csv("survey_data.csv")

### Experimental conditions ----
## Indicators of treatment status
df <- df %>% mutate(exp_condition = case_when(
  exp_3 == 1 ~ "No Threat Prime",
  exp_3 == 2 ~ "Biden Threat Prime",
  exp_3 == 3 ~ "Trump Threat Prime",
  exp_3 == 4 ~ "Nonpartisan Threat Prime"
))
df$exp_condition <- factor(df$exp_condition,
                           levels = c("No Threat Prime", "Biden Threat Prime",
                                      "Trump Threat Prime", "Nonpartisan Threat Prime"))
table(df$exp_condition)
```

```
##
##          No Threat Prime       Biden Threat Prime       Trump Threat Prime
##                     1051                      994                     1001
## Nonpartisan Threat Prime
##                      960
```

```r
### Covariates ----
## Age
df$age <- factor(df$age, levels = 1:6,
                 labels = c("18-29", "30-39", "40-49", "50-59", "60-69", "70+"))

## Sex
df$sex <- factor(df$sex, levels = 1:2,
                 labels = c("Male", "Female"))

## Ethnicity
df <- df %>% mutate(eth = case_when(
  race == 1 ~ "White",
  race == 2 ~ "Black",
  race == 4 ~ "Hispanic",
  race == 3 | race == 5 | race == 6 ~ "Other"
))
df$eth <- factor(df$eth,
                 levels = c("White", "Black", "Hispanic", "Other"))
df$white <- ifelse(df$race == 1, 1, 0)

## Education
df <- df %>% mutate(educ = case_when(
  educ == 1 ~ "No HS",
  educ == 2 ~ "HS",
  educ == 3 ~ "Some college",
  educ == 4 ~ "4-Year College",
  educ == 5 ~ "Post-grad"
```

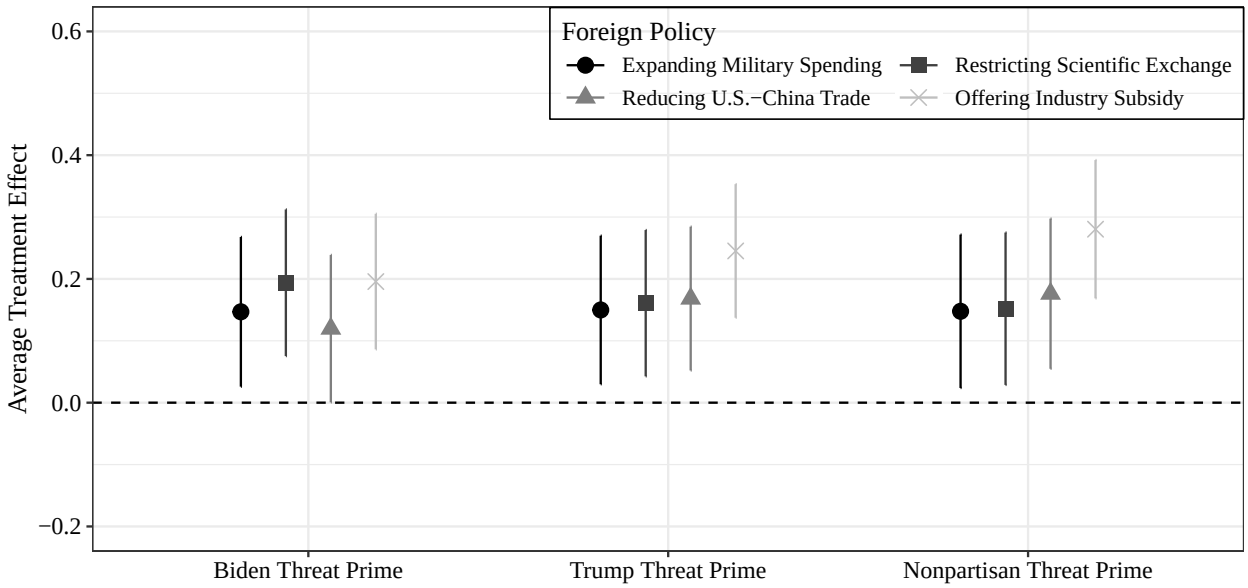
```
))
df$educ <- factor(df$educ,
                  levels = c("No HS", "HS", "Some college", "4-Year College", "Post-grad"))

## Income
df <- df %>% mutate(income = case_when(
  income == 1 ~ "Less than 30K",
  income == 2 ~ "30K to 70K",
  income == 3 ~ "70K to 100K",
  income == 4 ~ "100K to 200K",
  income == 5 ~ "More than 200K"
))
df$income <- factor(df$income,
                    levels = c("Less than 30K", "30K to 70K", "70K to 100K", "100K to 200K", "

## Partisanship (-3 = strong Democrat; -3 = strong Republican)
df <- df %>% mutate(pid7 = case_when(
  pid_1 == 2 & pid_2d == 1 ~ -3,
  pid_1 == 2 & pid_2d == 2 ~ -2,
  (pid_1 == 3 | pid_1 == 4) & pid_2i == 2 ~ -1,
  (pid_1 == 3 | pid_1 == 4) & pid_2i == 4 ~ 0,
  (pid_1 == 3 | pid_1 == 4) & pid_2i == 1 ~ 1,
  pid_1 == 1 & pid_2r == 2 ~ 2,
  pid_1 == 1 & pid_2r == 1 ~ 3
))

df <- df %>% mutate(pid3 = case_when(
  pid7 ==  0 ~ "Independent",
  pid7 == -3 | pid7 == -2 | pid7 == -1 ~ "Democrat",
  pid7 ==  3 | pid7 ==  2 | pid7 ==  1 ~ "Republican"
))
df$pid3 <- factor(df$pid3,
                  levels = c("Independent", "Democrat", "Republican"))

## Self-reported ideology (-3 = extremely liberal; 3 = extremely conservative)
df$ideo <- df$ideo - 4

## Nationalism (0 = lowest; 4 = highest)
df$nationalism <- 5 - df$nationalism

## Patriotism (0 = lowest; 3 = highest)
df$patriotism <- 4 - df$patriotism

## National identity (0 = weakest; 4 = strongest)
df$nat_id <- 5 - df$nat_id

## Cooperative internationalism (0 = min; 1 = max)
```

```r
df$coop_int <- (df$coop_int_1 + df$coop_int_2 + df$coop_int_3 + df$coop_int_4) / 4
df$coop_int <- rescale(df$coop_int, 1, 5)

### Dependent variables ----
## Support for expanding military spending
df$mil_spending <- df$foreign_policy_1 - 1

## Support for restricting scientific exchange
df$sci_exchange <- df$foreign_policy_2 - 1

## Support for reducing bilateral trade
df$trade_reduce <- df$foreign_policy_3 - 1

## Support for offering industry subsidy
df$industry_sub <- df$foreign_policy_4 - 1

## Feeling thermometer (0 = least polarized; 1 = most polarized)
df <- df %>% mutate(affpol_FT = case_when(
  pid3 == "Democrat" ~ affpol_FT_1 - affpol_FT_2,
  pid3 == "Republican" ~ affpol_FT_2 - affpol_FT_1
))
df$affpol_FT <- rescale(df$affpol_FT, -100, 100)

## Trait ratings (0 = most positive; 1 = most negative)
df$affpol_trait_1 <- 6 - df$affpol_trait_1
df$affpol_trait_2 <- 6 - df$affpol_trait_2
df$affpol_trait_3 <- 6 - df$affpol_trait_3
df$affpol_trait_4 <- 6 - df$affpol_trait_4
df$affpol_trait_5 <- 6 - df$affpol_trait_5
df$affpol_trait <- (df$affpol_trait_1 + df$affpol_trait_2 + df$affpol_trait_3 +
                      df$affpol_trait_4 + df$affpol_trait_5 + df$affpol_trait_6 +
                      df$affpol_trait_7 + df$affpol_trait_8) / 8
df$affpol_trait <- rescale(df$affpol_trait, 1, 5)

## Trust ratings (0 = most trust; 1 = least trust)
df <- df %>% mutate(affpol_trust = case_when(
  pid3 == "Democrat" ~ 6 - affpol_trust_gop,
  pid3 == "Republican" ~ 6 - affpol_trust_dem
))
df$affpol_trust <- rescale(df$affpol_trust, 1, 5)

## Social distance (0 = least distance; 1 = most distance)
df$affpol_dist_1 <- 5 - df$affpol_dist_1
df$affpol_dist_2 <- 5 - df$affpol_dist_2
df$affpol_dist <- (df$affpol_dist_1 + df$affpol_dist_2 + df$affpol_dist_3) / 3
df$affpol_dist <- rescale(df$affpol_dist, 1, 4)
```

```r
### Statistical analyses for ATEs on foreign policy preferences ----
## ATE on support for expanding military spending
reg_mil_spending_ATE <-
  lm_robust(mil_spending ~ exp_condition, data = df, subset = pid3 != "Independent")

## ATE on restricting scientific exchange
reg_sci_exchange_ATE <-
  lm_robust(sci_exchange ~ exp_condition, data = df, subset = pid3 != "Independent")

## ATE on reducing bilateral trade
reg_trade_reduce_ATE <-
  lm_robust(trade_reduce ~ exp_condition, data = df, subset = pid3 != "Independent")

## ATE on offering industry subsidy
reg_industry_sub_ATE <-
  lm_robust(industry_sub ~ exp_condition, data = df, subset = pid3 != "Independent")

### Figure 1: Average Treatment Effects on Preferences for US Foreign Policy ----
ATE_policy <-
  bind_rows(list(tidy(reg_mil_spending_ATE), tidy(reg_sci_exchange_ATE),
                 tidy(reg_trade_reduce_ATE), tidy(reg_industry_sub_ATE)))
ATE_policy <- subset(ATE_policy, term != "(Intercept)")
ATE_policy <- ATE_policy %>% mutate(treatment = case_when(
  term == "exp_conditionBiden Threat Prime" ~ "Biden Threat Prime",
  term == "exp_conditionTrump Threat Prime" ~ "Trump Threat Prime",
  term == "exp_conditionNonpartisan Threat Prime" ~ "Nonpartisan Threat Prime"
))
ATE_policy$treatment <-
  factor(ATE_policy$treatment,
         levels = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"))
ATE_policy$outcome <-
  factor(ATE_policy$outcome,
         levels = c("mil_spending", "sci_exchange", "trade_reduce", "industry_sub"),
         labels = c("Expanding Military Spending", "Restricting Scientific Exchange",
                    "Reducing U.S.-China Trade", "Offering Industry Subsidy"))
p <- ggplot(data = ATE_policy,
       aes(x = treatment, y = estimate, color = outcome, shape = outcome)) +
  geom_point(position = position_dodge(.5), size = 3) +
  scale_color_manual("Foreign Policy", values = c("grey0", "grey25", "grey50", "grey75")) +
  scale_shape_manual("Foreign Policy", values = c(19, 15, 17, 4)) +
  geom_errorbar(width = 0, aes(ymin = conf.low, ymax = conf.high),
                position = position_dodge(.5)) +
  xlab("") +
  ylab("Average Treatment Effect") +
  theme_bw() +
  theme(text = element_text(color = "black", size = 12, family = "Times"),
        axis.text = element_text(color = "black", family = "Times", size = 11),
```

```
        legend.position = c(.6985, .896),
        legend.direction = "vertical",
        legend.background = element_blank(),
        legend.box.background = element_rect(color = "black"),
        legend.key = element_rect(fill = "white"),
        legend.key.size = unit(1.5, "line"),
        legend.key.height = unit(0, "cm"),
        plot.title = element_text(hjust = 0.5, size = 14, family = "Times")) +
  geom_hline(yintercept = 0, linetype = "dashed", color = "black") +
  coord_cartesian(ylim = c(-0.2, 0.6)) +
  guides(color = guide_legend(nrow = 2, byrow = T))
```

```
p
```

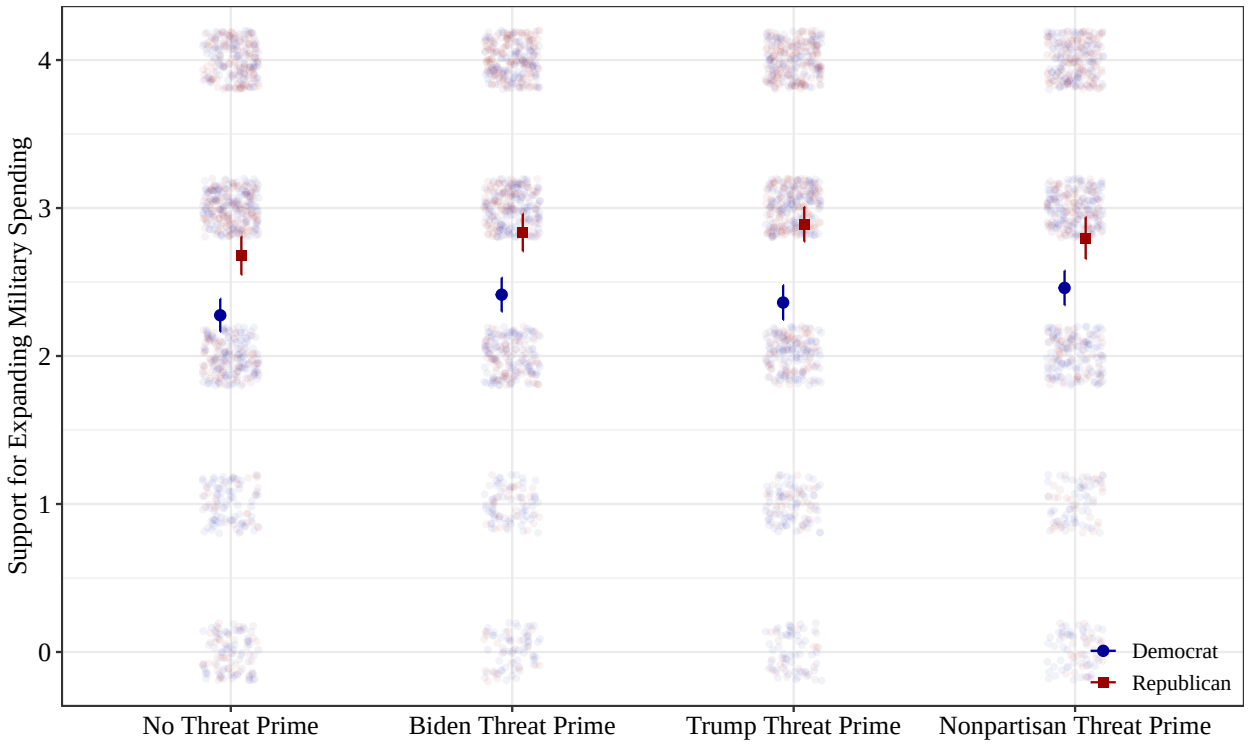



```
# ggsave(file = "ATE_policy.pdf", width = 8, height = 4)
```

```
### Figures S2-S5: Mean and Distribution of Preferences for Foreign Policy Preferences ----
## Support for expanding military spending
summary_temp_dem <- df %>%
  subset(pid3 == "Democrat") %>%
  group_by(exp_condition) %>%
  do(tidy(lm_robust(mil_spending ~ 1, data = .))) %>%
  mutate(mil_spending = estimate, partisanship = "Democrat")
summary_temp_gop <- df %>%
  subset(pid3 == "Republican") %>%
  group_by(exp_condition) %>%
  do(tidy(lm_robust(mil_spending ~ 1, data = .))) %>%
  mutate(mil_spending = estimate, partisanship = "Republican")
summary_temp <- bind_rows(summary_temp_dem, summary_temp_gop)
```

```r
p1 <-
  ggplot(summary_temp, aes(x = exp_condition, y = mil_spending)) +
  geom_jitter(data = subset(df, pid3 == "Democrat"),
              size = 1, alpha = 0.05, na.rm = T, color = "#000099",
              position = position_jitter(width = 0.1, height = 0.2)) +
  geom_jitter(data = subset(df, pid3 == "Republican"),
              size = 1, alpha = 0.05, na.rm = T, color = "#990000",
              position = position_jitter(width = 0.1, height = 0.2)) +
  geom_point(aes(color = partisanship, shape = partisanship),
             size = 2, position = position_dodge(0.15)) +
  scale_color_manual(values = c("#000099", "#990000")) +
  scale_shape_manual(values = c(19, 15)) +
  geom_errorbar(aes(color = partisanship, ymin = conf.low, ymax = conf.high),
                linewidth = 0.5, width = 0, position = position_dodge(.15)) +
  theme_bw() +
  xlab("") +
  ylab("Support for Expanding Military Spending") +
  coord_cartesian(ylim = c(-0.15, 4.15)) +
  theme(text = element_text(color = "black", family = "Times", size = 12),
        axis.text = element_text(color = "black", family = "Times", size = 12),
        legend.justification = c(1, 1), legend.position = c(1, .12),
        legend.background = element_rect(fill = "transparent"),
        legend.box.background = element_rect(color = NA, fill = "transparent"),
        legend.key = element_rect(color = "transparent", fill = "transparent"),
        legend.key.size = unit(1, "line"),
        legend.direction = "vertical",
        legend.margin = margin(t = 0, r = 0.2, b = 0.2, l = 0.2, unit = "cm"),
        legend.title = element_blank())
```

```r
p1
```

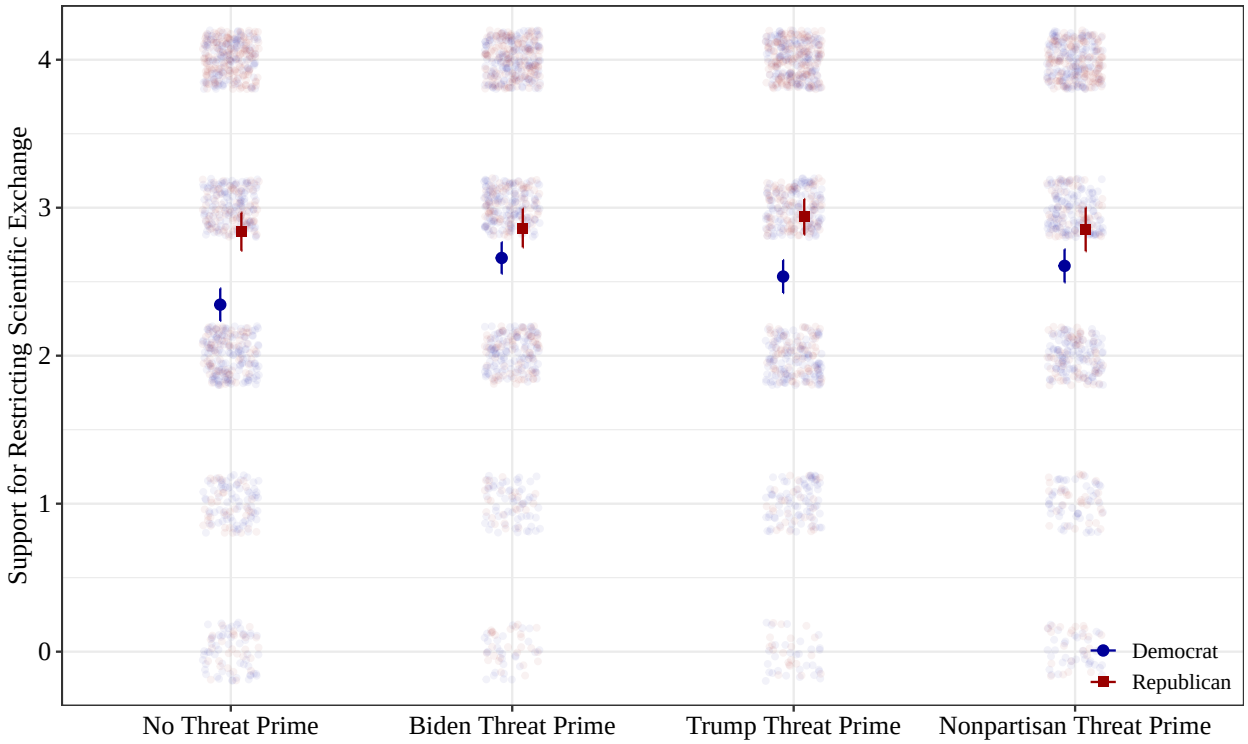



```
# ggsave("distribution_policy1.pdf", p1, width = 8, height = 5)
```

```
## Support for restricting scientific exchange
summary_temp_dem <- df %>%
  subset(pid3 == "Democrat") %>%
  group_by(exp_condition) %>%
  do(tidy(lm_robust(sci_exchange ~ 1, data = .))) %>%
  mutate(sci_exchange = estimate, partisanship = "Democrat")
summary_temp_gop <- df %>%
  subset(pid3 == "Republican") %>%
  group_by(exp_condition) %>%
  do(tidy(lm_robust(sci_exchange ~ 1, data = .))) %>%
  mutate(sci_exchange = estimate, partisanship = "Republican")
summary_temp <- bind_rows(summary_temp_dem, summary_temp_gop)

p2 <-
  ggplot(summary_temp, aes(x = exp_condition, y = sci_exchange)) +
  geom_jitter(data = subset(df, pid3 == "Democrat"),
              size = 1, alpha = 0.05, na.rm = T, color = "#000099",
              position = position_jitter(width = 0.1, height = 0.2)) +
  geom_jitter(data = subset(df, pid3 == "Republican"),
              size = 1, alpha = 0.05, na.rm = T, color = "#990000",
              position = position_jitter(width = 0.1, height = 0.2)) +
  geom_point(aes(color = partisanship, shape = partisanship),
             size = 2, position = position_dodge(0.15)) +
  scale_color_manual(values = c("#000099", "#990000")) +
  scale_shape_manual(values = c(19, 15)) +
```

```
  geom_errorbar(aes(color = partisanship, ymin = conf.low, ymax = conf.high),
                linewidth = 0.5, width = 0, position = position_dodge(.15)) +
  theme_bw() +
  xlab("") +
  ylab("Support for Restricting Scientific Exchange") +
  coord_cartesian(ylim = c(-0.15, 4.15)) +
  theme(text = element_text(color = "black", family = "Times", size = 12),
        axis.text = element_text(color = "black", family = "Times", size = 12),
        legend.justification = c(1, 1), legend.position = c(1, .12),
        legend.background = element_rect(fill = "transparent"),
        legend.box.background = element_rect(color = NA, fill = "transparent"),
        legend.key = element_rect(color = "transparent", fill = "transparent"),
        legend.key.size = unit(1, "line"),
        legend.direction = "vertical",
        legend.margin = margin(t = 0, r = 0.2, b = 0.2, l = 0.2, unit = "cm"),
        legend.title = element_blank())
```

```
p2
```

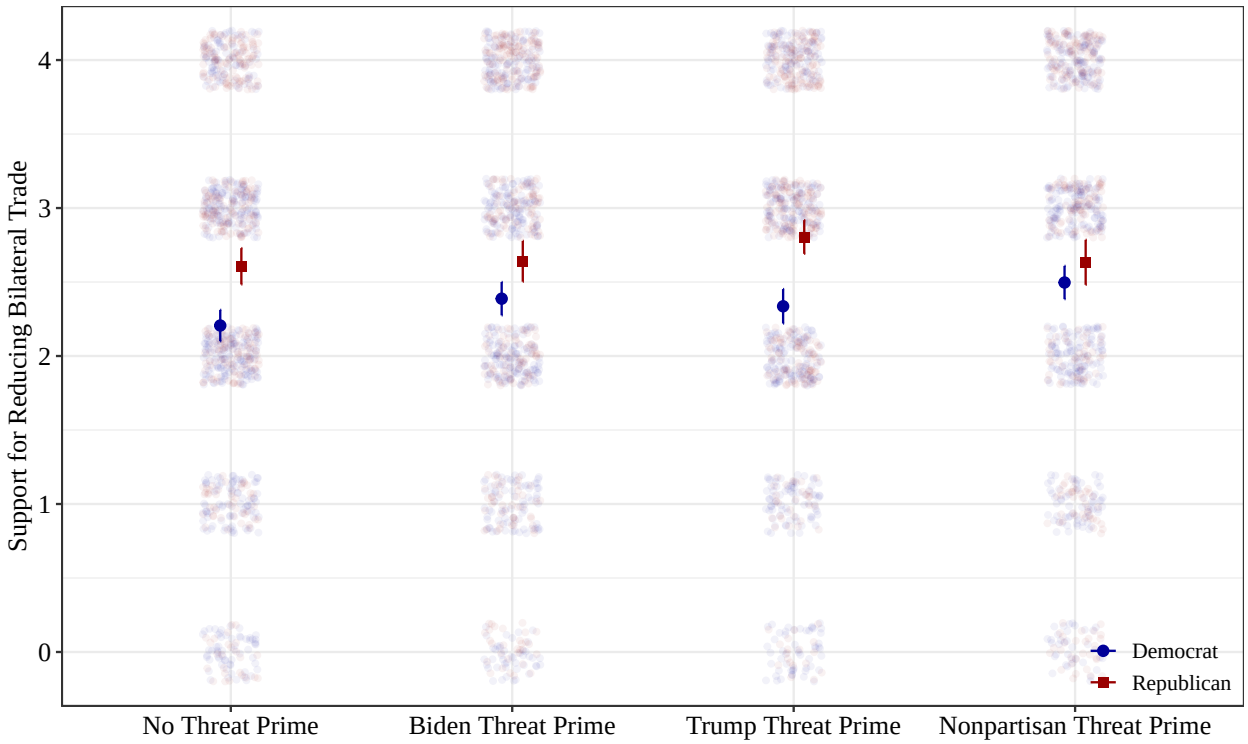



```
# ggsave("distribution_policy2.pdf", p2, width = 8, height = 5)
```

```
## Support for reducing bilateral trade
summary_temp_dem <- df %>%
  subset(pid3 == "Democrat") %>%
  group_by(exp_condition) %>%
  do(tidy(lm_robust(trade_reduce ~ 1, data = .))) %>%
```

```
  mutate(trade_reduce = estimate, partisanship = "Democrat")
summary_temp_gop <- df %>%
  subset(pid3 == "Republican") %>%
  group_by(exp_condition) %>%
  do(tidy(lm_robust(trade_reduce ~ 1, data = .))) %>%
  mutate(trade_reduce = estimate, partisanship = "Republican")
summary_temp <- bind_rows(summary_temp_dem, summary_temp_gop)

p3 <-
  ggplot(summary_temp, aes(x = exp_condition, y = trade_reduce)) +
  geom_jitter(data = subset(df, pid3 == "Democrat"),
              size = 1, alpha = 0.05, na.rm = T, color = "#000099",
              position = position_jitter(width = 0.1, height = 0.2)) +
  geom_jitter(data = subset(df, pid3 == "Republican"),
              size = 1, alpha = 0.05, na.rm = T, color = "#990000",
              position = position_jitter(width = 0.1, height = 0.2)) +
  geom_point(aes(color = partisanship, shape = partisanship),
             size = 2, position = position_dodge(0.15)) +
  scale_color_manual(values = c("#000099", "#990000")) +
  scale_shape_manual(values = c(19, 15)) +
  geom_errorbar(aes(color = partisanship, ymin = conf.low, ymax = conf.high),
                linewidth = 0.5, width = 0, position = position_dodge(.15)) +
  theme_bw() +
  xlab("") +
  ylab("Support for Reducing Bilateral Trade") +
  coord_cartesian(ylim = c(-0.15, 4.15)) +
  theme(text = element_text(color = "black", family = "Times", size = 12),
        axis.text = element_text(color = "black", family = "Times", size = 12),
        legend.justification = c(1, 1), legend.position = c(1, .12),
        legend.background = element_rect(fill = "transparent"),
        legend.box.background = element_rect(color = NA, fill = "transparent"),
        legend.key = element_rect(color = "transparent", fill = "transparent"),
        legend.key.size = unit(1, "line"),
        legend.direction = "vertical",
        legend.margin = margin(t = 0, r = 0.2, b = 0.2, l = 0.2, unit = "cm"),
        legend.title = element_blank())
```

```
p3
```

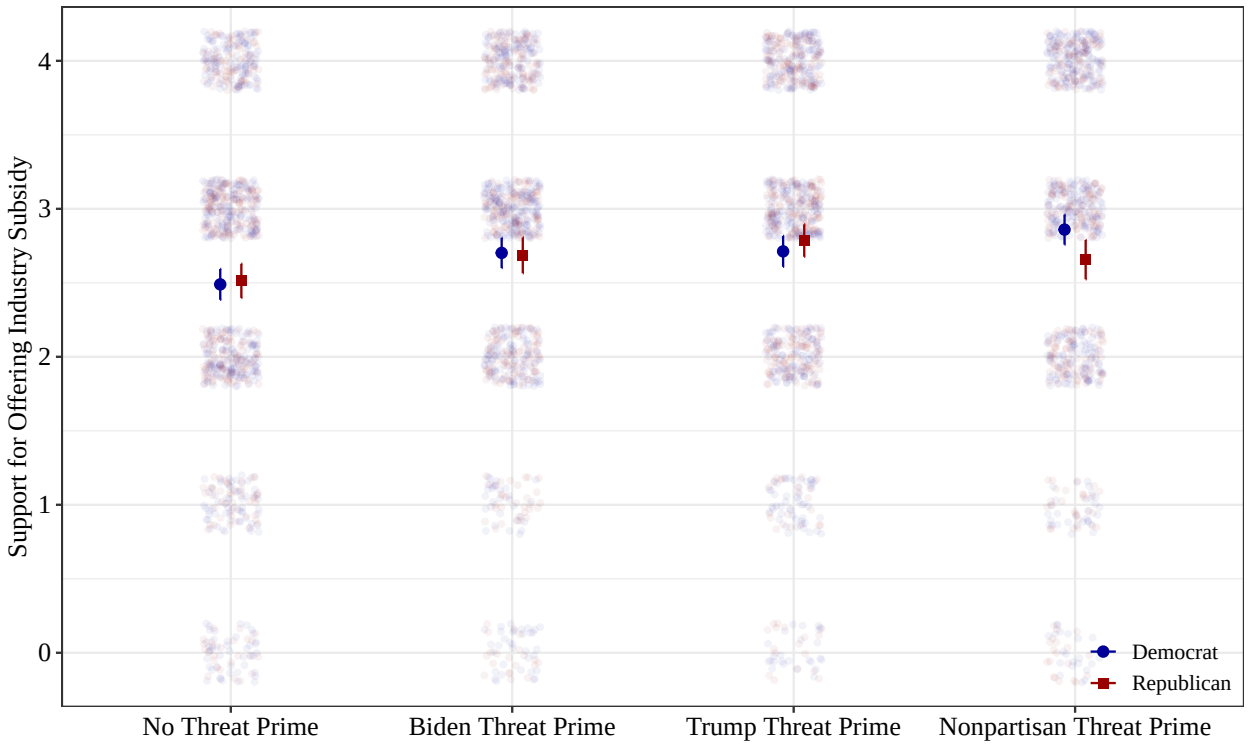



```
# ggsave("distribution_policy3.pdf", p3, width = 8, height = 5)
```

```
## Support for offering industry subsidy
summary_temp_dem <- df %>%
  subset(pid3 == "Democrat") %>%
  group_by(exp_condition) %>%
  do(tidy(lm_robust(industry_sub ~ 1, data = .))) %>%
  mutate(industry_sub = estimate, partisanship = "Democrat")
summary_temp_gop <- df %>%
  subset(pid3 == "Republican") %>%
  group_by(exp_condition) %>%
  do(tidy(lm_robust(industry_sub ~ 1, data = .))) %>%
  mutate(industry_sub = estimate, partisanship = "Republican")
summary_temp <- bind_rows(summary_temp_dem, summary_temp_gop)

p4 <-
  ggplot(summary_temp, aes(x = exp_condition, y = industry_sub)) +
  geom_jitter(data = subset(df, pid3 == "Democrat"),
              size = 1, alpha = 0.05, na.rm = T, color = "#000099",
              position = position_jitter(width = 0.1, height = 0.2)) +
  geom_jitter(data = subset(df, pid3 == "Republican"),
              size = 1, alpha = 0.05, na.rm = T, color = "#990000",
              position = position_jitter(width = 0.1, height = 0.2)) +
  geom_point(aes(color = partisanship, shape = partisanship),
             size = 2, position = position_dodge(0.15)) +
  scale_color_manual(values = c("#000099", "#990000")) +
  scale_shape_manual(values = c(19, 15)) +
```

```
  geom_errorbar(aes(color = partisanship, ymin = conf.low, ymax = conf.high),
                linewidth = 0.5, width = 0, position = position_dodge(.15)) +
  theme_bw() +
  xlab("") +
  ylab("Support for Offering Industry Subsidy") +
  coord_cartesian(ylim = c(-0.15, 4.15)) +
  theme(text = element_text(color = "black", family = "Times", size = 12),
        axis.text = element_text(color = "black", family = "Times", size = 12),
        legend.justification = c(1, 1), legend.position = c(1, .12),
        legend.background = element_rect(fill = "transparent"),
        legend.box.background = element_rect(color = NA, fill = "transparent"),
        legend.key = element_rect(color = "transparent", fill = "transparent"),
        legend.key.size = unit(1, "line"),
        legend.direction = "vertical",
        legend.margin = margin(t = 0, r = 0.2, b = 0.2, l = 0.2, unit = "cm"),
        legend.title = element_blank())
```

```
p4
```



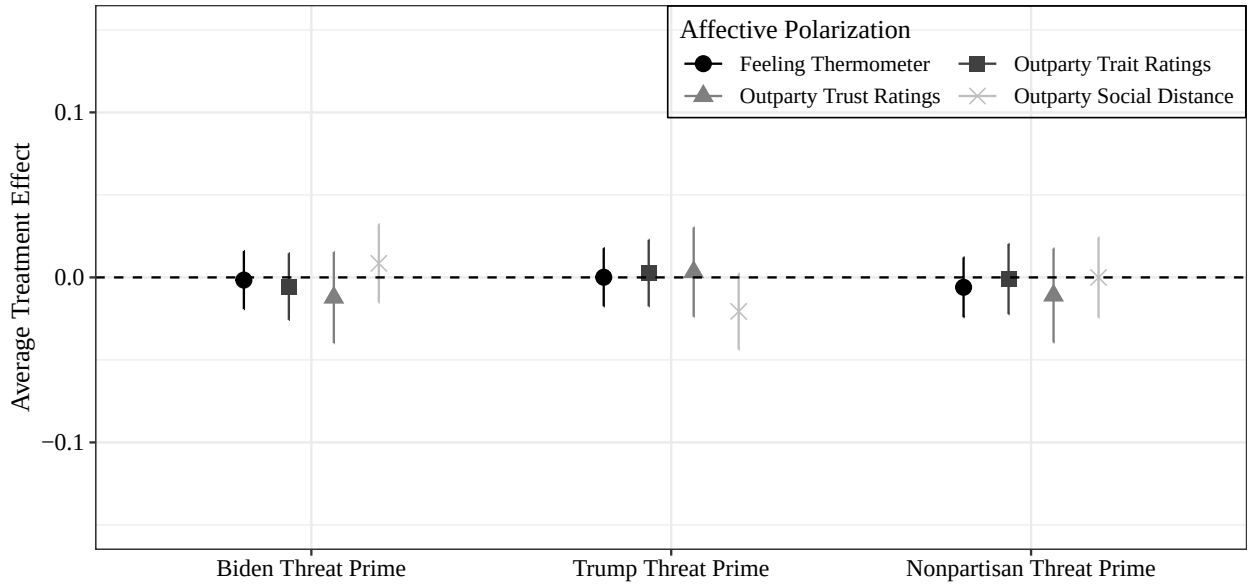

```
# ggsave("distribution_policy4.pdf", p4, width = 8, height = 5)
```

```
### Statistical analyses for ATEs on affective polarization ----
## ATE on feeling thermometer
reg_affpol_FT_ATE <-
  lm_robust(affpol_FT ~ exp_condition, data = df, subset = pid3 != "Independent")
```

```r
## ATE on trait ratings
reg_affpol_trait_ATE <-
  lm_robust(affpol_trait ~ exp_condition, data = df, subset = pid3 != "Independent")

## ATE on trust ratings
reg_affpol_trust_ATE <-
  lm_robust(affpol_trust ~ exp_condition, data = df, subset = pid3 != "Independent")

## ATE on social distance
reg_affpol_dist_ATE <-
  lm_robust(affpol_dist ~ exp_condition, data = df, subset = pid3 != "Independent")

### Figure 3: Average Treatment Effects on Affective Polarization ----
ATE_affpol <-
  bind_rows(list(tidy(reg_affpol_FT_ATE), tidy(reg_affpol_trait_ATE),
                 tidy(reg_affpol_trust_ATE), tidy(reg_affpol_dist_ATE)))
ATE_affpol <- subset(ATE_affpol, term != "(Intercept)")
ATE_affpol <- ATE_affpol %>% mutate(treatment = case_when(
  term == "exp_conditionBiden Threat Prime" ~ "Biden Threat Prime",
  term == "exp_conditionTrump Threat Prime" ~ "Trump Threat Prime",
  term == "exp_conditionNonpartisan Threat Prime" ~ "Nonpartisan Threat Prime"
))
ATE_affpol$treatment <-
  factor(ATE_affpol$treatment,
         levels = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"))
ATE_affpol$outcome <-
  factor(ATE_affpol$outcome,
         levels = c("affpol_FT", "affpol_trait", "affpol_trust", "affpol_dist"),
         labels = c("Feeling Thermometer", "Outparty Trait Ratings",
                    "Outparty Trust Ratings", "Outparty Social Distance"))
p <- ggplot(data = ATE_affpol,
       aes(x = treatment, y = estimate, color = outcome, shape = outcome)) +
  geom_point(position = position_dodge(.5), size = 3) +
  scale_color_manual("Affective Polarization", values = c("grey0", "grey25", "grey50", "grey75"
  scale_shape_manual("Affective Polarization", values = c(19, 15, 17, 4)) +
  geom_errorbar(width = 0, aes(ymin = conf.low, ymax = conf.high),
                position = position_dodge(.5)) +
  xlab("") +
  ylab("Average Treatment Effect") +
  theme_bw() +
  theme(text = element_text(color = "black", size = 12, family = "Times"),
        axis.text = element_text(color = "black", family = "Times", size = 11),
        legend.position = c(.748, .896),
        legend.direction = "vertical",
        legend.background = element_blank(),
        legend.box.background = element_rect(color = "black"),
        legend.key = element_rect(fill = "white"),
```

```
        legend.key.size = unit(1.5, "line"),
        legend.key.height = unit(0, "cm"),
        plot.title = element_text(hjust = 0.5, size = 14, family = "Times")) +
  geom_hline(yintercept = 0, linetype = "dashed", color = "black") +
  coord_cartesian(ylim = c(-0.15, 0.15)) +
  guides(color = guide_legend(nrow = 2, byrow = T))
ggsave(file = "ATE_affpol.pdf", width = 8, height = 4)
```

```
p
```



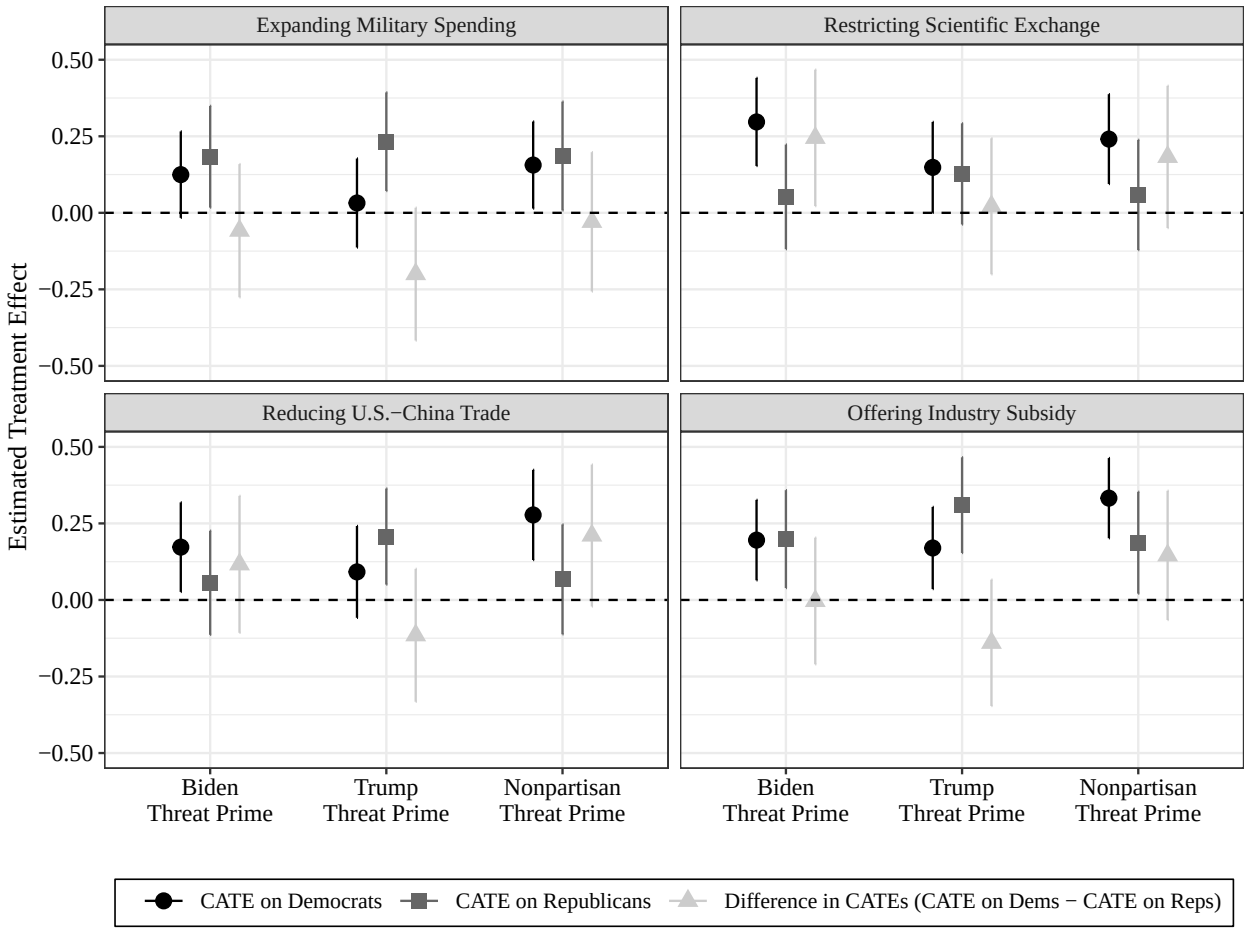

```
# ggsave(file = "ATE_affpol.pdf", width = 8, height = 4)
```

```
### Table S3: OLS Regression Corresponding to Equation (1) ----
df$dem <- ifelse(df$pid3 == "Democrat", 1, 0)

## Support for expanding military spending
mod1.1 <-
  lm_robust(mil_spending ~ exp_condition * dem,
            data = df, subset = pid3 != "Independent")
mod1.2 <-
  lm_robust(mil_spending ~ exp_condition * dem + age + sex + white + educ +
              income + ideo + nationalism + patriotism + nat_id + coop_int,
            data = df, subset = pid3 != "Independent")

## Support for restricting scientific exchange
mod2.1 <-
  lm_robust(sci_exchange ~ exp_condition * dem,
            data = df, subset = pid3 != "Independent")
mod2.2 <-
  lm_robust(sci_exchange ~ exp_condition * dem + age + sex + white + educ +
```

```
              income + ideo + nationalism + patriotism + nat_id + coop_int,
            data = df, subset = pid3 != "Independent")

## Support for reducing bilateral trade
mod3.1 <-
  lm_robust(trade_reduce ~ exp_condition * dem,
            data = df, subset = pid3 != "Independent")
mod3.2 <-
  lm_robust(trade_reduce ~ exp_condition * dem + age + sex + white + educ +
              income + ideo + nationalism + patriotism + nat_id + coop_int,
            data = df, subset = pid3 != "Independent")

## Support for offering industry subsidy
mod4.1 <-
  lm_robust(industry_sub ~ exp_condition * dem,
            data = df, subset = pid3 != "Independent")
mod4.2 <-
  lm_robust(industry_sub ~ exp_condition * dem + age + sex + white + educ +
              income + ideo + nationalism + patriotism + nat_id + coop_int,
            data = df, subset = pid3 != "Independent")
```

```
p
```

	Dependent Variable: 5-P			
	Military Spending	Military Spending	Scientific Exchange	Scientific Excha
Constant	2.68***	1.13***	2.84***	1.48***
	(0.07)	(0.18)	(0.07)	(0.18)
Biden Threat Prime	0.16	0.18*	0.03	0.05
	(0.09)	(0.08)	(0.09)	(0.09)
Trump Threat Prime	0.21*	0.23**	0.10	0.13
	(0.09)	(0.08)	(0.09)	(0.08)
Nonpartisan Threat Prime	0.12	0.19*	0.02	0.06
	(0.10)	(0.09)	(0.10)	(0.09)
Democrat	−0.40***	−0.10	−0.49***	−0.28**
	(0.09)	(0.09)	(0.09)	(0.09)
Biden Threat Prime × Democrat	−0.02	−0.06	0.29*	0.24*
	(0.12)	(0.11)	(0.12)	(0.11)
Trump Threat Prime × Democrat	−0.13	−0.20	0.09	0.02
	(0.12)	(0.11)	(0.12)	(0.11)
Nonpartisan Threat Prime × Democrat	0.07	−0.03	0.25	0.18
	(0.13)	(0.12)	(0.13)	(0.12)
Aged 30-39		0.05		0.22**
		(0.07)		(0.07)
Aged 40-49		0.19*		0.31***
		(0.07)		(0.07)
Aged 50-59		0.26***		0.46***
		(0.07)		(0.07)
Aged 60-69		0.35***		0.65***
		(0.07)		(0.07)
Aged 70+		0.45***		0.71***
		(0.07)		(0.07)
Female		0.02		−0.10*
		(0.04)		(0.04)
White		0.12*		0.12*
		(0.05)		(0.05)
High School		0.11		0.26*
		(0.12)		(0.12)
Some College		0.11		0.28*
		(0.12)		(0.12)
4-Year College		0.05		0.29*
		(0.12)		(0.12)
Postgraduate Degree		−0.03		0.27*
		(0.13)		(0.13)
Income 30K-70K		0.02		0.05
		(0.05)		(0.05)
Income 70K-100K		0.22***		0.11
		(0.06)		(0.06)
Income 100K-200K		0.14*		−0.01
		(0.07)		(0.07)
Income 200K+		0.15		0.07
		(0.12)		(0.12)
Self-Reported Ideology (7-point)		0.12***		0.08***
		(0.01)		(0.01)
Nationalism (5-point)		0.02		−0.02
		(0.02)		(0.02)
Patriotism (4-point)		0.28***		0.12***
		(0.03)		(0.03)
National Identity (5-point)		−0.16***		−0.10***
		(0.02)		(0.02)
Cooperative Internationalism		0.81***		0.71***
		(0.10)		(0.10)
R^2	0.03	0.22	0.02	0.16
Adj. R^2	0.03	0.21	0.02	0.15




```
# ggsave("CATE_policy.pdf", width = 8, height = 6)
```

```
### Exploratory analyses for Independents ----
## Sample size per group
table(df$pid3, df$exp_condition)
```

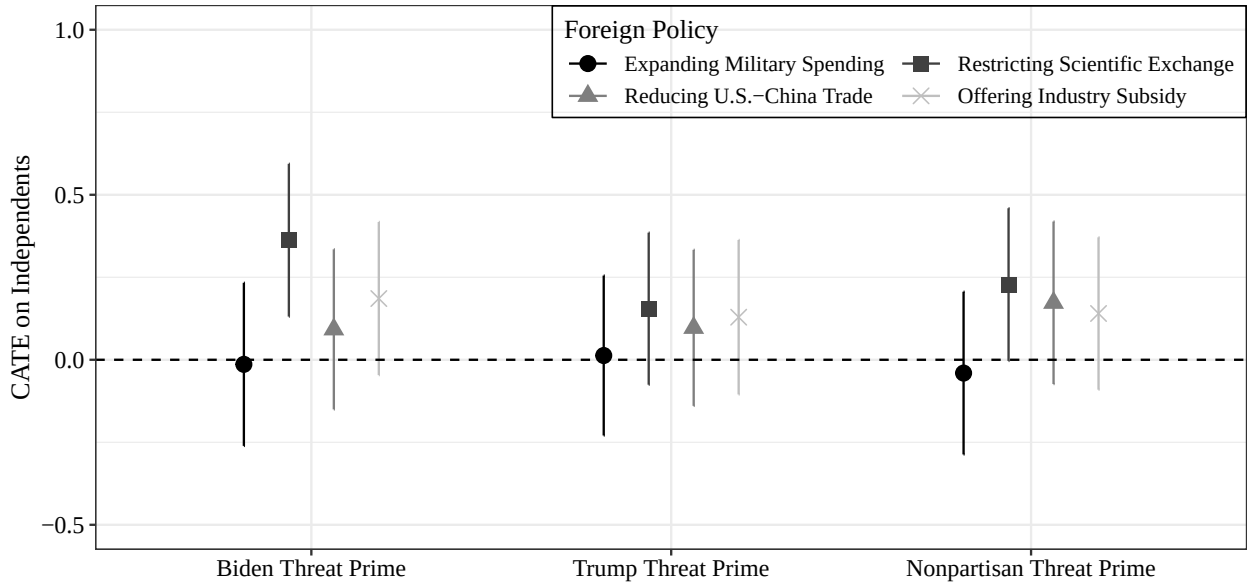
```
##
##               No Threat Prime Biden Threat Prime Trump Threat Prime
##   Independent             156                164                155
##   Democrat                519                480                473
##   Republican              376                350                373
##
##               Nonpartisan Threat Prime
##   Independent                      196
##   Democrat                         464
##   Republican                       300
```

```
## Policy preferences
# CATE on Independents' support for expanding military spending
reg_mil_spending_CATE_ind <-
  lm_robust(mil_spending ~ exp_condition, data = df, subset = pid3 == "Independent")
```

```r
# CATE on Independents' support for restricting scientific exchange
reg_sci_exchange_CATE_ind <-
  lm_robust(sci_exchange ~ exp_condition, data = df, subset = pid3 == "Independent")

# CATE on Independents' support for reducing bilateral trade
reg_trade_reduce_CATE_ind <-
  lm_robust(trade_reduce ~ exp_condition, data = df, subset = pid3 == "Independent")

# CATE on Independents' support for offering industry subsidy
reg_industry_sub_CATE_ind <-
  lm_robust(industry_sub ~ exp_condition, data = df, subset = pid3 == "Independent")

# Figure S14: CATEs for Independents' Foreign Policy Preferences ----
CATE_policy_ind <-
  bind_rows(list(tidy(reg_mil_spending_CATE_ind), tidy(reg_sci_exchange_CATE_ind),
                 tidy(reg_trade_reduce_CATE_ind), tidy(reg_industry_sub_CATE_ind)))
CATE_policy_ind <- subset(CATE_policy_ind, term != "(Intercept)")
CATE_policy_ind <- CATE_policy_ind %>% mutate(treatment = case_when(
  term == "exp_conditionBiden Threat Prime" ~ "Biden Threat Prime",
  term == "exp_conditionTrump Threat Prime" ~ "Trump Threat Prime",
  term == "exp_conditionNonpartisan Threat Prime" ~ "Nonpartisan Threat Prime"
))
CATE_policy_ind$treatment <-
  factor(CATE_policy_ind$treatment,
         levels = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"))
CATE_policy_ind$outcome <-
  factor(CATE_policy_ind$outcome,
         levels = c("mil_spending", "sci_exchange", "trade_reduce", "industry_sub"),
         labels = c("Expanding Military Spending", "Restricting Scientific Exchange",
                    "Reducing U.S.-China Trade", "Offering Industry Subsidy"))
p <- ggplot(data = CATE_policy_ind,
       aes(x = treatment, y = estimate, color = outcome, shape = outcome)) +
  geom_point(position = position_dodge(.5), size = 3) +
  scale_color_manual("Foreign Policy", values = c("grey0", "grey25", "grey50", "grey75")) +
  scale_shape_manual("Foreign Policy", values = c(19, 15, 17, 4)) +
  geom_errorbar(width = 0, aes(ymin = conf.low, ymax = conf.high),
                position = position_dodge(.5)) +
  xlab("") +
  ylab("CATE on Independents") +
  theme_bw() +
  theme(text = element_text(color = "black", size = 12, family = "Times"),
        axis.text = element_text(color = "black", family = "Times", size = 11),
        legend.position = c(.698, .896),
        legend.direction = "vertical",
        legend.background = element_blank(),
        legend.box.background = element_rect(color = "black"),
        legend.key = element_rect(fill = "white"),
```

```
        legend.key.size = unit(1.5, "line"),
        legend.key.height = unit(0, "cm"),
        plot.title = element_text(hjust = 0.5, size = 14, family = "Times")) +
  geom_hline(yintercept = 0, linetype = "dashed", color = "black") +
  coord_cartesian(ylim = c(-0.5, 1)) +
  guides(color = guide_legend(nrow = 2, byrow = T))
```

```
p
```

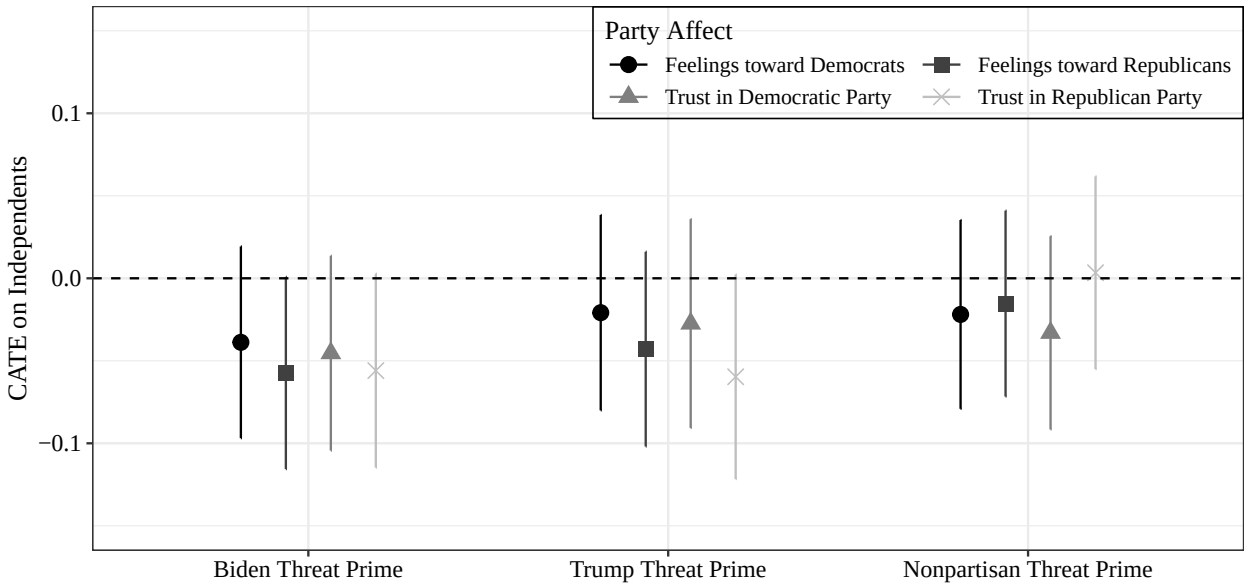



```
# ggsave(file = "CATE_policy_ind.pdf", width = 8, height = 4)
```

```
## Party affect
# CATE on Independents' feelings toward Democrats
df$affect_dem <- rescale(df$affpol_FT_1, 0, 100)
reg_affect_dem_CATE_ind <-
  lm_robust(affect_dem ~ exp_condition, data = df, subset = pid3 == "Independent")

# CATE on Independents' feelings toward Republicans
df$affect_gop <- rescale(df$affpol_FT_2, 0, 100)
reg_affect_gop_CATE_ind <-
  lm_robust(affect_gop ~ exp_condition, data = df, subset = pid3 == "Independent")

# CATE on Independents' trust in the Democratic Party
df$trust_dem <- rescale(df$affpol_trust_dem, 1, 5)
reg_trust_dem_CATE_ind <-
  lm_robust(trust_dem ~ exp_condition, data = df, subset = pid3 == "Independent")

# CATE on Independents' trust in the Republican Party
df$trust_gop <- rescale(df$affpol_trust_gop, 1, 5)
reg_trust_gop_CATE_ind <-
```

```
  lm_robust(trust_gop ~ exp_condition, data = df, subset = pid3 == "Independent")

# Figure S15: CATEs for Independents' toward Democrats and Republicans ----
CATE_affect_ind <-
  bind_rows(list(tidy(reg_affect_dem_CATE_ind), tidy(reg_affect_gop_CATE_ind),
                 tidy(reg_trust_dem_CATE_ind), tidy(reg_trust_gop_CATE_ind)))
CATE_affect_ind <- subset(CATE_affect_ind, term != "(Intercept)")
CATE_affect_ind <- CATE_affect_ind %>% mutate(treatment = case_when(
  term == "exp_conditionBiden Threat Prime" ~ "Biden Threat Prime",
  term == "exp_conditionTrump Threat Prime" ~ "Trump Threat Prime",
  term == "exp_conditionNonpartisan Threat Prime" ~ "Nonpartisan Threat Prime"
))
CATE_affect_ind$treatment <-
  factor(CATE_affect_ind$treatment,
         levels = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"))
CATE_affect_ind$outcome <-
  factor(CATE_affect_ind$outcome,
         levels = c("affect_dem", "affect_gop", "trust_dem", "trust_gop"),
         labels = c("Feelings toward Democrats", "Feelings toward Republicans",
                    "Trust in Democratic Party", "Trust in Republican Party"))
p <- ggplot(data = CATE_affect_ind,
       aes(x = treatment, y = estimate, color = outcome, shape = outcome)) +
  geom_point(position = position_dodge(.5), size = 3) +
  scale_color_manual("Party Affect", values = c("grey0", "grey25", "grey50", "grey75")) +
  scale_shape_manual("Party Affect", values = c(19, 15, 17, 4)) +
  geom_errorbar(width = 0, aes(ymin = conf.low, ymax = conf.high),
                position = position_dodge(.5)) +
  xlab("") +
  ylab("CATE on Independents") +
  theme_bw() +
  theme(text = element_text(color = "black", size = 12, family = "Times"),
        axis.text = element_text(color = "black", family = "Times", size = 11),
        legend.position = c(.717, .896),
        legend.direction = "vertical",
        legend.background = element_blank(),
        legend.box.background = element_rect(color = "black"),
        legend.key = element_rect(fill = "white"),
        legend.key.size = unit(1.5, "line"),
        legend.key.height = unit(0, "cm"),
        plot.title = element_text(hjust = 0.5, size = 14, family = "Times")) +
  geom_hline(yintercept = 0, linetype = "dashed", color = "black") +
  coord_cartesian(ylim = c(-0.15, 0.15)) +
  guides(color = guide_legend(nrow = 2, byrow = T))
```

```
p
```

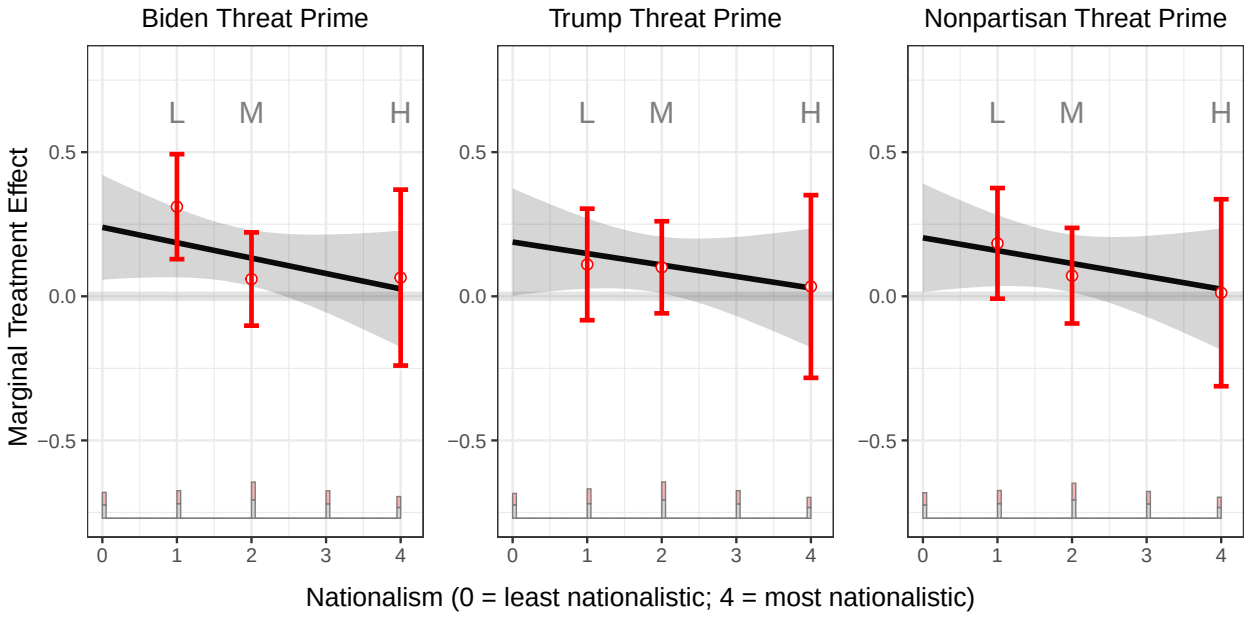



```
# ggsave(file = "CATE_affect_ind.pdf", width = 8, height = 4)
```

```
### Figures S6-S13: Heterogeneous Treatment Effects on Foreign Policy Preferences ----
## By nationalism
# Expanding military spending
HTE_nat_mil <-
  interflex(Y = "mil_spending", D = "exp_condition", X = "nationalism",
            Z = c("age", "sex", "white", "educ", "income", "ideo", "pid7",
                  "patriotism", "nat_id", "coop_int"),
            base = "No Threat Prime",
            data = df, na.rm = TRUE,
            estimator = "binning", vcov.type = "robust")
```

```
## Baseline group: treat = No Threat Prime
```

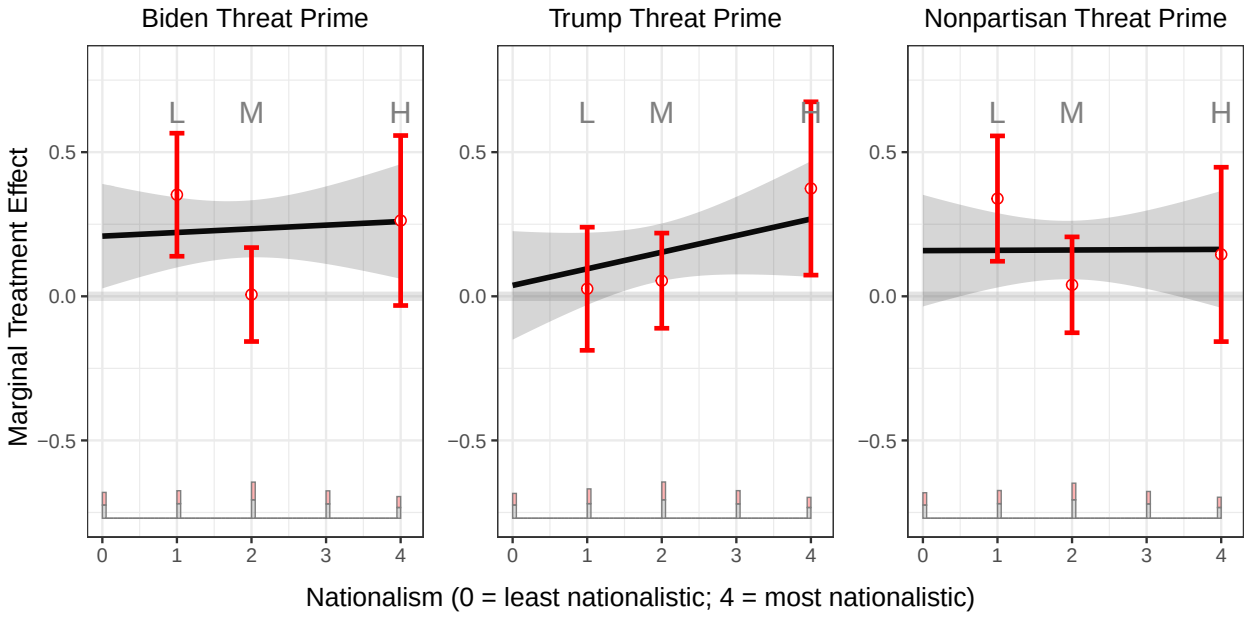
```
plot(HTE_nat_mil, order = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Pri
     subtitles = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"),
     theme.bw = TRUE, cex.axis = 1.2, cex.lab = 0.8, bin.labs = TRUE,
     xlab = "Nationalism (0 = least nationalistic; 4 = most nationalistic)",
     ylab = "Marginal Treatment Effect", ylim = c(-0.7, 0.7),
     file = "HTE_nat_mil.pdf", width = 8, height = 4)
```




```
# Restricting scientific exchange
HTE_nat_sci <-
  interflex(Y = "sci_exchange", D = "exp_condition", X = "nationalism",
            Z = c("age", "sex", "white", "educ", "income", "ideo", "pid7",
                  "patriotism", "nat_id", "coop_int"),
            base = "No Threat Prime",
            data = df, na.rm = TRUE,
            estimator = "binning", vcov.type = "robust")
```

```
## Baseline group: treat = No Threat Prime
```

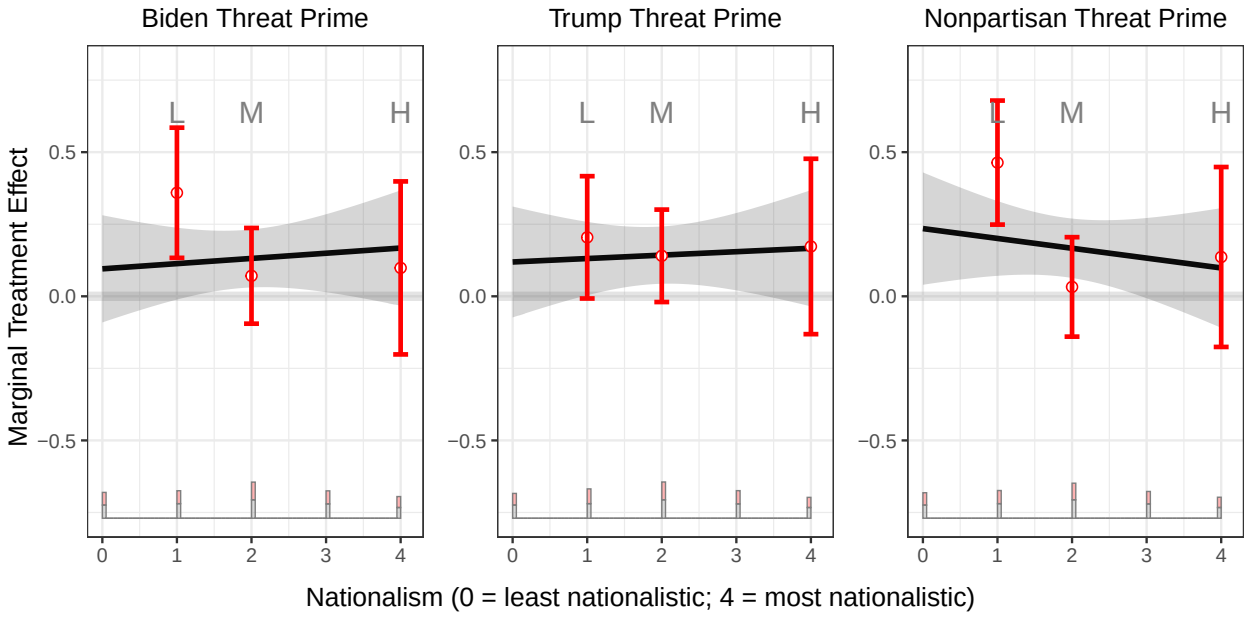
```
plot(HTE_nat_sci, order = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Pri
     subtitles = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"),
     theme.bw = TRUE, cex.axis = 1.2, cex.lab = 0.8, bin.labs = TRUE,
     xlab = "Nationalism (0 = least nationalistic; 4 = most nationalistic)",
     ylab = "Marginal Treatment Effect", ylim = c(-0.7, 0.7),
     file = "HTE_nat_sci.pdf", width = 8, height = 4)
```




```
# Reducing bilateral trade
HTE_nat_trade <-
  interflex(Y = "trade_reduce", D = "exp_condition", X = "nationalism",
            Z = c("age", "sex", "white", "educ", "income", "ideo", "pid7",
                  "patriotism", "nat_id", "coop_int"),
            base = "No Threat Prime",
            data = df, na.rm = TRUE,
            estimator = "binning", vcov.type = "robust")
```

```
## Baseline group: treat = No Threat Prime
```

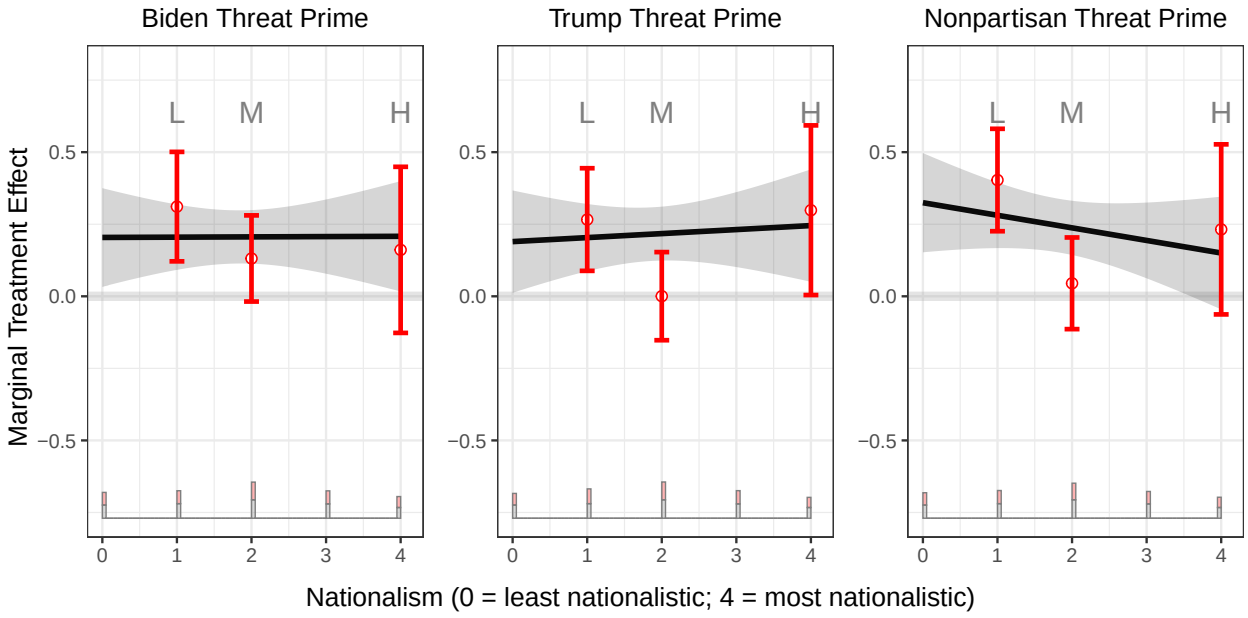
```
plot(HTE_nat_trade, order = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat P
     subtitles = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"),
     theme.bw = TRUE, cex.axis = 1.2, cex.lab = 0.8, bin.labs = TRUE,
     xlab = "Nationalism (0 = least nationalistic; 4 = most nationalistic)",
     ylab = "Marginal Treatment Effect", ylim = c(-0.7, 0.7),
     file = "HTE_nat_trade.pdf", width = 8, height = 4)
```




```
# Offering industry subsidy
HTE_nat_sub <-
  interflex(Y = "industry_sub", D = "exp_condition", X = "nationalism",
            Z = c("age", "sex", "white", "educ", "income", "ideo", "pid7",
                  "patriotism", "nat_id", "coop_int"),
            base = "No Threat Prime",
            data = df, na.rm = TRUE,
            estimator = "binning", vcov.type = "robust")
```

```
## Baseline group: treat = No Threat Prime
```

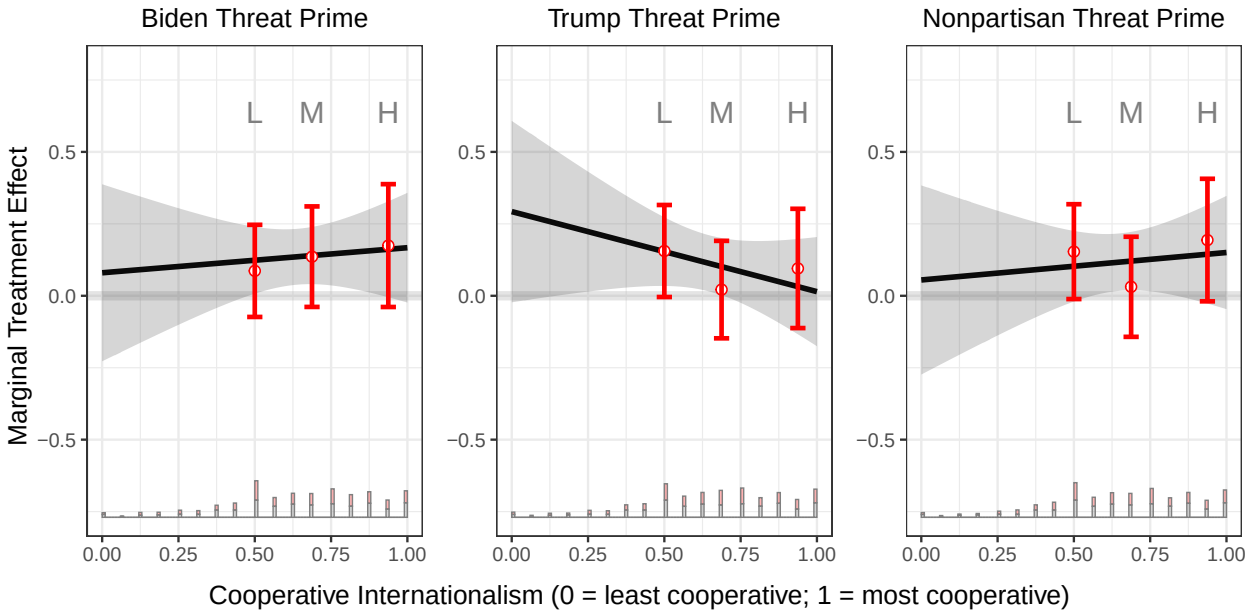
```
plot(HTE_nat_sub, order = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Pri
     subtitles = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"),
     theme.bw = TRUE, cex.axis = 1.2, cex.lab = 0.8, bin.labs = TRUE,
     xlab = "Nationalism (0 = least nationalistic; 4 = most nationalistic)",
     ylab = "Marginal Treatment Effect", ylim = c(-0.7, 0.7),
     file = "HTE_nat_sub.pdf", width = 8, height = 4)
```




```
## By cooperative internationalism
# Expanding military spending
HTE_coop_mil <-
  interflex(Y = "mil_spending", D = "exp_condition", X = "coop_int",
            Z = c("age", "sex", "white", "educ", "income", "ideo", "pid7",
                  "nationalism", "patriotism", "nat_id"),
            base = "No Threat Prime",
            data = df, na.rm = TRUE,
            estimator = "binning", vcov.type = "robust")
```

```
## Baseline group: treat = No Threat Prime
```

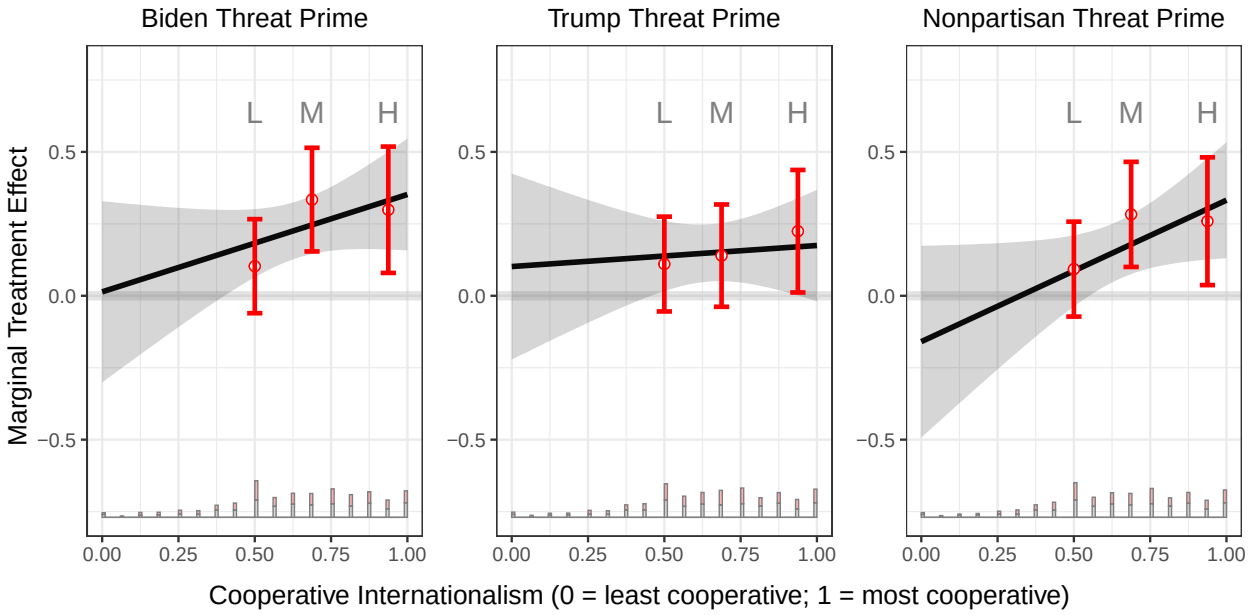
```
plot(HTE_coop_mil, order = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Pr
     subtitles = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"),
     theme.bw = TRUE, cex.axis = 1.2, cex.lab = 0.8, bin.labs = TRUE,
     xlab = "Cooperative Internationalism (0 = least cooperative; 1 = most cooperative)",
     ylab = "Marginal Treatment Effect", ylim = c(-0.7, 0.7),
     file = "HTE_coop_mil.pdf", width = 8, height = 4)
```




```
# Restricting scientific exchange
HTE_coop_sci <-
  interflex(Y = "sci_exchange", D = "exp_condition", X = "coop_int",
            Z = c("age", "sex", "white", "educ", "income", "ideo", "pid7",
                  "nationalism", "patriotism", "nat_id"),
            base = "No Threat Prime",
            data = df, na.rm = TRUE,
            estimator = "binning", vcov.type = "robust")
```

```
## Baseline group: treat = No Threat Prime
```

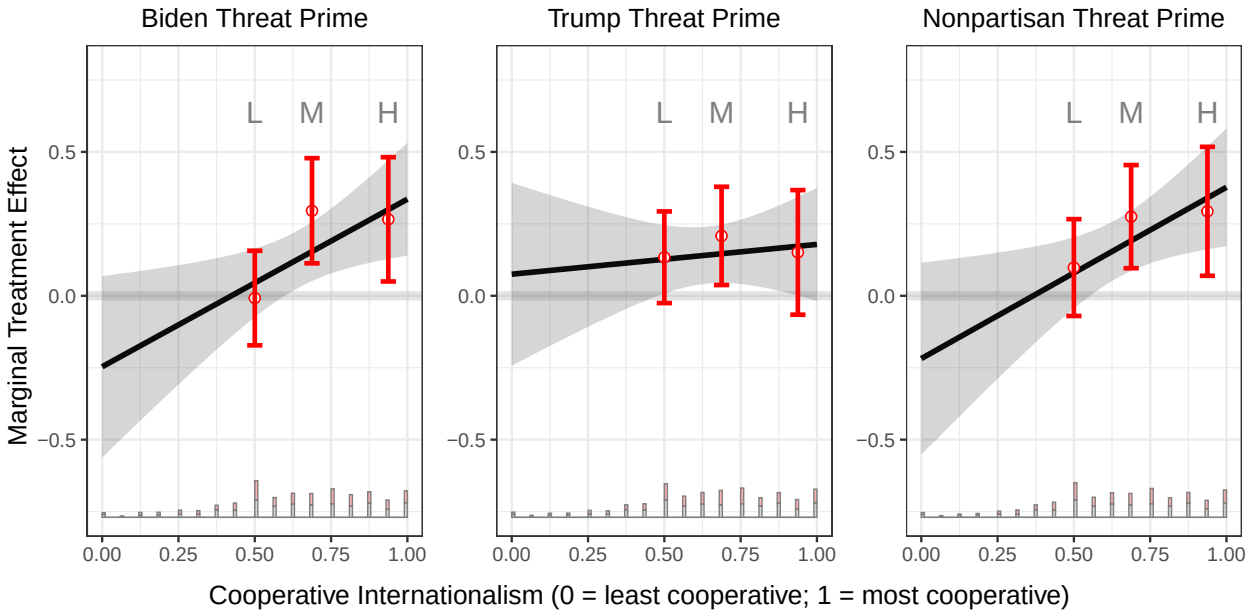
```
plot(HTE_coop_sci, order = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Pr
     subtitles = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"),
     theme.bw = TRUE, cex.axis = 1.2, cex.lab = 0.8, bin.labs = TRUE,
     xlab = "Cooperative Internationalism (0 = least cooperative; 1 = most cooperative)",
     ylab = "Marginal Treatment Effect", ylim = c(-0.7, 0.7),
     file = "HTE_coop_sci.pdf", width = 8, height = 4)
```




```
# Reducing bilateral trade
HTE_coop_trade <-
  interflex(Y = "trade_reduce", D = "exp_condition", X = "coop_int",
            Z = c("age", "sex", "white", "educ", "income", "ideo", "pid7",
                  "nationalism", "patriotism", "nat_id"),
            base = "No Threat Prime",
            data = df, na.rm = TRUE,
            estimator = "binning", vcov.type = "robust")
```

```
## Baseline group: treat = No Threat Prime
```

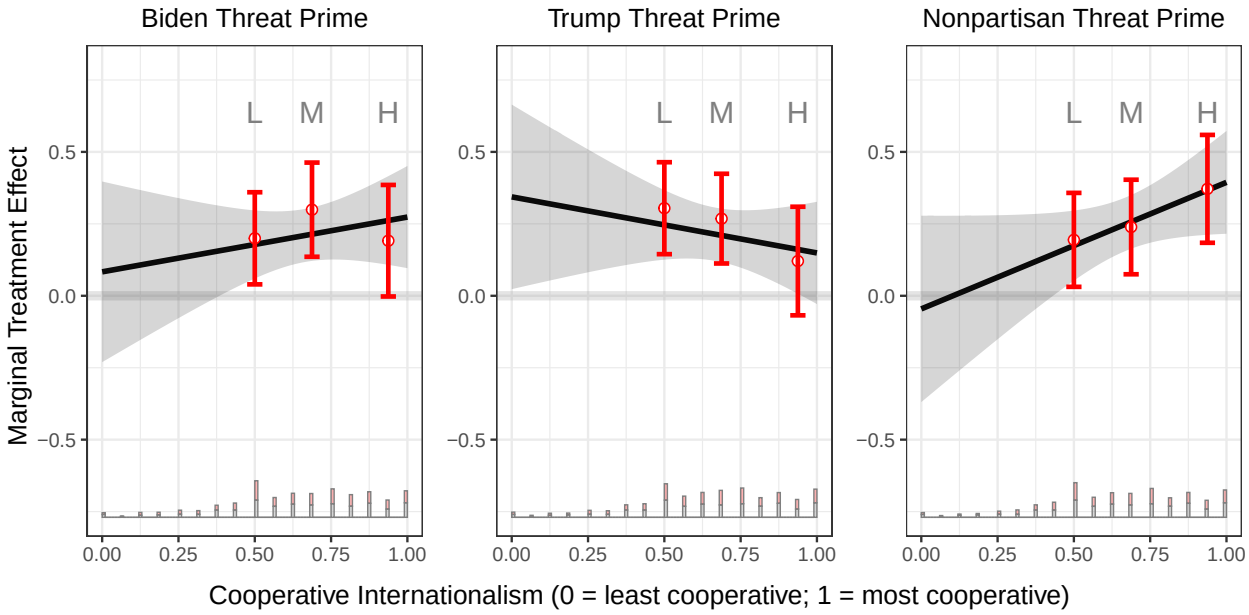
```
plot(HTE_coop_trade, order = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat
     subtitles = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"),
     theme.bw = TRUE, cex.axis = 1.2, cex.lab = 0.8, bin.labs = TRUE,
     xlab = "Cooperative Internationalism (0 = least cooperative; 1 = most cooperative)",
     ylab = "Marginal Treatment Effect", ylim = c(-0.7, 0.7),
     file = "HTE_coop_trade.pdf", width = 8, height = 4)
```




```
# Offering industry subsidy
HTE_coop_sub <-
  interflex(Y = "industry_sub", D = "exp_condition", X = "coop_int",
            Z = c("age", "sex", "white", "educ", "income", "ideo", "pid7",
                  "nationalism", "patriotism", "nat_id"),
            base = "No Threat Prime",
            data = df, na.rm = TRUE,
            estimator = "binning", vcov.type = "robust")
```

```
## Baseline group: treat = No Threat Prime
```

```
plot(HTE_coop_sub, order = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Pr
     subtitles = c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"),
     theme.bw = TRUE, cex.axis = 1.2, cex.lab = 0.8, bin.labs = TRUE,
     xlab = "Cooperative Internationalism (0 = least cooperative; 1 = most cooperative)",
     ylab = "Marginal Treatment Effect", ylim = c(-0.7, 0.7),
     file = "HTE_coop_sub.pdf", width = 8, height = 4)
```




```
### Figure S1: CATEs and Differences-in-CATEs for Democrats' and Republicans' US Foreign Policy
## Create ternary variables for foreign policy preferences
df <- df %>% mutate(mil_spending_alt = case_when(
  mil_spending == 0 | mil_spending == 1 ~ -1,
  mil_spending == 2 ~ 0,
  mil_spending == 3 | mil_spending == 4 ~ 1
))
table(df$mil_spending_alt)
```

```
##
##   -1    0    1
##  820 1020 2162
```

```
df <- df %>% mutate(sci_exchange_alt = case_when(
  sci_exchange == 0 | sci_exchange == 1 ~ -1,
  sci_exchange == 2 ~ 0,
  sci_exchange == 3 | sci_exchange == 4 ~ 1
))
table(df$sci_exchange_alt)
```

```
##
##   -1    0    1
##  720 1063 2219
```

```
df <- df %>% mutate(trade_reduce_alt = case_when(
  trade_reduce == 0 | trade_reduce == 1 ~ -1,
  trade_reduce == 2 ~ 0,
  trade_reduce == 3 | trade_reduce == 4 ~ 1
))
table(df$trade_reduce_alt)
```

```
##
```

```
##   -1    0    1
##  920 1091 1991
```

```
df <- df %>% mutate(industry_sub_alt = case_when(
  industry_sub == 0 | industry_sub == 1 ~ -1,
  industry_sub == 2 ~ 0,
  industry_sub == 3 | industry_sub == 4 ~ 1
))
table(df$industry_sub_alt)
```

```
##
##   -1    0    1
##  607 1125 2270
```

```
## HTE on support for expanding military spending
mod1 <-
  lm_robust(mil_spending_alt ~ exp_condition * dem + age + sex + white + educ +
              income + ideo + nationalism + patriotism + nat_id + coop_int,
            data = df, subset = pid3 != "Independent")

## HTE on support for restricting scientific exchange
mod2 <-
  lm_robust(sci_exchange_alt ~ exp_condition * dem + age + sex + white + educ +
              income + ideo + nationalism + patriotism + nat_id + coop_int,
            data = df, subset = pid3 != "Independent")

## HTE on support for reducing bilateral trade
mod3 <-
  lm_robust(trade_reduce_alt ~ exp_condition * dem + age + sex + white + educ +
              income + ideo + nationalism + patriotism + nat_id + coop_int,
            data = df, subset = pid3 != "Independent")

## HTE on support for offering industry subsidy
mod4 <-
  lm_robust(industry_sub_alt ~ exp_condition * dem + age + sex + white + educ +
              income + ideo + nationalism + patriotism + nat_id + coop_int,
            data = df, subset = pid3 != "Independent")

## Combine the estimates to one data frame and keep relevant estimates only
CATE_summary_df <-
  bind_rows(tidy(mod1), tidy(mod2), tidy(mod3), tidy(mod4)) %>%
  filter(term == "exp_conditionBiden Threat Prime" |
           term == "exp_conditionTrump Threat Prime" |
           term == "exp_conditionNonpartisan Threat Prime" |
           term == "exp_conditionBiden Threat Prime:dem" |
           term == "exp_conditionTrump Threat Prime:dem" |
           term == "exp_conditionNonpartisan Threat Prime:dem")

## Rename the terms
```

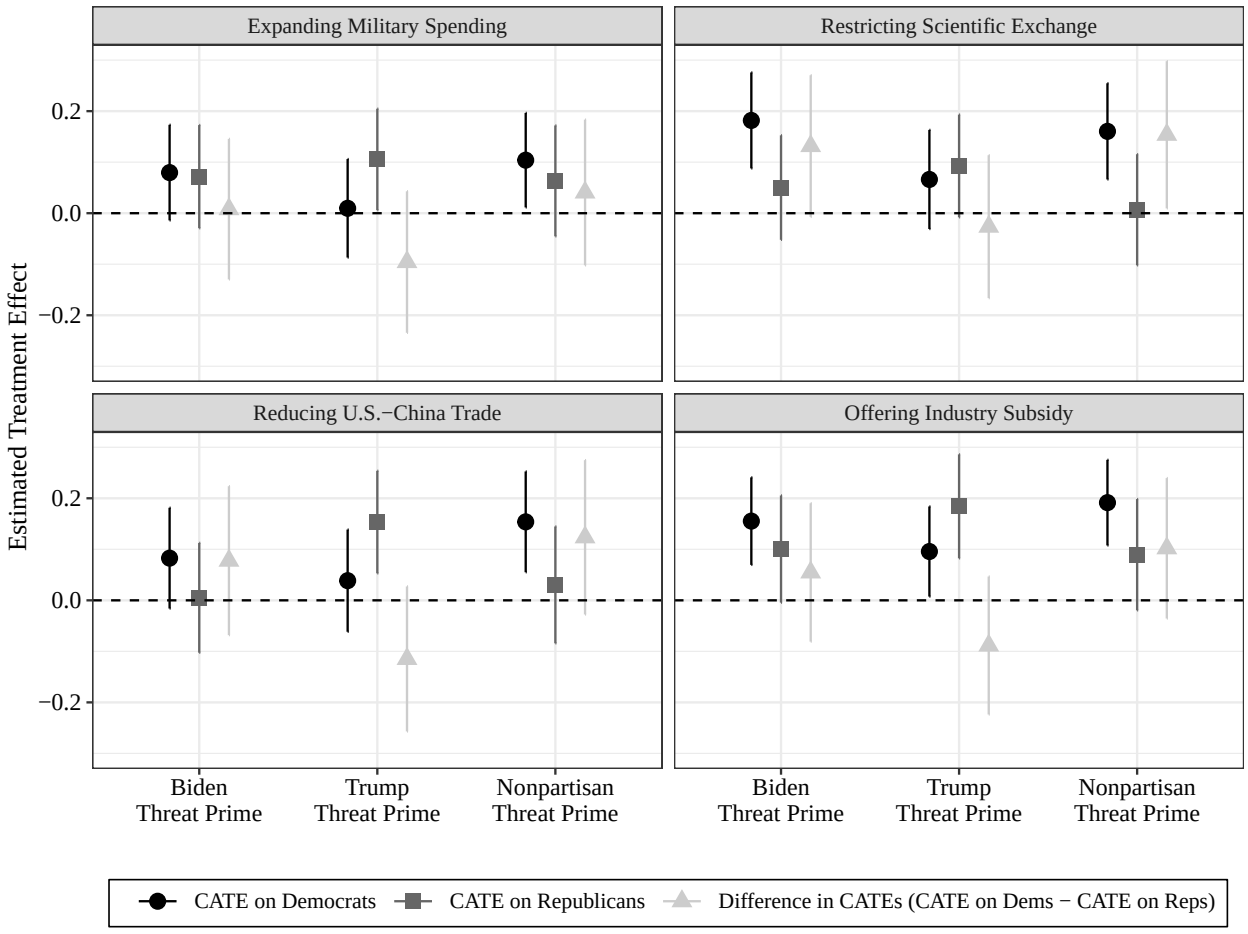
```r
CATE_summary_df$term <-
  factor(CATE_summary_df$term,
         levels = c("exp_conditionBiden Threat Prime",
                    "exp_conditionTrump Threat Prime",
                    "exp_conditionNonpartisan Threat Prime",
                    "exp_conditionBiden Threat Prime:dem",
                    "exp_conditionTrump Threat Prime:dem",
                    "exp_conditionNonpartisan Threat Prime:dem"),
         labels = c(rep("CATE on Republicans", 3),
                    rep("Difference in CATEs (CATE on Dems - CATE on Reps)", 3)))

## Indicate treatment conditions for the estimates
CATE_summary_df <- CATE_summary_df %>% mutate(treatment = rep(1:3, 8))
CATE_summary_df$treatment <-
  factor(CATE_summary_df$treatment, levels = 1:3,
         labels = c("Biden\nThreat Prime", "Trump\nThreat Prime", "Nonpartisan\nThreat Prime"))

## Estimate the CATEs on Democrats and merge them to the data frame
temp_estimate_1 <- glht(mod1, linfct = c("`exp_conditionBiden Threat Prime` + `exp_conditionBi
temp_df_1 <-
  as.data.frame(matrix(c("CATE on Democrats",
                         confint(temp_estimate_1)$confint[ , c("Estimate", "lwr", "upr")],
                         "mil_spending_alt", "Biden\nThreat Prime"),
                       nrow = 1))
temp_df_1 <- temp_df_1 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

temp_estimate_2 <- glht(mod2, linfct = c("`exp_conditionBiden Threat Prime` + `exp_conditionBi
temp_df_2 <-
  as.data.frame(matrix(c("CATE on Democrats",
                         confint(temp_estimate_2)$confint[ , c("Estimate", "lwr", "upr")],
                         "sci_exchange_alt", "Biden\nThreat Prime"),
                       nrow = 1))
temp_df_2 <- temp_df_2 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

temp_estimate_3 <- glht(mod3, linfct = c("`exp_conditionBiden Threat Prime` + `exp_conditionBi
temp_df_3 <-
  as.data.frame(matrix(c("CATE on Democrats",
                         confint(temp_estimate_3)$confint[ , c("Estimate", "lwr", "upr")],
                         "trade_reduce_alt", "Biden\nThreat Prime"),
                       nrow = 1))
temp_df_3 <- temp_df_3 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

temp_estimate_4 <- glht(mod4, linfct = c("`exp_conditionBiden Threat Prime` + `exp_conditionBi
temp_df_4 <-
```

```
  as.data.frame(matrix(c("CATE on Democrats",
                         confint(temp_estimate_4)$confint[ , c("Estimate", "lwr", "upr")],
                         "industry_sub_alt", "Biden\nThreat Prime"),
                       nrow = 1))
temp_df_4 <- temp_df_4 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

## Merge all estimates for Biden treatment to the main data frame
CATE_dem_only <- bind_rows(temp_df_1, temp_df_2, temp_df_3, temp_df_4)
CATE_dem_only$term <- as.factor(CATE_dem_only$term)
CATE_dem_only$estimate <- as.numeric(CATE_dem_only$estimate)
CATE_dem_only$conf.low <- as.numeric(CATE_dem_only$conf.low)
CATE_dem_only$conf.high <- as.numeric(CATE_dem_only$conf.high)
CATE_dem_only$outcome <- as.factor(CATE_dem_only$outcome)
CATE_dem_only$treatment <- as.factor(CATE_dem_only$treatment)
CATE_summary_df <- bind_rows(CATE_summary_df, CATE_dem_only)

temp_estimate_1 <- glht(mod1, linfct = c("`exp_conditionTrump Threat Prime` + `exp_conditionTru
temp_df_1 <-
  as.data.frame(matrix(c("CATE on Democrats",
                         confint(temp_estimate_1)$confint[ , c("Estimate", "lwr", "upr")],
                         "mil_spending_alt", "Trump\nThreat Prime"),
                       nrow = 1))
temp_df_1 <- temp_df_1 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

temp_estimate_2 <- glht(mod2, linfct = c("`exp_conditionTrump Threat Prime` + `exp_conditionTru
temp_df_2 <-
  as.data.frame(matrix(c("CATE on Democrats",
                         confint(temp_estimate_2)$confint[ , c("Estimate", "lwr", "upr")],
                         "sci_exchange_alt", "Trump\nThreat Prime"),
                       nrow = 1))
temp_df_2 <- temp_df_2 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

temp_estimate_3 <- glht(mod3, linfct = c("`exp_conditionTrump Threat Prime` + `exp_conditionTru
temp_df_3 <-
  as.data.frame(matrix(c("CATE on Democrats",
                         confint(temp_estimate_3)$confint[ , c("Estimate", "lwr", "upr")],
                         "trade_reduce_alt", "Trump\nThreat Prime"),
                       nrow = 1))
temp_df_3 <- temp_df_3 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

temp_estimate_4 <- glht(mod4, linfct = c("`exp_conditionTrump Threat Prime` + `exp_conditionTru
temp_df_4 <-
  as.data.frame(matrix(c("CATE on Democrats",
```

```
                        confint(temp_estimate_4)$confint[ , c("Estimate", "lwr", "upr")],
                        "industry_sub_alt", "Trump\nThreat Prime"),
                      nrow = 1))
temp_df_4 <- temp_df_4 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

## Merge all estimates for Trump treatment to the main data frame
CATE_dem_only <- bind_rows(temp_df_1, temp_df_2, temp_df_3, temp_df_4)
CATE_dem_only$term <- as.factor(CATE_dem_only$term)
CATE_dem_only$estimate <- as.numeric(CATE_dem_only$estimate)
CATE_dem_only$conf.low <- as.numeric(CATE_dem_only$conf.low)
CATE_dem_only$conf.high <- as.numeric(CATE_dem_only$conf.high)
CATE_dem_only$outcome <- as.factor(CATE_dem_only$outcome)
CATE_dem_only$treatment <- as.factor(CATE_dem_only$treatment)
CATE_summary_df <- bind_rows(CATE_summary_df, CATE_dem_only)

temp_estimate_1 <- glht(mod1, linfct = c("`exp_conditionNonpartisan Threat Prime` + `exp_condit
temp_df_1 <-
  as.data.frame(matrix(c("CATE on Democrats",
                        confint(temp_estimate_1)$confint[ , c("Estimate", "lwr", "upr")],
                        "mil_spending_alt", "Nonpartisan\nThreat Prime"),
                      nrow = 1))
temp_df_1 <- temp_df_1 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

temp_estimate_2 <- glht(mod2, linfct = c("`exp_conditionNonpartisan Threat Prime` + `exp_condit
temp_df_2 <-
  as.data.frame(matrix(c("CATE on Democrats",
                        confint(temp_estimate_2)$confint[ , c("Estimate", "lwr", "upr")],
                        "sci_exchange_alt", "Nonpartisan\nThreat Prime"),
                      nrow = 1))
temp_df_2 <- temp_df_2 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

temp_estimate_3 <- glht(mod3, linfct = c("`exp_conditionNonpartisan Threat Prime` + `exp_condit
temp_df_3 <-
  as.data.frame(matrix(c("CATE on Democrats",
                        confint(temp_estimate_3)$confint[ , c("Estimate", "lwr", "upr")],
                        "trade_reduce_alt", "Nonpartisan\nThreat Prime"),
                      nrow = 1))
temp_df_3 <- temp_df_3 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

temp_estimate_4 <- glht(mod4, linfct = c("`exp_conditionNonpartisan Threat Prime` + `exp_condit
temp_df_4 <-
  as.data.frame(matrix(c("CATE on Democrats",
                        confint(temp_estimate_4)$confint[ , c("Estimate", "lwr", "upr")],
```

```
                        "industry_sub_alt", "Nonpartisan\nThreat Prime"),
                      nrow = 1))
temp_df_4 <- temp_df_4 %>%
  rename(term = V1, estimate = V2, conf.low = V3, conf.high = V4, outcome = V5, treatment = V6)

## Merge all estimates for Nonpartisan treatment to the main data frame
CATE_dem_only <- bind_rows(temp_df_1, temp_df_2, temp_df_3, temp_df_4)
CATE_dem_only$term <- as.factor(CATE_dem_only$term)
CATE_dem_only$estimate <- as.numeric(CATE_dem_only$estimate)
CATE_dem_only$conf.low <- as.numeric(CATE_dem_only$conf.low)
CATE_dem_only$conf.high <- as.numeric(CATE_dem_only$conf.high)
CATE_dem_only$outcome <- as.factor(CATE_dem_only$outcome)
CATE_dem_only$treatment <- as.factor(CATE_dem_only$treatment)
CATE_summary_df <- bind_rows(CATE_summary_df, CATE_dem_only)
CATE_summary_df$term <- relevel(CATE_summary_df$term, "CATE on Democrats")
CATE_summary_df$outcome <-
  factor(CATE_summary_df$outcome,
         levels = c("mil_spending_alt", "sci_exchange_alt", "trade_reduce_alt", "industry_sub_a
         labels = c("Expanding Military Spending", "Restricting Scientific Exchange",
                    "Reducing U.S.-China Trade", "Offering Industry Subsidy"))

## Plot the estimates
p <- ggplot(data = CATE_summary_df,
       aes(x = treatment, y = estimate, color = term, shape = term)) +
  geom_point(position = position_dodge(.5), size = 3) +
  scale_color_manual("", values = c("grey0", "grey40", "grey80")) +
  scale_shape_manual("", values = c(19, 15, 17)) +
  geom_errorbar(width = 0, aes(ymin = conf.low, ymax = conf.high),
                position = position_dodge(.5)) +
  xlab("") +
  ylab("Estimated Treatment Effect") +
  facet_wrap(~outcome, nrow = 2) +
  theme_bw() +
  theme(text = element_text(color = "black", size = 12, family = "Times"),
        axis.text = element_text(color = "black", family = "Times", size = 11),
        legend.position = "bottom",
        legend.direction = "horizontal",
        legend.background = element_blank(),
        legend.box.background = element_rect(color = "black"),
        legend.key = element_rect(fill = "white"),
        legend.key.size = unit(1.5, "line"),
        legend.key.height = unit(0, "cm"),
        plot.title = element_text(hjust = 0.5, size = 14, family = "Times")) +
  geom_hline(yintercept = 0, linetype = "dashed", color = "black") +
  coord_cartesian(ylim = c(-0.3, 0.3)) +
  guides(color = guide_legend(nrow = 1, byrow = T))
```

```
p
```




```
# ggsave("CATE_policy_alt.pdf", width = 8, height = 6)
```