# Replication Code for Appendix H

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```r
### 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
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 beco
```

```r
library(stm)        # version 1.3.6
```

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

## stm v1.3.6 successfully loaded. See ?stm for help.
##  Papers, resources, and other materials at structuraltopicmodel.com
```

```r
library(tm)         # version 0.7-8
```

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

## Loading required package: NLP

## Warning: package 'NLP' was built under R version 4.0.2

##
## Attaching package: 'NLP'
##
## The following object is masked from 'package:ggplot2':
```

```
##
##      annotate

## Import the dataset
df <- read.csv("survey_data.csv")

## Create indicators of treatment status
table(df$exp_3)

##
##    1    2    3    4
## 1051  994 1001  960

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

## Create a 7-point variable of 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
))
table(df$pid7)

##
##   -3   -2   -1    0    1    2    3
## 1168  424  344  671  308  380  711

## Create a variable that contains all open-ended responses
df <- df %>% mutate(text = case_when(
  exp_condition == "Biden Threat Prime" ~ threat_reinforce_B,
  exp_condition == "Trump Threat Prime" ~ threat_reinforce_T,
```

```r
  exp_condition == "Nonpartisan Threat Prime" ~ threat_reinforce_N
))

### Process the text data ----
## Convert curly apostrophes to straight apostrophes
df$text <- gsub("[\u2018\u2019\u201A\u201B\u2032\u2035]", "'", df$text)

## Standard processing using stm
processed <- textProcessor(df$text, metadata = df)
```

```
## Building corpus...
## Converting to Lower Case...
## Removing punctuation...
## Removing stopwords...
## Removing numbers...
## Stemming...
## Creating Output...
```

```r
out <- prepDocuments(processed$documents, processed$vocab, processed$meta)
```

```
## Removing 1489 of 2802 terms (1489 of 21198 tokens) due to frequency
## Removing 70 Documents with No Words
## Your corpus now has 2736 documents, 1313 terms and 19709 tokens.
```

```r
docs <- out$documents
vocab <- out$vocab
meta <- out$meta

### Run the STM ----
## Assuming K = 3 (i.e., estimating a 3-topic STM)
selectedmodel <-
  stm(out$documents, out$vocab, K = 3,
      prevalence =~ exp_condition * pid7,
      data = out$meta,
      init.type = "Spectral", seed = 1234567)
```

```
## Beginning Spectral Initialization
##    Calculating the gram matrix...
##    Finding anchor words...
##        ...
##    Recovering initialization...
##        ............
## Initialization complete.
## .............................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 1 (approx. per word bound = -6.204)
## .............................................................................................
## Completed E-Step (0 seconds).
```

```
## Completed M-Step.
## Completing Iteration 2 (approx. per word bound = -6.084, relative change = 1.929e-02)
## .................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 3 (approx. per word bound = -6.035, relative change = 8.174e-03)
## .................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 4 (approx. per word bound = -6.013, relative change = 3.654e-03)
## .................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 5 (approx. per word bound = -6.001, relative change = 1.901e-03)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## .................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 6 (approx. per word bound = -5.995, relative change = 1.121e-03)
## .................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 7 (approx. per word bound = -5.990, relative change = 7.258e-04)
## .................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 8 (approx. per word bound = -5.987, relative change = 5.042e-04)
## .................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 9 (approx. per word bound = -5.985, relative change = 3.698e-04)
## .................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 10 (approx. per word bound = -5.983, relative change = 2.826e-04)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## .................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 11 (approx. per word bound = -5.982, relative change = 2.229e-04)
## .................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 12 (approx. per word bound = -5.981, relative change = 1.803e-04)
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```
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 13 (approx. per word bound = -5.980, relative change = 1.489e-04)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 14 (approx. per word bound = -5.979, relative change = 1.251e-04)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 15 (approx. per word bound = -5.979, relative change = 1.069e-04)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 16 (approx. per word bound = -5.978, relative change = 9.300e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 17 (approx. per word bound = -5.978, relative change = 8.221e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 18 (approx. per word bound = -5.977, relative change = 7.384e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 19 (approx. per word bound = -5.977, relative change = 6.715e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 20 (approx. per word bound = -5.976, relative change = 6.177e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 21 (approx. per word bound = -5.976, relative change = 5.731e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 22 (approx. per word bound = -5.976, relative change = 5.350e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
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## Completed M-Step.
## Completing Iteration 23 (approx. per word bound = -5.975, relative change = 5.012e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 24 (approx. per word bound = -5.975, relative change = 4.705e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 25 (approx. per word bound = -5.975, relative change = 4.420e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 26 (approx. per word bound = -5.975, relative change = 4.157e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 27 (approx. per word bound = -5.974, relative change = 3.916e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 28 (approx. per word bound = -5.974, relative change = 3.698e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 29 (approx. per word bound = -5.974, relative change = 3.507e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 30 (approx. per word bound = -5.974, relative change = 3.342e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 31 (approx. per word bound = -5.974, relative change = 3.202e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 32 (approx. per word bound = -5.973, relative change = 3.087e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 33 (approx. per word bound = -5.973, relative change = 2.993e-05)
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## ...................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 34 (approx. per word bound = -5.973, relative change = 2.917e-05)
## ...................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 35 (approx. per word bound = -5.973, relative change = 2.859e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 36 (approx. per word bound = -5.973, relative change = 2.813e-05)
## ...................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 37 (approx. per word bound = -5.972, relative change = 2.780e-05)
## ...................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 38 (approx. per word bound = -5.972, relative change = 2.759e-05)
## ...................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 39 (approx. per word bound = -5.972, relative change = 2.748e-05)
## ...................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 40 (approx. per word bound = -5.972, relative change = 2.749e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 41 (approx. per word bound = -5.972, relative change = 2.764e-05)
## ...................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 42 (approx. per word bound = -5.972, relative change = 2.794e-05)
## ...................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 43 (approx. per word bound = -5.971, relative change = 2.842e-05)
## ...................................................................
## Completed E-Step (0 seconds).
```

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## Completed M-Step.
## Completing Iteration 44 (approx. per word bound = -5.971, relative change = 2.917e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 45 (approx. per word bound = -5.971, relative change = 3.030e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 46 (approx. per word bound = -5.971, relative change = 3.211e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 47 (approx. per word bound = -5.971, relative change = 3.514e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 48 (approx. per word bound = -5.970, relative change = 3.969e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 49 (approx. per word bound = -5.970, relative change = 4.315e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 50 (approx. per word bound = -5.970, relative change = 4.181e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 51 (approx. per word bound = -5.970, relative change = 3.889e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 52 (approx. per word bound = -5.970, relative change = 3.768e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 53 (approx. per word bound = -5.969, relative change = 3.788e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 54 (approx. per word bound = -5.969, relative change = 3.871e-05)
```

```
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 55 (approx. per word bound = -5.969, relative change = 3.972e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 56 (approx. per word bound = -5.969, relative change = 4.074e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 57 (approx. per word bound = -5.968, relative change = 4.162e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 58 (approx. per word bound = -5.968, relative change = 4.230e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 59 (approx. per word bound = -5.968, relative change = 4.275e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 60 (approx. per word bound = -5.968, relative change = 4.291e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 61 (approx. per word bound = -5.967, relative change = 4.281e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 62 (approx. per word bound = -5.967, relative change = 4.247e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 63 (approx. per word bound = -5.967, relative change = 4.196e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 64 (approx. per word bound = -5.967, relative change = 4.134e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
```

```
## Completed M-Step.
## Completing Iteration 65 (approx. per word bound = -5.966, relative change = 4.068e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 66 (approx. per word bound = -5.966, relative change = 4.005e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 67 (approx. per word bound = -5.966, relative change = 3.947e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 68 (approx. per word bound = -5.966, relative change = 3.905e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 69 (approx. per word bound = -5.965, relative change = 3.879e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 70 (approx. per word bound = -5.965, relative change = 3.876e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 71 (approx. per word bound = -5.965, relative change = 3.894e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 72 (approx. per word bound = -5.965, relative change = 3.930e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 73 (approx. per word bound = -5.964, relative change = 3.984e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 74 (approx. per word bound = -5.964, relative change = 4.050e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 75 (approx. per word bound = -5.964, relative change = 4.128e-05)
```

```
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 76 (approx. per word bound = -5.964, relative change = 4.211e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 77 (approx. per word bound = -5.963, relative change = 4.295e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 78 (approx. per word bound = -5.963, relative change = 4.373e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 79 (approx. per word bound = -5.963, relative change = 4.444e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 80 (approx. per word bound = -5.963, relative change = 4.495e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 81 (approx. per word bound = -5.962, relative change = 4.522e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 82 (approx. per word bound = -5.962, relative change = 4.513e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 83 (approx. per word bound = -5.962, relative change = 4.463e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 84 (approx. per word bound = -5.962, relative change = 4.367e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 85 (approx. per word bound = -5.961, relative change = 4.232e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
```

```
##  Topic 3: china, biden, good, unit, will
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 86 (approx. per word bound = -5.961, relative change = 4.077e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 87 (approx. per word bound = -5.961, relative change = 3.921e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 88 (approx. per word bound = -5.961, relative change = 3.786e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 89 (approx. per word bound = -5.960, relative change = 3.689e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 90 (approx. per word bound = -5.960, relative change = 3.629e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 91 (approx. per word bound = -5.960, relative change = 3.611e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 92 (approx. per word bound = -5.960, relative change = 3.625e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 93 (approx. per word bound = -5.960, relative change = 3.664e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 94 (approx. per word bound = -5.959, relative change = 3.720e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 95 (approx. per word bound = -5.959, relative change = 3.783e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...............................................................................
```

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## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 96 (approx. per word bound = -5.959, relative change = 3.851e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 97 (approx. per word bound = -5.959, relative change = 3.916e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 98 (approx. per word bound = -5.958, relative change = 3.974e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 99 (approx. per word bound = -5.958, relative change = 4.026e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 100 (approx. per word bound = -5.958, relative change = 4.068e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 101 (approx. per word bound = -5.958, relative change = 4.104e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 102 (approx. per word bound = -5.957, relative change = 4.136e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 103 (approx. per word bound = -5.957, relative change = 4.166e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 104 (approx. per word bound = -5.957, relative change = 4.202e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 105 (approx. per word bound = -5.957, relative change = 4.248e-05)
## Topic 1: report, need, trump, dont, state
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
```

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## Completing Iteration 106 (approx. per word bound = -5.956, relative change = 4.312e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 107 (approx. per word bound = -5.956, relative change = 4.394e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 108 (approx. per word bound = -5.956, relative change = 4.491e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 109 (approx. per word bound = -5.956, relative change = 4.591e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 110 (approx. per word bound = -5.955, relative change = 4.689e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 111 (approx. per word bound = -5.955, relative change = 4.787e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 112 (approx. per word bound = -5.955, relative change = 4.896e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 113 (approx. per word bound = -5.954, relative change = 5.031e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 114 (approx. per word bound = -5.954, relative change = 5.188e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 115 (approx. per word bound = -5.954, relative change = 5.355e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 116 (approx. per word bound = -5.954, relative change = 5.523e-05)
## ...........................................................................................
```

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## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 117 (approx. per word bound = -5.953, relative change = 5.673e-05)
##  .............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 118 (approx. per word bound = -5.953, relative change = 5.800e-05)
##  .............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 119 (approx. per word bound = -5.952, relative change = 5.896e-05)
##  .............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 120 (approx. per word bound = -5.952, relative change = 5.973e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
##  .............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 121 (approx. per word bound = -5.952, relative change = 6.032e-05)
##  .............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 122 (approx. per word bound = -5.951, relative change = 6.085e-05)
##  .............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 123 (approx. per word bound = -5.951, relative change = 6.137e-05)
##  .............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 124 (approx. per word bound = -5.951, relative change = 6.184e-05)
##  .............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 125 (approx. per word bound = -5.950, relative change = 6.218e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
##  .............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 126 (approx. per word bound = -5.950, relative change = 6.216e-05)
##  .............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
```

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## Completing Iteration 127 (approx. per word bound = -5.950, relative change = 6.172e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 128 (approx. per word bound = -5.949, relative change = 6.065e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 129 (approx. per word bound = -5.949, relative change = 5.921e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 130 (approx. per word bound = -5.949, relative change = 5.757e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, will
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 131 (approx. per word bound = -5.948, relative change = 5.611e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 132 (approx. per word bound = -5.948, relative change = 5.509e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 133 (approx. per word bound = -5.948, relative change = 5.466e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 134 (approx. per word bound = -5.947, relative change = 5.483e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 135 (approx. per word bound = -5.947, relative change = 5.511e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, militari
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 136 (approx. per word bound = -5.947, relative change = 5.531e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 137 (approx. per word bound = -5.946, relative change = 5.526e-05)
## ..................................................................................
```

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## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 138 (approx. per word bound = -5.946, relative change = 5.508e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 139 (approx. per word bound = -5.946, relative change = 5.489e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 140 (approx. per word bound = -5.945, relative change = 5.515e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, threat, like
##  Topic 3: china, biden, good, unit, militari
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 141 (approx. per word bound = -5.945, relative change = 5.568e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 142 (approx. per word bound = -5.945, relative change = 5.678e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 143 (approx. per word bound = -5.944, relative change = 5.831e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 144 (approx. per word bound = -5.944, relative change = 6.030e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 145 (approx. per word bound = -5.943, relative change = 6.265e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, biden, good, militari, unit
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 146 (approx. per word bound = -5.943, relative change = 6.529e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 147 (approx. per word bound = -5.943, relative change = 6.816e-05)
## ...........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
```

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## Completing Iteration 148 (approx. per word bound = -5.942, relative change = 7.111e-05)
##  ...............................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 149 (approx. per word bound = -5.942, relative change = 7.400e-05)
##  ...............................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 150 (approx. per word bound = -5.941, relative change = 7.657e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, biden, militari, good, unit
##  ...............................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 151 (approx. per word bound = -5.941, relative change = 7.884e-05)
##  ...............................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 152 (approx. per word bound = -5.940, relative change = 8.092e-05)
##  ...............................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 153 (approx. per word bound = -5.940, relative change = 8.300e-05)
##  ...............................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 154 (approx. per word bound = -5.939, relative change = 8.508e-05)
##  ...............................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 155 (approx. per word bound = -5.939, relative change = 8.712e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, militari, biden, good, unit
##  ...............................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 156 (approx. per word bound = -5.938, relative change = 8.891e-05)
##  ...............................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 157 (approx. per word bound = -5.938, relative change = 9.023e-05)
##  ...............................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 158 (approx. per word bound = -5.937, relative change = 9.085e-05)
##  ...............................................................................................
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## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 159 (approx. per word bound = -5.937, relative change = 9.056e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 160 (approx. per word bound = -5.936, relative change = 8.915e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, militari, biden, good, unit
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 161 (approx. per word bound = -5.936, relative change = 8.660e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 162 (approx. per word bound = -5.935, relative change = 8.319e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 163 (approx. per word bound = -5.935, relative change = 7.918e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 164 (approx. per word bound = -5.934, relative change = 7.512e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 165 (approx. per word bound = -5.934, relative change = 7.151e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, militari, biden, good, unit
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 166 (approx. per word bound = -5.933, relative change = 6.863e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 167 (approx. per word bound = -5.933, relative change = 6.674e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 168 (approx. per word bound = -5.933, relative change = 6.583e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
```

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## Completing Iteration 169 (approx. per word bound = -5.932, relative change = 6.588e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 170 (approx. per word bound = -5.932, relative change = 6.647e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, militari, biden, state, good
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 171 (approx. per word bound = -5.932, relative change = 6.752e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 172 (approx. per word bound = -5.931, relative change = 6.888e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 173 (approx. per word bound = -5.931, relative change = 6.999e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 174 (approx. per word bound = -5.930, relative change = 7.074e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 175 (approx. per word bound = -5.930, relative change = 7.076e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, militari, biden, good
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 176 (approx. per word bound = -5.929, relative change = 7.033e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 177 (approx. per word bound = -5.929, relative change = 6.954e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 178 (approx. per word bound = -5.929, relative change = 6.868e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 179 (approx. per word bound = -5.928, relative change = 6.786e-05)
## ...............................................................................
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## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 180 (approx. per word bound = -5.928, relative change = 6.721e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, militari, threat, biden
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 181 (approx. per word bound = -5.927, relative change = 6.653e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 182 (approx. per word bound = -5.927, relative change = 6.592e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 183 (approx. per word bound = -5.927, relative change = 6.489e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 184 (approx. per word bound = -5.926, relative change = 6.263e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 185 (approx. per word bound = -5.926, relative change = 5.900e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, militari, threat, biden
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 186 (approx. per word bound = -5.926, relative change = 5.507e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 187 (approx. per word bound = -5.925, relative change = 5.138e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 188 (approx. per word bound = -5.925, relative change = 4.864e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 189 (approx. per word bound = -5.925, relative change = 4.682e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
```

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## Completing Iteration 190 (approx. per word bound = -5.924, relative change = 4.554e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 191 (approx. per word bound = -5.924, relative change = 4.436e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 192 (approx. per word bound = -5.924, relative change = 4.346e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 193 (approx. per word bound = -5.924, relative change = 4.313e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 194 (approx. per word bound = -5.923, relative change = 4.377e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 195 (approx. per word bound = -5.923, relative change = 4.518e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 196 (approx. per word bound = -5.923, relative change = 4.716e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 197 (approx. per word bound = -5.923, relative change = 4.917e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 198 (approx. per word bound = -5.922, relative change = 5.078e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 199 (approx. per word bound = -5.922, relative change = 5.160e-05)
## .........................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 200 (approx. per word bound = -5.922, relative change = 5.151e-05)
## Topic 1: report, need, trump, dont, countri
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##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 201 (approx. per word bound = -5.921, relative change = 5.034e-05)
## ................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 202 (approx. per word bound = -5.921, relative change = 4.832e-05)
## ................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 203 (approx. per word bound = -5.921, relative change = 4.552e-05)
## ................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 204 (approx. per word bound = -5.921, relative change = 4.234e-05)
## ................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 205 (approx. per word bound = -5.920, relative change = 3.928e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 206 (approx. per word bound = -5.920, relative change = 3.653e-05)
## ................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 207 (approx. per word bound = -5.920, relative change = 3.427e-05)
## ................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 208 (approx. per word bound = -5.920, relative change = 3.249e-05)
## ................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 209 (approx. per word bound = -5.920, relative change = 3.101e-05)
## ................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 210 (approx. per word bound = -5.919, relative change = 2.971e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
```

```
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 211 (approx. per word bound = -5.919, relative change = 2.839e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 212 (approx. per word bound = -5.919, relative change = 2.704e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 213 (approx. per word bound = -5.919, relative change = 2.563e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 214 (approx. per word bound = -5.919, relative change = 2.437e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 215 (approx. per word bound = -5.919, relative change = 2.324e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 216 (approx. per word bound = -5.918, relative change = 2.241e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 217 (approx. per word bound = -5.918, relative change = 2.192e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 218 (approx. per word bound = -5.918, relative change = 2.176e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 219 (approx. per word bound = -5.918, relative change = 2.194e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 220 (approx. per word bound = -5.918, relative change = 2.226e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ....................................................................................
## Completed E-Step (0 seconds).
```

```
## Completed M-Step.
## Completing Iteration 221 (approx. per word bound = -5.918, relative change = 2.265e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 222 (approx. per word bound = -5.918, relative change = 2.303e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 223 (approx. per word bound = -5.918, relative change = 2.341e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 224 (approx. per word bound = -5.917, relative change = 2.379e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 225 (approx. per word bound = -5.917, relative change = 2.419e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 226 (approx. per word bound = -5.917, relative change = 2.463e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 227 (approx. per word bound = -5.917, relative change = 2.490e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 228 (approx. per word bound = -5.917, relative change = 2.506e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 229 (approx. per word bound = -5.917, relative change = 2.520e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 230 (approx. per word bound = -5.917, relative change = 2.532e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 231 (approx. per word bound = -5.916, relative change = 2.560e-05)
```

```
## ......................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 232 (approx. per word bound = -5.916, relative change = 2.582e-05)
## ......................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 233 (approx. per word bound = -5.916, relative change = 2.583e-05)
## ......................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 234 (approx. per word bound = -5.916, relative change = 2.565e-05)
## ......................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 235 (approx. per word bound = -5.916, relative change = 2.514e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ......................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 236 (approx. per word bound = -5.916, relative change = 2.437e-05)
## ......................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 237 (approx. per word bound = -5.915, relative change = 2.378e-05)
## ......................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 238 (approx. per word bound = -5.915, relative change = 2.344e-05)
## ......................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 239 (approx. per word bound = -5.915, relative change = 2.352e-05)
## ......................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 240 (approx. per word bound = -5.915, relative change = 2.393e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ......................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 241 (approx. per word bound = -5.915, relative change = 2.474e-05)
## ......................................................................................
## Completed E-Step (0 seconds).
```

```
## Completed M-Step.
## Completing Iteration 242 (approx. per word bound = -5.915, relative change = 2.579e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 243 (approx. per word bound = -5.915, relative change = 2.710e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 244 (approx. per word bound = -5.914, relative change = 2.866e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 245 (approx. per word bound = -5.914, relative change = 3.037e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 246 (approx. per word bound = -5.914, relative change = 3.212e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 247 (approx. per word bound = -5.914, relative change = 3.360e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 248 (approx. per word bound = -5.914, relative change = 3.458e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 249 (approx. per word bound = -5.913, relative change = 3.489e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 250 (approx. per word bound = -5.913, relative change = 3.453e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 251 (approx. per word bound = -5.913, relative change = 3.342e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 252 (approx. per word bound = -5.913, relative change = 3.163e-05)
```

```
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 253 (approx. per word bound = -5.913, relative change = 2.943e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 254 (approx. per word bound = -5.913, relative change = 2.722e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 255 (approx. per word bound = -5.912, relative change = 2.519e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 256 (approx. per word bound = -5.912, relative change = 2.353e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 257 (approx. per word bound = -5.912, relative change = 2.221e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 258 (approx. per word bound = -5.912, relative change = 2.127e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 259 (approx. per word bound = -5.912, relative change = 2.056e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 260 (approx. per word bound = -5.912, relative change = 2.015e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 261 (approx. per word bound = -5.912, relative change = 1.993e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 262 (approx. per word bound = -5.911, relative change = 2.004e-05)
## ..................................................................................
## Completed E-Step (0 seconds).
```

```
## Completed M-Step.
## Completing Iteration 263 (approx. per word bound = -5.911, relative change = 2.037e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 264 (approx. per word bound = -5.911, relative change = 2.091e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 265 (approx. per word bound = -5.911, relative change = 2.160e-05)
## Topic 1: report, need, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 266 (approx. per word bound = -5.911, relative change = 2.236e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 267 (approx. per word bound = -5.911, relative change = 2.318e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 268 (approx. per word bound = -5.911, relative change = 2.407e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 269 (approx. per word bound = -5.911, relative change = 2.490e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 270 (approx. per word bound = -5.910, relative change = 2.559e-05)
## Topic 1: need, report, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 271 (approx. per word bound = -5.910, relative change = 2.613e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 272 (approx. per word bound = -5.910, relative change = 2.630e-05)
## ....................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 273 (approx. per word bound = -5.910, relative change = 2.624e-05)
```

```
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 274 (approx. per word bound = -5.910, relative change = 2.599e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 275 (approx. per word bound = -5.910, relative change = 2.581e-05)
## Topic 1: need, report, trump, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 276 (approx. per word bound = -5.909, relative change = 2.560e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 277 (approx. per word bound = -5.909, relative change = 2.544e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 278 (approx. per word bound = -5.909, relative change = 2.521e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 279 (approx. per word bound = -5.909, relative change = 2.487e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 280 (approx. per word bound = -5.909, relative change = 2.429e-05)
## Topic 1: need, trump, report, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 281 (approx. per word bound = -5.909, relative change = 2.346e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 282 (approx. per word bound = -5.909, relative change = 2.257e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 283 (approx. per word bound = -5.909, relative change = 2.171e-05)
## ...............................................................................
## Completed E-Step (0 seconds).
```

```
## Completed M-Step.
## Completing Iteration 284 (approx. per word bound = -5.908, relative change = 2.106e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 285 (approx. per word bound = -5.908, relative change = 2.064e-05)
## Topic 1: need, trump, report, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 286 (approx. per word bound = -5.908, relative change = 2.037e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 287 (approx. per word bound = -5.908, relative change = 2.008e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 288 (approx. per word bound = -5.908, relative change = 1.968e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 289 (approx. per word bound = -5.908, relative change = 1.905e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 290 (approx. per word bound = -5.908, relative change = 1.822e-05)
## Topic 1: need, trump, report, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 291 (approx. per word bound = -5.908, relative change = 1.717e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 292 (approx. per word bound = -5.907, relative change = 1.601e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 293 (approx. per word bound = -5.907, relative change = 1.488e-05)
## ...................................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 294 (approx. per word bound = -5.907, relative change = 1.381e-05)
```

```
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 295 (approx. per word bound = -5.907, relative change = 1.308e-05)
## Topic 1: need, trump, report, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 296 (approx. per word bound = -5.907, relative change = 1.274e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 297 (approx. per word bound = -5.907, relative change = 1.251e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 298 (approx. per word bound = -5.907, relative change = 1.240e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 299 (approx. per word bound = -5.907, relative change = 1.202e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 300 (approx. per word bound = -5.907, relative change = 1.149e-05)
## Topic 1: need, trump, report, dont, countri
##  Topic 2: think, believ, world, like, administr
##  Topic 3: china, state, threat, militari, biden
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Completing Iteration 301 (approx. per word bound = -5.907, relative change = 1.078e-05)
## ............................................................................
## Completed E-Step (0 seconds).
## Completed M-Step.
## Model Converged
```

```
### Table S4: Top Words and Theme for Each Topic ----
labelTopics(selectedmodel)
```

```
## Topic 1 Top Words:
##      Highest Prob: need, trump, dont, report, countri, true, get
##      FREX: get, thing, way, agre, anyth, see, great
##      Lift: accus, afford, agre, among, ancient, anti-china, anybodi
##      Score: dont, trump, true, need, thing, way, get
## Topic 2 Top Words:
```

```
##         Highest Prob: think, believ, world, like, administr, know, make
##         FREX: realli, sure, feel, just, scari, noth, interest
##         Lift: add, admin, admit, affect, alert, anymor, aspect
##         Score: think, believ, realli, like, know, accur, sure
## Topic 3 Top Words:
##         Highest Prob: china, state, threat, militari, biden, good, unit
##         FREX: threat, militari, biden, good, unit, technolog, steal
##         Lift: access, ago, agress, air, amass, anti, anytim
##         Score: china, militari, unit, biden, state, threat, build
```

### Table S5: Representative Responses for Each Topic ----
## Top 25 representative responses of Topic 1
`findThoughts(selectedmodel, texts = meta$text, n = 25, topics = 1)$docs[[1]]`

```
##  [1] "The only way I could see the picture is by looking in my car window to the left and I
##  [2] "the first thing that comes out when i see the new new update of my phone and my new i
##  [3] "I do not like to God you guys he's awful he's ignorant he's an airhead you don't know
##  [4] "I don't trust much coming from the Trump administration, but I do find this report cr
##  [5] "He said it would have to get back to me tomorrow and I'll be home by then and I'll be
##  [6] "I'm going on my walk with the dogs now so I'll I'll call when I'm back in town I will
##  [7] "It was nice looking forward too and I was thinking of you guys too and I don't have a
##  [8] "I'm going on my walk with the dogs now so I'll call when I'm back in town I will call
##  [9] "It's more descriptive and effective and effective and effective and effective and eff
## [10] "I don't see anything inherently wrong with it. If this report was confirmed true I wo
## [11] "I believe that they hit it right on the nose.the American people need to wake the hec
## [12] "This is a dangerous time in history and careful, thoughtful steps are required to pre
## [13] "I don't put trust on the government with Trump and what has happened to him now."
## [14] "Trump is a felon. I don't care about him\nor anything about his campaign. The fact th
## [15] "To get together soon as I get home from work to get together soon as I can "
## [16] "It's concerning for certain. But how much of it is simply leaning into propaganda rhe
## [17] "Anything coming from the Trump organization is total bullshit. The jerk belongs in ja
## [18] "The only way I could see the difference was to put put a new filter in and then I had
## [19] "Because of you not saying you have a bad idea about to me you don't know how to get m
## [20] "I totally agree with these statements.  We are going to turn into a socialist country
## [21] "O can neither agree or disagree because of lack of knowledge of the situation."
## [22] "I don't like trump. He's not a very nice man. Did things behind our back "
## [23] "trump is a liar ... can't believe anything attached to trump. sorry."
## [24] "I am surprised he would say anything about China. His daughter has enough trademarks
## [25] "I think it could be true.  Even more true when Trump was President, unfortunately her
```

## Top 25 representative responses of Topic 2
`findThoughts(selectedmodel, texts = meta$text, n = 25, topics = 2)$docs[[1]]`

```
##  [1] "Hi hi hey sis love you miss you too you sis love love thank miss miss love you sis mis
##  [2] "In this context, \"nonpartisan\" means that the organization, by US tax law, is prohi
##  [3] "It's trying to help the administration help help with help help please help help with
##  [4] "Americans expect that elections will result in legitimate winners-individual candidat
##  [5] "Sometimes I think that the United States acts little too big for their britches And s
##  [6] "What should I think about it? BRIC is 47% of the world population and controls 97% of
```

```
##  [7] "I think the views are legitimate.  I believe they moving to assert power because for
##  [8] "I think all of our presidents like to scare us with a ton of information about other
##  [9] "I think where there's smoke, there's fire. I believe this scenario could b true and so
## [10] "Non-partisan election observation and monitoring by citizen organizations has emerged
## [11] "I think the report is touching on what many in the world believe to be true.  The poir
## [12] "I think it was stupid and trump could've done better he just didn't want to"
## [13] "I am suspicious about the veracity of the public statement made by the administration
## [14] "I don't really know anymore because nothing is changed. Things just keep getting worse
## [15] "I think it sounds pretty accurate from what I know about China. I think this should be
## [16] "Nothing in particular Really. Because of nothing in particular Really truly and honest
## [17] "China is hiding in the background waiting for a weak spot so they call take control or
## [18] "I think it's part fake media and partial truth."
## [19] "It amazing and awesome also fantastic and unique and special"
## [20] "Although I believe in roughly one percent of what his administrations says, I believe
## [21] "I think it's just disgusting and makes me want to throw up in my mouth"
## [22] "Good morning I am interested in the position and would like to know if you have any qu
## [23] "I believe that if you are paying attention at all, not just accepting B.S. from the ma
## [24] "I think we should talk to china and you know fix shit. I can speak for many that worl
## [25] "If this information is truly accurate, then the U.S. needs to keep their eyes open.  I
```

## Top 25 representative responses of Topic 3
findThoughts(selectedmodel, texts = meta$text, n = 25, topics = 3)$docs[[1]]

```
##  [1] "Intelligence reports from non-partisan experts warned that the risk of conflict betwe
##  [2] "\n\nIn a few sentences, tell us what you think about this report from non-partisan exp
##  [3] "China is aggressively pursuing its goal of building a world-class military that will
##  [4] "China is aggressively pursuing its goal of building a world-class military that will
##  [5] "Intelligence reports from the Trump administration warned that the risk of conflict be
##  [6] "Very good very good very good very good very good very good very good very good very g
##  [7] "Conflict with China and the USA is at an all time high.  China is building a world-cla
##  [8] "The risk of conflict between the US and China is much higher since the end of the Cole
##  [9] "China is aggressively pursuing its goal of building a world-class military that will
## [10] "Intelligence reports from the Biden administration warned that the risk of conflict be
## [11] "Intelligence reports from the Biden administration warned that the risk of conflict be
## [12] "China's military policy is of concern but should be addressed diplomatically.  The U.S
## [13] "warned that the risk of conflict between the United States and China is higher than an
## [14] "Intelligence reports from non-partisan experts warned that the risk of conflict betwe
## [15] "China is aggressively pursuing its goal of building a world-class military that will
## [16] "China is aggressively pursuing its goal of building a world-class military that will
## [17] "Intelligence reports from non-partisan experts warned that the risk of conflict betwe
## [18] "China is aggressively pursuing its goal of building a world-class military that will
## [19] "China is aggressively pursuing its goal of building a world-class military that will
## [20] "China is aggressively pursuing its goal of building a world-class military that will
## [21] "The Intelligence reports from non-partisan experts warned that the risk of conflict be
## [22] "China is aggressively pursuing of building. a world-class military.\nChina is  stealir
## [23] "That China is the number one threat to our \"freedom\" right now. It's higher than at
## [24] "Intelligence reports from the Biden administration warned that the risk of conflict be
## [25] "Touch and hold a clip to pin it. Unpinned clips will be deleted after 1 hour.Touch and
```

```
### Figure S18: Expected Topic Proportions across Experimental Groups and Their Relationship w:
## Plot the heterogeneous treatment effects for Topic 1
set.seed(1234567)
prep <- estimateEffect(c(1) ~ exp_condition * pid7,
                       selectedmodel,
                       metadata = out$meta,
                       uncertainty = "Global")

## Warning in estimateEffect(c(1) ~ exp_condition * pid7, selectedmodel, metadata = out$meta,
##              Adding a small prior 1e-5 for numerical stability.

par(family = "Times", ps = 14)
plot.estimateEffect(prep,
                    covariate = "pid7",
                    model = selectedmodel,
                    method = "continuous",
                    xlab = "Party Identification",
                    moderator = "exp_condition",
                    moderator.value = "Biden Threat Prime",
                    linecol = "black",
                    ylim = c(0, 1),
                    printlegend = F,
                    main = "Topic 1\n(Commenting on the Report/Trump)")
plot.estimateEffect(prep,
                    covariate = "pid7",
                    model = selectedmodel,
                    method = "continuous",
                    moderator = "exp_condition",
                    moderator.value = "Trump Threat Prime",
                    linecol = "blue",
                    ylim = c(0, 1),
                    add = T,
                    printlegend = F)
plot.estimateEffect(prep,
                    covariate = "pid7",
                    model = selectedmodel,
                    method = "continuous",
                    moderator = "exp_condition",
                    moderator.value = "Nonpartisan Threat Prime",
                    linecol = "red",
                    ylim = c(0, 1),
                    add = T,
                    printlegend = F)
legend("topright", c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"),
       lwd = 2, col = c("black", "blue", "red"))
```

# Topic 1
## (Commenting on the Report/Trump)



```
## Plot the heterogeneous treatment effects for Topic 2
set.seed(1234567)
prep <- estimateEffect(c(2) ~ exp_condition * pid7,
                       selectedmodel,
                       metadata = out$meta,
                       uncertainty = "Global")
```

```
## Warning in estimateEffect(c(2) ~ exp_condition * pid7, selectedmodel, metadata = out$meta,
##                Adding a small prior 1e-5 for numerical stability.
```

```
par(family = "Times", ps = 14)
plot.estimateEffect(prep,
                    covariate = "pid7",
                    model = selectedmodel,
                    method = "continuous",
                    xlab = "Party Identification",
                    moderator = "exp_condition",
                    moderator.value = "Biden Threat Prime",
                    linecol = "black",
                    ylim = c(0, 1),
                    printlegend = F,
                    main = "Topic 2\n(Expressing Uncertainty)")
plot.estimateEffect(prep,
                    covariate = "pid7",
                    model = selectedmodel,
                    method = "continuous",
```

```
                        moderator = "exp_condition",
                        moderator.value = "Trump Threat Prime",
                        linecol = "blue",
                        ylim = c(0, 1),
                        add = T,
                        printlegend = F)
plot.estimateEffect(prep,
                        covariate = "pid7",
                        model = selectedmodel,
                        method = "continuous",
                        moderator = "exp_condition",
                        moderator.value = "Nonpartisan Threat Prime",
                        linecol = "red",
                        ylim = c(0, 1),
                        add = T,
                        printlegend = F)
legend("topright", c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"),
        lwd = 2, col = c("black", "blue", "red"))
```

## Topic 2
## (Expressing Uncertainty)



```
## Plot the heterogeneous treatment effects for Topic 3
set.seed(1234567)
prep <- estimateEffect(c(3) ~ exp_condition * pid7,
                        selectedmodel,
                        metadata = out$meta,
                        uncertainty = "Global")
```

```
## Warning in estimateEffect(c(3) ~ exp_condition * pid7, selectedmodel, metadata = out$meta,
##              Adding a small prior 1e-5 for numerical stability.
par(family = "Times", ps = 14)
plot.estimateEffect(prep,
                    covariate = "pid7",
                    model = selectedmodel,
                    method = "continuous",
                    xlab = "Party Identification",
                    moderator = "exp_condition",
                    moderator.value = "Biden Threat Prime",
                    linecol = "black",
                    ylim = c(0, 1),
                    printlegend = F,
                    main = "Topic 3\n(Discussing China Threat)")
plot.estimateEffect(prep,
                    covariate = "pid7",
                    model = selectedmodel,
                    method = "continuous",
                    moderator = "exp_condition",
                    moderator.value = "Trump Threat Prime",
                    linecol = "blue",
                    ylim = c(0, 1),
                    add = T,
                    printlegend = F)
plot.estimateEffect(prep,
                    covariate = "pid7",
                    model = selectedmodel,
                    method = "continuous",
                    moderator = "exp_condition",
                    moderator.value = "Nonpartisan Threat Prime",
                    linecol = "red",
                    ylim = c(0, 1),
                    add = T,
                    printlegend = F)
legend("topright", c("Biden Threat Prime", "Trump Threat Prime", "Nonpartisan Threat Prime"),
       lwd = 2, col = c("black", "blue", "red"))
```

**Topic 3**
**(Discussing China Threat)**