# 民主价值观与人民民主——基于 ABS 数据的实证分析

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## 目录

# 1 Introduction

- 物质主义社会，后物质主义社会。生存价值观，自我表达价值观 (Ronald Inglehart and Christian Welzel, 2005)
- 批判性公民: 高民主价值观，同时低体制评价 (Pippa Norris, 1999)

# 2 Literature Review

- 中国的经济发展、政治信任与批判性公民 (王正绪, 2005；王正绪 and 游宇, 2011)
- 中国批判性公民的测量 (马得勇 and 王志浩, 2017)
- 台湾地区对批判性公民的研究 (张佑宗,2011; 黄信豪, 2014; 黄新豪, 2020)

# 3 Data

- 亚洲民主动态调查/亚洲晴雨表 (The Asian Barometer Survey)
- 2002, 2008, 2011, 2016

# 4 Measurement

- 人民民主 V.S. 自由民主。民主概念的模糊导致在我国对民主实施情形不满意的民众似乎只能是自由民主式价值观。
- 政治信任 V.S. 政治支持
- 民主满意度：总体而言，您对民主在我国实施的情形是否满意？（On the whole, how satisfied or dissatisfied are you with the way democracy works in our country）
- 体制认同：即使我们的政治制度有这样那样的问题，人民也应当支持.（Whatever its faults maybe, our form of government is still the best for us.）

# 5 Analysis

```
setwd('E:/SynologyDrive/Github/Quantitative_Analysis_II')
library(tidyverse)
```

```
## -- Attaching packages ---------------------------------- tidyverse 1.3.0 --
```

```
## v ggplot2 3.3.2     v purrr   0.3.4
## v tibble  3.0.3     v dplyr   1.0.2
## v tidyr   1.1.2     v stringr 1.4.0
## v readr   1.3.1     v forcats 0.5.0

## -- Conflicts ------------------------------------- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(haven)
library(arm)
```

```
## Loading required package: MASS

## Warning: package 'MASS' was built under R version 4.0.3

##
## Attaching package: 'MASS'

## The following object is masked from 'package:dplyr':
##
##     select

## Loading required package: Matrix

##
## Attaching package: 'Matrix'

## The following objects are masked from 'package:tidyr':
##
##     expand, pack, unpack

## Loading required package: lme4

## Warning: package 'lme4' was built under R version 4.0.3
```

```
##
## arm (Version 1.11-2, built: 2020-7-27)
```

```
## Working directory is E:/SynologyDrive/Github/Quantitative_Analysis_II
```

```
library(stargazer)
```

```
## Warning: package 'stargazer' was built under R version 4.0.3
```

```
##
## Please cite as:
```

```
##  Hlavac, Marek (2018). stargazer: Well-Formatted Regression and Summary Statistics T
```

```
##  R package version 5.2.2. https://CRAN.R-project.org/package=stargazer
```

```r
# library(foreign)
# dta1 <- read.table('./report/data/W1.dat',header = T,sep=" ")
w1 <- read_sav('./report/data/W1.sav')
w2 <- read_sav('./report/data/W2.sav')
w3 <- read_sav('./report/data/W3.sav')
w4 <- read_sav('./report/data/W4.sav')

# select and bind -----
# w1
demo_w1 <- w1$q098
# 1 'Not at all satisfied'
# 2 'Not very satisfied'
# 3 'Fairly satisfied'
# 4 'Very satisfied'
# 98 'Don't know'
# 99 'No answer'

support_w1 <- w1$q130
```

```
# 1 'Strongly agree'
# 2 'Somewhat agree'
# 3 'Somewhat disagree'
# 4 'Strongly disagree'
# 98 'Don't know'
# 99 'No answer'


city_w1 <- w1$level3


year_w1 <- w1$yrsurvey
gender_w1 <- w1$se002
# cohord_w1 <- w1$se003
age_w1 <- w1$se003a
edu_w1 <- w1$se005a # year
region_w1 <- w1$se006
dialect_w1 <- w1$se014
income_w1 <- w1$se009
plur_w1 <- w1$q135 #pluralism

sub_w1 <- cbind.data.frame(demo_w1,
                           support_w1,
                           city_w1,
                           year_w1,
                           gender_w1,
                           age_w1,
                           edu_w1,
                           region_w1,
                           dialect_w1,
                           income_w1,
                           plur_w1)
```

```r
names(sub_w1) <- c('demo',
                   'support',
                   'city',
                   'year',
                   'gender',
                   'age',
                   'edu',
                   'region',
                   'dialect',
                   'income',
                   'plur')

# w2
demo_w2 <- w2$q098
support_w2 <- w2$q130
city_w2 <- w2$level3
year_w2 <- rep(2008,length(demo_w2))
gender_w2 <- w2$se002
# cohord_w1 <- w1$se003
age_w2 <- w2$se003a
edu_w2 <- w2$se005a # year
region_w2 <- w2$se006
dialect_w2 <- w2$se014
income_w2 <- w2$se009
plur_w2 <- w2$q135   #pluralism

sub_w2 <- cbind.data.frame(demo_w2,
                           support_w2,
                           city_w2,
                           year_w2,
                           gender_w2,
                           age_w2,
                           edu_w2,
```

```r
                                region_w2,
                                dialect_w2,
                                income_w2,
                                plur_w2)


names(sub_w2) <- c('demo',
                   'support',
                   'city',
                   'year',
                   'gender',
                   'age',
                   'edu',
                   'region',
                   'dialect',
                   'income',
                   'plur')


# w3
demo_w3 <- w3$q098
support_w3 <- w3$q130
city_w3 <- w3$level3
year_w3 <- rep(2011,length(demo_w3))
gender_w3 <- w3$se002
# cohord_w1 <- w1$se003
age_w3 <- w3$se003a
edu_w3 <- w3$se005a # year
region_w3 <- w3$se006
dialect_w3 <- w3$se014
income_w3 <- w3$se009
plur_w3 <- w3$q135   #pluralism


sub_w3 <- cbind.data.frame(demo_w3,
                           support_w3,
```

```r
                                city_w3,
                                year_w3,
                                gender_w3,
                                age_w3,
                                edu_w3,
                                region_w3,
                                dialect_w3,
                                income_w3,
                                plur_w3)


names(sub_w3) <- c('demo',
                   'support',
                   'city',
                   'year',
                   'gender',
                   'age',
                   'edu',
                   'region',
                   'dialect',
                   'income',
                   'plur')


# w4
demo_w4 <- w4$q92 # diff
support_w4 <- w4$q85 # diff
city_w4 <- w4$level
year_w4 <- rep(2016,length(demo_w4))
gender_w4 <- w4$se2
# cohord_w1 <- w1$se003
age_w4 <- w4$se3_2
edu_w4 <- w4$se5a # year
region_w4 <- w4$se6
dialect_w4 <- w4$se11
```

```
income_w4 <- w4$se14
plur_w4 <- w4$q144   #pluralism

# demo_w3 <- w3$q098
# support_w3 <- w3$q130
# city_w3 <- w3$level3
# year_w3 <- rep(2011,length(demo_w3))
# gender_w3 <- w3$se002
# # cohord_w1 <- w1$se003
# age_w3 <- w3$se003a
# edu_w3 <- w3$se005a # year
# region_w3 <- w3$se006
# dialect_w3 <- w3$se014
# income_w3 <- w3$se009
# plur_w3 <- w3$q135   #pluralism

sub_w4 <- cbind.data.frame(demo_w4,
                            support_w4,
                            city_w4,
                            year_w4,
                            gender_w4,
                            age_w4,
                            edu_w4,
                            region_w4,
                            dialect_w4,
                            income_w4,
                            plur_w4)

names(sub_w4) <- c('demo',
                   'support',
                   'city',
                   'year',
                   'gender',
```

```r
                              'age',
                              'edu',
                              'region',
                              'dialect',
                              'income',
                              'plur')


dat <- bind_rows(sub_w1, sub_w2, sub_w3, sub_w4)


# clean ----
attach(dat)
dat$demo <- ifelse(dat$demo == 9 | dat$demo == 8,
                   NA_real_, dat$demo)

dat$support <- ifelse(dat$support == 9 |
                          dat$support == 8 |
                          dat$support == 7,
                   NA_real_, dat$support)

dat$city <- ifelse(dat$city == -1,
                   NA_real_, dat$city)


dat$age <- ifelse(dat$age == -1 |
                     dat$age == 99,
                   NA_real_, dat$age)

dat$edu <- ifelse(dat$edu == -1 |
                      dat$edu == 99,
                   NA_real_, dat$edu)
```

```
dat$year <- as.integer(dat$year)


dat <- dat %>%
  mutate(religion = case_when(
    region == 10 & year == 2011 ~ 8,
    region == 20 ~ 9,
    region == 40 ~ 7,
    region == 60 ~ 6,
    region == 61 ~ 3,
    region == 70 ~ 3,
    region == 76 ~ 2,
    region == 80 ~ 10,
    region == 90 ~ 10,
    region == 98 ~ NA_real_,
  ))  # 99 regect answer


dat$dialect <- ifelse(dat$dialect == 9 |
                        dat$dialect == 8 |
                        dat$dialect == 99,
                    NA_real_, dat$dialect)

dat$income <- ifelse(dat$income == 97 |
                        dat$income == 98 |
                        dat$income == 99,
                    NA_real_, dat$income)


dat$plur <- ifelse(dat$plur == 8 |
                        dat$plur == 9,
                    NA_real_, dat$plur)
```

```r
dat <- na.exclude(dat)
length(dat$demo)
```

```
## [1] 3503
```

```r
# descirbe ----
stargazer(dat)
```

```
##
## % Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hl
## % Date and time: 周一, 5月 31, 2021 - 4:26:33
## \begin{table}[!htbp] \centering
##   \caption{}
##   \label{}
## \begin{tabular}{@{\extracolsep{5pt}}lcccccccc}
## \\[-1.8ex]\hline
## \hline \\[-1.8ex]
## Statistic & \multicolumn{1}{c}{N} & \multicolumn{1}{c}{Mean} & \multicolumn{1}{c}{St
## \hline \\[-1.8ex]
## demo & 3,503 & 2.367 & 0.707 & 1 & 2 & 3 & 4 \\
## support & 3,503 & 2.123 & 0.599 & 1 & 2 & 2 & 4 \\
## city & 3,503 & 1.468 & 0.499 & 1 & 1 & 2 & 2 \\
## year & 3,503 & 2,014.542 & 2.804 & 2,008 & 2,016 & 2,016 & 2,016 \\
## gender & 3,503 & 1.462 & 0.499 & 1 & 1 & 2 & 2 \\
## age & 3,503 & 47.152 & 16.087 & 18 & 34 & 60 & 95 \\
## edu & 3,503 & 8.851 & 4.287 & 0 & 6 & 12 & 22 \\
## region & 3,503 & 85.342 & 13.792 & 20 & 90 & 90 & 90 \\
## dialect & 3,503 & 2.003 & 1.381 & 1 & 1 & 3 & 5 \\
## income & 3,503 & 4.567 & 3.057 & 1 & 2 & 9 & 9 \\
## plur & 3,503 & 2.294 & 0.957 & 1 & 2 & 3 & 7 \\
## religion & 3,503 & 9.552 & 1.331 & 2 & 10 & 10 & 10 \\
## \hline \\[-1.8ex]
## \end{tabular}
```
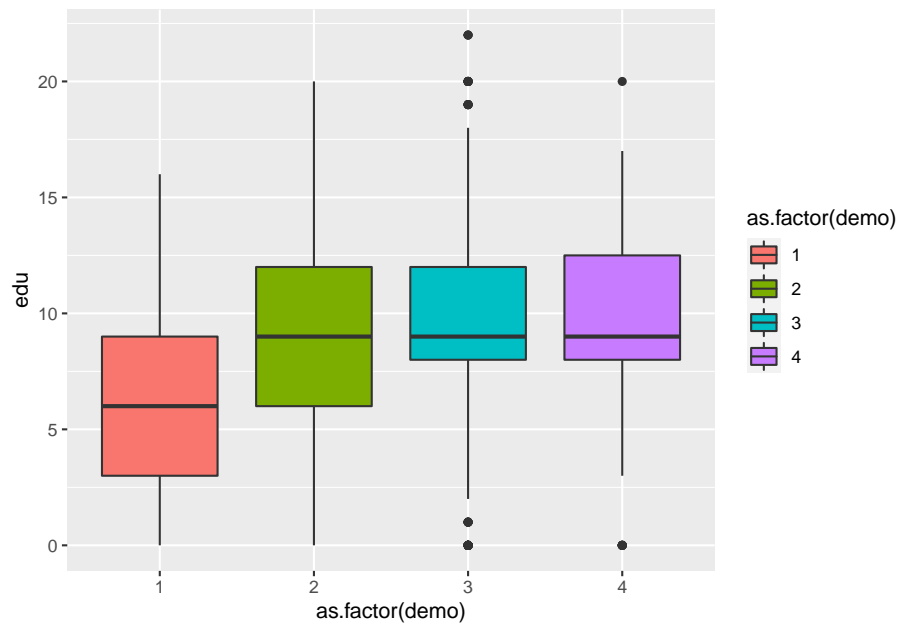
```
## \end{table}
```

```
# # plot0
# ggplot(data = dat) +
#   geom_point(aes(x = demo, y = age, color = as.factor(demo)),
#               position = position_jitter())  +
#   geom_smooth(aes(x = demo, y = age),
#               method = 'auto', color = 'red', se = T)


# plot1
ggplot(data = dat) +
  geom_boxplot(aes(x = as.factor(demo), y = age, fill = as.factor(demo)))
```
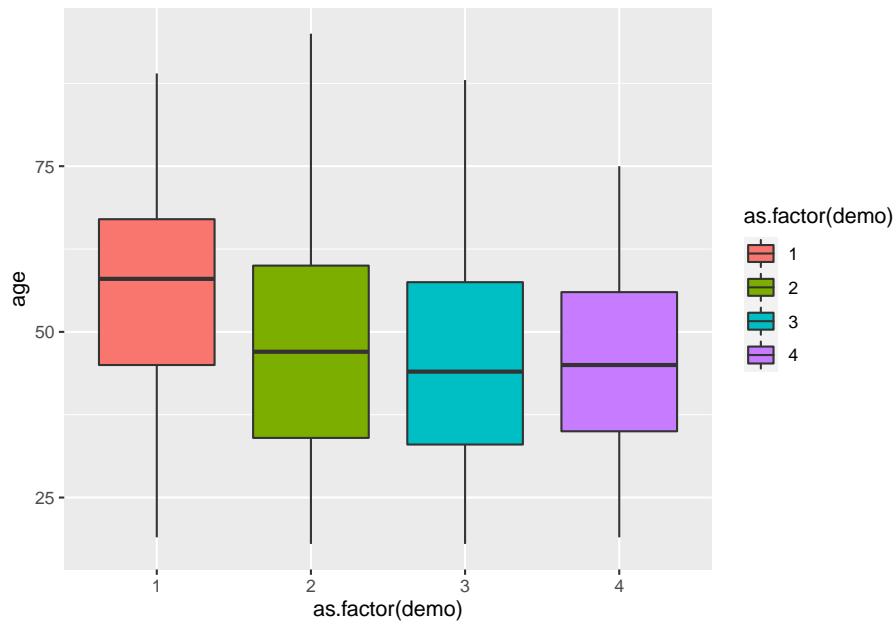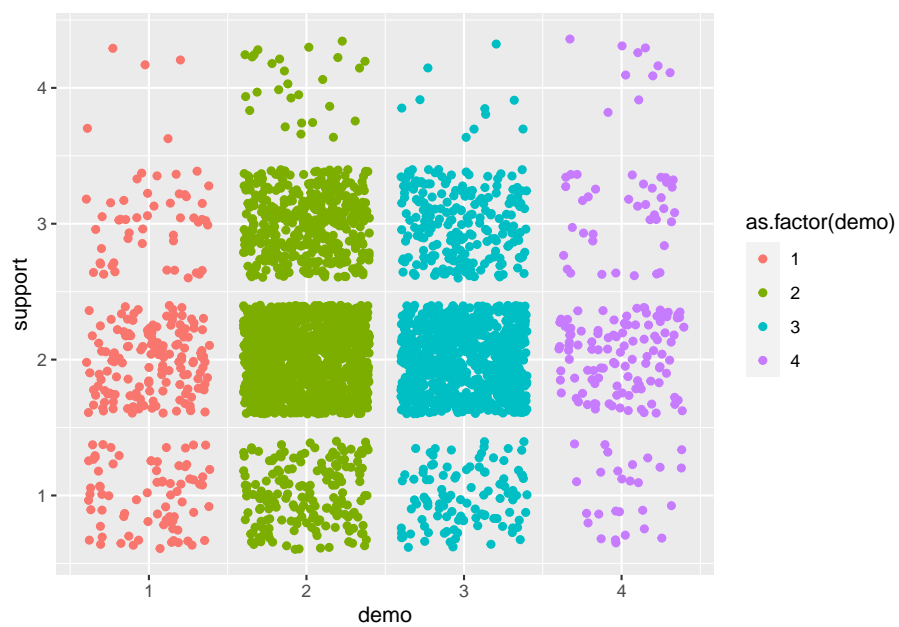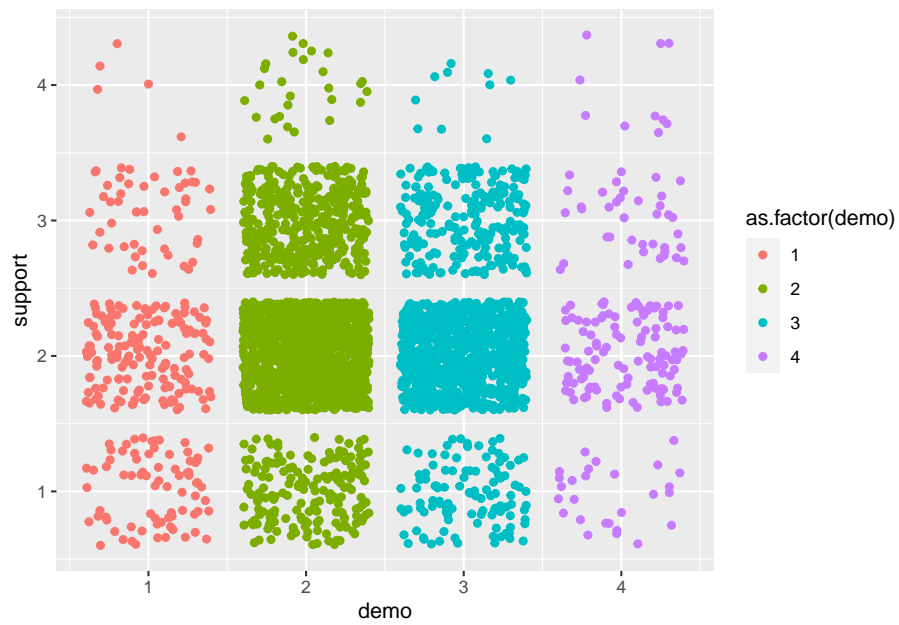


```
ggplot(data = dat) +
  geom_boxplot(aes(x = as.factor(demo), y = edu, fill = as.factor(demo)))
```
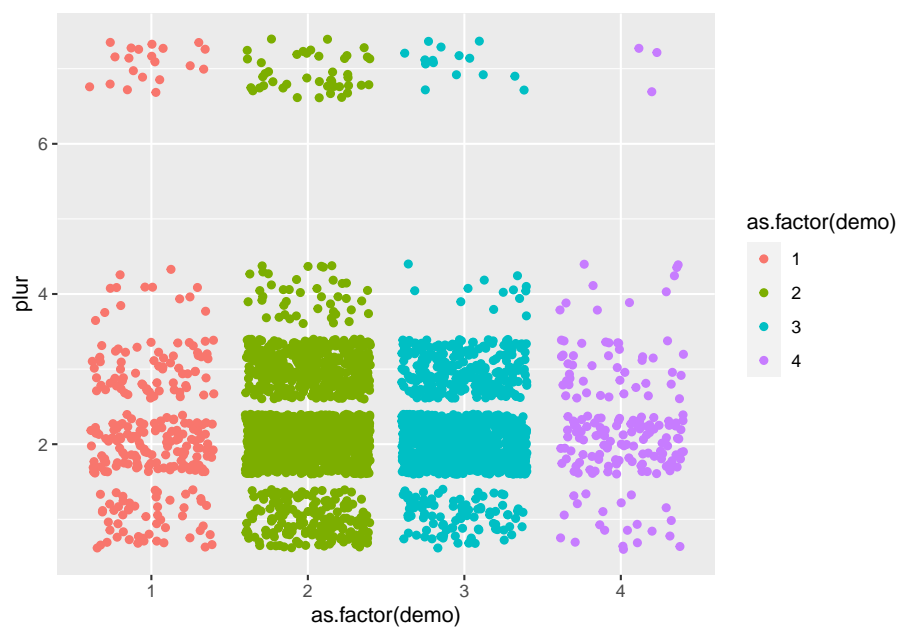
```r
# plot2
ggplot(data = dat) +
  geom_point(aes(x = demo, y = support, color = as.factor(demo)),
             position = position_jitter())
```
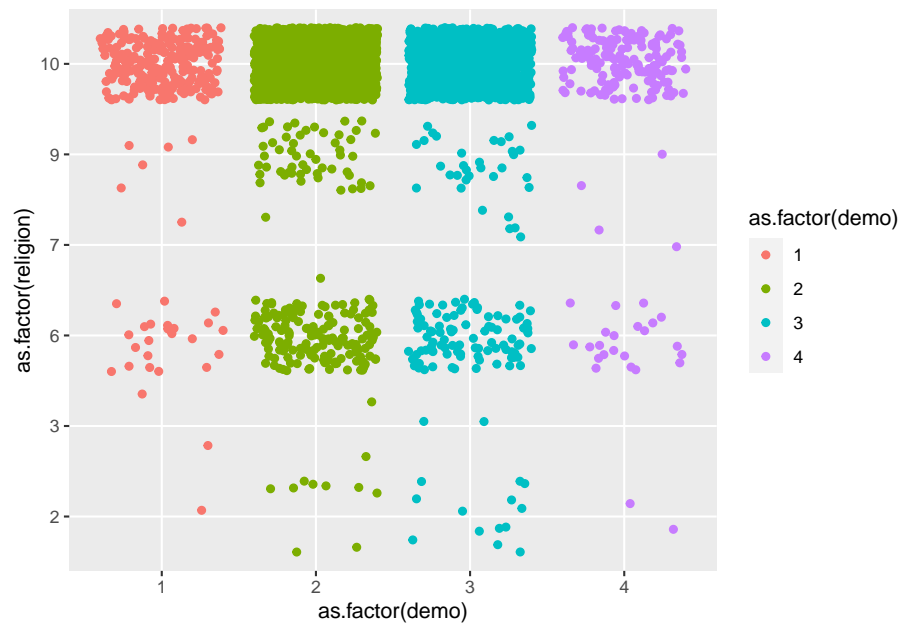
```
# plot3
ggplot(data = dat) +
  geom_point(aes(x = demo, y = support, color = as.factor(demo)),
             position = position_jitter())
```
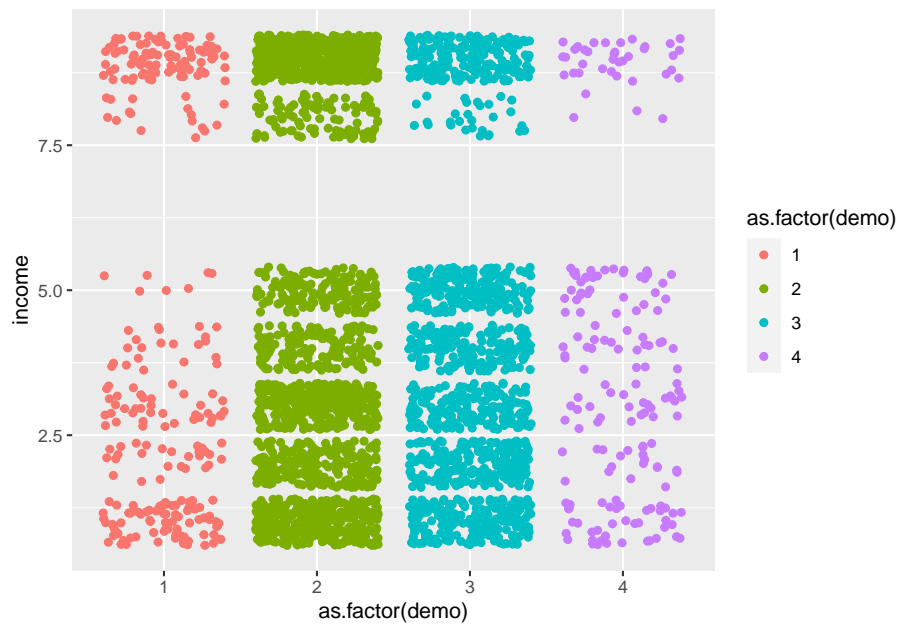
```
# plot4
ggplot(data = dat) +
  geom_point(aes(x = as.factor(demo), y = plur, color = as.factor(demo)),
             position = position_jitter())
```

```
ggplot(data = dat) +
  geom_point(aes(x = as.factor(demo), y = as.factor(religion), color = as.factor(demo))
             position = position_jitter())
```

```
ggplot(data = dat) +
  geom_point(aes(x = as.factor(demo), y = income, color = as.factor(demo)),
             position = position_jitter())
```

```r
# regression----
dat <- dat %>% mutate(citizen = case_when(
  demo < 3 & support < 3 ~ 1,
  demo > 2 ~ 0,
  support > 2 ~ 0
))


dat2 <- dat

dat2$citizen <- as.factor(dat2$citizen)
dat2$city   <- as.factor(dat2$city)
dat2$year   <- as.factor(dat2$year)
dat2$gender <- as.factor(dat2$gender)
dat2$religion <- as.factor(dat2$religion)
dat2$dialect <- as.factor(dat2$dialect)
dat2$income <- as.factor(dat2$income)
dat2$plur <- as.factor(dat2$plur)
```

```r
M0 <- glmer(citizen ~ 1 + (1|gender) + (1|city) + age + (1|income) +
              edu + (1|religion) + (1|dialect) + (1|year) + plur,
            family = binomial(link = 'logit'), data = dat2)
```

```
## boundary (singular) fit: see ?isSingular
```

```r
stargazer(M0)
```

```
## 
## % Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hl
## % Date and time: 周一, 5月 31, 2021 - 4:26:50
## \begin{table}[!htbp] \centering
##   \caption{}
##   \label{}
## \begin{tabular}{@{\extracolsep{5pt}}lc}
## \\[-1.8ex]\hline
## \hline \\[-1.8ex]
##  & \multicolumn{1}{c}{\textit{Dependent variable:}} \\
## \cline{2-2}
## \\[-1.8ex] & citizen \\
## \hline \\[-1.8ex]
##  age & 0.015$^{***}$ \\
##   & (0.003) \\
##   & \\
##  edu & $-$0.050$^{***}$ \\
##   & (0.011) \\
##   & \\
##  plur2 & $-$0.084 \\
##   & (0.128) \\
##   & \\
##  plur3 & $-$0.125 \\
##   & (0.142) \\
##   & \\
```

```
##  plur4 & $-$0.483$^{*}$ \\
##    & (0.266) \\
##    & \\
##  plur7 & 0.205 \\
##    & (0.283) \\
##    & \\
##  Constant & $-$1.485$^{**}$ \\
##    & (0.675) \\
##    & \\
## \hline \\[-1.8ex]
## Observations & 3,503 \\
## Log Likelihood & $-$2,076.390 \\
## Akaike Inf. Crit. & 4,178.779 \\
## Bayesian Inf. Crit. & 4,258.877 \\
## \hline
## \hline \\[-1.8ex]
## \textit{Note:}  & \multicolumn{1}{r}{$^{*}$p$<$0.1; $^{**}$p$<$0.05; $^{***}$p$<$0.0
## \end{tabular}
## \end{table}
```

# 6   Further work

- 对民主价值观的澄清
- 清晰的假设
- 模型的选择（glmer，glmm，MCMCglmm）