Coups and Rebellions in Chinese History (中国历史上的政变和起义)

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```
rm(list=ls())
library(foreign)
library(ggplot2)
setwd("/Users/qiangguo/Google Drive/Dataset/Chinese_history_dataset")
```

```
year <- c(-210:1911)
coup_imperial_kinsmen <- rep(0, length(year))
coup_defacto_inherit_elite <- rep(0, length(year))
coup_other_elite <- rep(0, length(year))
coup_general <- rep(0, length(year))
revolution <- rep(0, length(year))

## There are several years that multiple coup and revolution events occurred
## Code for the years that have only one event occur under each category
year_imperial_kinsmen <- c(-154, 255, 258, 291, 301, 302, 303, 304, 306, 310, 318, 333,
year_defacto_inherit_elite <- c(-180, -70, 8, 92, 126, 145, 146, 167, 168, 190, 197, 22
                                304, 318, 322, 371, 397, 402, 403, 424, 479, 500)
year_other_elite <- c(-210, -209, 196, 541)
year_general <- c(-202, -201, -197, -196, 319, 327, 420, 499, 548, 549, 551, 555, 557,
year_revolution <- c(-209, 184)

data <- as.data.frame(cbind(year, coup_imperial_kinsmen, coup_defacto_inherit_elite, co
```

```r
for (i in year_imperial_kinsmen){
  data$coup_imperial_kinsmen[data$year == i] <- 1
}


for (i in year_defacto_inherit_elite){
  data$coup_defacto_inherit_elite[data$year == i] <- 1
}


for (i in year_other_elite){
  data$coup_other_elite[data$year == i] <- 1
}


for (i in year_general){
  data$coup_general[data$year == i] <- 1
}


for (i in year_revolution){
  data$revolution[data$year == i] <- 1
}


## Code for the years that have multiple events occur under each category
data$coup_defacto_inherit_elite[data$year == -209] <- 6
data$coup_imperial_kinsmen[data$year == 453] <- 2
data$coup_imperial_kinsmen[data$year == 494] <- 2


# Function to calculate the number of coup and revolution events every 50 years
count <- function(n){
  k <- round(length(year)/50) + 1
  x <- rep(0, k)
  for (i in 1:k){
    v <- subset(data[,n], year >= (50*i - 260) & year < min((50*i - 210), 1912))
    x[i] <- sum(v)
      }
```

```
return(x)
}

event_count_dta <- as.data.frame(sapply(2:6, count))
names(event_count_dta) <- c("coup_imperial_kinsmen", "coup_defacto_inherit_elite", "cou
event_count_dta$year <- c(seq(from = -161, to = 1911, by = 50),1911)
```

```
barplot(event_count_dta$coup_imperial_kinsmen, type = "l")
```
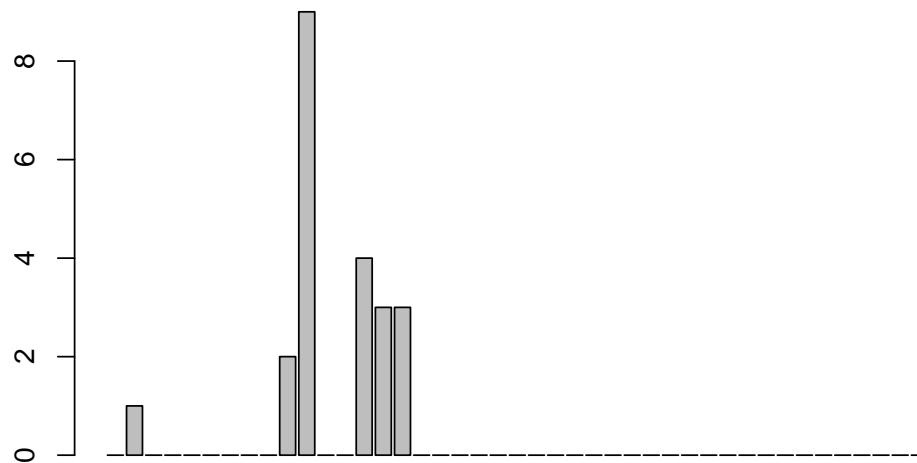

图 1:

```
barplot(event_count_dta$coup_defacto_inherit_elite, col = "red")
```

```
barplot(event_count_dta$coup_other_elite, col = "green")
```

```
barplot(event_count_dta$coup_general, col = "blue")
```

```
barplot(event_count_dta$revolution, col = "pink")
```
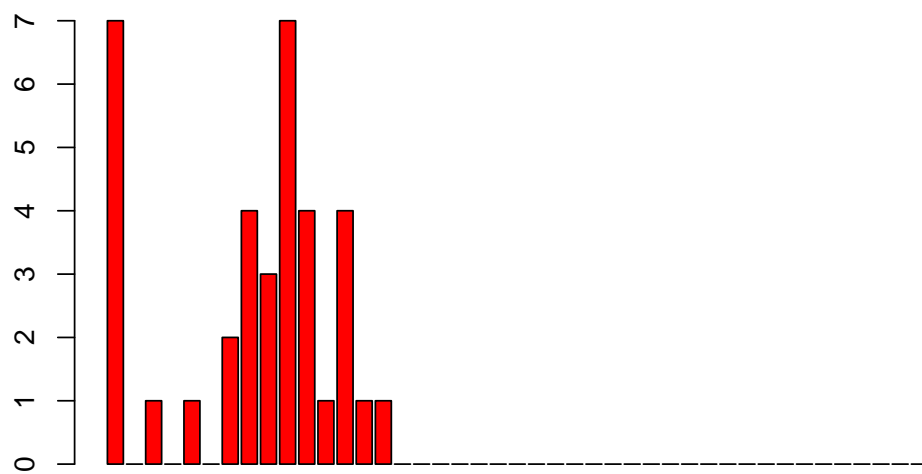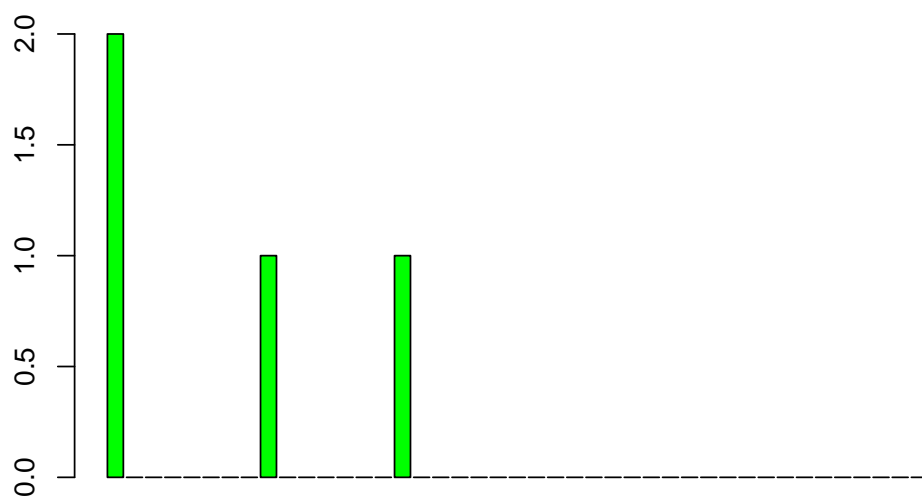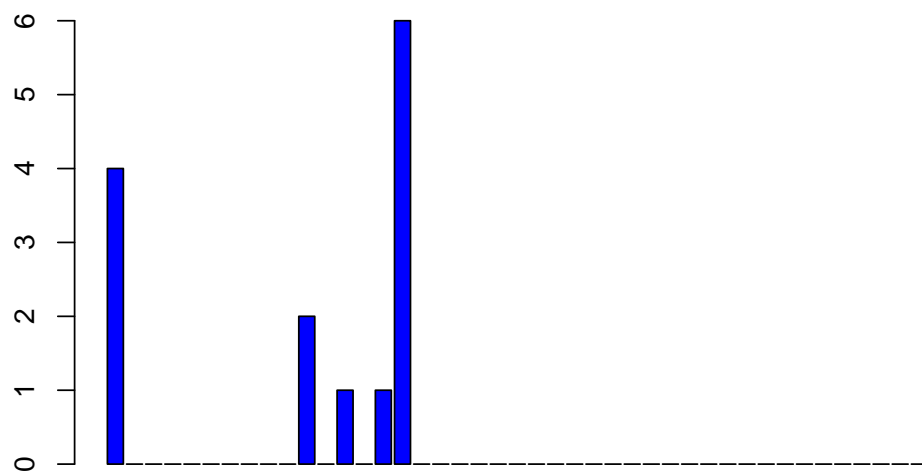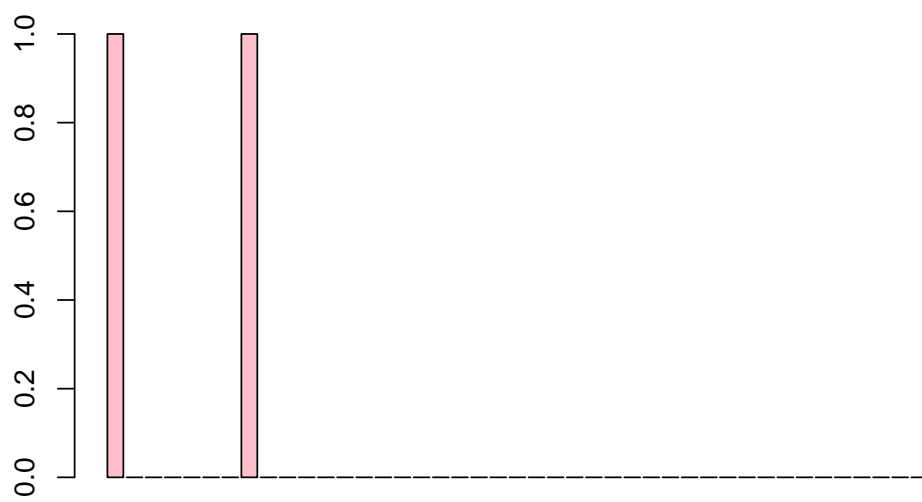
图 2:

图 3:

图 4:

图 5:

```
ggplot(event_count_dta, aes(x = year, y = coup_imperial_kinsmen)) +
  geom_line() + geom_point(size = 2, shape = 20) + theme(panel.grid.major = element_bla
                                            panel.grid.minor = element_bl
                                            panel.background = element_bl
                                            axis.line = element_line(colo
                                            plot.title = element_text(fam
                                                              fac
                                                              col
                                            axis.text.x=element_text(colo
                                            axis.text.y=element_text(colo
```

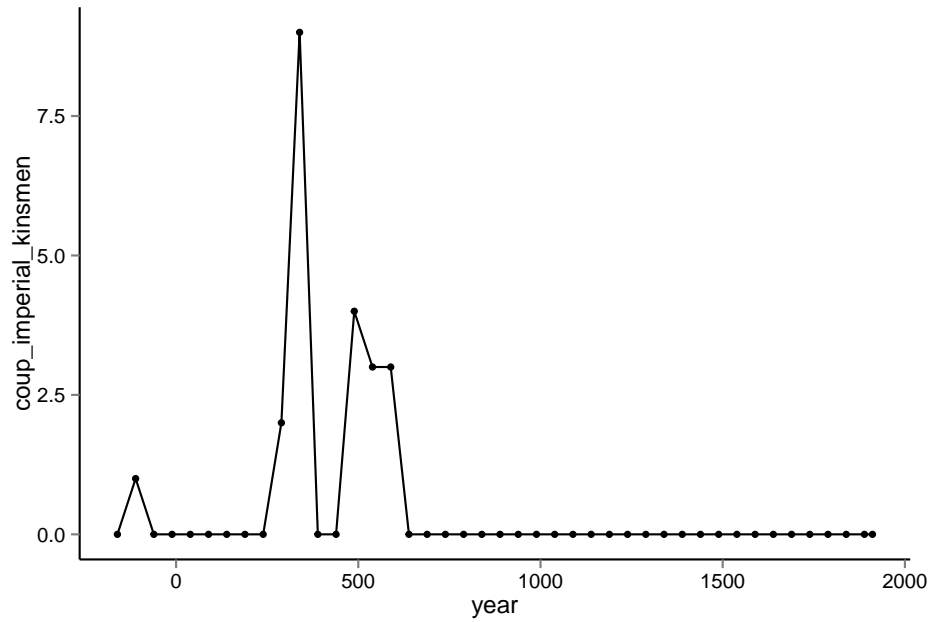

图 6:

```
ggplot(event_count_dta, aes(x = year, y = coup_defacto_inherit_elite)) + geom_bar(stat
```
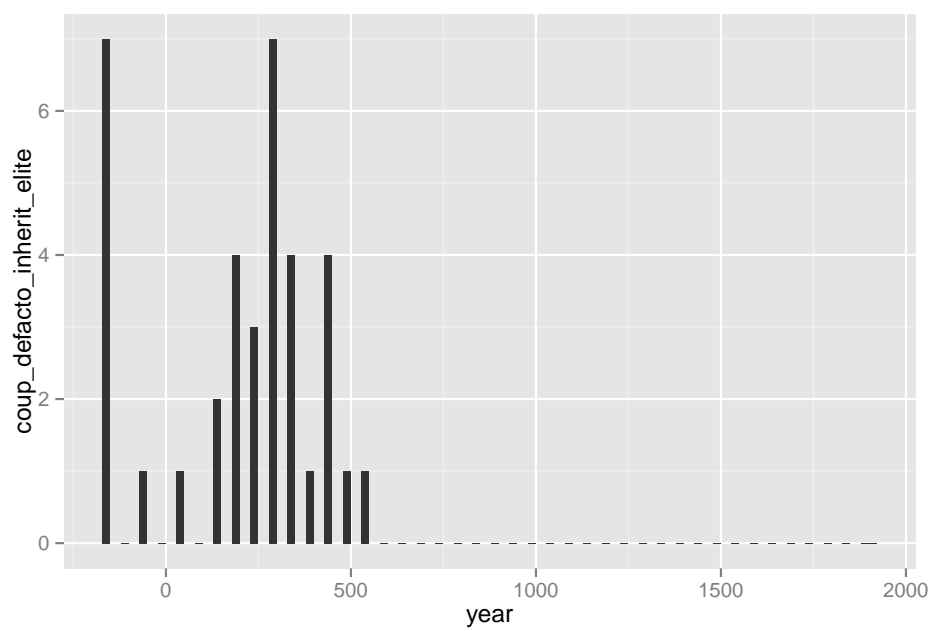
图 7:

```
ggplot(event_count_dta, aes(x = year, y = coup_defacto_inherit_elite)) + geom_line()
```
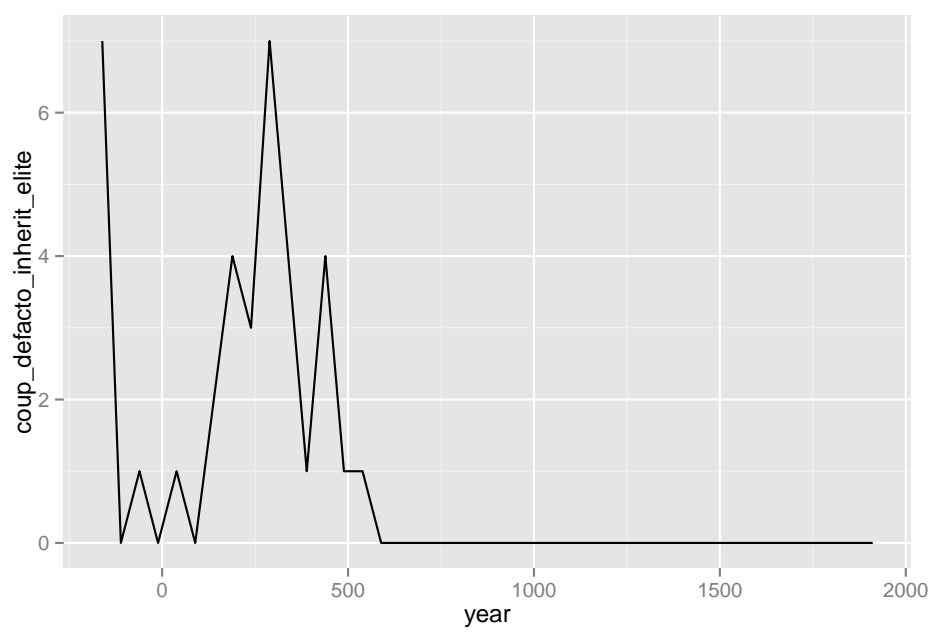
图 8: