JTBC 2017-02-16

Problem

JTBC 정치부회의에서는 다음과 같은 도표의 민주당 지지자 중 후보지지도 여론조사 결과를 보도.

JTBC 정치부회의 2017. 2월

막대의 높이에 의구심을 표한 시청자들의 항의에 직면함.

제대로 된 막대그래프를 그리면서 R Base plot과 ggplot에 대하여 학습.

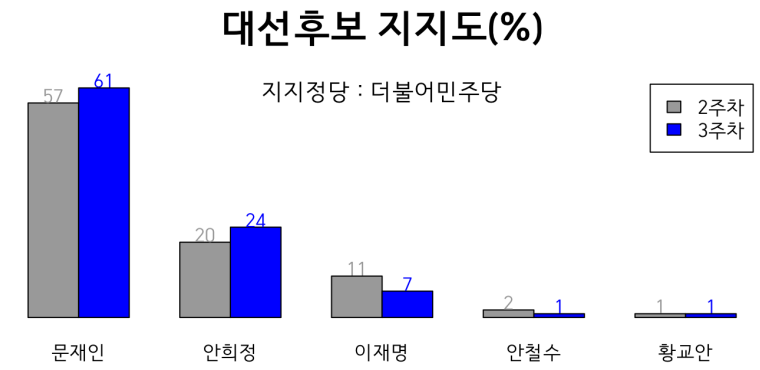
Data Setup

```
candidates <- c("문재인", "안희정", "이재명", "안철수", "황교안")
week2 <- c(57, 20, 11, 2, 1)
week3 <- c(61, 24, 7, 1, 1)
rates_df <- data.frame(candidates, week2, week3,
                       stringsAsFactors = FALSE)
rates_df
```

```
##   candidates week2 week3
## 1       문재인    57    61
## 2       안희정    20    24
## 3       이재명    11     7
## 4       안철수     2     1
## 5       황교안     1     1
```

Barplot(R Base)

```
par(family = "HCR Dotum LVT")
b1 <- barplot(t(as.matrix(rates_df[, 2:3])),
              axes = FALSE,
              ylim = c(0, 65),
              beside = TRUE, names.arg = rates_df[, 1],
              legend.text = c("2주차", "3주차"),
              col = c("darkgrey", "blue"))
# axis(side = 2,
#      at = as.vector(as.matrix(rates_df[, 2:3])),
#      labels =  as.vector(as.matrix(rates_df[, 2:3])), las = 1)
text(x = b1[1, ],
     y = week2 + 2,
     labels = week2,
     col = "darkgrey")
text(x = b1[2, ],
     y = week3 + 2,
     labels = week3,
     col = "blue")
main_title <- "대선후보 지지도(%)"
sub_title <- "JTBC 정치부회의, 한국갤럽 2017. 2월 7-9일, 14-16일"
main_text <- "지지정당 : 더불어민주당"
title(main = main_title,
      sub = sub_title,
      cex.main = 2)
text(x = 8, y = 60,
     main_text,
     cex = 1.2)
```



ggplot

Data for ggplot

```
library(reshape2)
(rates_df$candidates_f <- factor(candidates,
                                 levels = candidates))
```

```
## [1] 문재인 안희정 이재명 안철수 황교안
## Levels: 문재인 안희정 이재명 안철수 황교안
```

```
str(rates_df)
```

```
## 'data.frame':    5 obs. of  4 variables:
##  $ candidates  : chr  "문재인" "안희정" "이재명" "안철수" ...
##  $ week2       : num  57 20 11 2 1
##  $ week3       : num  61 24 7 1 1
##  $ candidates_f: Factor w/ 5 levels "문재인","안희정",..: 1 2 3 4 5
```

```
(rates_df_melt <- melt(rates_df[, 2:4],
                       id.vars = "candidates_f",
                       measure.vars = c("week2", "week3"),
                       variable.name = "week",
                       value.name = "rates"))
```

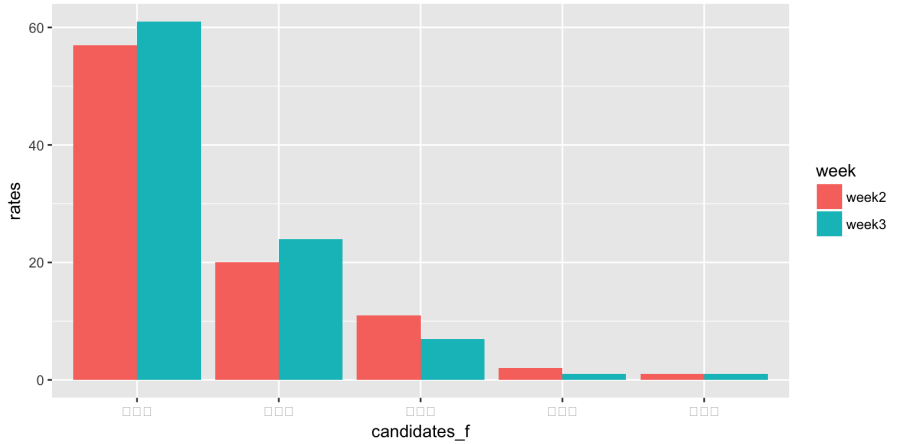
```
##    candidates_f  week rates
## 1        문재인 week2    57
## 2        안희정 week2    20
## 3        이재명 week2    11
## 4        안철수 week2     2
## 5        황교안 week2     1
## 6        문재인 week3    61
## 7        안희정 week3    24
## 8        이재명 week3     7
## 9        안철수 week3     1
## 10       황교안 week3     1
```

```
str(rates_df_melt)
```

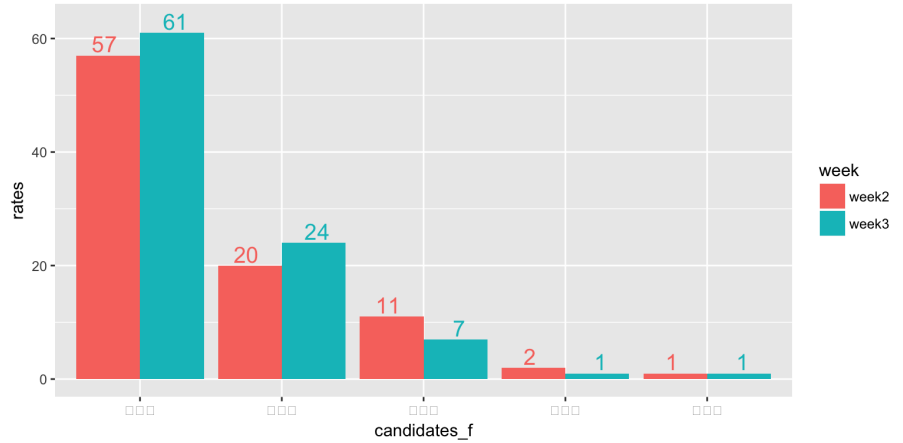
```
## 'data.frame':    10 obs. of  3 variables:
##  $ candidates_f: Factor w/ 5 levels "문재인","안희정",..: 1 2 3 4 5 1 2 3 4 5
##  $ week        : Factor w/ 2 levels "week2","week3": 1 1 1 1 1 2 2 2 2 2
##  $ rates       : num  57 20 11 2 1 61 24 7 1 1
```

Geom_bar

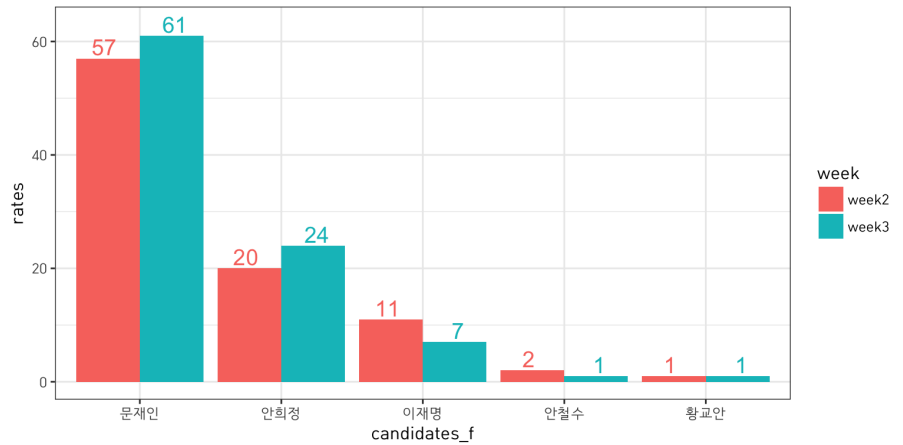
```
library(ggplot2)
source("./theme_kr.R")
g0 <- ggplot(data = rates_df_melt,
             mapping = aes(x = candidates_f,
                           y = rates,
                           fill = week))
(g1 <- g0 +
  geom_bar(stat = "identity",
           position = position_dodge()))
```



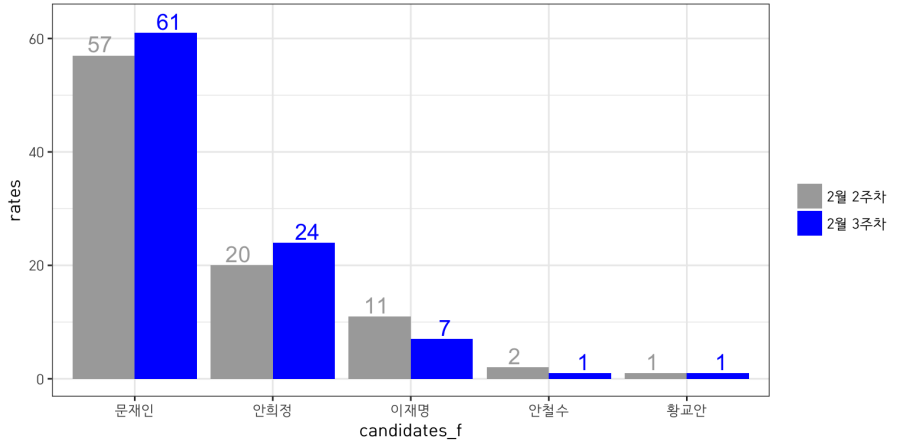
```
(g2 <- g1 +
  geom_text(mapping = aes(x = candidates_f,
                          y = rates + 2,
                          label = rates,
                          colour = week),
            position = position_dodge(width = 1),
            size = 5))
```



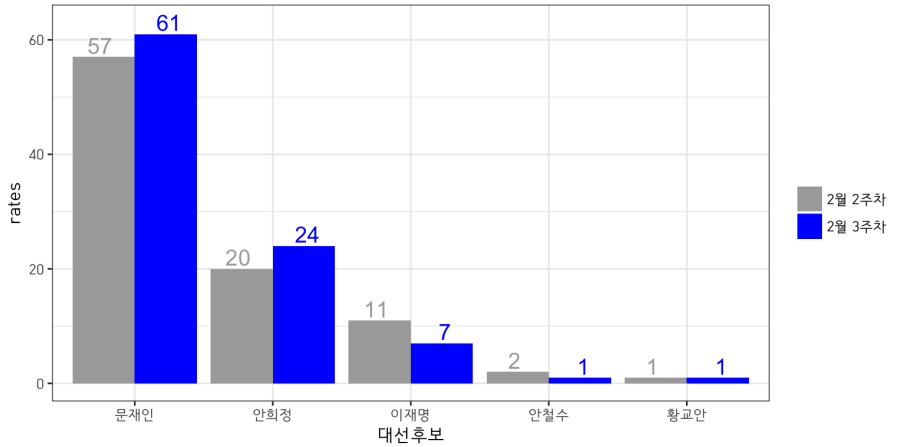

```
(g3 <- g2 +
  theme_bw() +
  theme.kr)
```



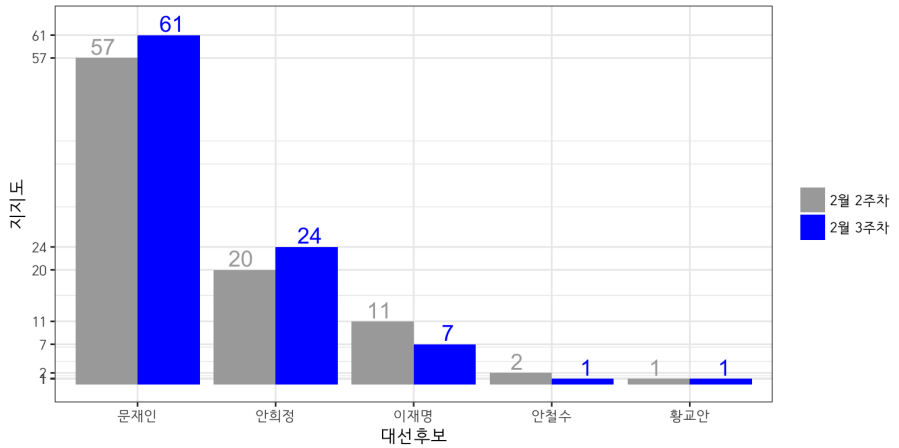

```
(g4 <- g3 +
    scale_fill_manual(name = "",
                      values = c("darkgrey", "blue"),
                      labels = c("2월 2주차", "2월 3주차")) +
    scale_colour_manual(name = "",
                        values = c("darkgrey", "blue"),
                        labels = c("2월 2주차", "2월 3주차")))
```




```
(g5 <- g4 +
    scale_x_discrete(name = "대선후보"))
```



```
(g6 <- g5 +
    scale_y_continuous(name = "지지도",
                       breaks = as.vector(as.matrix(rates_df[, 2:3])),
                       labels = as.vector(as.matrix(rates_df[, 2:3]))))
```




```
(g7 <- g6 +
    labs(title = main_title,
         subtitle = sub_title))
```


```
(g8 <- g7 +
  theme(plot.title = element_text(hjust = 0.5),
        plot.subtitle = element_text(family = "HCR Dotum LVT"),
        legend.position = c(0.9, 0.7)))
```