Ideology and the Red Button

Data and analyses for Foreign Policy Analysis

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Data loading and cleaning

```
data = as.data.frame(read_spss("./ONDERCO-ETIENNE-SMETANA_FPA_data_v6.sav"))
```

Missing values

```
data$LR = ifelse(data$LR %in% 0:10, data$LR, NA)
```

Add labels

```
# add a variable to the data with the labels of the LR-scale in 5 bins
LR_5bins_labels = as.data.frame(data$LR_5bins %>% attr('labels'))
data$LR_5bins_labels = row.names(LR_5bins_labels)[match(data$LR_5bins,LR_5bins_labels$`data$LR_5bins %>%
```

Article

Descriptives

```
# sex
n_sex = as.data.frame(table(data$COUNTRY, data$sex_regr))
colnames(n_sex) = c("Country", "Sex", "n")
n_sex$Sex = ifelse(n_sex$Sex==0, "Male",
            ifelse(n_sex$Sex==1, "Female",NA))
kable(n_sex)
```

Country	Sex	n
DE	Male	999
NL	Male	1020
DE	Female	353
NL	Female	583

```
# age
(mean_age_DE = round(mean(data$age_cont[data$COUNTRY=="DE"]),0))
```

```
## [1] 48
```

```
(sd_age_DE = round(sd(data$age_cont[data$COUNTRY=="DE"]),1))
```

```
## [1] 15.8
```

```
(mean_age_NL = round(mean(data$age_cont[data$COUNTRY=="NL"]),0))
```

```
## [1] 58
```

```
(sd_age_NL = round(sd(data$age_cont[data$COUNTRY=="NL"]),1))
```

```
## [1] 15.4
```

```
# education
n_edu = as.data.frame(table(data$COUNTRY, data$edu_2_rec))
colnames(n_edu) = c("Country", "Education", "n")
n_edu$Education = ifelse(n_edu$Education==0, "No higher education",
                  ifelse(n_edu$Education==1, "Higher education",NA))
kable(n_edu)
```

Country	Education	n
DE	No higher education	522
NL	No higher education	662
DE	Higher education	830

Country	Education	n
NL	Higher education	941

Cronbach's alpha

```
items = c("scenario1", "scenario2", "scenario3", "scenario4")
psych::alpha(data[,names(data) %in% items])
```

```
##
## Reliability analysis
## Call: psych::alpha(x = data[, names(data) %in% items])
##
##   raw_alpha std.alpha G6(smc) average_r S/N    ase mean  sd median_r
##       0.88      0.89    0.87      0.66 7.9 0.0035    2 1.2     0.67
##
##  lower alpha upper     95% confidence boundaries
## 0.87 0.88 0.89
##
##  Reliability if an item is dropped:
##           raw_alpha std.alpha G6(smc) average_r S/N alpha se  var.r med.r
## scenario1      0.84      0.85    0.79      0.65 5.5   0.0048 0.0023  0.63
## scenario2      0.86      0.86    0.81      0.67 6.0   0.0045 0.0040  0.70
## scenario3      0.84      0.85    0.80      0.66 5.7   0.0051 0.0055  0.63
## scenario4      0.86      0.87    0.82      0.68 6.5   0.0045 0.0048  0.71
##
##  Item statistics
##              n raw.r std.r r.cor r.drop mean  sd
## scenario1 2947  0.87  0.88  0.84   0.77  1.8 1.3
## scenario2 2945  0.84  0.86  0.80   0.74  1.7 1.2
## scenario3 2947  0.89  0.87  0.82   0.77  2.2 1.6
## scenario4 2944  0.86  0.85  0.77   0.73  2.1 1.6
##
## Non missing response frequency for each item
##                1    2    3    4    5    6 miss
## scenario1 0.63 0.17 0.06 0.07 0.05 0.03    0
## scenario2 0.66 0.18 0.06 0.04 0.03 0.02    0
## scenario3 0.52 0.17 0.08 0.10 0.08 0.06    0
## scenario4 0.55 0.15 0.08 0.10 0.07 0.05    0
```

Table 2: DESCRIPTIVES FOR THE FOUR SCENARIOS OF NUCLEAR WEAPONS USE

The syntax for table 2 can be found in the code chunk below.

```
# scenario 1
table2.1 = data %>% filter(is.na(scenario1_bin)==F) %>%
  group_by(COUNTRY) %>%
  count(scenario1_bin , wt = Combined_weight_trimmed_0.995) %>%
  mutate(prop = n/sum(n)) %>%
```

```
  select(-n) %>%
  pivot_wider(names_from = c(COUNTRY, scenario1_bin), values_from = prop)

# scenario 2
table2.2 = data %>% filter(is.na(scenario2_bin)==F) %>%
  group_by(COUNTRY) %>%
  count(scenario2_bin , wt = Combined_weight_trimmed_0.995) %>%
  mutate(prop = n/sum(n)) %>%
  select(-n) %>%
  pivot_wider(names_from = c(COUNTRY, scenario2_bin), values_from = prop)

# scenario 3
table2.3 = data %>% filter(is.na(scenario3_bin)==F) %>%
  group_by(COUNTRY) %>%
  count(scenario3_bin , wt = Combined_weight_trimmed_0.995) %>%
  mutate(prop = n/sum(n)) %>%
  select(-n) %>%
  pivot_wider(names_from = c(COUNTRY, scenario3_bin), values_from = prop)

# scenario 4
table2.4 = data %>% filter(is.na(scenario4_bin)==F) %>%
  group_by(COUNTRY) %>%
  count(scenario4_bin , wt = Combined_weight_trimmed_0.995) %>%
  mutate(prop = n/sum(n)) %>%
  select(-n) %>%
  pivot_wider(names_from = c(COUNTRY, scenario4_bin), values_from = prop)

# combine
table2 = rbind(rbind(rbind(table2.1, table2.2), table2.3), table2.4)
table2$Scenarios = c("Scenario 1", "Scenario 2", "Scenario 3", "Scenario 4")
table2 = table2[,c(5,1,3,2,4)]
table2 = round(table2[,2:5],3)
kable(table2)
```

DE_1	NL_1	DE_2	NL_2
0.913	0.843	0.087	0.157
0.971	0.896	0.029	0.104
0.820	0.769	0.180	0.231
0.853	0.765	0.147	0.235

Figure 1: WILLINGNESS TO USE NUCLEAR WEAPONS BY COUNTRY AND IDEOLOGY

```
# select data without missing values on the weight variable, and the plotted variable
data_selection = data[!is.na(data$LR_5bins_labels), ]

x_labels = c("Strongly \n disagree","Disagree","Tend to \n disagree", "Tend to \n agree", "Agree", "Str

ggplot( data = data_selection, # data
        aes(x        = NW_willingness_index_avg, # x axis data
```

```
        col      = LR_5bins_labels, # visual grouping
        linetype = LR_5bins_labels, # different linetypes
        weights  = Combined_weight_trimmed_0.995)) + # weights
    geom_density(bw=.5, size=1) + # kernel density + line thickness
    labs(title = "Average willingness to use nuclear weapons",
         x = "",
         y = "Density",
         col = "Left-right \nself-identification",
         linetype = "Left-right \nself-identification") + # labels legend title
    scale_color_manual   (values=c("#00A300", "#008b8b", "#000075", "#800000", "#ffa500")) + # line
    scale_linetype_manual(values=c(1,5,2,4,3)) + # linetypes
    guides(colour = guide_legend(override.aes = list(size=1, linetype=c(1,5,4,2,3)))) + # legend
    scale_x_discrete     (limits = x_labels) + # x axis labels
    facet_grid(cols=vars(COUNTRY)) + # two panels by country
    theme_bw()
```

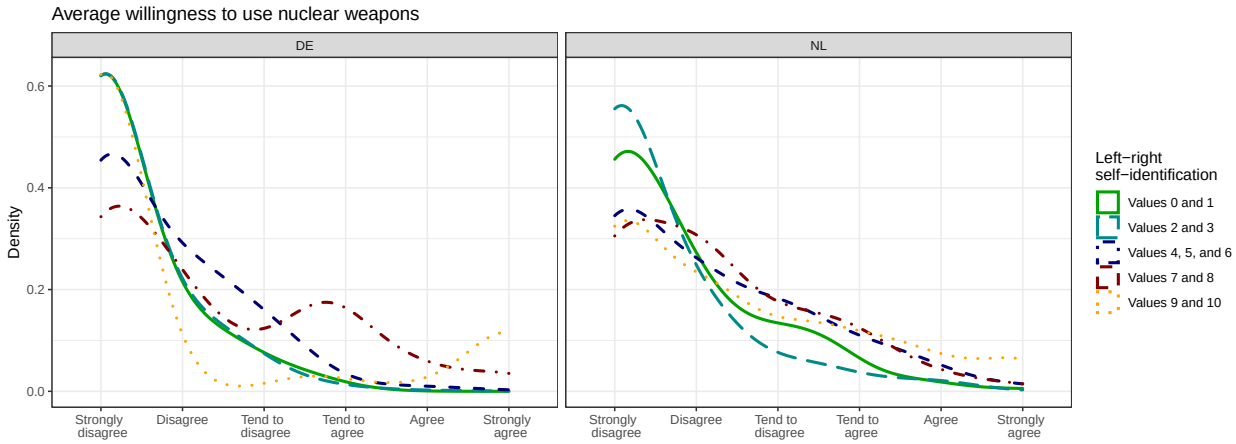


Table 3: RESULTS OF QUANTITATIVE ANALYSIS

The regressions are done in SPSS rather than in R. Please use the script ***FPA_regression_analyses.sps***.

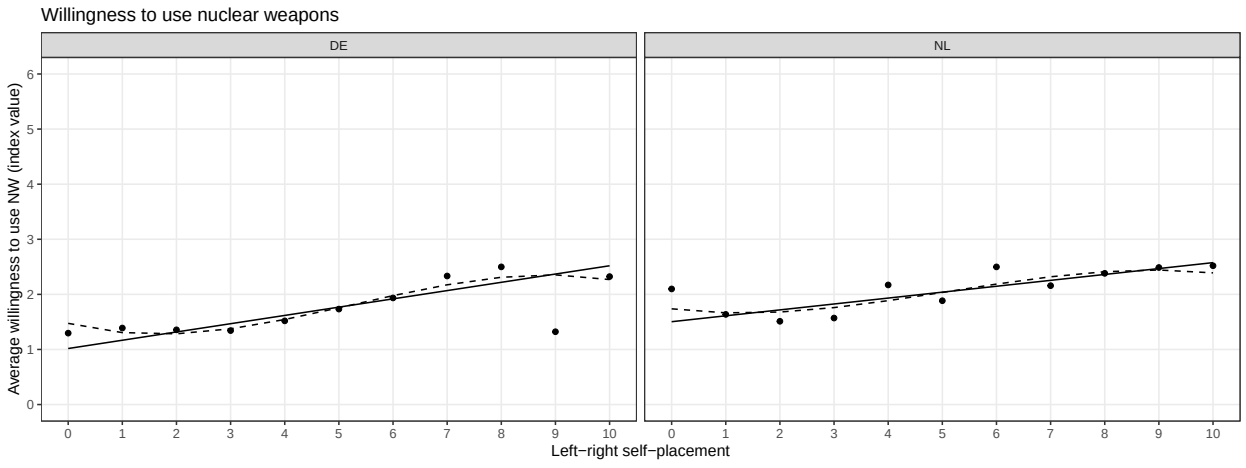
Figure 2: IDEOLOGY AND WILLINGNESS TO USE FORCE

```
# create polynomial regressions to plot
poly1_DE = lm(data=data, weights = weight_trimmed_0.995_DE,
              NW_willingness_index_avg ~ age_cont+sex_regr+geo_DE_East
              +LR)
poly1_NL = lm(data=data, weights = weight_trimmed_0.995_NL,
              NW_willingness_index_avg ~ age_cont+sex_regr
              +LR)
poly3_DE = lm(data=data, weights = weight_trimmed_0.995_DE,
              NW_willingness_index_avg ~ age_cont+sex_regr+geo_DE_East
              +LR+eval(LR^2)+eval(LR^3))
poly3_NL = lm(data=data, weights = weight_trimmed_0.995_NL,
              NW_willingness_index_avg ~ age_cont+sex_regr
              +LR+eval(LR^2)+eval(LR^3))
```

```
# pull out predicted values
poly1_DE_preds = plot_model(poly1_DE, type = "pred", terms = c("LR"))
poly1_NL_preds = plot_model(poly1_NL, type = "pred", terms = c("LR"))
poly3_DE_preds = plot_model(poly3_DE, type = "pred", terms = c("LR"))
poly3_NL_preds = plot_model(poly3_NL, type = "pred", terms = c("LR"))

# calculate weighted means and add predicted values
avgs = data_selection %>% group_by(LR, COUNTRY) %>%
  summarise(mean = weighted.mean(NW_willingness_index_avg,
                                 w=Combined_weight_trimmed_0.995, na.rm=T))
```

```
## `summarise()` has grouped output by 'LR'. You can override using the `.groups` argument.
```

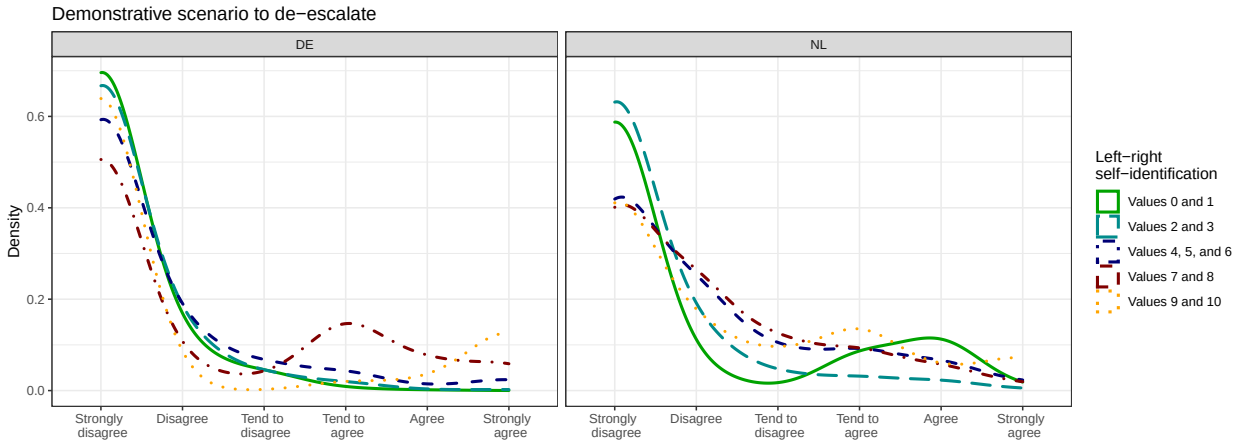
```
avgs$poly1[avgs$COUNTRY=="DE"] = poly1_DE_preds$data$predicted
avgs$poly1[avgs$COUNTRY=="NL"] = poly1_NL_preds$data$predicted
avgs$poly3[avgs$COUNTRY=="DE"] = poly3_DE_preds$data$predicted
avgs$poly3[avgs$COUNTRY=="NL"] = poly3_NL_preds$data$predicted

# plot
ggplot(data=avgs, aes(x=LR)) +
  # data elements
  geom_point(aes(y=mean)) +
  geom_line (aes(y=poly1)) +
  geom_line (aes(y=poly3), lty=2) +
  facet_wrap(~COUNTRY) +
  # settings
  scale_x_continuous(breaks = seq(from=0,to=10,by=1)) +
  scale_y_continuous(breaks = seq(from=0,to=6,by=1),limits=c(0, 6)) +
  labs(title = "Willingness to use nuclear weapons",
       y = "Average willingness to use NW (index value)",
       x = "Left-right self-placement") +
  theme_bw() + theme(panel.grid.minor = element_blank())
```



Appendices

Appendix Figure 1

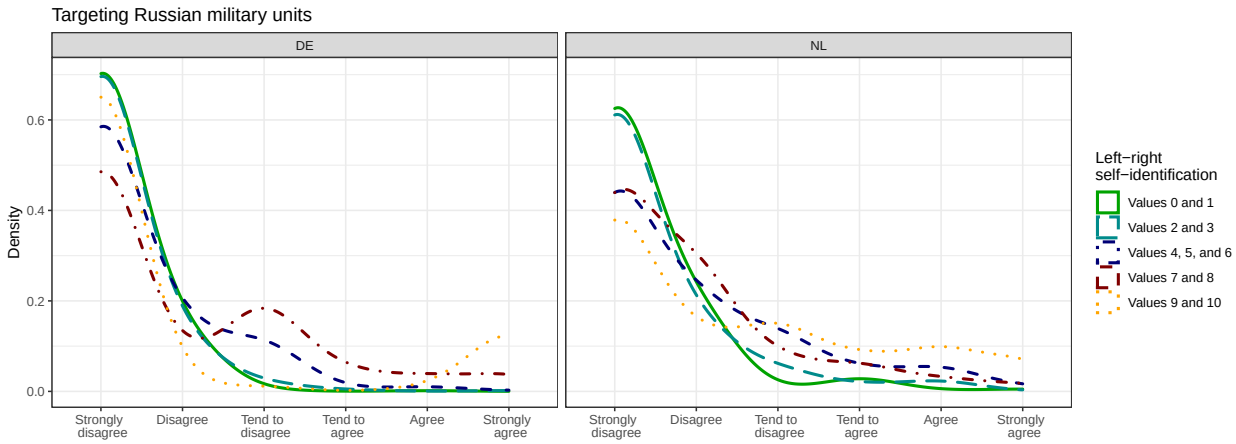
```
# scenario1
ggplot( data=data_selection, # data
        aes(x=scenario1, # x axis data
            #group=LR_5bins_labels, # grouping -> no longer needed?
            col=LR_5bins_labels, # visual grouping
            linetype=LR_5bins_labels, # different linetypes
            weights=Combined_weight_trimmed_0.995)) + # weights
  geom_density(bw=.5, size=1) + # kernel density + line thickness
  guides(colour = guide_legend(override.aes = list(size=1, linetype=c(1,5,4,2,3)))) + # legend line typ
  labs(title = "Demonstrative scenario to de-escalate",
       x = "",
       y = "Density",
       col = "Left-right \nself-identification",
       linetype = "Left-right \nself-identification") + # labels legend title
  scale_color_manual   (values=c("#00A300", "#008b8b", "#000075", "#800000", "#ffa500")) +
  scale_linetype_manual(values=c(1,5,2,4,3)) +
  scale_x_discrete     (limits=c("Strongly \n disagree","Disagree","Tend to \n disagree", "Tend to \n a
  facet_grid(cols=vars(COUNTRY)) + # two panels by country
  theme_bw()
```



Appendix Figure 2

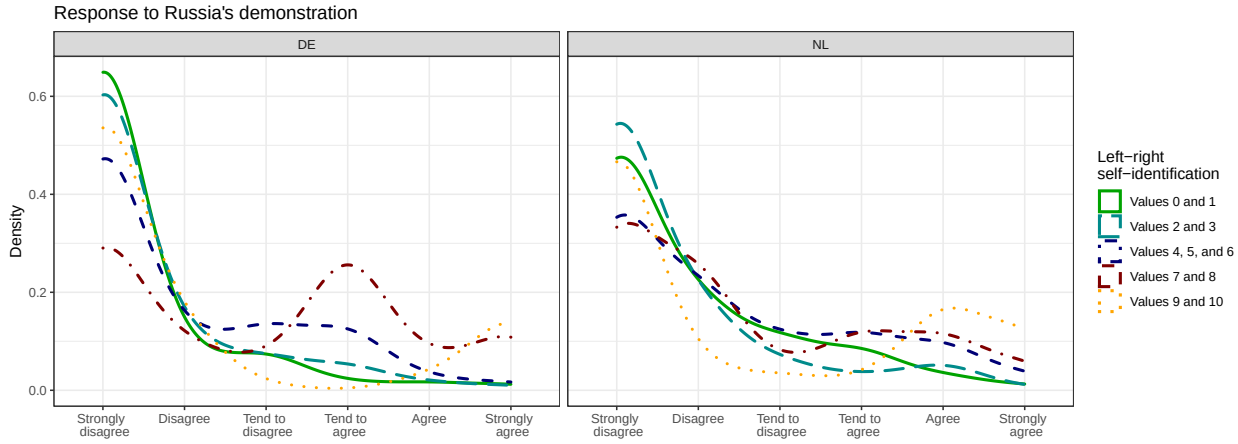
```
# scenario2
ggplot( data=data_selection, # data
        aes(x=scenario2, # x axis data
            #group=LR_5bins_labels, # grouping -> no longer needed?
            col=LR_5bins_labels, # visual grouping
            linetype=LR_5bins_labels, # different linetypes
            weights=Combined_weight_trimmed_0.995)) + # weights
  geom_density(bw=.5, size=1) + # kernel density + line thickness
```

```
  guides(colour = guide_legend(override.aes = list(size=1, linetype=c(1,5,4,2,3)))) + # legend line typ
  labs(title = "Targeting Russian military units",
       x = "",
       y = "Density",
       col = "Left-right \nself-identification",
       linetype = "Left-right \nself-identification") + # labels legend title
  scale_color_manual    (values=c("#00A300", "#008b8b", "#000075", "#800000", "#ffa500")) +
  scale_linetype_manual(values=c(1,5,2,4,3)) +
  scale_x_discrete      (limits=c("Strongly \n disagree","Disagree","Tend to \n disagree", "Tend to \n ag
  facet_grid(cols=vars(COUNTRY)) + # two panels by country
  theme_bw()
```



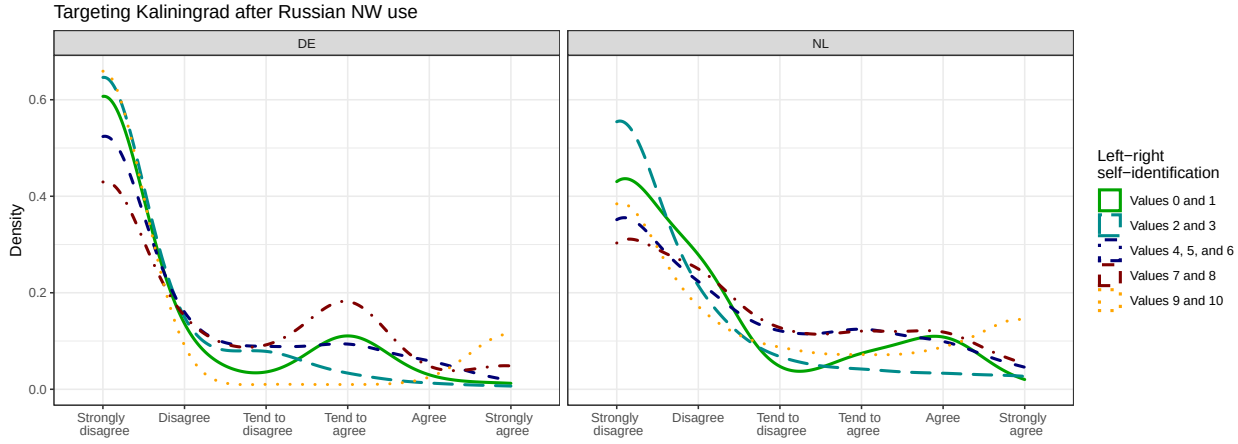
Appendix Figure 3

```
# scenario3
ggplot( data=data_selection, # data
        aes(x=scenario3, # x axis data
            #group=LR_5bins_labels, # grouping -> no longer needed?
            col=LR_5bins_labels, # visual grouping
            linetype=LR_5bins_labels, # different linetypes
            weights=Combined_weight_trimmed_0.995)) + # weights
  geom_density(bw=.5, size=1) + # kernel density + line thickness
  guides(colour = guide_legend(override.aes = list(size=1, linetype=c(1,5,4,2,3)))) + # legend line typ
  labs(title = "Response to Russia's demonstration",
       x = "",
       y = "Density",
       col = "Left-right \nself-identification",
       linetype = "Left-right \nself-identification") + # labels legend title
  scale_color_manual    (values=c("#00A300", "#008b8b", "#000075", "#800000", "#ffa500")) +
  scale_linetype_manual(values=c(1,5,2,4,3)) +
  scale_x_discrete      (limits=c("Strongly \n disagree","Disagree","Tend to \n disagree", "Tend to \n ag
  facet_grid(cols=vars(COUNTRY)) + # two panels by country
  theme_bw()
```



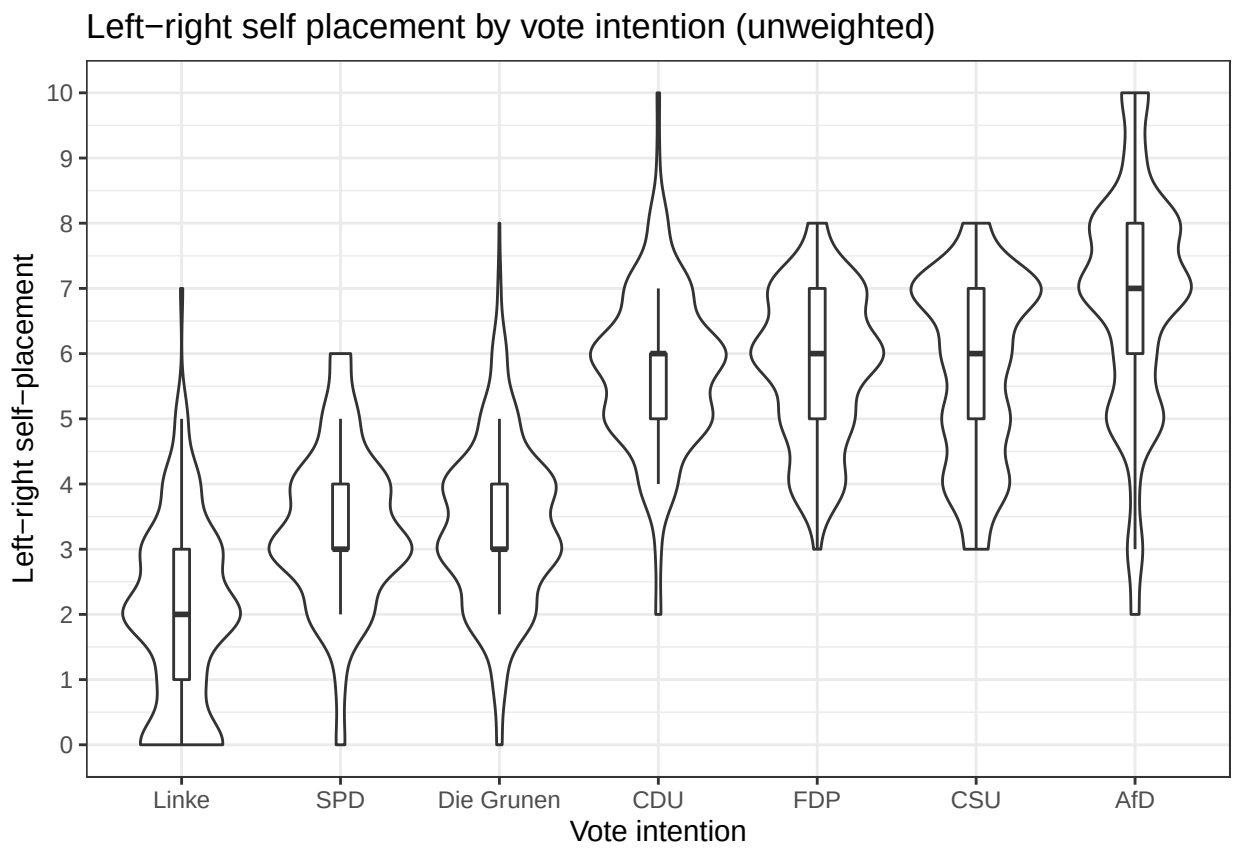
Appendix Figure 4

```
# scenario4
ggplot( data=data_selection, # data
        aes(x=scenario4, # x axis data
            #group=LR_5bins_labels, # grouping -> no longer needed?
            col=LR_5bins_labels, # visual grouping
            linetype=LR_5bins_labels, # different linetypes
            weights=Combined_weight_trimmed_0.995)) + # weights
  geom_density(bw=.5, size=1) + # kernel density + line thickness
  guides(colour = guide_legend(override.aes = list(size=1, linetype=c(1,5,4,2,3)))) + # legend line typ
  labs(title = "Targeting Kaliningrad after Russian NW use",
       x = "",
       y = "Density",
       col = "Left-right \nself-identification",
       linetype = "Left-right \nself-identification") + # labels legend title
  scale_color_manual   (values=c("#00A300", "#008b8b", "#000075", "#800000", "#ffa500")) +
  scale_linetype_manual(values=c(1,5,2,4,3)) +
  scale_x_discrete     (limits=c("Strongly \n disagree","Disagree","Tend to \n disagree", "Tend to \n ag
  facet_grid(cols=vars(COUNTRY)) + # two panels by country
  theme_bw()
```



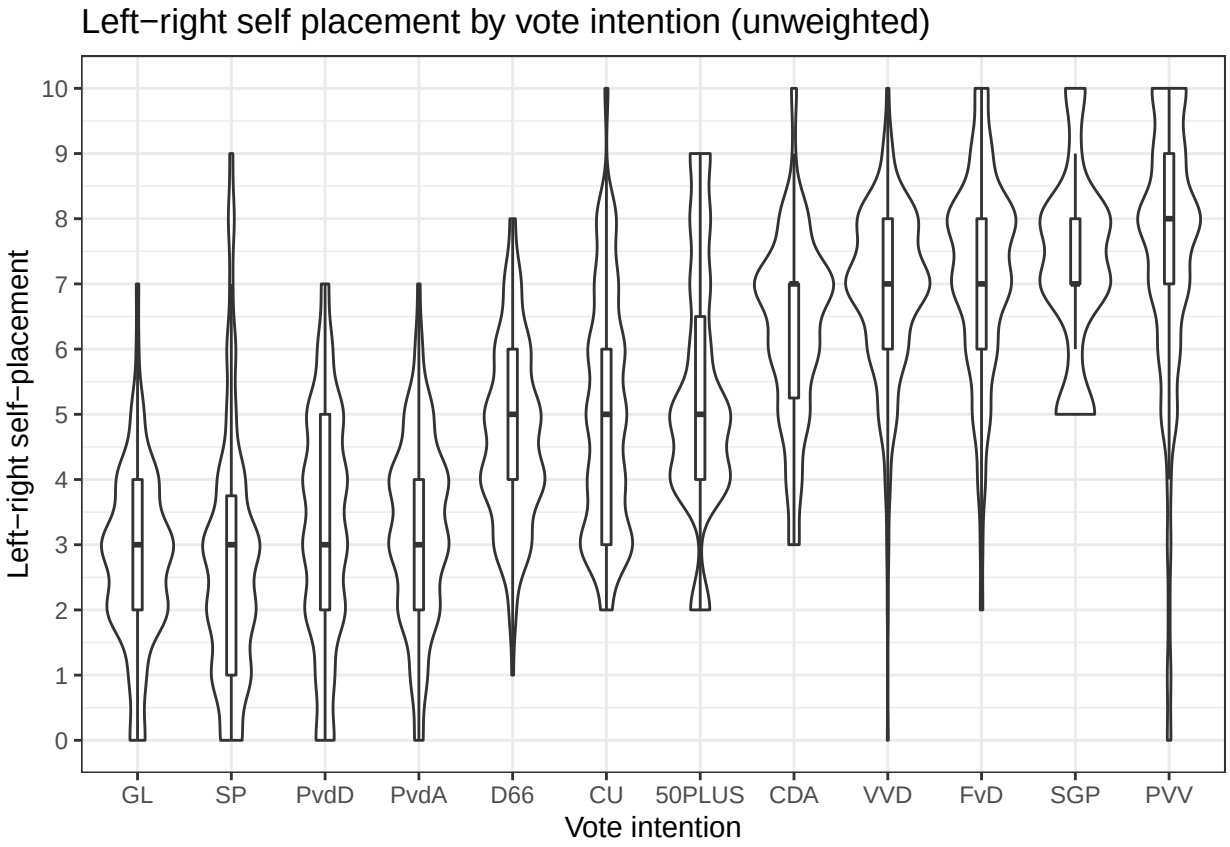
Appendix Figure 5

```
# Label vote intent
data$DE_voteintent =  ifelse(data$vote_intent_DE == 1, "CDU",
                      ifelse(data$vote_intent_DE == 2, "SPD",
                      ifelse(data$vote_intent_DE == 3, "AfD",
                      ifelse(data$vote_intent_DE == 4, "Linke",
                      ifelse(data$vote_intent_DE == 5, "FDP",
                      ifelse(data$vote_intent_DE == 6, "Die Grunen",
                      ifelse(data$vote_intent_DE == 11, "CSU",NA)))))))

# select data
data_selection = data[!is.na(data$DE_voteintent),]

## make plot
ggplot(data_selection, aes(x=DE_voteintent,
                   y=LR)) + # data and variables # weight=Combined_weight_trimmed_0.995
  ggtitle("Left-right self placement by vote intention (unweighted)") +
  scale_y_continuous(name="Left-right self-placement", breaks=seq(0,10,1),limit=c(0,10)) + # y axis
  scale_x_discrete(name ="Vote intention",
                   limits=c("Linke","SPD","Die Grunen","CDU","FDP","CSU","AfD")) + # x axis
  geom_violin(scale="area", bw=.4) + # violing with smoothing kernel bandwidth, and area equal
  geom_boxplot(width = .1, outlier.shape = NA) + # boxplot no outliers shown
  theme_bw()
```



Appendix Figure 6

```
data$NL_voteintent =  ifelse(data$vote_intent_NL == 1, "VVD",
                      ifelse(data$vote_intent_NL == 5, "GL",
                      ifelse(data$vote_intent_NL == 8, "CU",
                      ifelse(data$vote_intent_NL == 3, "CDA",
                      ifelse(data$vote_intent_NL == 6, "SP",
                      ifelse(data$vote_intent_NL == 7, "PvdA",
                      ifelse(data$vote_intent_NL == 2, "PVV",
                      ifelse(data$vote_intent_NL == 13, "FvD",
                      ifelse(data$vote_intent_NL == 4, "D66",
                      ifelse(data$vote_intent_NL == 9, "PvdD",
                      ifelse(data$vote_intent_NL == 11, "SGP",
                      ifelse(data$vote_intent_NL == 10, "50PLUS",NA)))))))))))

# select data
data_selection = data[!is.na(data$NL_voteintent),]

## make plot
ggplot(data_selection, aes(x=NL_voteintent,
                  y=LR)) + # data and variables # weight=Combined_weight_trimmed_0.995
  ggtitle("Left-right self placement by vote intention (unweighted)") +
  scale_y_continuous(name="Left-right self-placement", breaks=seq(0,10,1),limit=c(0,10)) + # y axis
  scale_x_discrete(name ="Vote intention",
                   limits=c("GL","SP","PvdD","PvdA","D66","CU","50PLUS","CDA","VVD","FvD","SGP","PVV")
  geom_violin(scale="area", bw=.4) + # violing with smoothing kernel bandwidth, and area equal
  geom_boxplot(width = .1, outlier.shape = NA) + # boxplot no outliers shown
  theme_bw()
```



Appendix 1

The code for the regressions can be found in ***FPA_appendix_regression.sps***.

Appendix 2

The code for the regressions can be found in ***FPA_appendix_regression.sps***.

Appendix 3

The code for the regressions can be found in ***FPA_appendix_regression.sps***.