

Effect of Political Orientation on Altruistic Attitudes

<https://github.com/anind99/304Final>

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Abstract

Altruism is the moral practice of helping others when they are in need. This may even include taking on a personal cost to do so. Having altruistic attitudes allowed humans to prosper over other organisms, and as a result societal norms have evolved to promote such stances. In modern democratic societies the political orientation of people determines the altruistic stance of society as a single entity. In this paper I explored whether political orientation could predict altruistic stance. In addition, I determined whether political philosophy could predict political orientation i.e., whether the party people vote for truly represents their social stances. My results confirmed the findings of previous papers, that political orientation and altruism are correlated. In addition, I determined that the current political system is not capable of representing the social philosophy of individuals. In order to implement the true attitudes of individuals a less binary system needs to be implemented.

Introduction

Altruism is the philosophy of helping others even when it may result in incurring a personal cost. It is behavior that has evolved in social organisms as it provided a survival advantage over non-social species. These non-altruistic species had more competition and less companions. It is arguable that us humans were able to beat the competition and become the dominant species in this world because of our social nature. Consequently, Altruism is a major part of the success of human species and society.

In his paper, (Vlerick 2020) explained that along with our genes, culture has also evolved to take altruistic stances. Competition between groups selected for norms which were more beneficial for the survival of the group as a whole. For example, individuals who can be identified as “cheaters” are punished in various ways; including social criticism and even physical punishment. Vlerick didn’t stop at this, in his paper he explored a novel aspect of altruism; conscious decision making. Rather than hard-wired motions, intuition-based processes play a major part. This may even override the automatic, instinctual responses talked about previously.

Being such an important aspect of society, one may ask; how can these altruistic characteristics that we have developed further be emphasized? While humans individually may morally take the stance of helping others, society as a single entity (a system) does not always share this sentiment. Government policies dictate the opportunities people receive and ultimately decide the quality-of-life of less fortunate individuals.

In order to explore this societal implementation of altruism, in this paper I will explore the effect of political orientation on altruistic attitudes. Given the assumption of a democratic government,

the goal of my work will be to identify how the altruistic opinions of individuals can be accurately represented on a broader scale. This will be an expansion of the study previously conducted by (Zettler and Hilbig, 2009); who also explored whether altruism is an important construct in political orientation even when controlling for personality factors. This is because while researchers had found the importance of personality on political orientation, the concept of altruism still remained to be explored.

Zettler and Hilbig (2009) confirmed their hypotheses; i) Individuals high in altruism will endorse a left-wing ideology. ii) Altruism explains unique variance in political orientation beyond personality (big six).

To follow the mentioned study, I will be exploring whether political orientation influences altruistic attitudes. More specifically, I will be analyzing the prototypical properties of both extreme political stances (left vs Right), to determine whether they can predict altruistic stances. In addition, I will confirm whether these prototypical properties are truly representative of people or are individuals forced to take an extreme stance due to the nature of the political system.

In order to implement and validate this study will analyze data collected by the American Social Survey (NORC 2016) and select for two types of variables. The first being variables that capture altruistic attitudes, the second being variables associated with political orientation. To follow I will be analyzing the effect of dependent variables of political orientation on the independent variables of altruistic responses. Lastly, I will determine whether the variables of political ideology can independently determine orientation. Or whether our current political system is incapable of capturing the social stances of its subjects. I will use linear regression, ordinal logistic regression along with chi-squared tests to determine the significance of the relationships between these variables.

Data

The data I will be using in this survey is retrieved from the GSS database (NORC 2021) and contains data from the year 1972 to 2016. GSS is one of the longest running census surveys in the united states which collects attitudes towards social, political and cultural conditions. The data is collected from direct interviews conducted on american adults. The sampling is done in two steps, starting with a stratified sampling of an area based on it's population. Then randomly selecting individuals from these areas. Furthermore, isolating the research to Americans only reduces the variability in data due to country of residence. I could have chosen any other country to do this study on as well. The datasheet in the appendix contains additional information.

The software I will be using for data analysis is R ("R Studio" 2019) coupled with the following packages: foreign (R Core Team 2020), dplyr (Wickham et al. 2021), MASS (Venables and Ripley 2002), ggplot2 (Wickham 2016), kableExtra (Zhu 2021), effects (John Fox 2009).

Since I want to study the relationship between Altruism and Political Orientation, I will be identifying variables from the dataset that represent either the altruistic characteristic of an individual or their political views.

Variables that capture Altruistic Characteristics

- othshelp: People should help less fortunate others. (1 - Strongly agree, 5 - Strongly disagree)
- givblood: Donated blood during the past 12 months (1 - Highest Frequency, 6 - Lowest Frequency)

- givhmlss: Given food or money to a homeless person (1 - Highest Frequency, 6 - Lowest Frequency)
- volchrty: Done volunteer work for a charity (1 - Highest Frequency, 6 - Lowest Frequency)
- loanitem: Has let someone borrow a item of some value (1 - Highest Frequency, 6 - Lowest Frequency)
- careself: Those in need have to take care of themselves (1 - Highly agree, 6 - Highly Disagree)
- peoptrbl: Assisting people in trouble is very important (1 - Highly agree, 6 - Highly Disagree)
- selffrst: People need not overly worry about others (1 - Highly agree, 6 - Highly Disagree)
- helpfrds: Should better off ppl help less well-off friend (1 - Highly agree, 6 - Highly Disagree)

The above 9 variables related to altruistic attitudes for an individual. They all consist of a scenario where a person has the choice of helping someone as opposed to not.

Variables that capture an individuals political orientation The following variables represent an individuals political views

- partyid: Political party affiliation (1 - Strong Democrat, 6 - Strong Republican, 7 - Other)
- polviews: Think of self as liberal or conservative (1 - Extremely Liberal, 7 - Extremely Conservative)
- binary_orientation: This variable is generated from PRES08, PRES12 and PRES16 and represents the voted party of an individual (0 - Democrat, 1 - Republican)

The above 3 variables directly represent the political views of an individual, i.e their affiliation to conservative or liberal.

- trdunion: Workers need strong trade unions (1 - Strongly Agree, 4 - Strongly Disagree)
- goveqinc: The Government should reduce income differences (1 - strong agree, 5 - strong disagree).
- govjobs: The government should provide a job for everyone who wants one. (1 - strong agree, 5 - strong disagree).
- govunemp: The government should provide a decent standard of living for the unemployed. (1 - strong agree, 5 - strong disagree).
- govlazy: The social benefits from the government make people lazy. (1 - strong agree, 5 - strong disagree).
- govcare: The government should be about the social welfare of people (1 - strong agree, 5 - strong disagree).
- helppoor: The Government should take care of people (1 - strong agree, 5 - strong disagree).
- helpnot: The Government doing too much or should do more to help people (1 - strong agree, 5 - strong disagree).
- helpsick: The Government should help in paying hospital bills vs not paying them (1 - strong agree, 5 - strong disagree).
- helpblk: The Government should be helping imprve living standards of black people (1 - strong agree, 5 - strong disagree).
- ldctax. Wealth countries pay taxes to aid less wealthier ones (1 - strong agree, 5 - strong disagree).

The above 7 variables represent an individuals opinion on government policies related to social aid. The opinions on these policies should differ based on a person's political views and therefore they can be categorized as a political variable.

The categorical scaling of the majority of these variables have been mutated from written answers into numerical factors in order to make the analysis more convenient. To start exploring the nature of these variables, it may be beneficial to look at their mean and distributions. The tables below represent this information.

Table 1 contains the mean and distribution of each of the select variables. From quick glance we can see that the mean is mostly at neutral values (towards the middle). However, since most of these variables are categorical, the standard deviation does not give us an idea of their distribution. Therefore, I present the distribution of the categorical variables as relative frequency.

All the above categorical variables are on maximum at a 8-point scale. Therefore a single table (Table 2) is suitable for visualizing their frequency counts. An interesting finding is that people usually are hesitant to answer at extreme values for opinion related questions. Most of the time the middle value is the answer with the highest frequency.

The following variables are significantly right skewed: Othshlp, Careself, Peoptrbl, Helpfrds. This tells us that while people generally tend to be altruistic (prone to helping others) they still value self-importance (Careself).

In order to get a better understanding of the nature of the altruistic variables in relation to political orientation, it may be beneficial to look at their grouped means. Similarly, it will be beneficial to look at the means of the political opinion variables grouped by the variable “polviews”; allowing us to numerically estimate the cumulative opinion of each group.

Table 3 provides the mean altruistic scores, grouped by the “polviews” variable. The interesting finding from this table is that typically the more right leaning a group is the higher their score on each altruistic variable. This is what we would expect according to the hypothesis.

Table 4 provides the mean political opinion scores, grouped by the “polviews” variable. Here we see that typically the more conservative a group is the higher their score on each political opinion variable (opposite for govlazy). This makes sense because the opinions represented in these variables are constructed on agreeability regarding various social benefits. According to the definitions of each political orientation, it would be expected for right leaning groups to be more individualistic and left-leaning groups to support social welfare.

However, these findings can be slightly misleading since the grouped means aren’t calculated from the same individuals. This is because some of these variables were calculated in years that others were not (i.e some variables have null values where other variables are present).

After looking at these mean responses, it would also be beneficial to analyze the distribution of the grouped altruistic responses. So, to visualize these I present box plots. (see appendix Plots 1 - 10)

Plot 1, 2, 4, 5, 6, 7, 8, 9: othshelp, givblood, givhmlss, cutahead, volchrty, loanitem, careself, peoptrbl, selfrst, helpfrds by polviews These variables do not show a difference in distribution based on political views.

Plot 3, 10: givhmlss, helpfrd by polviews: Both givhmlss and helpfrd are more right skew for more left leaning groups. This indicates that the more liberal an individual the more they are prone to both helping the homeless and friends (i.e more altruistic by definition).

Table 1: Means and Standard Deviations of Selected Variables

Attribute_Name	Mean	Standard_Deviation
helppoor	2.89	1.18
helpnot	3.04	1.23
helpsick	2.46	1.24
helpblk	3.5	1.29
othshelp	1.69	0.718
givblood	5.78	0.603
givhmlss	4.53	1.34
cutahead	3.79	1.29
volchrty	4.87	1.47
loanitem	5.26	1.09
careself	2.63	1.02
peoptrbl	2.03	0.788
selffrst	3.19	1.06
helpfrds	2.35	0.88
partyid	3.74	2.05
polviews	4.1	1.38
trdunion	2.53	0.823
goveqinc	3.2	1.21
govjobs	2.73	1.22
govunemp	2.85	1.07
govlazy	2.7	0.955
govcare	1.27	0.442
PRES16	1.04	0.326
PRES12	1.42	0.579
PRES08	1.43	0.564
binary_orientation	0.781	0.414

Table 2: Independant Variable Frequencies

AttributeName	1	2	3	4	5	6	7	8
helppoor	0.17431	0.12884	0.44343	0.14187	0.11155			
helpnot	0.1519	0.12932	0.40439	0.15883	0.15557			
helpsick	0.29862	0.20208	0.32048	0.09734	0.081474			
helpblk	0.10096	0.096094	0.30906	0.19198	0.30191			
othshelp	0.43236	0.47447	0.075076	0.011242	0.0068598			
givblood	0.0017091	0.0017091	0.0045575	0.05545	0.078618	0.85796		
givhmlss	0.029546	0.046702	0.11971	0.31529	0.14659	0.34217		
cutahead	0.062369	0.088117	0.20484	0.40931	0.11596	0.1194		
volchrty	0.043875	0.043875	0.091548	0.17113	0.11985	0.52972		
loanitem	0.01047	0.014468	0.047592	0.16809	0.15553	0.60385		
careself	0.11453	0.40294	0.2573	0.19183	0.033403			
peoptrbl	0.24014	0.54145	0.17477	0.037355	0.0062893			
selfrst	0.053043	0.24938	0.22667	0.39687	0.074032			
helpfrds	0.16081	0.4275	0.31986	0.081722	0.010105			
partyid	0.16116	0.20644	0.121	0.15355	0.088841	0.15425	0.098112	0.016647
polviews	0.030401	0.11773	0.1267	0.38624	0.15706	0.14875	0.033112	
trdunion	0.10599	0.36665	0.41921	0.10815				
goveqinc	0.086941	0.23834	0.22166	0.29437	0.15869			
govjobs	0.16965	0.32538	0.19351	0.22863	0.082836			
govunemp	0.09097	0.33445	0.25619	0.26756	0.050836			
govlazy	0.64961	0.35039						
govcare	0.73406	0.26594						
PRES16	0.97629	0.011788	0.0089024	0.0013423	0.00030858	0.00054001	0.00083315	
PRES12	0.61703	0.35268	0.022503	0.0077813	0	0	0	
PRES08	0.60565	0.36705	0.022555	0.0047483	0	0	0	
binary_orientation	0.21905	0.78095						

Table 3: Mean Altruistic Characteristic Scores by Polviews

polviews	othshelp	givblood	givhmlss	cutahead	volchrty	loanitem	careself	peoptrbl	selfrst	helpfrds	partyid	trdunion
1	1.430769	5.770408	3.938776	3.656410	4.617347	5.169231	2.846154	1.923469	3.438776	2.042105	2.741627	2.096916
2	1.578292	5.772646	4.322064	3.780749	4.815603	5.172598	2.716578	1.985740	3.316071	2.265918	2.659889	2.379217
3	1.649153	5.720812	4.537288	3.745763	4.844332	5.210170	2.732203	2.020305	3.294915	2.303704	3.101460	2.457766
4	1.739175	5.799491	4.594277	3.809816	4.965412	5.296334	2.669384	2.083546	3.087156	2.400477	3.571193	2.500873
5	1.690789	5.777339	4.579710	3.761842	4.784211	5.252312	2.538158	2.011858	3.231579	2.343333	4.333295	2.682448
6	1.712531	5.780906	4.599260	3.750000	4.817178	5.264778	2.504938	1.998768	3.209102	2.452722	4.974521	2.778157
7	1.694300	5.785714	4.324742	3.727749	4.615385	5.246154	2.431579	1.865979	3.267016	2.392857	4.833975	2.712264
NaN	1.684211	5.837989	4.779661	4.162921	5.191011	5.286517	2.411765	2.076023	2.928994	2.222222	3.689955	2.467337

Table 4: Mean Government Socio-Political Opinions by Polviews

polviews	helppoor	helpnot	helpsick	helpblk	trdunion	goveqinc	govjobs	govunemp	govlazy	govcare
1	2.239509	2.306485	1.745098	2.618853	2.096916	2.445378	2.052632	2.282051	3.241379	1.115385
2	2.457135	2.636311	2.000564	2.980899	2.379217	2.811550	2.348718	2.544503	3.291139	1.214286
3	2.725944	2.865129	2.208753	3.268280	2.457766	3.041543	2.780612	2.959799	2.880000	1.244186
4	2.849200	2.975264	2.420279	3.542768	2.500873	3.114368	2.642468	2.768807	2.585774	1.209259
5	3.139202	3.250778	2.674162	3.700141	2.682448	3.484542	3.092511	3.135965	2.476190	1.324428
6	3.313738	3.512211	2.954594	3.889315	2.778157	3.718880	3.248555	3.279070	2.380952	1.431034
7	3.330799	3.537645	3.048757	3.862689	2.712264	3.636119	2.487179	2.538461	2.428571	1.342105
NA	2.663588	2.877388	2.366442	3.405432	2.467337	2.847458	2.455556	2.609756	2.962963	1.214286

Table 5: P Value of Chi Square Test Comparing Altruistic Variables and Political Orientation

	othshelp	givblood	givhmlss	cutahead	volchrty	loanitem	careself	peoptrbl	selffrst	helpfrds
P-Val	0	> 0.05	0	> 0.05	2.9e-06	> 0.05	0	0.0012	0	0.00024

Initially looking at the relationships provided us an initial idea of their relationships. Nevertheless, in order to delve into these relationships more deeply, I will now be analyzing them quantitatively using statistically models.

Model & Results

My analysis will be conducted in 2 parts, addressing both of the research goals driving this study. The first goal is to determine whether left-wing political ideologists are more altruistic than right-wing. The second, to investigate the correlation between stances on different socio-political matters and political views. This latter investigation will include the conclusion which identifies the effectiveness of a 2-party system in representing the political opinions of an individual.

Part A

To start I will be analyzing the impact of “Polviews” on altruistic attitudes. An appropriate analysis to determine the dependence between two categorical variables is the chi squared test. Therefore I provided a table containing the p-values of chi-squared t-tests of between each of the altruistic variable and “Polviews” (using a significance level of 5%).

From Table 5:

- * Helping others (helpfrds, peoptrbl), giving to the homeless, volunteering in charity, self-importance (selffrst, careself) are all concepts that have a significant relationship with political orientation.
- * Donating blood, loaning items, and allowing others to cut ahead in line do not have a significant relationship.

As I hypothesized and also observed in the initial data observation, most altruistic attitudes do correlate with political orientation. A potential reason that 3 of the variables are not related may be because these variables aren’t derived from ideology but rather personal circumstance. For example, the amount times an individual donates blood in a year depends on their health and general convenience factors.

Having observed these relationships, we must still determine the extent and nature of their correlations. To supplement this analysis I will use ordinal logistic regression to calculate the correlations. This is an appropriate model because the dependent variable “Polviews” is categorical with more than 2 levels.

Here is formula for my ordinal logistic regression model:

$$\text{logit}(P(Y \leq j)) = B_{j0} + B_{j1}x_1 ; \text{ where } \text{logit}(P(Y \leq j)) = \log \frac{P(Y \leq j)}{P(Y > j)}$$

Y represents an altruistic variable, X represents Polviews, and j represents a specific value of X.

Table 5 that contains the beta coefficient of these models comparing each of the altruism variables with the quality of life attributes. The models where the relationship was not significant (according

Table 6: Coefficient of Logistic Regression of Altruistic Variables and Polviews

	othshelp	givblood	givhmlss	cutahead	volchrty	loanitem	careself	peopttbl	selffrst	helpfrds
Coefficient	0.147	P > 0.05	0.0785	P > 0.05	-0.0136	P > 0.05	-0.167	-0.022	-0.0491	0.157

Table 7: P Value of Chi Square Test Comparing Political Stance Variables and Political Orientation

	helppoor	helpnot	helpsick	helpblk	trdunion	goveqinc	govjobs	govunemp	govlazy	govcare
P-Val	0	0	0	0	0	0	0	0	0	1e-07

to chi-squared) contains a “p > 0.05” marker.

It may be difficult to realize what the numbers in the table represent. Here is an interpretation of coefficients provided:

Let B be the logistic regression coefficient of model (in Table 5) where Y represents an altruistic variable and X represents a quality of life attribute. With 1 point increase in X, the logit of Y (log of the odds of Y = y as opposed to another value) increases by B amount. In terms of odds, the odds of Y being a specific number is multiplied by $\exp(B)$ when X increases by 1.

Evident from this table the correlation between the variables aren’t very extreme. Interpreting the relationship between othshelp and polviews; the logit of othshelp increases by 0.147 points when the polviews score of the individual increases by 1. $\exp(0.147)$ is 1.16. In other words, the odds of the individual disagreeing that the government should be helping poor people decreases by 16% when their happiness score increases by 1.

To better visualize the correlations, I plotted the relevant models. (see appendix)

As seen from plots 11-17 (appendix), here are some interesting findings:

- Othshlp: For Y = 1. the probability of being more right-wing oriented decreases.
- Givhmlss: For Y = 6, the probability of being more right-wing increases
- Careself: For low Y values, the probability of being more right wing increase, while the opposite happens for high Y values.
- Selffirst: For Y = 2, the probability of being more right wing increases, while for Y = 4, it decreases.

Part B

Secondly, I will investigate the relationship between opinions on various Socio-Political matters and “Polviews.” This will include the analysis determining the effectiveness of a two-party system in representing these opinions.

Similar to the previous analysis, I will start with a Chi-Squared Test and follow with a logistic regression models.

As one would expect, Table 5 shows that each of the variables representing a Socio-Political opinion significantly correlates with polviews. The extent of these relationships are present in Table 6.

Table 8: Coefficient of Logistic Regression of Political Variables and Polviews

	helppoor	helpnot	helpsick	helpblk	trdunion	goveqinc	govjobs	govunemp	govlazy	govcare
Coefficient	0.397	0.38	0.407	0.348	0.413	0.406	0.305	0.298	-0.595	0.629

Table 9: P Value of Logistic Regression Model of Political Stance Variables and Voted Candidate

	helppoor	helpnot	helpsick	helpblk	trdunion	goveqinc
P-Val	1	1	1	1	1	1

Compared to the Altruism variables, opinions of political matters have a much larger correlation with Political Orientation (Table 5). These are visualized in plots 18-25 (see appendix):

Helppoor, helpnot, helpsick, helpblk, trdunion. Goveqinc: For high Y values, the probability of being more right wing increase, while the opposite happens for low Y values. This is similar to what we found in the initial data exploration. Right-wing individuals are more hesitant to social welfare compared to left-wing.

From this analysis we see that a 7-factor scale is indeed sufficient in representing the various political opinions of an individual. However the current system in place in the united states is mainly consistent of 2 major parties. Republican and Democratic. The following model conducts multivariate logistic regression on “binary_orientation” on the political variables of “helppoor,” “helpnot,” “helpsick,” “helpblk,” “trdunion” and “goveqinc.” It is important to include all these variables within one model because it emulates a human who has an array of opinions. Furthermore, it reduces the codependency between the variables.

This is the formula for the model:

$\log\left(\frac{P_i}{1-P_i}\right) = \sum_k B_{j0k} + B_{j1k}X_k$; Where X is the political variable, and the target is the log-likelihood of binary-orientation.

Table 7 contains the P-values of each of the coefficients in the logistic regression model. We see that none of these values are remotely close to 0. In other words, none of the opinions are sufficiently represented in a two party system when they are coupled together by one vote. However it is important to acknowledge that this may be due to lack of data.

Discussion

Altruism is a key part of human behavior that has allowed us to become the dominant species on the planet. (Vlerick 2020) described in their paper that culture played a huge part in the development of altruistic attitudes within humans. Social norms and rules have been formed to promote altruistic behaviour in pursuit of the greater good rather than benefiting certain individuals. Recursively, even our genetics were molded due to these factors. This may be because people who were more assimilated to the social constructs also had an advantage when it came to reproduction.

While being such an important factor in human success, modern society is much different from prehistoric times. The rules that govern us determine the altruistic stance of society as a single entity. Depending on what the values of this entity are, individuals are able to rely on the cumulative

support of the group. In other words, government policies are ultimately the deciding factor in societal altruism.

(Zettler and Hilbig. 2009) explored the effect of political orientation on altruism. They conducted this study while controlling for personality factors (defined by the Big 6 personality test), in order to isolate the effect of altruistic attitudes. The results showed that individuals high in altruism will endorse a left-wing ideology. This is logical because left-wing attitudes are more agreeable to matters such as social welfare while right-wing attitudes are more individualistic.

Drawing from the two mentioned studies, I had two goals in this paper. The first was to confirm the findings of (Zettler and Hilbig. 2009). and determining the extent of the relationships between altruistic attitudes and political orientation. The second was to investigate the concept of representing opinions regarding socio-political matters (i.e government policies) through a voting system. The latter task included the conclusion of whether the two-party system currently in place in the United States is sufficient.

My first hypothesis was that my findings will be similar to those mentioned in (Zettler and Hilbig. 2009), i.e left-wing ideologies will endorse altruism at a higher level. To add, I believed that the two-party voting system is not sufficient in representing the political attitudes of an individual.

I began the initial data exploration by analysing the distribution of altruistic and political variables grouped by political orientation ("Polviews"). The findings were aligned with my hypotheses and showed that mean scores on altruistic variables were generally higher for right-wing groups. This means that right-wing groups are, on average, less willing to help others (higher score means disagreement as defined by the values of the variables). Similarly, political variables representing the willingness towards social welfare had higher means in right wing groups.

In order to probe deeper into these relationships such that conclusions can be drawn, I analysed their correlation through two statistical models; Chi-squared Test and Logistic Regression. The former was done to identify the significance between each of the categorical variables of altruism/socio-political opinion and political orientation. The latter was required to identify the extent of these relationships.

I conducted these analyses in 2 parts. Starting with the relationship between altruistic attitudes and political orientation. Aligning with my hypotheses, I found that most altruistic attitudes correlated with political orientation (excluding donating blood, loaning items and "cutahead"). This lack of correlation can be explained through the nature of the variables. For example, the act of donating blood has many other hidden factors rather than simply "altruism." It is related to the health of the individual along with convenience. Similarly, loaning items and "cutahead" are more related to personality rather than ideology.

The logistic regression model showed that for extreme values of "Careself," "Selfrst," "Othshlp" and "Givhmlss," there is a noticeable pattern related to political orientation. As hypothesized, the more conserving an individual is, the less likely they are willing to take extremely positive altruistic stances (their probability increases for high values of "Othshlp" and "Givhmlss"). In addition, right-wing individuals are also shown to be more self orientated i.e. their probability increases for lower values of "Careself" and "Selfrst." To articulate, it is more probable that an individual who values self-importance over helping others is conservative in their political orientation.

The latter goal of this study was to identify the effectiveness of the current political system in representing socio-political stances of individuals. Sequentially determining whether altruism is

effectively implemented by society, accurate to what each individual desires. The Chi-squared test and logistic regression showed that the 7-point scale of “polviews” is highly correlated with the political variables. Aligning with the initial data exploration, conservative individuals are indeed more hesitant to social welfare than liberals.

Although a 7-point political spectrum may be sufficient in representing the sociopolitical attitudes of individuals, the current system in place in the United States consists of 2 major parties. Therefore, I analysed the relationships between political stance variables and voted party within one logistic regression model. The results aligned with my hypothesis and showed that there was no significant relationship between any of the political factors and voted candidates. When all of the political variables are coupled together, none of the factors correlate with political orientation. However, this result should be taken with the stipulation that the study was conducted with limited data.

To summarize my findings, the analysis was aligned with previous studies. The more conservative an individual, the less they are likely to take on altruistic stances. This makes sense because conservative ideology is defined by its individualistic nature. It puts value on the success of each person rather than the group as a whole. Furthermore, I found that while a 7-point political orientation scale could represent various stances on politics of an individual, the current 2-party system is not sufficient. Thus, aligning with my hypotheses.

However my study consisted of various weaknesses. The major issue for my analysis was related to the modelling of the 2-party system with political stance variables. No conclusion can confidently be made from this model because there was not sufficient data for reliable results. Future studies should collect data regarding various socio-political opinions, along with voted party, and investigate this further.

Additionally, the survey questions asked by the GSS were not specifically designed to represent altruism. A more specific set of questions which aims to capture various altruistic attitudes will be helpful.

Finally, in order to properly replicate the study conducted by (Zettler and Hilbig, 2009) and mitigate the effects of hidden variables, personality factors should be included with the analysis. A potential extension of this study should include these personality factors along with other plausible effectors and calculate the variation caused by altruism solely.

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Appendix

Datasheet

Motivation

1. For what purpose was the dataset created? The dataset was created to capture information regarding the social, political and cultural opinions of the American people.
2. Who created the dataset (for example, which team, research group) and on behalf of which entity (for example, company, institution, organization)? It was created by the NORC
3. Who funded the creation of the dataset? It was funded by the University of Chicago

Composition

1. How many instances are there in total (of each type, if appropriate)? There are 64815 instances of each type
2. Does the dataset contain all possible instances or is it a sample (not necessarily random) of instances from a larger set? The dataset is a summary of a sample of the population (all instances).
3. What data does each instance consist of? The answer on a specific survey question.
4. Is there a label or target associated with each instance? Yes
5. Is any information missing from individual instances? No
6. Are relationships between individual instances made explicit (for example, users' movie ratings, social network links)? Yes
7. Are there recommended data splits (for example, training, development/validation, testing)? No
8. Are there any errors, sources of noise, or redundancies in the dataset? Yes, some of the instances are Not available i.e contain null values
9. Is the dataset self-contained, or does it link to or otherwise rely on external resources (for example, websites, tweets, other datasets)? It is self-contained.
10. Does the dataset contain data that might be considered confidential (for example, data that is protected by legal privilege or by doctor-patient confidentiality, data that includes the content of individuals' non-public communications)? No it is anonymous.
11. Does the dataset contain data that, if viewed directly, might be offensive, insulting, threatening, or might otherwise cause anxiety? No

People

1. Does the dataset identify any sub-populations (for example, by age, gender)? Yes, information regarding demographics is collected and can be used for grouping.

2. Is it possible to identify individuals (that is, one or more natural persons), either directly or indirectly (that is, in combination with other data) from the dataset? No
3. Does the dataset contain data that might be considered sensitive in any way (for example, data that reveals race or ethnic origins, sexual orientations, religious beliefs, political opinions or union memberships, or locations; financial or health data; biometric or genetic data; forms of government identification, such as social security numbers; criminal history)? No
4. Any other comments?

Collection process

1. How was the data associated with each instance acquired? Was the data directly observable (for example, raw text, movie ratings), reported by subjects (for example, survey responses), or indirectly inferred/derived from other data (for example, part-of-speech tags, model-based guesses for age or language)? The data was reported by subjects.
2. What mechanisms or procedures were used to collect the data (for example, hardware apparatuses or sensors, manual human curation, software programs, software APIs)? It was collected through a direct interview with the subjects.
3. If the dataset is a sample from a larger set, what was the sampling strategy (for example, deterministic, probabilistic with specific sampling probabilities)? The data was collected through two-step stratified sampling. The sampling strategy was probabilistic. The first step was the allocation of area units which were given probabilities based on their population. Then an individual was selected randomly from the chosen area.
4. Who was involved in the data collection process (for example, students, crowdworkers, contractors) and how were they compensated (for example, how much were crowdworkers paid)? Workers from the NORC.
5. Over what timeframe was the data collected? This data was collected from the year 1972 to 2016.
6. Were any ethical review processes conducted (for example, by an institutional review board)? No.

People 2

1. Did you collect the data from the individuals in question directly, or obtain it via third parties or other sources (for example, websites)? Obtained it through GSS Website.
2. Were the individuals in question notified about the data collection? No
3. Did the individuals in question consent to the collection and use of their data? The individuals are kept anonymous, so they do not need to consent to each data collection (just the initial).
4. If consent was obtained, were the consenting individuals provided with a mechanism to revoke their consent in the future or for certain uses? No.
5. Has an analysis of the potential impact of the dataset and its use on data subjects (for example, a data protection impact analysis) been conducted? No

Preprocessing/cleaning/labeling

1. Was any preprocessing/cleaning/labeling of the data done (for example, discretization or bucketing, tokenization, part-of-speech tagging, SIFT feature extraction, removal of instances, processing of missing values)? Yes, the answers on the survey questions were converted to a numerical scale.

2. Was the “raw” data saved in addition to the preprocessed/cleaned/labeled data (for example, to support unanticipated future uses)? No
3. Is the software that was used to preprocess/clean/label the data available? No

Uses

1. Has the dataset been used for any tasks already? It was used to analyse the different effects of Social, Political and Cultural Attitudes.
2. Is there a repository that links to any or all papers or systems that use the dataset? No
3. What (other) tasks could the dataset be used for? None
4. Is there anything about the composition of the dataset or the way it was collected and preprocessed/cleaned/labeled that might impact future uses? No
5. Are there tasks for which the dataset should not be used? No

Distribution

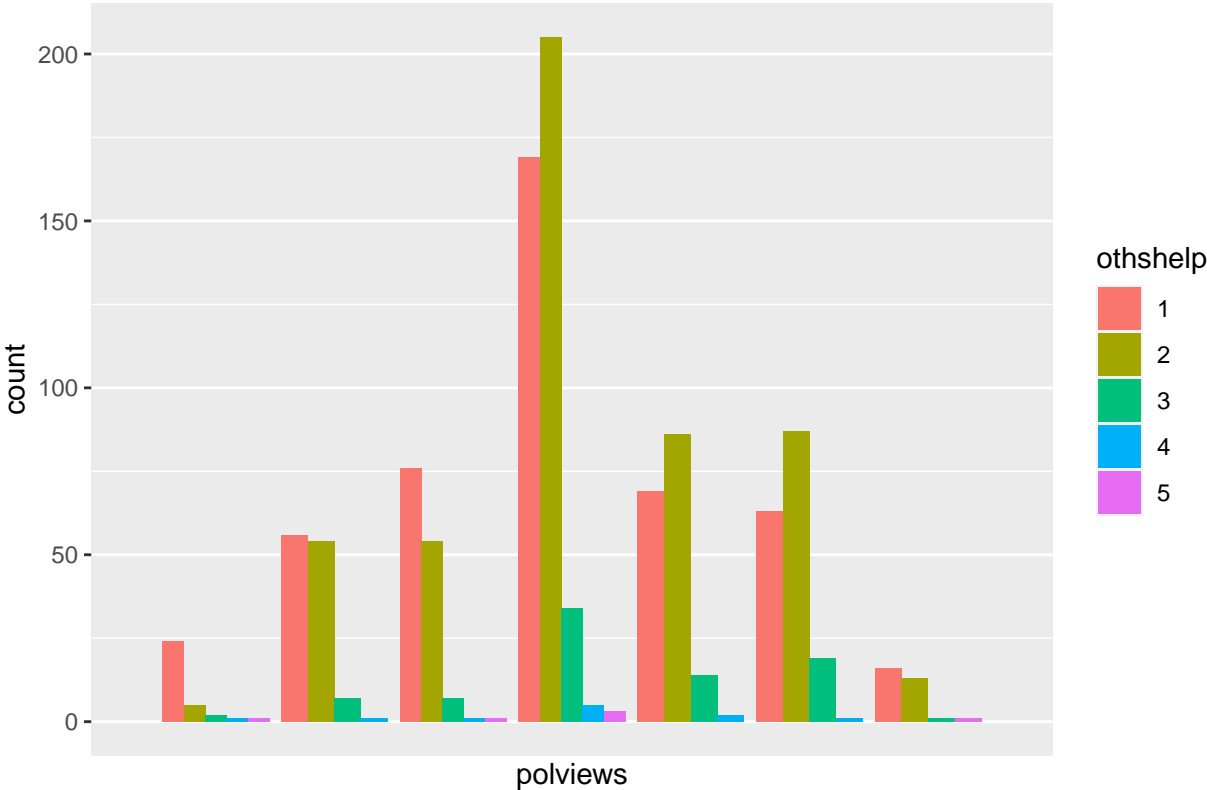
1. Will the dataset be distributed to third parties outside of the entity (for example, company, institution, organization) on behalf of which the dataset was created? Yes, it can be accessed by anyone.
2. How will the dataset be distributed (for example, tarball on website, API, GitHub)? It is available online at GSS.
3. When will the dataset be distributed? It has already been distributed.
4. Will the dataset be distributed under a copyright or other intellectual property (IP) license, and/or under applicable terms of use (ToU)? No
5. Have any third parties imposed IP-based or other restrictions on the data associated with the instances? No
6. Do any export controls or other regulatory restrictions apply to the dataset or to individual instances? No

Maintenance

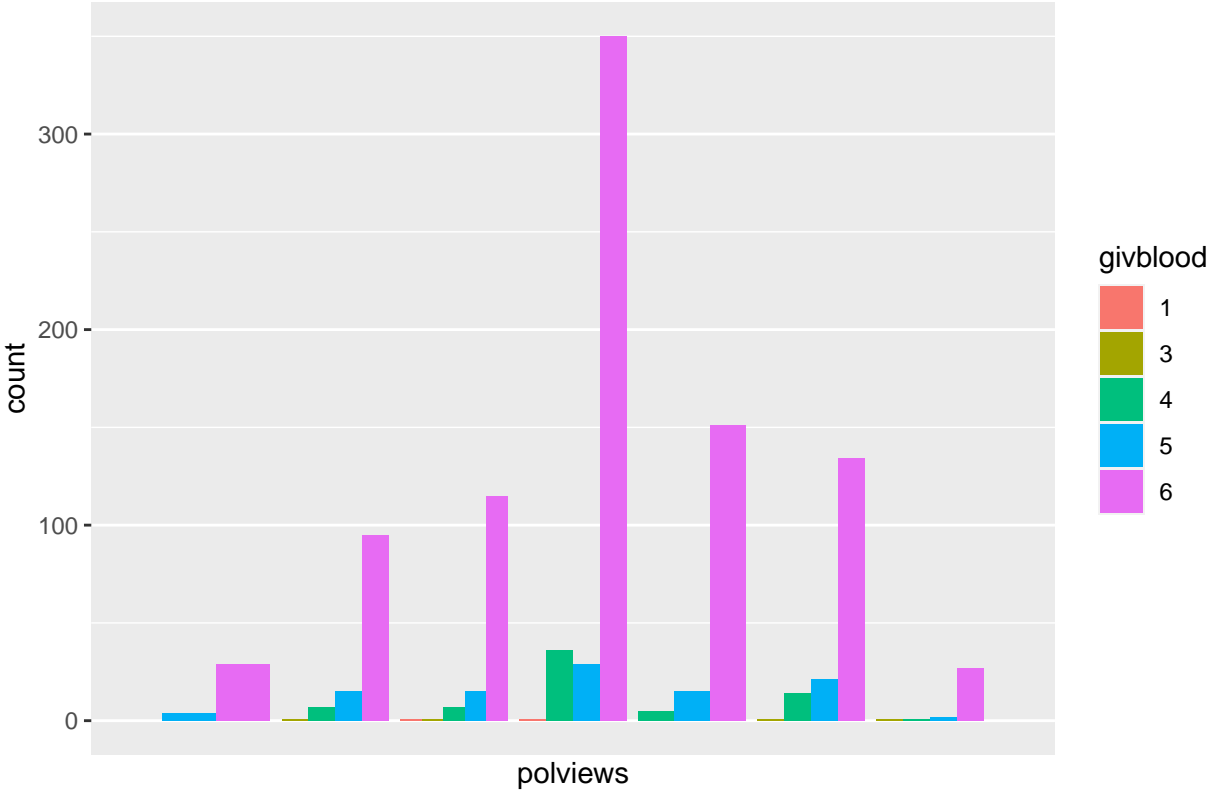
1. Who will be supporting/hosting/maintaining the dataset? No one
2. How can the owner/curator/manager of the dataset be contacted (for example, email address)? You must contact the NORC.
3. Is there an erratum? No
4. Will the dataset be updated (for example, to correct labeling errors, add new instances, delete instances)? No
5. If the dataset relates to people, are there applicable limits on the retention of the data associated with the instances (for example, were the individuals in question told that their data would be retained for a fixed period of time and then deleted)? No
6. Will older versions of the dataset continue to be supported/hosted/maintained? N/A
7. If others want to extend/augment/build on/contribute to the dataset, is there a mechanism for them to do so? No

Plots

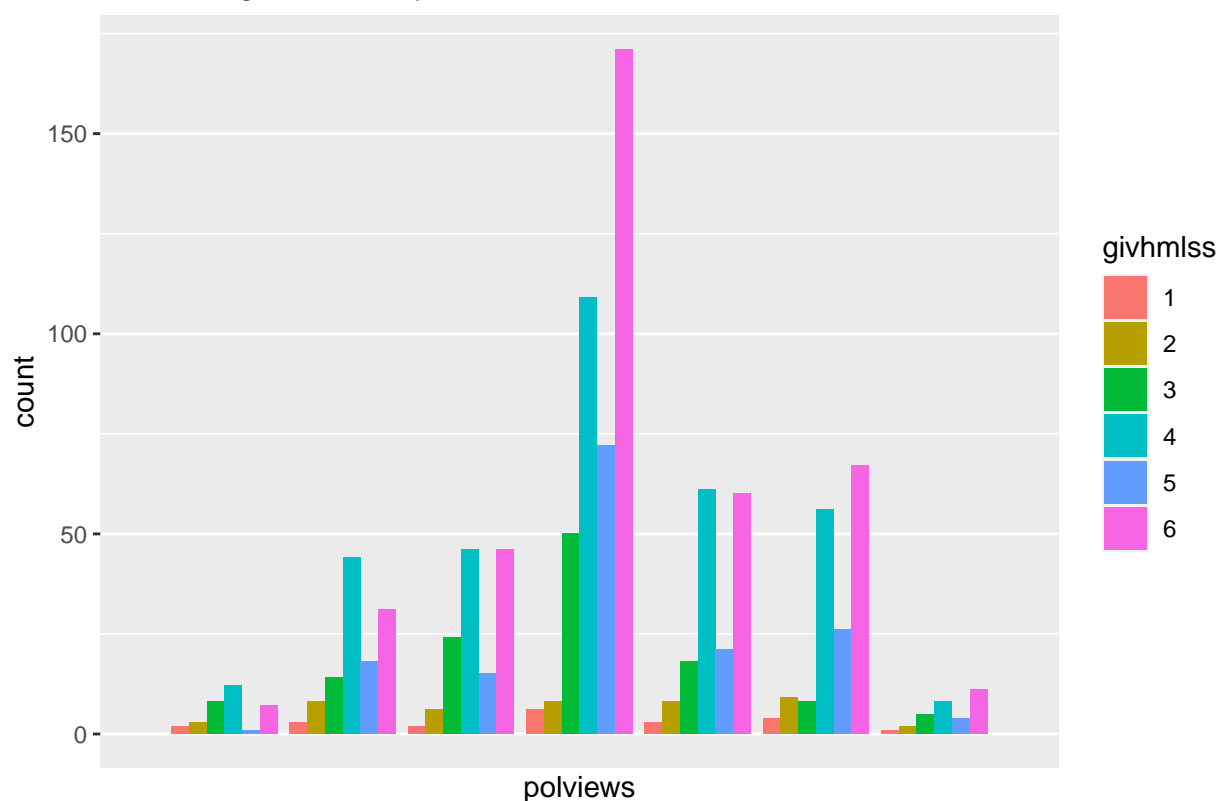
Plot 1 : othshelp By Political Views



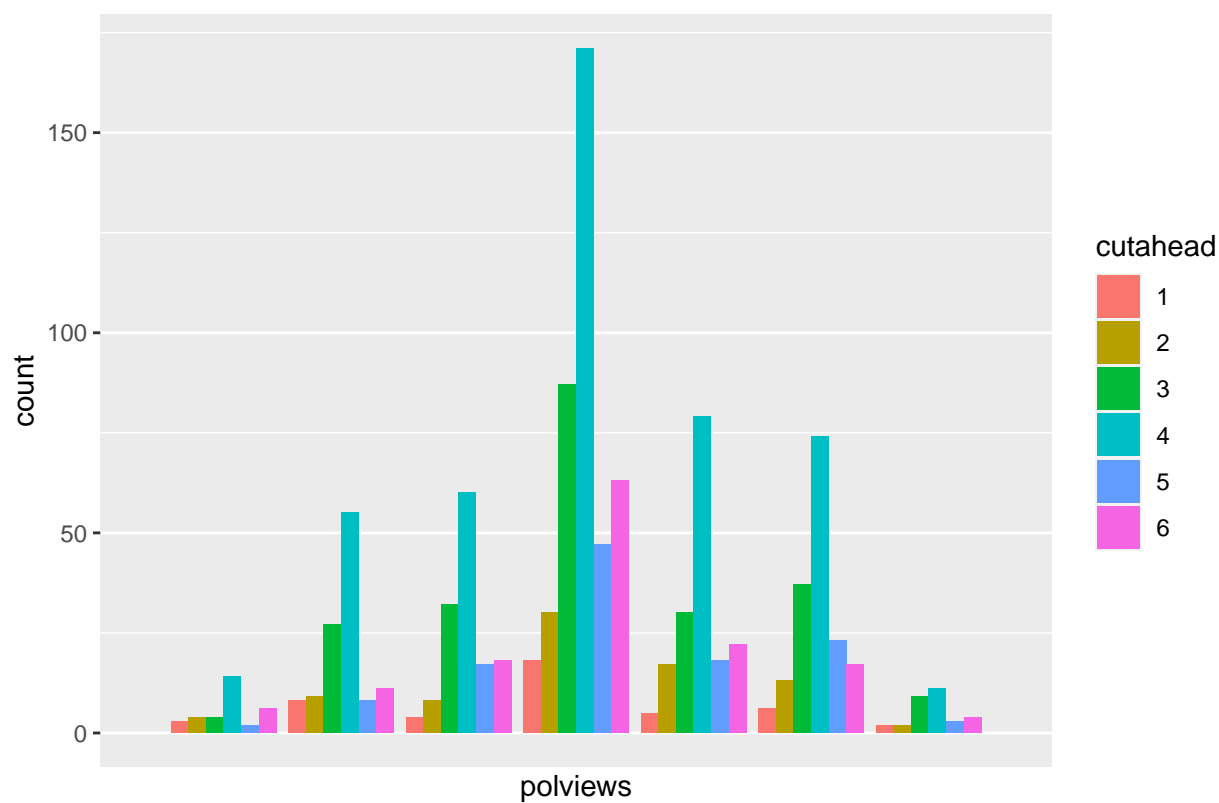
Plot 2 : givblood By Political Views



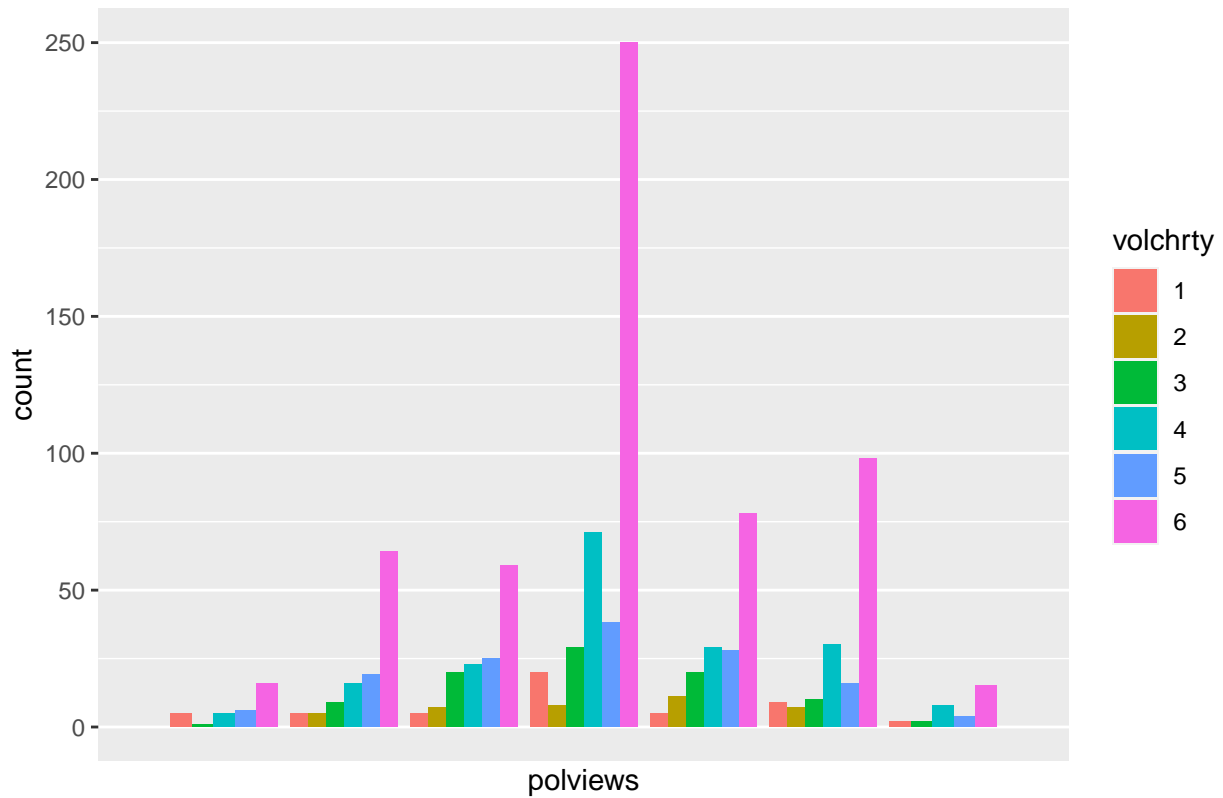
Plot 3 : givhmlss By Political Views



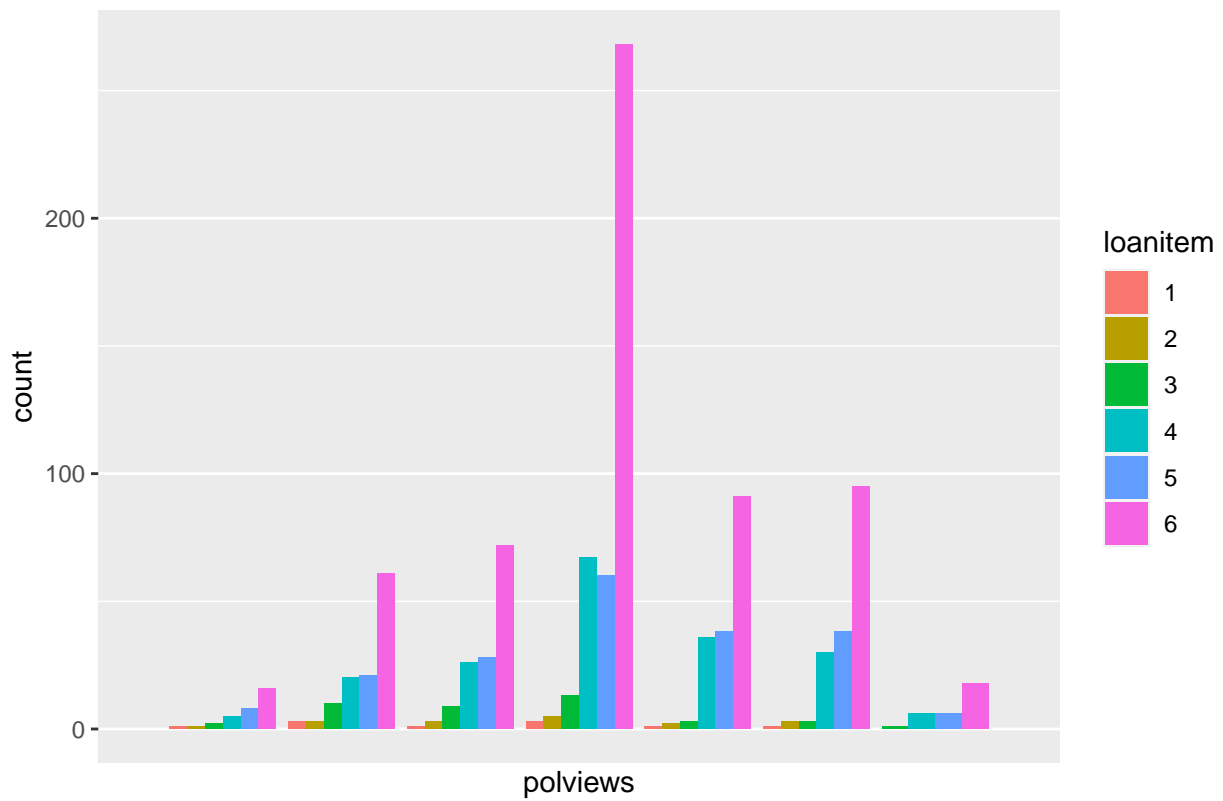
Plot 4 : cutahead By Political Views



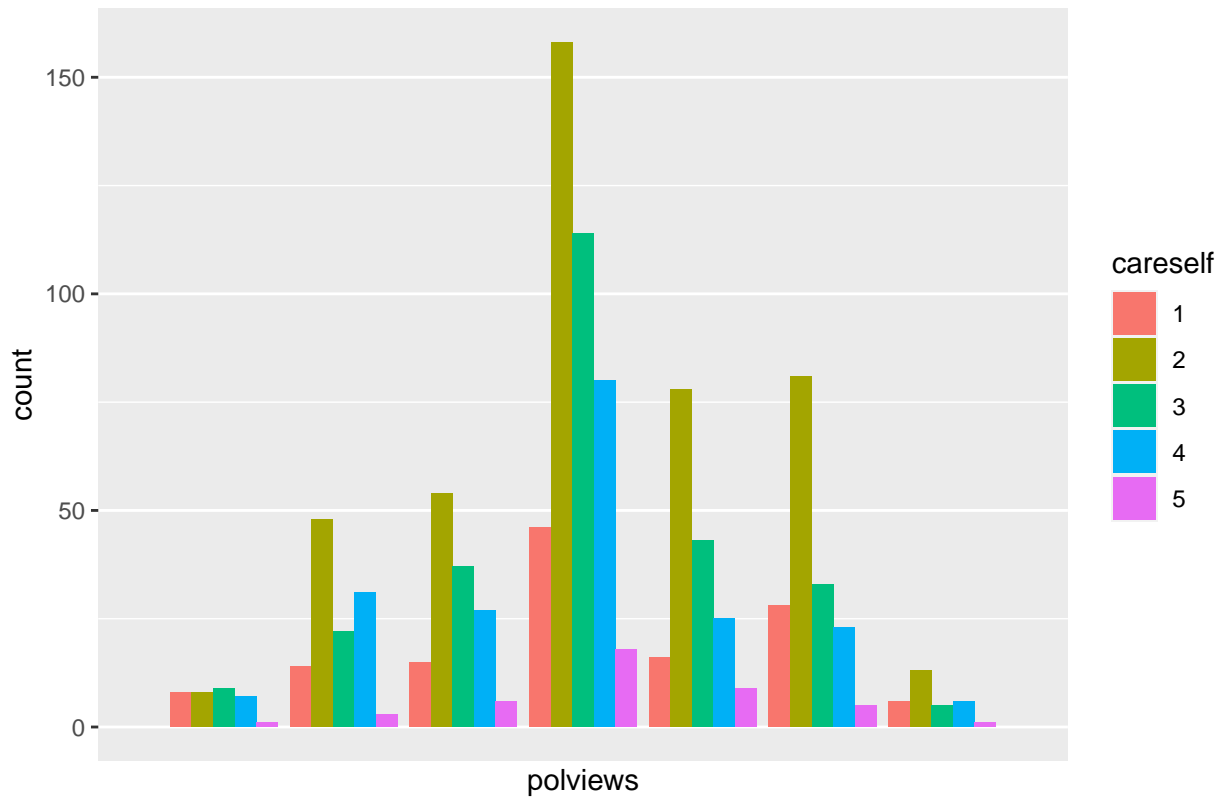
Plot 5 : volchrty By Political Views



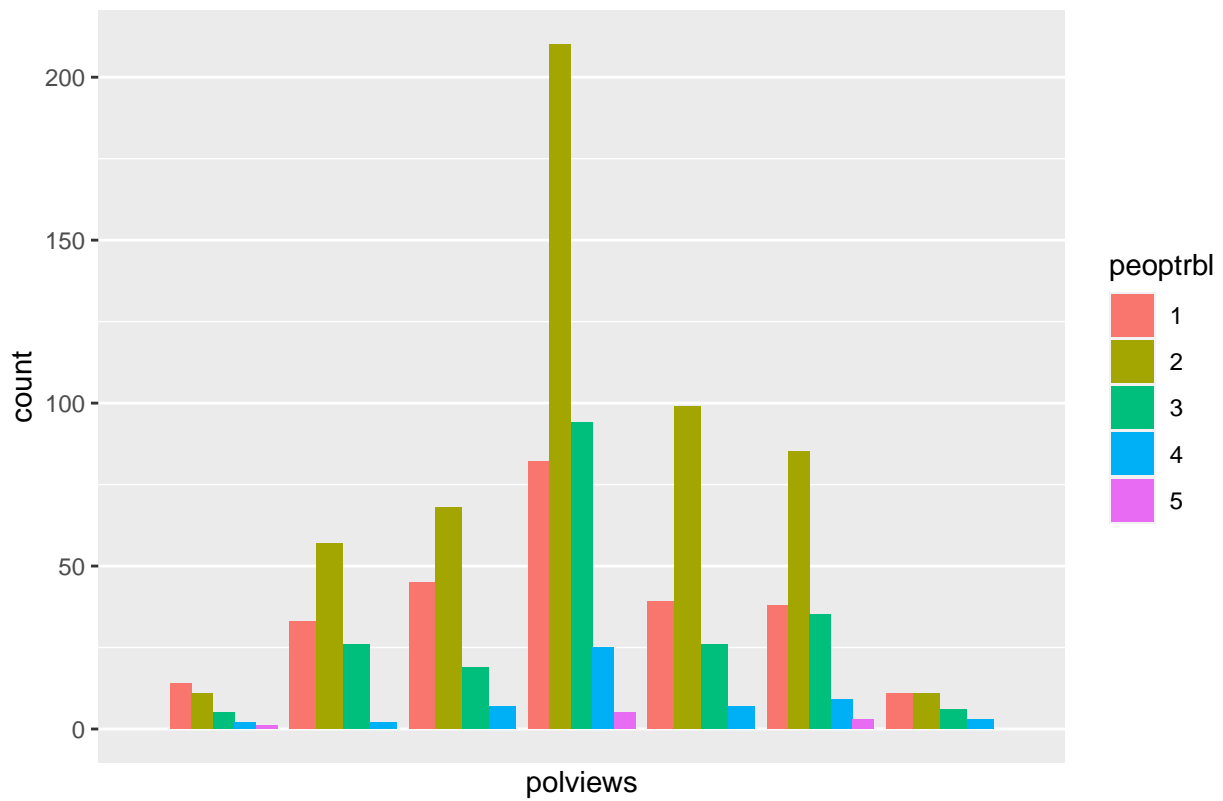
Plot 6 : loanitem By Political Views



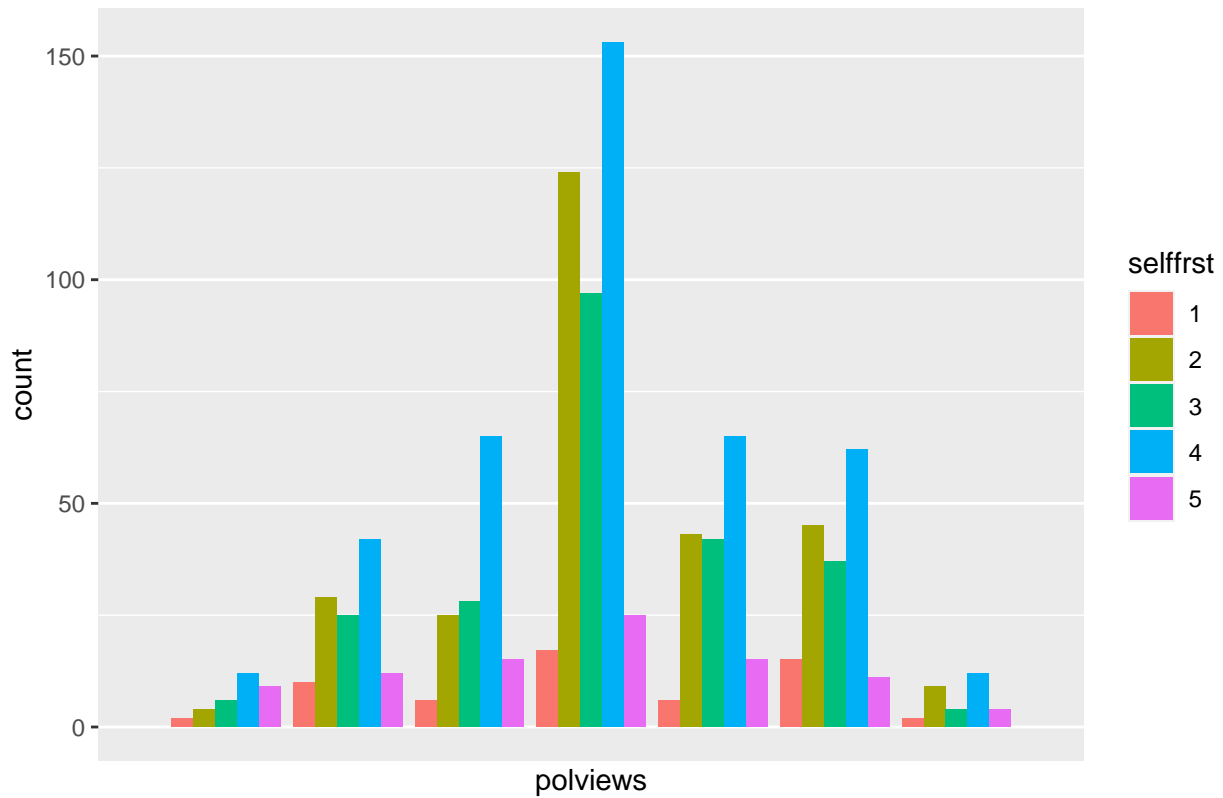
Plot 7 : careself By Political Views



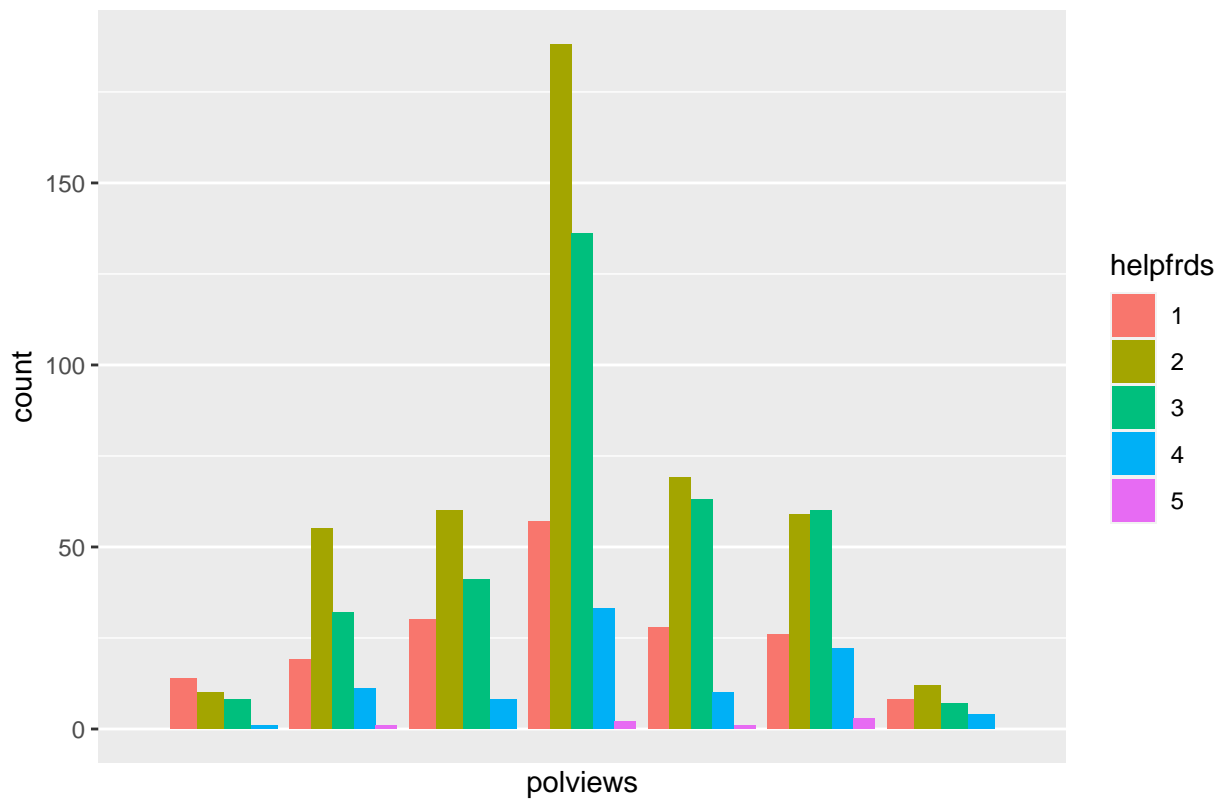
Plot 8 : peoptrbl By Political Views



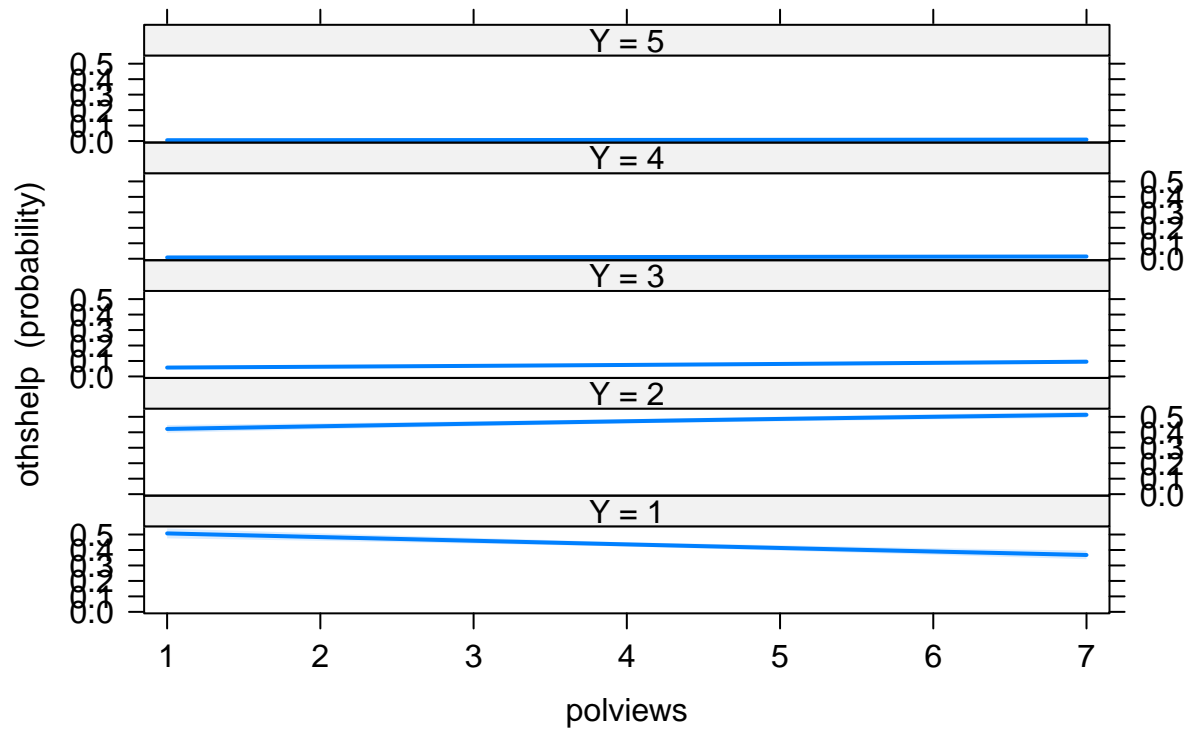
Plot 9 : selffrst By Political Views



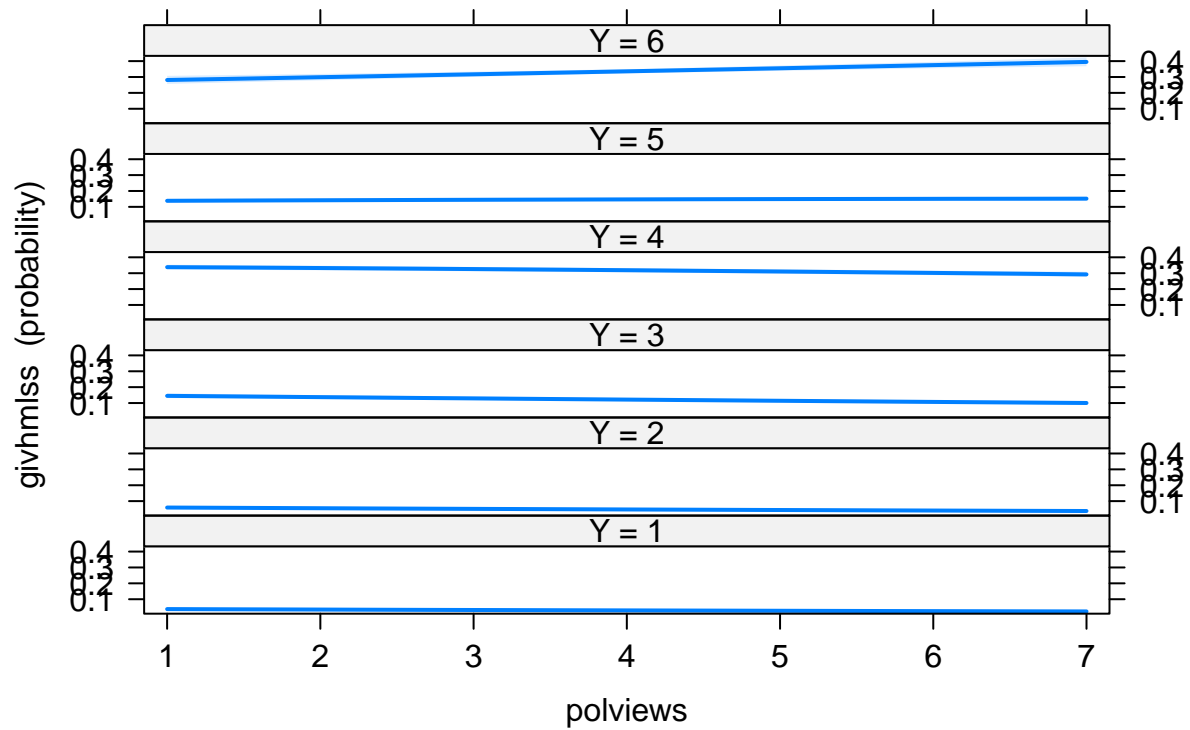
Plot 10 : helpfrds By Political Views



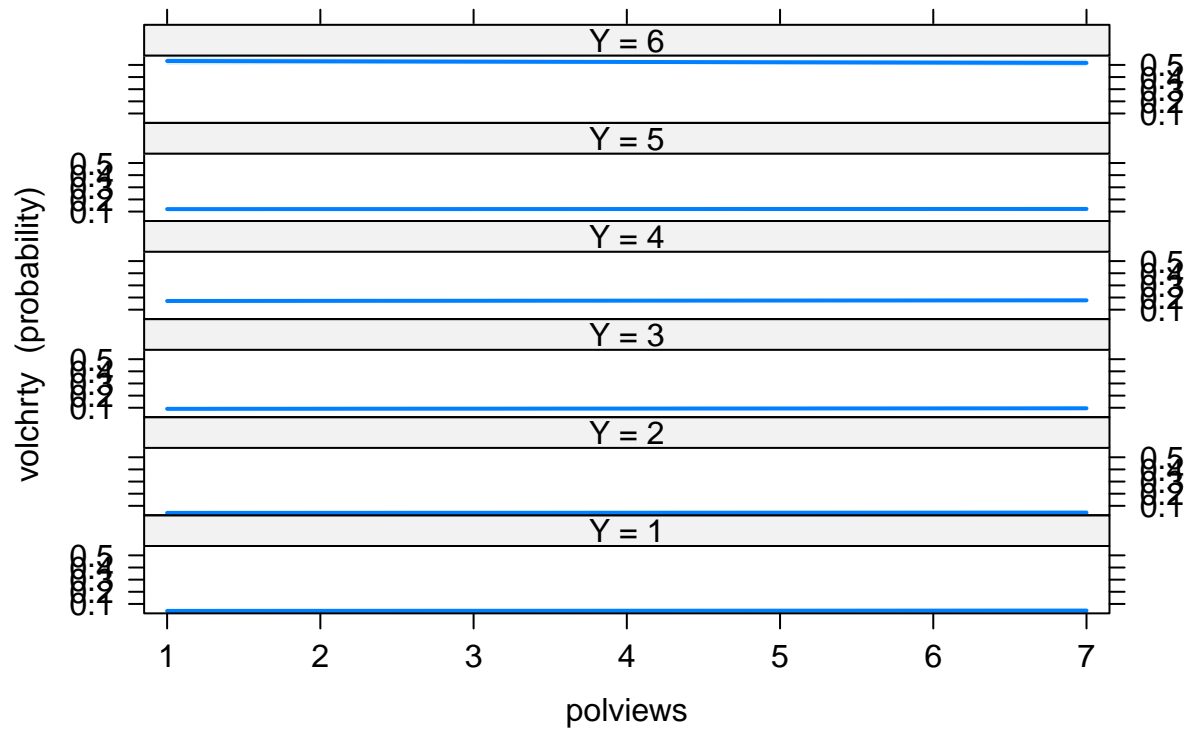
Plot 11 :The effect of political orientation on othshelp



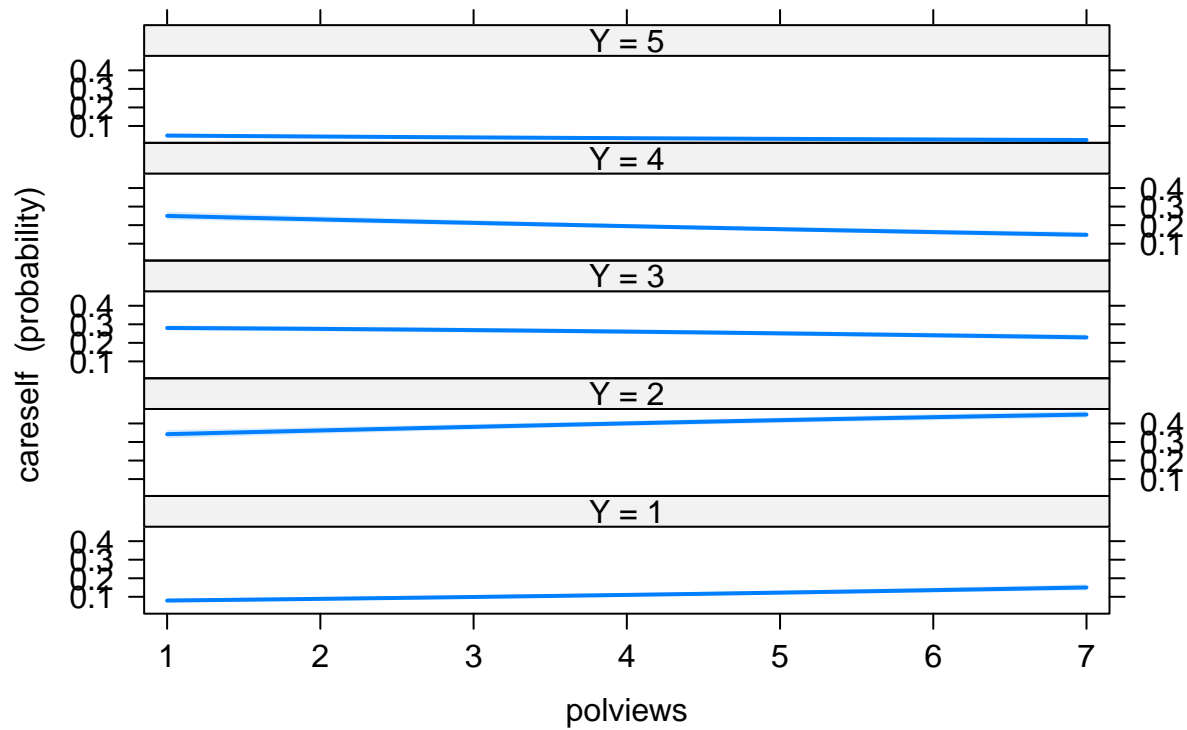
Plot 12 :The effect of political orientation on givhmlss



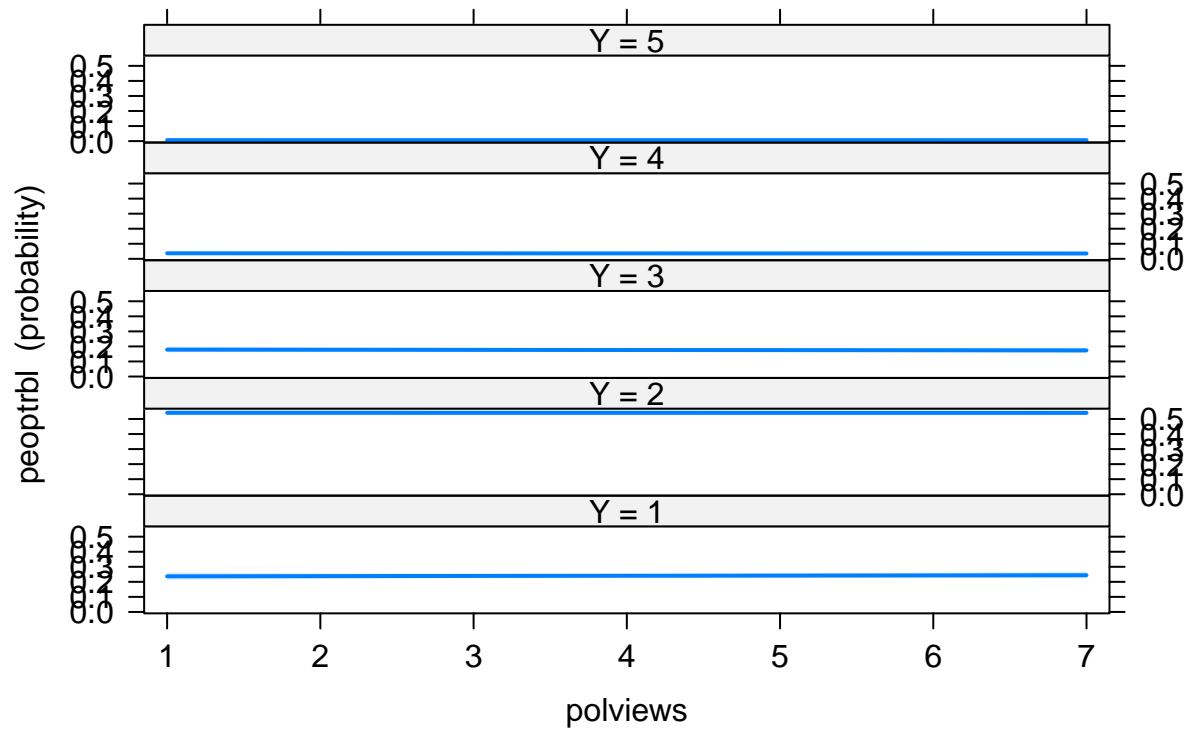
Plot 13 :The effect of political orientation on volchrty



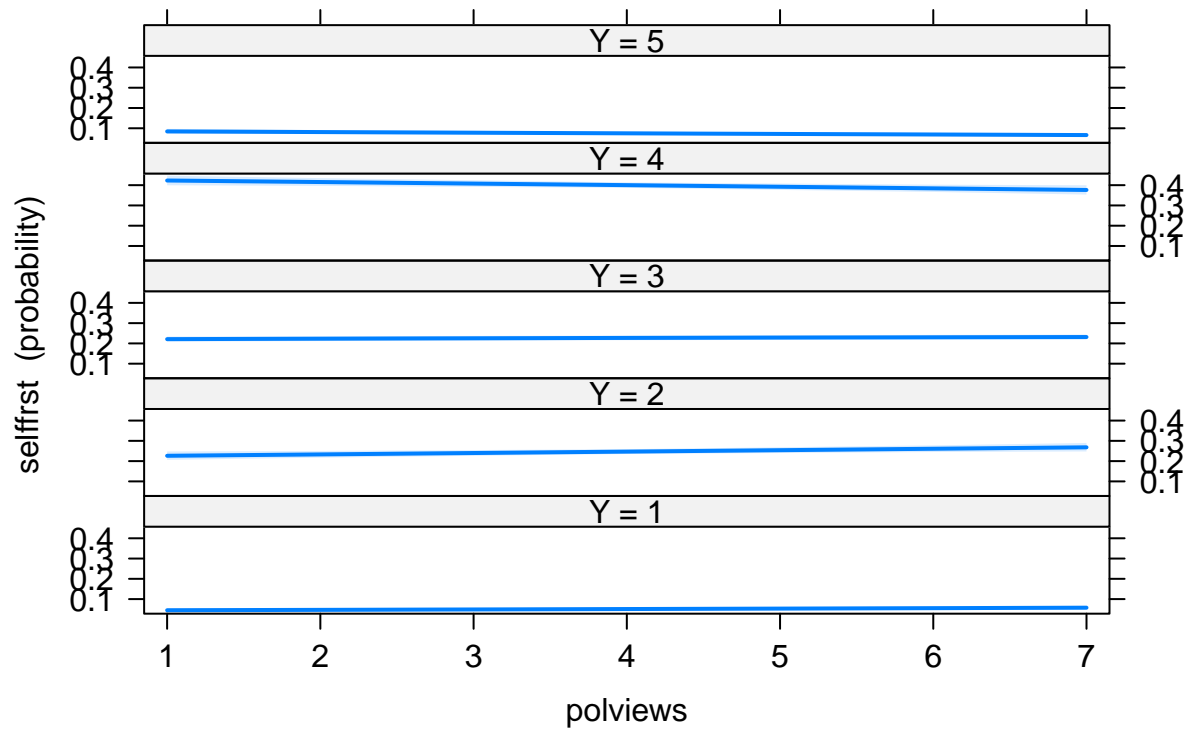
Plot 14 :The effect of political orientation on careself



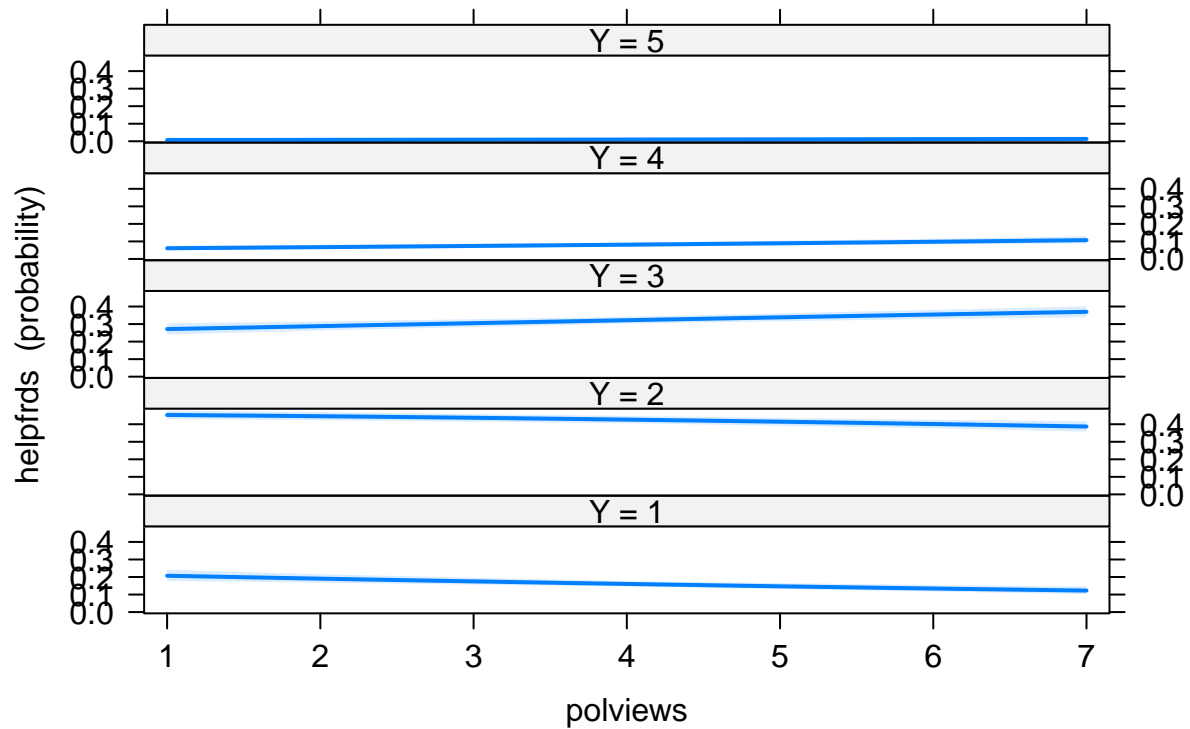
Plot 15 :The effect of political orientation on peoptrbl



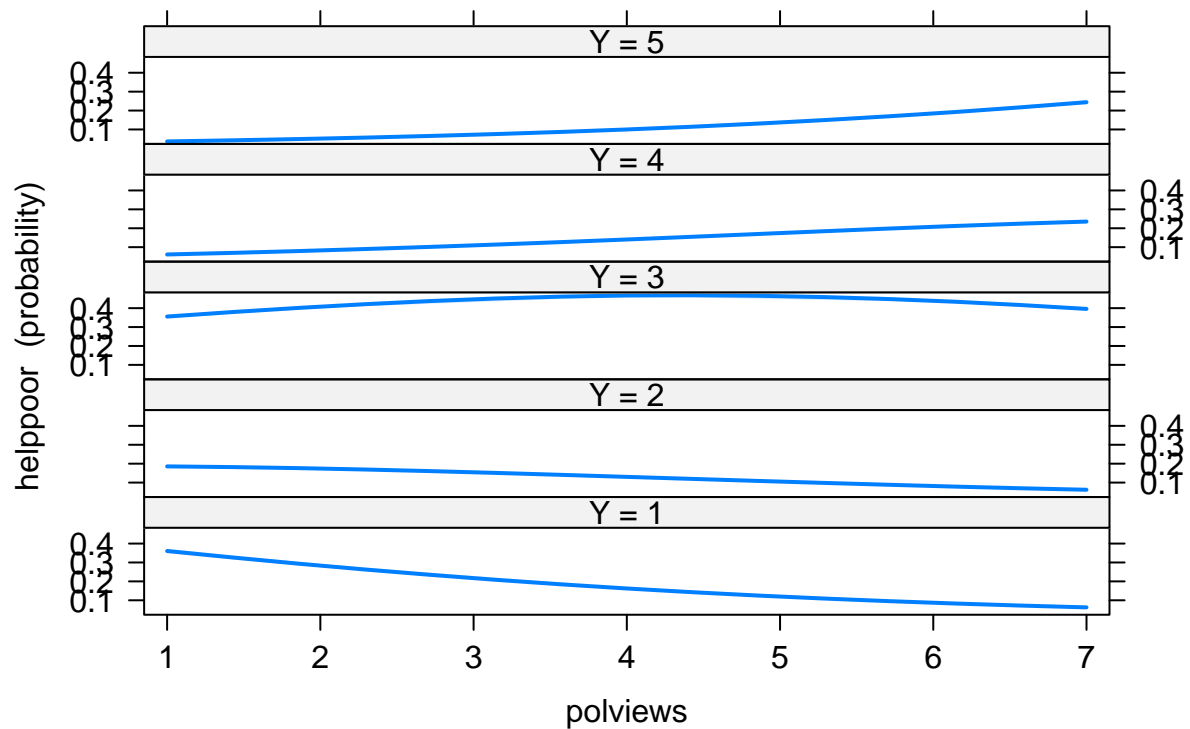
Plot 16 :The effect of political orientation on selffrst



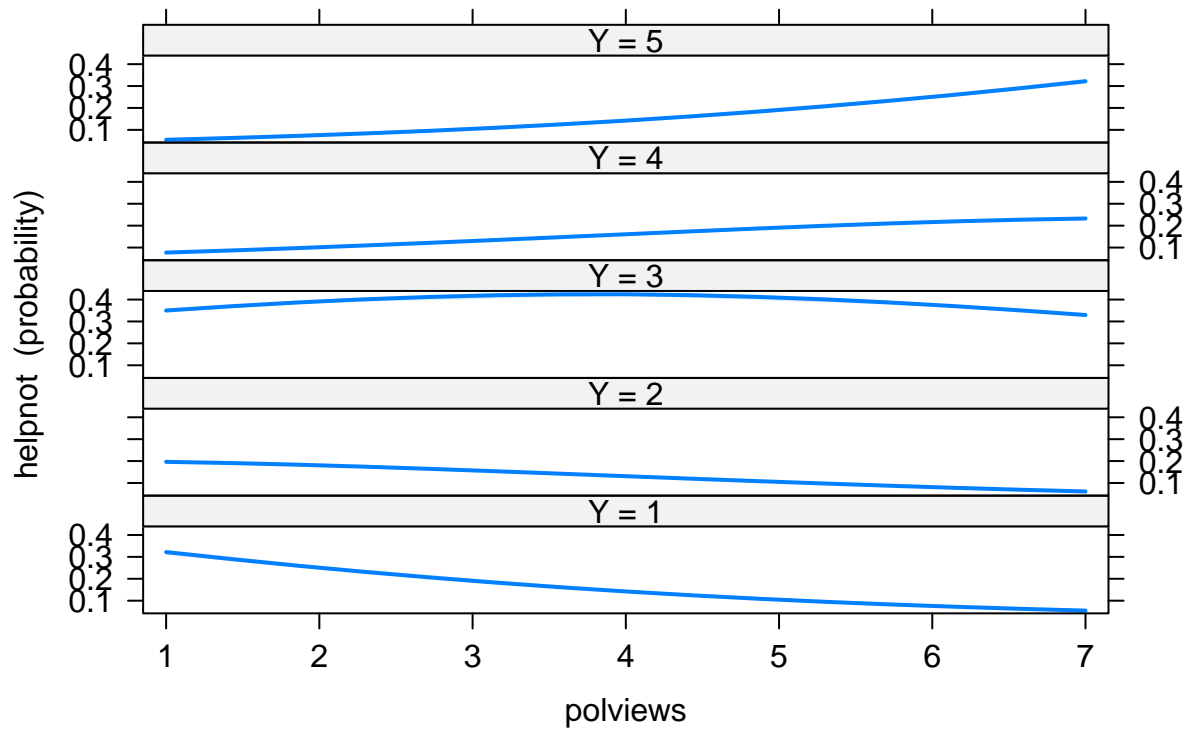
Plot 17 :The effect of political orientation on helpfrds



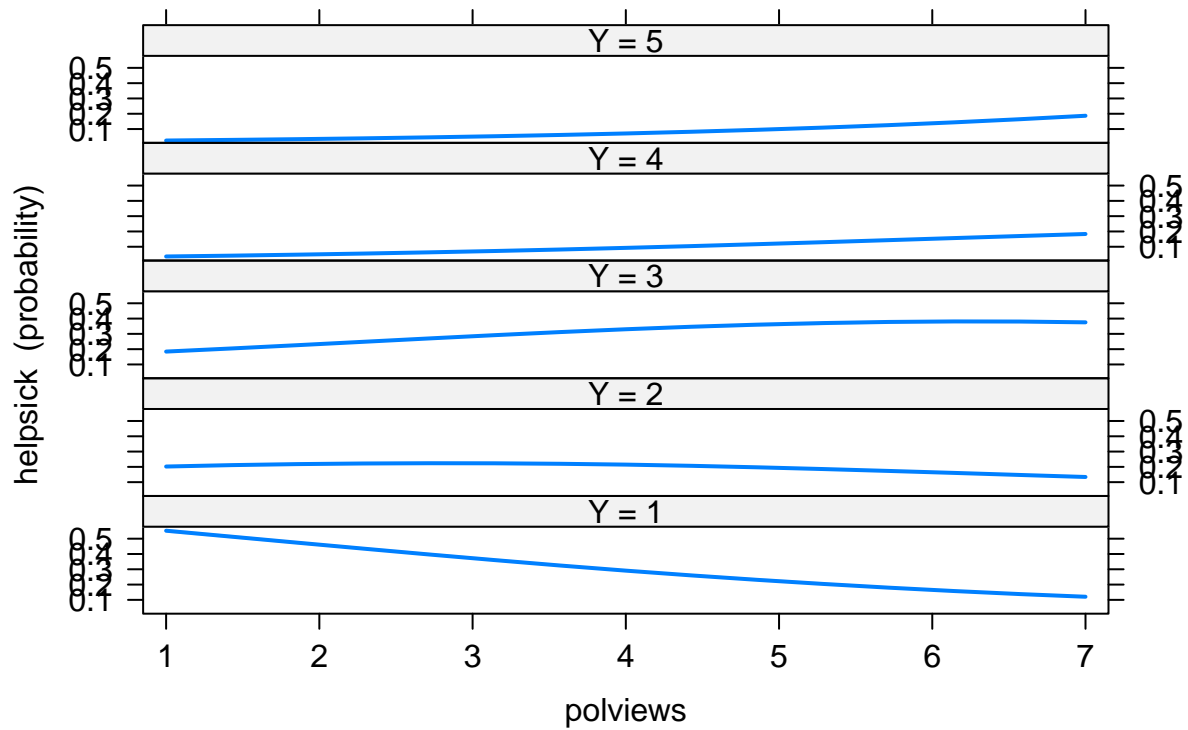
Plot 18 :The effect of political orientation on helppoor



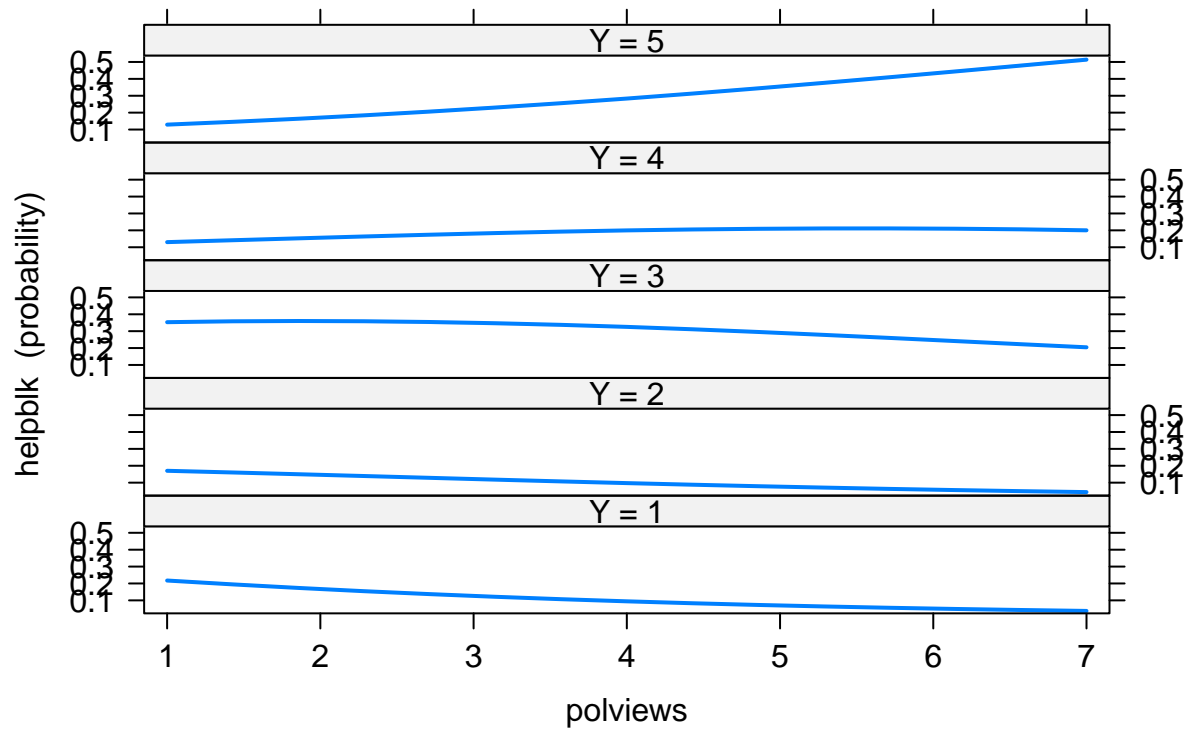
Plot 19 :The effect of political orientation on helpnot



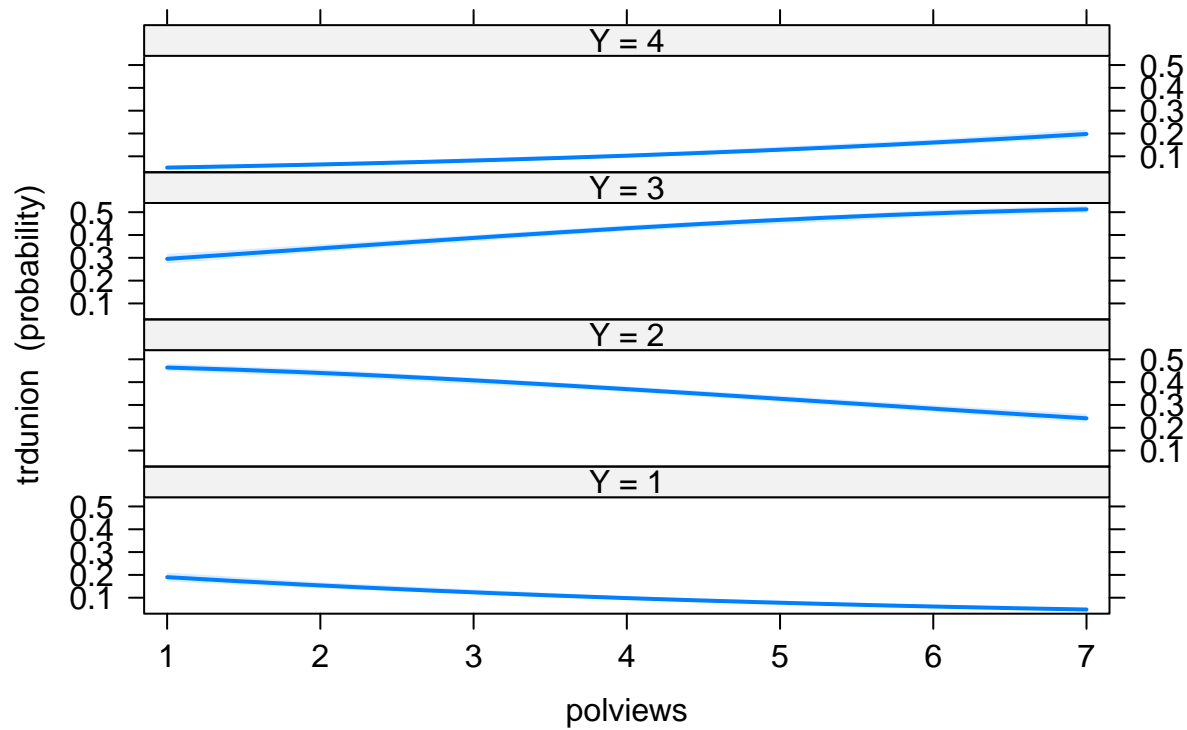
Plot 20 :The effect of political orientation on helpsick



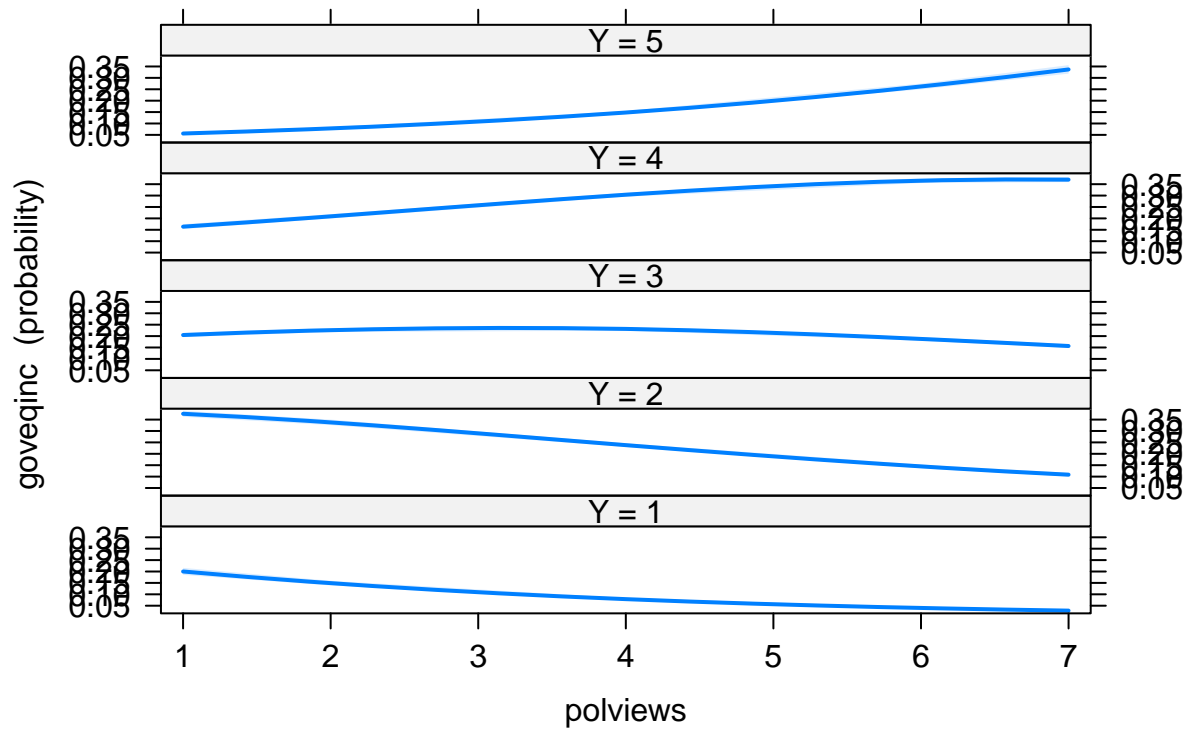
Plot 21 :The effect of political orientation on helpblk



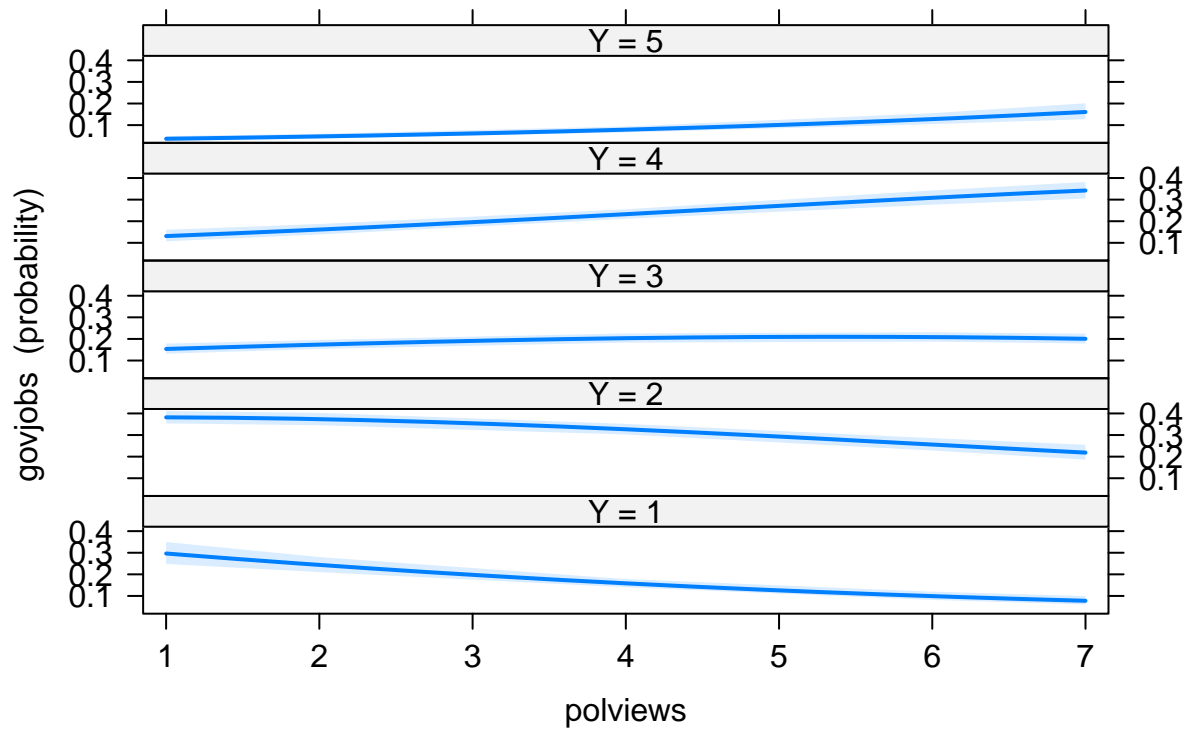
Plot 22 :The effect of political orientation on trdunion



Plot 23 :The effect of political orientation on goveqinc



Plot 24 :The effect of political orientation on govjobs



Plot 25 :The effect of political orientation on govunemp

