

Religion and Youths' Political Engagement: A Quantitative Approach

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This study examines how religious belonging might be an underlying factor for youth students' political interest and participation. We use data from a survey conducted in 2010 on Swedish junior and senior high school students¹. Our dependent variable is an aggregated measure for Political Engagement, which is compiled using Principal Components Analysis, and regression analysis is used to estimate a model with religious feelings included as the main explanatory variable. Different specifications are also estimated to study any potential differences between religions. Both religious feelings and belonging are found to have a significant impact on political engagement.

Authors: Gustav Ekström & Tim Alexander Kvalem

Thesis supervisor: Oana Borcan

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1. Introduction

In the course of human history, democracy is a quite new phenomenon. Even if its origins can be traced back to ancient Greece, democracy, the way we define it today, is a political system that has been implemented almost exclusively during the last century. The system relies heavily on people's participation in the political decision-making process. This participation can be done in various ways and with different levels of engagement ranging from the simple expression of opinions to being an actual member of a political organization, with more power to influence on decisions.

Some of the underlying factors affecting political attitudes and the general involvement of an individual are believed to be of a sociological nature and these relationships are studied quantitatively, using statistical methods. Data is collected from the Youth and Society (YeS) Survey conducted in 2010. This paper tries to capture the answers that are related to political attitudes, analyzing some of the questions from the survey. These attitudes are then put in relation to possible explanatory variables with a particular focus on religion and the results from the analysis show that there is a positive and significant correlation between religious feelings and political engagement.

A wide variety of questions were asked to the students in the survey but a restricted number of them have been chosen as variables for analysis and those have one thing in common: They strongly reflect and can be used as a measurement for attitudes that are positive for a democratic system to work well. The simple action of people taking their time to vote reflects some sort of political engagement, but that is actually one of its simplest forms. It is always important to remember that there exist other civic engagement and participation measures that are equally or more important to catch and this paper tries to identify some of those and relate them to religiousness.

Looking at deeper forms of involvement is also well in line with an Aristotelian point of view regarding democracy (Wilson, 2010). The theory of deliberative democracy (Habermas (1962), Rawls, (1971), Fishkin (1991)) bases itself on old ideas that can be traced back to Aristotle and is very much concerned with the involvement of individuals and common deliberation leading up to political decisions. As previously stated; it is utterly important for a

democracy that there exists individuals that get involved and are interested in political questions. Youths' attitudes are an expression of future adults' opinions. A healthy democratic society is shaped early through the young generations and there is therefore a scope for policy to direct the youth into a certain desired direction. A deeper knowledge about the determinants for political engagement can provide a good basis for well-directed policy.

Religion can be a very controversial subject when connected to politics and opinions. Critics to religion have many arguments to why religion in general is bad for society and it is true that many totalitarian regimes have been backed up by religious ideas. General Franco had close ties to the Catholic Church in Spain and used this in many ways; Iran and Saudi Arabia are other commonly cited examples and of course there are and have been many more throughout the course of history. On the other hand, there exist many other examples where religion has been a strong force for promoting democratic principles, especially in modern time, so the question still remains very much unanswered. Hopefully, this paper can sort out some of them and point towards new directions for future research.

The question about religion as a determinant for democracy is related to studies by Lessl (2009), Barro (1999) and Huntington (1991). Barro's (1999) work includes controls for religion but the dependent variable is a measurement of how democratic a specific country is instead of a measurement of individuals' attitudes. As stressed earlier, the individuals' attitudes are much important in the long run because their involvement creates the foundations for the society that they will live in. A micro study looking at individuals' attitudes can provide some important insights about the effects of religion. Comparing different countries can also generate certain biases related to the demographic environment and historical background. It is also interesting to see if this study is in line with previous macro studies and to our knowledge there are no existing micro studies, using the same method to address these questions, here in Sweden.

Scheufele, Nisbet and Brossard (2012) study the question, in the U.S., but with a slightly different methodology and using a different set of variables. The different cultural environment of the U.S. makes it unclear whether an equal study also would generate equal results here in Sweden. There are actually few studies at all made with a specific focus on religion as a determinant for democracy. The data-set from YeS has however, previously been

used focusing on other determinants such as media usage and deliberation between youths and parents, peers, etc.

Another important question addressed in this paper, and that was also studied by both Barro (1999) and Huntington (1991), is if there exist any potential differences in attitudes that can depend on the different religions. One could argue that since different religions rely on different sets of values, have different cultures, etc., they would also be related to individuals' political views in one way or the other, and some of them more than others. Especially since religions provide rules and guidelines to how an individual should live his life. In what way religions affect should then depend on how strong the individual's religious engagement is. One would expect that an interaction between religious feelings and different religions should give more significant results than the simple fact of "belonging" to one specific religion, and that these interactions are positively correlated with political engagement. Interaction-terms are therefore, at a certain point, introduced in the statistical model.

Section 2 is a review of the literature, including previous and related quantitative studies, but also some more qualitative theories that our hypotheses are based on. Some of the literature have been cited already in this introduction but will be reviewed more thoroughly in the next section. Section 3 contains a presentation of the empirical strategy applied and details about the data used for this paper. Section 4 instead, contains the main results derived from the study. General conclusions and a brief discussion are presented in Section 5. An Appendix is also attached including precise details on how the questions in the survey were stated, and what set of options that were given for the students to answer.

2. Theory and literature review

A deeper and more time demanding form of involvement is coherent with sociological theories about democracy and is especially coherent with The Theory of Deliberative Democracy. This is compatible with but also differs from the idea of Direct Democracy on that point that it focuses more on the creation of opinions instead of the practical decision-making process of Direct Democracy. Direct Democracy is a form of democracy that involves the direct involvement of the individual in the voting and decision process. The main ideas of

Deliberative Democracy can be traced back to Aristotle (Wilson, 2010), but more recent scholars have also explored the subject, including Jürgen Habermas (1962), John Rawls (1971), James Fishkin (1991), Joshua Cohen (1989) (1996), and many others. They believe that some very important parts in a democracy are the discussions themselves, which in the end lead to decisions. In its most complete form, Deliberative Democracy should in theory, within a group of individuals, lead to a decision without the involvement of voting. In practice, this is of course very hard to achieve, especially when groups get larger. But still, even in larger groups, deliberation has a big role in the formation of opinions. The connection between deliberation and religion is primarily the fact that churches and other religious institutions create a good ground for deliberation (Barro, 1999).

There are some studies concerning the determinants of democracy that are important to mention. Lipset (1959) posit that social and structural factors are important for the promotion of democracy. His study is however done during a time when there existed fewer democracies in the world than today. Huntington (1991) would also later state that in most countries that have transitioned from being dictatorships into democracies, religion has been an important force, and in particular Christianity.

Huntington (1991) also suggests that there are certain aspects in Islamic and Confucian culture that makes it particularly hard for countries with such cultures to properly implement democratic governments. "Almost no scholarly disagreement exists regarding the proposition that traditional Confucianism was either undemocratic or antidemocratic" (Huntington, 1991). It is however important to remember that Confucianism is not a particular religion but more of an ethical and philosophical system that has deeply affected Asian culture and religious values. Islamic culture instead, has deep religious roots and Huntington (1991) argues that it is not as clear with Islamic culture that it would affect democracy negatively as it is with Confucianism, since Islam contains some very democratic aspects. Nevertheless, in practice, there are few Islamic countries today that are democratic. Ideologically, Islam's state and religious affairs are particularly connected compared to other religions. However, it is important to remember that Catholic countries were believed to have difficulties in fully implementing a democratic system and have a good economic growth, which has not been the case (Huntington, 1991). Differences exist between countries with different religions but these cultural differences can also be temporary and Huntington (1991) writes that there are many

aspects in Christian religions that also can be seen as highly undemocratic but still, today Christianity has been shown to promote democracy. He (1991, p.73) discusses this idea and writes that "A strong correlation exists between Western Christianity and democracy" and he goes even further: "This correlation does not prove causation. Western Christianity emphasizes however, the dignity of the individual and the separate spheres of church and state." Lessl (2009) follows the same line of thought and cites Mark Steiner's essay², "Christians are uniquely positioned to show the way to public discourses that are more edifying, more productive and more humane. Steiner undertakes this by seeking a "representative anecdote" for Christian political activism in the New Testaments' depiction of Christ as Gods' "faithful witness"".

Scheufele, Nisbet and Brossard (2012) show more reserve with respect to the influence of religion and participation: "Our results also indicate that the structural effects of religion are limited, compared to secular networks, which provide an ideal setting for citizens to gain and exchange information, increase feelings of efficacy, and—most importantly—engage in various forms of participation". However, they agree with the fact that there are some positive effects but on the other hand posit that some other aspects in religions can have a contrary effect. A higher degree of something they label as "doctrinal commitment" can actually have a negative effect on democratic engagement. The doctrinal commitment is to what degree someone tends to make a literal interpretation of sacred texts. They look at how these individual cognitive influences, affects attitudes negatively. The positive effects are instead due to something that they call church-based structural effects. Effects created by church networks, discussions between church attenders, etc.

Barro (1999) looks very specifically on the determinants of democracy and compares the "degree" of democracy in different countries. His approach is strictly quantitative and estimates a linear model with different determining factors and finds that religion is significant among other factors. Verba, Schlozman, and Brady (1995), also find the same results and goes deeper arguing that the reason for this is the acquisition of civic skills that are required for political participation. These skills are of an organizational and cognitive nature, and are acquired by participating in association based activities. Jones-Correa and Leal (2001)

² Reconceptualizing Christian Public Engagement: 'Faithful Witness' and the American Evangelical Tradition, 2009

test the hypothesis presented by Verba, et al. (1995) empirically using the method of linear regression, relating political participation to particular religions and then compare the differences. Jones-Correa and Leal (2001) choses to compare Catholic and Protestant communities within certain ethnical groups: Latin-Americans, Caucasians, etc. Since the comparison is between Catholics and Protestants within a specific cultural group, there is no reason to believe that there should be any significant difference in other possible determinants that could instead drive Political Engagement.

The dataset used in this study has already been the basis for a wide set of different studies and some of them also aim at explaining democratic attitudes, using a similar approach but with focus on other explanatory variables than religion. Östman (2012) looks at how youths' political participation and knowledge is affected by news and media consumption. Östman and Ekström (2012) have utilized the same dataset to study the effects that peer and family-talk can have on political attitudes. These are two different sets of questions that are related to each other and in some way; the questions addressed in this paper are much related to the ones cited, but with a different focus. The authors (Östman (2012), Östman, Ekström (2012)) use the theoretical framework from sociology with the theory of deliberative democracy and build up an empirical model but do not include any variables that controls for religion or religious feelings.

One important point to have in mind is that until now, interest and involvement in politics have been discussed as something clearly positive for a democracy, but this is not necessarily the case. Some expressions of interest and involvement can be of non-constructive nature. Many political movements, mostly temporary ones, can be a result of dissatisfaction and frustration. More extreme political parties tend to get stronger when times are hard; during an economic crisis, when unemployment is high, etc. A typical example is the growth of National Socialism in Germany, which finally led up to World War II and one of the cruelest dictatorships of modern times. Political engagement and participation can be manifested in different ways but there are some particular aspects that are of special interest in this study. The dependent variables are created to capture both the weak and strong forms of participation, but more important, the healthy forms. The students' perceived efficacy is of interest in this study since it can be a strongly motivating factor in any possible future engagement (See: Finkel, (1985), Gilens, Glacer and Mendelberg (2001)). The students'

motivations are important aspects to look at and are except from the efficacy measures captured individually. Voting is also of concern but as previously stated; it's a weak measure of interest and participation, but nevertheless, an important aspect to explain. The propensity to join a political party should therefore be a stronger measure of interest since it requires a higher level of participation so both these measures are studied. The main hypothesis is that all these aspects of political engagement and interest can be explained by religion, so the different aspects are studied both in an aggregate form but also individually. Next section will explain in more details what data and method that have been used to study the relationships between the dependent and the explanatory variables.

3. Methodology and data

3.1. Empirical Strategy

As seen, the subject can be looked at from many different perspectives. A strictly quantitative approach is chosen here, using the method of linear regression to explain the relationship between religion and political engagement. In the Youth and Society Survey, which has been collected by the University of Örebro, there are several questions that all measure some sort of political involvement. The method of Principal Components Analysis was used to aggregate the data into one variable labeled: "Political Engagement Index". This newly created dependent variable can then be seen as an index for the political interest and engagement of the respondents, where the weights attributed to the scores on each question answered in the questionnaire are given by the Principal Components Analysis. This index is used in a linear regression model with religion and other important factors, also controlled for in previous studies, as dependent variables. Earlier literature has been studied in order to avoid omitting any important controls that could result in a bias (See: Östman (2012), Östman and Ekström (2012), Barro (1999), and others). Individual specifications are also made on the different variables that are included in the index. The reason for this is that it can also be interesting to see how the particular components of the index are related to the independent variables.

Descriptive Statistics for all variables used in this study are shown in Table 1 except for the components of the Political Engagement Index, *pcatt* that are instead shown in table 2.

Table 1. Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
pcatt	1559	.001	2.082	-4.652	5.772
feelrel	1664	1.960	1.150	1	4
noreligion	1704	.446	.497	0	1
christian	1704	.424	.494	0	1
jew	1704	.004	.059	0	1
muslim	1704	.103	.304	0	1
budhist	1704	.005	.073	0	1
hindu	1704	.001	.034	0	1
other	1704	.018	.132	0	1
religious	1704	.554	.497	0	1
newscons	1726	2.691	.848	1	5
netnews	1748	2.811	1.285	1	5
papernews	1747	2.756	1.243	1	5
radionews	1745	2.336	1.187	1	5
tvnews	1743	2.879	1.087	1	5
media	1703	3.348	.686	1	6
tv	1733	3.829	1.091	1	6
internet	1733	4.092	1.076	1	6
books	1724	2.136	1.159	1	6
male	1856	.490	.500	0	1
income	1117	4.764	1.638	1	7
meaneconomy	1654	3.255	.715	1	4.667
economyafford	1754	3.672	1.025	1	5
economycomplain	1699	2.996	.806	1	4
economycomparison	1710	3.085	.849	1	5
age	1856	15.032	1.720	12	20
schoolfeelings	1755	1.656	.770	1	5
foreignborn	1755	.091	.288	0	1
oneparentnonnord	1891	.317	.466	0	1
friendsinterest	1739	2.641	.915	1	4

The main variable of interest *feelrel* is a measurement of religious feelings. It has a mean of 1.96 and a standard deviation of 1.15. In the sample there are 42% Christians, 10% Muslims, 0.3% Jews, 0.5% Buddhists, 0.1% Hindus and 1.7% that belong to another religion. There are 49% males in the sample.

The estimation of the variables' coefficients is given by a model specified in different ways. The first specification of the model has religious feelings as its main explanatory variable:

$$Y = \beta_{0} + \beta_{1} \cdot feelrel + \beta_{2} \cdot male + \beta_{3} \cdot newscons + \beta_{4} \cdot media + \beta_{5} \cdot age + \beta_{6}$$

$$\cdot meaneconomy + \beta_{7} \cdot schoolfeelings + \beta_{8} \cdot foreignborn + \beta_{9}$$

$$\cdot one parent nonnord + \beta_{10} \cdot friends interest + \beta_{11,i} \cdot ds chool_{i}$$

$$+ e \qquad (1)$$

The second specification includes interaction terms between the different religions and the variable *feelrel* to study any potential differences between the religions of interest and how religious feelings interact with them:

$$Y = \beta_{0} + \beta_{1} \cdot feelrel \cdot christian + \beta_{2} \cdot feelrel \cdot muslim + \beta_{4} \cdot feelrel \cdot otherrel + \beta_{5}$$

$$\cdot male + \beta_{6} \cdot newscons + \beta_{7} \cdot media + \beta_{9} \cdot age + \beta_{10} \cdot meaneconomy$$

$$+ \beta_{11} \cdot schoolfeelings + \beta_{12} \cdot foreignborn + \beta_{13} \cdot oneparentnonnord$$

$$+ \beta_{14} \cdot friendsinterest + \beta_{15,i} \cdot dschool_{i} + e$$
(2)

The dependent variable Y in the main regressions stands for the Political Engagement Index also labeled "pcatt" in the results tables 4, 5 and 6. However, some slightly different specifications of the model are also considered, with different dependent variables and where Y instead will stand for the different components of the Political Engagement Index. The correlation between the components of the Index does not imply that the explanatory variables have the same impact on all of them so it is interesting to study the relationship that the explanatory variable have with each component of the index individually.

The variables included in the index are motivated by the literature and they are chosen to well represent political interest and engagement. All the variables used in this paper are shown in more detail in Appendix A, where all the actual questions and possible selections are stated. The first two variables, *sv1* and *sv2* can be seen as quite obvious to include but are also motivated by a study from the IEA³. (See: Torney-Purta, J.; Lehman, R.; Oswald, H. and Schulz, W, 2001) and are questions about propensity to vote and propensity to join a political

³ The International Association for the Evaluation of Educational Achievement

party. The students in the survey are asked how probable it is for them to engage in voting and activities in a political party, as adults, and the study shows that there is a certain consensus that these are important factors for a democracy to function well (Torney-Purta et al., 2001). These answers about voting and to join a political party are therefore important components in the Political Engagement Index. *to3* is also chosen because it captures youths' interest for politics, which it undeniably does since that is what is explicitly stated in the question.

The *sa1*, *sa4* and *sa6* variables are instead picked out among other questions created to capture students' motivation behind political participation. These questions are picked out in particular to complement each other. The same goes for the political efficacy measures: *eff4*, *eff8*, *eff9* and *eff13*. They were created to capture how the students perceive their own political efficacy (See: Finkel, (1985), Gilens, Glacer and Mendelberg (2001)). Efficacy adds another dimension to the Political Engagement Index as students are asked what they think that they are capable of for example; take on responsibility or to be an active member in a political organization, etc.

Whether any factual measure of political engagement should have been included or not can be a subject for discussion; however, the measure used in this study has instead been targeted to capture only the interest, or a, by the individual, "desired" political engagement. One of the respondents could be much interested and have a strong desire to participate and actually have a strong confidence in his efficacy but without getting the right opportunities to actually be active politically; maybe time-constraints or parents influences hinders the young individual to actually join even if he had wanted to. These factors could also be correlated with sociological factors and in particular with age since an interest can later in life evolve into actual participation; but the point here is that real participation is not only interest-related but can also be because of other factors. Therefore, "actual" or "real" political engagement has been excluded from the Political Engagement Index in favor for more interest-related measures, because of the reasons stated above.

feelrel is a variable that indicates how religious an individual feels he is. The variable is coded so that 1 denotes the lowest and 4 the highest amount of religious feelings. The religious belongings are instead coded into dummy-variables. Since some of the religions have very

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⁴ Amnå, E., Ekström, M., Kerr, M. and Stattin, H. (2010). Codebook: The political socialization program. Örebro: Youth and society at Örebro University, Sweden.

few observations, an aggregate called *otherrel* will be used instead. This is an aggregate of the variables *hindu*, *buddhist*, *jew* and *otherrel*. Interaction terms show if any of the religions have more impact on our dependent variable than the other religions, when interacting the dummies with *feelrel*. The omitted variable in Regression 2 would then be *norel* which is a dummy for not belonging to any of the religions asked in the survey. It is however important to bear in mind that a person could have religious feelings even if he does not feel that he belongs to any particular religion. The model is created with the purpose to see in which direction, if any, the religious feelings and the different religious belongings affect the dependent variable.

In recent studies, media consumption has been found to have be significantly related to political interest and participation. It has also been found that the frequency of informational media usage is positively related to political knowledge as well as political participation, online and offline (See: Östman and Ekström (2012), Östman, (2012)). The same dependent variable as in the cited studies has not been used, but instead a similar variable is included because media consumption is a factor that needs to be controlled for. In this study, media consumption has however been split up into two different variables. One called media that includes more general media consumption and another one called newscons that is restricted only to news consumption. There are reasons to believe that this approach can be of interest since not all media consumption is edifying, and if split up; this difference can be shown in the coefficients. The variable newscons was created by taking the arithmetic mean of 4 other variables netnews, papernews, radionews and tvnews. These variables are coded so that 1 is the lowest and 5 is the highest amount of time spent on news consumption using any of the following media: Internet, Newspapers, Radio or TV. The variable *media* is also an arithmetic mean of 3 other variables; tv, internet and books. These variables are coded from 1 to 6 denoting time spent on the activities: Surfing the net, watching television and reading books.

age and male are important variables that were included in previous studies on the same dataset, because they are believed to be determinants for political engagement (See: Östman (2012), Östman and Ekström (2012)). These variables are also individually of some interest but work primary as control variables since they are believed to give more explanatory power to the regression.

In the data-survey, parents are asked what their actual income is. Unfortunately there is a big amount of missing values relatively to the questions where the students describe their

families' economy. To solve this problem, an aggregated household economy measure was created with basis from the students' feelings about their families' income. The variables economycomplain, economyafford and economycompare were aggregated into a new variable labeled meaneconomy; this last being just the arithmetic mean of the 3 previous. meaneconomy is then used in the model instead of the variable income.

schoolfeelings is a variable that controls for the students' general feelings towards school. This variable is believed to give explanatory power to the regression and is therefore included in the model. It is coded from 1 to 5 where 5 indicate positive feelings about school and 1 indicates negative feelings.

The control for age is used instead of the different cohorts. The reason for this is that it would be harder to interpret the cohorts rather than age because there might be several factors that can put an over- or under-aged student in the "wrong" cohort. Including both would generate multicollinearity problems since they are so strongly correlated.

Demographically related cultural differences could drive the results in a certain direction (Huntington, 1991). Variables that controls for these effects are therefore introduced. One control is introduced as a dummy if the respondent is not born in Sweden and this variable is labeled *foreignborn*. A control is also introduced if one parent in the household is born outside of the Nordic countries and this other dummy is labeled *oneparentnonnord*.

Deliberation between peers is believed to be an important determinant for youths' political attitudes and therefore also friends' interest (Östman, 2012). The variable *friendsinterest* was created as a control for the peer-related effect.

Since the survey includes answers from students in different schools, school variables have been included as dummies to control for differences between the schools that might have an impact on our dependent variable. If not included, a bias could occur for several reasons; for example, if one school has another kind of teaching plan or if one of the schools only have religious students, etc. It is shown in our regression tables if school has been controlled for but the estimators are of no interest for this analysis since the purpose is not to compare the different schools but instead to control for their effects.

3.2. The Data

The data used for this study has been collected in Örebro, Sweden.⁵ The primary target groups are students from two different cohorts. The cohorts were created from the different classes of junior high-school students and senior high-school students. Therefore these are actually no strict age cohorts but most of the students in the first cohort are students between 13-14 years old and the second is composed of students that are mostly 16-17 years old. These two cohorts are only used in the regression-analysis, since the others' (friends, parents, etc.) answers on political interest are of no interest to this study.

The collection of data took place in spring 2010 during regular school hours. Students were given the questionnaire by hand while their parents got theirs on mail during the same time-period. This is obviously the reason to why the parents have a much lower answering rate than the students. The sample contains data from 13 different schools in the region and in total; approximately 50% of the students in the region are included in the data-sample.

Schools were selected, so that different social, economic and ethnical backgrounds were to be represented relative to regional demographics, and therefore together form a representative sample. Different study-programs were also of interest, so that students from both vocational and theoretical study-programs were included in the sample. Relative to nationwide averages, Örebro is representative on most key variables with an exception of the amount of people with immigrant background. There are more youths with immigrant background in Örebro than in the nationwide average. This means that the survey will reflect youths in the regional area and not as much on a national level. However, since Örebro is relatable to the nation average in other categorical variables and because it is a good reflection of the nationwide overall, the results can be of high interest and will surely open up for more discussion in how religious engagement affect political interest and participation. The collection of data was administered by trained research assistants who monitored the questionnaire, which gives strength and credibility to the data.

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⁵ The data was collected from the political socialization program in Örebro. Professors Erik Amnå, Mats Ekström, Margaret Kerr and Håkan Stattin are responsible for the planning, implementation and financing of the data collection.

3.3 Political Engagement Index and PCA

The primary dependent variable; the Political Engagement Index is generated by using Principal Components Analysis⁶. The PCA is able to reduce the dimensionality of the dataset. The data-set contains a considerable number of interrelated variables and with PCA, as much as possible of the variation in our data set is retained (Jolliffe, 2010). PCA generates new variables, which are called the Principal Components. These components are uncorrelated and from their eigenvalues it can be decided which of these that should be used as dependent variable in the regression. PCA uses the variation in the original variables in the newly created Index variables. The component that contains the highest eigenvalue will also retain the biggest variation from the original variables. Therefore, that one is chosen as The "Political Engagement Index".

Table 2: Descriptive statistics for the components of The "Political Engagement Index"

Variable	Obs	Mean	Std. Dev.	Min	Max
pcatt	1559	.001	2.082	-4.652	5.772
sv1	1738	3.139	.930	1	4
sv2	1720	1.776	.771	1	4
sa1	1739	1.846	.839	1	4
sa4	1727	2.329	1.015	1	4
sa6	1721	2.809	1.112	1	4
to3	1687	2.482	1.159	1	5
eff4	1746	2.677	.840	1	4
eff8	1743	2.322	.945	1	4
eff9	1743	2.426	.948	1	4
eff13	1747	2.211	.919	1	4

Table 2 shows the descriptive statistics for the dependent variables that are merged into The "Political Engagement Index"; *pcatt*. A correlation matrix for the dependent variables to make sure that all the correlations are positive, i.e. the variables are in the same direction. The correlation matrix for the dependent variables is shown in Table 3.

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⁶ From this point, denoted only as PCA

Table 3: Correlation matrix, Dependent variables

	sv1	sv2	sa1	sa4	sa6	to3	eff4	eff8	eff9	eff13	pcatt
sv1	1.000										
sv2	0.339*	1.000									
sa1	0.228*	0.392*	1.000								
sa4	0.291*	0.311*	0.517*	1.000							
sa6	0.480*	0.302*	0.408*	0.559*	1.000						
to3	0.278*	0.431*	0.364*	0.380*	0.378*	1.000					
eff4	0.234*	0.255*	0.209*	0.254*	0.236*	0.342*	1.000				
eff8	0.246*	0.376*	0.301*	0.305*	0.268*	0.488*	0.601*	1.000			
eff9	0.245*	0.295*	0.238*	0.251*	0.236*	0.463*	0.523*	0.684*	1.000		
eff13	0.209*	0.331*	0.286*	0.264*	0.211*	0.410*	0.552*	0.705*	0.618*	1.000	
pcatt	0.512*	0.607*	0.581*	0.613*	0.595*	0.706*	0.673*	0.791*	0.723*	0.732*	1.000

All correlation coefficients between the dependent variables in the Political Engagement Index are significant at a 1% level. The correlation between these variable has been judged to be "high enough" for the data to be reduced into one index.

When merging all the dependent variables in to the new index variable generated by PCA, the first component has an eigenvalue of 4.33. It is common usage to accept a component as an index only if it has a higher eigenvalue than 1.0, which it clearly has in this case.

The new variable takes values ranging from -4.65 to 5.77 where high values indicate high political engagement and low to negative values represent low political engagement. It has a mean value of 0 and a standard deviation of 2.08. The standard deviation is important to analyze the magnitude of the effects given by the estimates of the regression coefficients. The estimates are presented in the next section that covers the results from the study.

4. Results

4.1. Main Results

Table 4 shows 4 different regressions made on the Political Engagement Index. The rows have 14 explanatory variables, including control dummies for school, which are used in different regressions. It is therefore possible to compare what happens with the coefficient for the variable that is of main interest for us, when new controls are included.

Table 4: Regressions with different controls

	(1)	(2)	(3)	(4)
VARIABLES	pcatt	pcatt	pcatt	pcatt
			<u> </u>	<u> </u>
feelrel	0.295***	0.230***	0.202***	
	(0.047)	(0.052)	(0.054)	
male		-0.209*	-0.035	-0.054
		(0.109)	(0.112)	(0.114)
newscons		0.818***	0.795***	0.783***
		(0.067)	(0.067)	(0.068)
media		-0.094	-0.105	-0.107
		(0.079)	(0.078)	(0.079)
age		0.104***	-0.083	-0.062
		(0.031)	(0.088)	(0.089)
meaneconomy		0.013	-0.004	0.002
		(0.080)	(0.0782)	(0.079)
schoolfeelings		-0.291***	-0.282***	-0.270***
		(0.073)	(0.073)	(0.074)
foreignborn		0.359	0.430*	0.501*
		(0.241)	(0.244)	(0.257)
oneparentnonnord		-0.257*	-0.257*	-0.205
		(0.149)	(0.150)	(0.160)
friendsinterest		-0.084	-0.068	-0.062
		(0.065)	(0.063)	(0.065)
inrelchristian				0.211***
				(0.041)
inrelmuslim				0.053
				(0.075)
inrelotherrel				0.297**
				(0.126)
School controls	NO	NO	YES	YES
Observations	1,481	1,335	1,335	1,305
R-squared	0.025	0.164	0.202	0.209

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

The first specification (Table 4, Column 1) includes only one explanatory variable; *feelrel*. The estimated value of the coefficient is 0.295. Dividing the estimate with the standard deviation of the Political Engagement Index generates a standardized measure for the magnitude of the estimate. In this case 0.295/2.082=0.142; gives the effect of 14.2% of a

standard deviation for the Political Engagement Index.⁷ When all the controls are added to the model, the estimated regression-coefficient decreases slightly to the value of 0.202 (Table 4, Column 3) and this is equal to an effect of 9.7% of a standard deviation for the Political Engagement Index. The variable *feelrel* is significant at a 1% level, in all specifications presented in Table 4. The difference between 2nd and the 3rd specifications is that the 3rd specification includes dummies for the different schools; certain schools could have different lecture plans or there could be other reasons for them to might have an impact in the regression and therefore create a bias in the model if these dummies are not included. As seen from Table 4, the variables do change and their inclusion generates a model with a higher R-squared; from 0.164 up to 0.202. The 3rd specification in Table 4 captures more information than 1st and the 2nd.

In the 4th column of Table 4, *feelrel* has been removed in favor for the 3 interaction terms. The inclusion of interaction terms has given more explanatory power to the model; the coefficient of determination changed from 0.202 up to 0.209. What can be said about the difference between the religions is that the results are coherent with both Huntington (1991) and Barro (1999). The estimate for Christianity is highly significant in contrast to the estimated coefficient for Islam. The value of the estimate for the interaction of Christianity with religious feelings is 0.211. The effect would then be 10.13% of a standard deviation for the Political Engagement Index. It is however important to note that there is a positive estimate of the interacted coefficient for Islam comparing to the benchmark of not having any religion but we cannot draw any inference about the effect since the coefficient is not significant; from the results it does not seem that Islam has any effect on the Political Engagement Index and this is an important result in itself.

The interaction between the variables labeled *otherrel* and *feelrel* in the 4th column of Table 4 have an estimated regression coefficient of 0.297; this is 14.3% of a Political Engagement Index's standard deviation which is higher than the effect Christianity had. However, the standard deviation for the coefficient is very high and this in turn gives no significance to the estimate. Since many different religions have been grouped into one variable a high standard deviation was expected for the variable. This study does not explore the individual effects of

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⁷This method will be used thoroughly in the paper and will always refer to the standard deviation of the dependent variable.

the different religions included in the *otherrel* variable, mostly because of the lack of data concerning these other religions.

Table 5 compares the 3rd specification from Table 4 with other specifications, where the components that are included in the Political Engagement Index are put as dependent variable. The 1st column contains estimates for the coefficients from the original specification (Table 4, Column 4) on the Political Engagement Index. The other columns present the new specifications for the components of the Political Engagement Index. The different variables also seem to have similar variation, as seen above; *newscons* is significant in all regressions while *media* is not. As these are different regressions for each dependent variable, R-square changes with the different dependent variables. The dependent variable that is best explained by the set of explanatory variables is *to3*; this is the variable that explicitly asks about political interest. *feelrel* is significantly related at a 1% level with efficacy variables *eff4*, *eff8*, *eff9* and *eff13*. The estimate is also significant for *to3* and *sa6*. It is also significant at a lower 5% level for the variable *sa4* but not significant for the variables *sa1*, *sv1* and *sv2*.

Table 6 shows similar specifications as those presented in Table 5 but excluding *feelrel* and including it together with the interaction terms instead, as done in the 4th column of Table 4. These variables are as in Table 4, Column 4; interactions between *feelrel* and the different religions, *christian*, *muslim* and *otherrel*. Table 6 shows that the interaction term *inrelmuslim* is not significantly related to the Political Engagement Index or for any of the other specifications with the variables composing the index as dependent variables. Christianity seem to have a positive impact on all the components of the index except for *sv1* and *sa1*; the first one asking about the propensity to vote and the other one asks about the importance of joining a political party or organization. Comparing Table 5 with Table 6 we note that the relationship with the dependent variables seems to become stronger when *feelrel* is interacted with *christian*; the estimate on *sv2* becomes significant at a 10% level and the estimate for *sa4* gains stronger significance; at 1% level instead of a 5% level.

The primary focus of this paper is to study how religious belonging might have an impact on political interest and participation but there are some other results from the study that are important to mention. These further results are presented in the next subsection.

Table 5:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
VARIABLES	pcatt	sv1	sv2	sa1	sa4	sa6	to3	eff4	eff8	eff9	eff13
feelrel	0.202***	0.012	0.015	0.028	0.068**	0.085***	0.085***	0.045**	0.084***	0.062**	0.079***
	(0.054)	(0.025)	(0.021)	(0.022)	(0.027)	(0.028)	(0.029)	(0.022)	(0.024)	(0.025)	(0.025)
male	-0.035	-0.115**	-0.023	-0.077*	-0.153***	-0.196***	0.118**	-0.029	0.099*	0.073	0.062
	(0.112)	(0.048)	(0.043)	(0.046)	(0.055)	(0.059)	(0.059)	(0.046)	(0.051)	(0.052)	(0.051)
newscons	0.795***	0.250***	0.179***	0.192***	0.224***	0.287***	0.487***	0.146***	0.246***	0.202***	0.223***
	(0.067)	(0.030)	(0.027)	(0.027)	(0.033)	(0.035)	(0.035)	(0.029)	(0.031)	(0.031)	(0.031)
media	-0.105	-0.108***	0.026	-0.025	-0.058	-0.101**	-0.039	-0.004	-0.026	-0.024	-0.041
	(0.078)	(0.038)	(0.030)	(0.035)	(0.040)	(0.044)	(0.042)	(0.034)	(0.039)	(0.038)	(0.037)
age	-0.083	-0.108***	-0.052	0.033	0.023	-0.024	-0.085*	-0.026	-0.034	0.012	0.015
	(0.088)	(0.037)	(0.034)	(0.038)	(0.043)	(0.047)	(0.050)	(0.037)	(0.040)	(0.042)	(0.038)
schoolfeelings	-0.282***	-0.099***	-0.0124	-0.029	-0.084**	-0.108***	-0.092**	-0.150***	-0.105***	-0.075**	-0.0845***
	(0.073)	(0.033)	(0.030)	(0.030)	(0.034)	(0.039)	(0.037)	(0.030)	(0.031)	(0.033)	(0.033)
meaneconomy	-0.004	0.045	-0.021	-0.018	0.053	0.026	-0.040	0.018	0.009	0.020	0.026
	(0.078)	(0.033)	(0.031)	(0.033)	(0.038)	(0.040)	(0.042)	(0.033)	(0.036)	(0.035)	(0.035)
foreignborn	0.430*	-0.077	0.079	0.190**	0.082	-0.023	0.158	0.034	0.089	0.227**	0.324***
	(0.244)	(0.105)	(0.082)	(0.097)	(0.115)	(0.121)	(0.126)	(0.096)	(0.105)	(0.105)	(0.102)
oneparentnonnord	-0.257*	-0.146**	0.082	-0.021	-0.017	-0.062	0.035	-0.119**	-0.115*	-0.128*	-0.059
	(0.150)	(0.067)	(0.061)	(0.060)	(0.073)	(0.079)	(0.075)	(0.059)	(0.069)	(0.069)	(0.066)
friendsinterest	-0.068	0.039	-0.057**	-0.032	-0.002	0.047	-0.114***	0.019	-0.046*	-0.064**	-0.032
	(0.063)	(0.027)	(0.024)	(0.025)	(0.031)	(0.033)	(0.032)	(0.026)	(0.028)	(0.029)	(0.028)
School Controls included in all specifications											
Observations	1,335	1,439	1,425	1,441	1,433	1,430	1,401	1,445	1,438	1,443	1,443
R-squared	0.202	0.156	0.065	0.071	0.098	0.151	0.225	0.090	0.105	0.074	0.086

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 6:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
VARIABLES	pcatt	sv1	sv2	sa1	sa4	sa6	to3	eff4	eff8	eff9	eff13
male	-0.054	-0.116**	-0.036	-0.086*	-0.149***	-0.185***	0.113*	-0.035	0.099*	0.069	0.066
	(0.114)	(0.049)	(0.044)	(0.046)	(0.055)	(0.059)	(0.060)	(0.047)	(0.052)	(0.052)	(0.051)
newscons	0.783***	0.245***	0.177***	0.191***	0.221***	0.286***	0.480***	0.140***	0.238***	0.196***	0.218***
	(0.068)	(0.031)	(0.027)	(0.027)	(0.033)	(0.036)	(0.036)	(0.029)	(0.031)	(0.032)	(0.031)
media	-0.107	-0.115***	0.021	-0.029	-0.060	-0.097**	-0.039	-0.003	-0.018	-0.021	-0.038
	(0.080)	(0.038)	(0.030)	(0.035)	(0.041)	(0.044)	(0.043)	(0.034)	(0.040)	(0.039)	(0.038)
age	-0.062	-0.101***	-0.048	0.037	0.027	-0.012	-0.085*	-0.018	-0.030	0.017	0.022
	(0.089)	(0.038)	(0.034)	(0.038)	(0.043)	(0.048)	(0.051)	(0.037)	(0.041)	(0.042)	(0.039)
schoolfeelings	-0.270***	-0.093***	-0.011	-0.030	-0.077**	-0.099**	-0.088**	-0.145***	-0.102***	-0.073**	-0.082**
	(0.074)	(0.034)	(0.030)	(0.0307)	(0.034)	(0.039)	(0.038)	(0.030)	(0.031)	(0.033)	(0.033)
meaneconomy	0.002	0.044	-0.016	-0.021	0.055	0.018	-0.032	0.015	0.011	0.029	0.029
	(0.079)	(0.033)	(0.031)	(0.033)	(0.039)	(0.041)	(0.043)	(0.033)	(0.036)	(0.036)	(0.035)
foreignborn	0.501*	-0.065	0.090	0.223**	0.103	0.005	0.158	0.049	0.101	0.265**	0.319***
	(0.257)	(0.106)	(0.087)	(0.105)	(0.117)	(0.124)	(0.130)	(0.098)	(0.113)	(0.111)	(0.108)
oneparentnonnord	-0.205	-0.139*	0.066	-0.0068	0.001	-0.026	0.0173	-0.115*	-0.110	-0.117	-0.061
•	(0.160)	(0.073)	(0.065)	(0.063)	(0.079)	(0.085)	(0.080)	(0.063)	(0.072)	(0.072)	(0.069)
friendsinterest	-0.062	0.044	-0.054**	-0.032	-0.004	0.035	-0.111***	0.020	-0.046	-0.059*	-0.032
	(0.065)	(0.028)	(0.024)	(0.025)	(0.031)	(0.034)	(0.033)	(0.026)	(0.029)	(0.030)	(0.028)
inrelchristian	0.211***	0.029	0.030*	0.026	0.069***	0.097***	0.085***	0.049***	0.092***	0.069***	0.074***
	(0.041)	(0.019)	(0.016)	(0.018)	(0.022)	(0.022)	(0.022)	(0.017)	(0.019)	(0.020)	(0.019)
inrelmuslim	0.053	-0.002	0.010	-0.011	0.032	0.029	0.060	0.019	0.050	0.006	0.053
	(0.075)	(0.034)	(0.029)	(0.031)	(0.035)	(0.036)	(0.039)	(0.031)	(0.035)	(0.035)	(0.034)
inrelotherrel	0.297**	-0.022	0.077	0.066	0.048	0.070	0.158**	0.038	0.122**	0.126**	0.110**
	(0.126)	(0.056)	(0.056)	(0.047)	(0.059)	(0.066)	(0.069)	(0.046)	(0.053)	(0.054)	(0.053)
School Controls Included in all specifications	` '	,	,	` '	` '	, ,	` ,	` '	,	` '	, ,
Observations	1,305	1,406	1,392	1,408	1,401	1,397	1,370	1,412	1,405	1,410	1,410
R-squared	0.209	0.160	0.067	0.073	0.102	0.159	0.226	0.092	0.110	0.079	0.090

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

4.2. Further Results

When comparing the 2nd and 3rd specifications in Table 4, it can be seen that the estimate of the coefficient for *age* is only significant before including the controls for school. This is probably an effect of high correlation between *age* and the school dummies since the different cohorts that are used in this survey are from junior high school students and senior high school students. It is still possible to argue that the persons age is significantly related to the Political Engagement Index, primarily because it is included as a significant control in most other studies (See: Jones-Correa and Leal (2001), Östman (2012), Ekström and Östman (2012), etc.), and also because age is clearly significant in the 2nd specification in Table 4. The Swedish education system is built so that the two groups included in the survey, senior and junior high-school students, study in separate schools; this means that much of the variation that is explained by the students' age, is instead included in the controls for schools. This is probably the reason for why the inclusions of the school controls suddenly makes the age variable non-significant.

There are some other results here that are particularly interesting; the high significance for the negative relationship between age and propensity to vote is one of them. However, since age is highly correlated with the school controls there are not many conclusions that can be drawn from this result. The attitudes towards school seems to have be significantly negative related to political attitudes, however the propensity to join a political party seems not to be related and neither is the variable measuring its importance. This is an interesting result in itself, especially since the efficacy variables very clearly have highly significant negative coefficients.

The average of the different news consumption variables is statistically significant in all of the specifications of the model, which is in accordance to previous studies (See: Jenkins (1992), Milner (2010)). Also, studies on the same data-set suggest the same pattern; but, media consumption in those studies, is split up in more detail and presented in a different way (See: Östman (2012), Ekström and Östman (2012)). The amount of media usage overall does not have any impact on the index variable but the variable measuring media consumption of a more qualitative kind; the news consumptions variable, is highly significant which can be seen in all regressions.

The students' feelings about school have a negative coefficient and this result is coherent to the literature (See: Ekström and Östman, (2012)). Looking at the individual regressions made on the different components of the Political Engagement Index and their relationship with the students' feelings about school, several significant coefficients can be seen but also a few that are not significant. Interesting is that the results show a significant negative coefficient for the propensity to vote in an election (svI) but the propensity to join a political party (sv2) have instead positive coefficients. It goes beyond the purpose of this paper to study if there actually exist any differences but future research might give a better insight on this. This difference could be of a pure statistical nature but if it is not, it certainly raises many questions; a successful career in Swedish politics has for example, historically, not always demanded a particularly strong academic background, as is normal for a career in the private sector. Maybe the results can be directed in a certain direction because of this; some persons, with a bad experience of school might instead see a career opportunity in politics. It could of course depend on many other factors but it is certainly an interesting subject for research.

Other studies (See: Barro (1999), Huntington (1991), Lessl (2009) have pointed out level of education as an important determinant for democratic engagement. Education provides the individual with certain skills that can be used for democratic involvement this is particularly hard to measure since junior high-school is mandatory and senior high-school is attended by almost everyone. The individual skills that can, in adults, be captured by a "years of education" variable, are in this case much more spread within the same class. However, there are reasons to believe that the school controls can capture a part of these effects.

The aggregated income measure (*meaneconomy*) does not provide with any significant estimates in the results tables. The reason for this might be that the measure from the students' questionnaire is used in this thesis, and not their parents'. Still, there is a difference about how the students think that their family's income is and the actual income from the parents and the students' feelings aren't less interesting to use in the regressions in this thesis. There is a high risk of interpreting missing values in the data for parents' questionnaire since there might exist several reasons behind the missing values. It is hard to interpret these results from the used income variable since the relationship between income and political engagement does not necessarily need to be in a certain direction.

5. Conclusions

The main purpose here was to study the relationships between religiousness and political engagement. Previous studies about the subject are presented, and these compose the theoretical guidelines for the statistical model that is used to explore these relationships. The data for the model was collected from a youth survey made 2010 in the city of Örebro. The high correlation between the dependent variables of interest made it possible to reduce the data into one variable that we labeled Political Engagement Index, and this index was used as dependent variable in a linear regression model, to estimate its relationship with different determinants and in particular religiousness. One specification of the model was also created with the purpose to study how different religions were related the Political Engagement Index.

Religious belonging was found to be positively related to political interest and participation. These results are congruent with other empirical studies made in the U.S. (See: Barro (1999), Verba et, al. (1995)) but also in accordance to qualitative analysis (See: Huntington (1991), Lessl (2009)). Even if the only variable that gave significant results when interacted with religious feelings was Christianity, the fact that none of the religions had any negative coefficient is important to point out. Further investigation is also needed to clarify the questions concerning the other religions and their differences. It would also be interesting to see a study, similar to this, that takes into consideration the different denominations within Christianity.

Some further results are also presented in addition to the main results of the study; a more thorough analysis of these would be beyond the scope of this paper but they do provide some interesting insights for future research. These results concern the other explanatory variables that are not related to religion, but are included in the model.

It should be noted that the results from this study does not imply any causal relationships between the variables. The nature of the survey does not make it possible to draw such conclusions and there could be many factors underlying both religious and political attitudes. However, existing evidence makes it very hard to argue against religion as a related factor to political engagement; the next step would instead be to identify what aspects of religion that contributes to civic engagement and this remains very much unanswered. The results suggest

that religion is an important factor in the political life here in Sweden, as it is in the United States. In relation to this; it would be interesting to further explore the subject of religion and its connection to political engagement. Especially to see if there are any aspects of a religion that can have any negative effects on engagement, or if there are other aspects that can make a person engage in more extreme forms of political activism. These lines of enquiry are beyond the scope of this study, but they are of potentially great interest for research.

All religions, largely, promote moral values, discussions, etc. but more important; most of them promote some sort of involvement with society; results indicating that religious involvement is connected with political involvement was therefore expected. The strength of the relationship was instead more surprising and in particular the one with Christianity. The differences between the religions give reasons to believe that there are other factors than deliberation and structural effects that also can be important for political engagement. These underlying factors are important to identify because they could be the actual determinants, expressed through the religions; but future research should complement this type of quantitative approach with more qualitative assessments in order to provide a more comprehensive picture.

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Appendix:

A. Description of main survey questions underlying variables

```
Sv1- Vote in national elections?
Sv2- Join a political party
1 I will certainly not
2 I will probably not
3 I probably will
4 I certainly will
Sa1- Participate in parties and organizations to bring up the issues that are important to me
Sa4- Be involved so that politicians get to know what people think
Sa6- Vote in elections
1 Not important at all
2
4 Very important
To3- How interested are you yourself in politics?
1 Totally uninterested
2 Not at all interested
3 Not very interested
4 Fairly interested
5 Very interested
Eff4- Actively contribute to the work of organizations trying to solve social problems
Eff8- Be an active member of a political organization
Eff9- Discuss politics with persons more experienced with me
Eff13- Take on responsibility in a political youth organization
1 Is something I absolutely wouldn't be able to do
2 Is something I probably wouldn't be able to do
3 Is something I probably would be able to do
4 Is something I absolutely would be able to do
Christian
Muslim
Otherrel (Jewish, buddhist, hindu and others)
Male
0 - No
1- Yes
feelrel- My religion is very important to me
1 It is not important at all
2 It is not that important
3 It is important
4 It is very important
```

Meaneconomy ((pa7+pa8+pa9)/3)

```
pa7- If you want things that cost a lot of money (computer, skateboard, cellphone, etc.) can
your parents afford to buy them if you want them?
1 Absolutely not
2 Probably not
3 Yes, maybe
4 Yes, probably
5 Yes, absolutely
pa8- How is the economy in your family?
1 My parents always complain due to not having enough money
2 My parents often complain due to not having enough money
3 My parents rarely complain due to not having enough money
4 My parents never complain due to not having enough money
pa9- If you compare with others in your class, do you have more or less money to buy things?
1 I have a lot less money than others in my class
2 I have a bit less money than others in my class
3 I have the same amount of money as others in my class
4 I have a bit more money than others in my class
5 I have a lot more money than others in my class
newscons((tm1+tm2+tm3+tm4)/4)
tm1- Read the newspaper
tm2- Listen to the news on the radio
tm3- Watch the news on TV
tm4- Use the internet to watch the news
1 At least 5 days a week
2 3-4 days a week
3 1-2 days a week
4 More rarely
5 Never
media ((Pt1+Pt4+Pt6)/3)- How much of your free time do you spend on a normal day ....?
pt1- Watching TV
pt4- Read books
pt6- Use the internet
1 More than 6 hours
2 3-6 hours
3 1-3 hours
4 30min-1 hours
5 Less than 30 min
6 No time at all
age- How old are you?
Schoolfeelings- How do you enjoy school?
1 Very good
```

2 Pretty good 3 More or less

- 4 Quite bad
- 5 Very bad

Foreignborn- Where you born in Sweden?

0 Yes

1 No

oneparentnonnord

0 None of the student's parents were born in a non-Nordic country 1 At least of the student's parents were born in a non-Nordic country

friendsinterest- My friends are not particularly interested in politics

- 1 That's not at all true
- 2 That's partly not true
- 3 That's partly true
- 4 That's true

Interaction terms: Inrelchristian (feelrel× Christian) Inrelmuslim (feelrel× Muslim) Inrelotherrel (feelrel× otherrel)

B. PCA Analysis

The political engagement index is created from the original variables: sv1 sv2 sa6 sa4 sa1 to3 eff8 eff13 eff4 eff9.

The first component, which we use later on as the political engagement index in our regression, has the eigenvalue of 4.33.

Principal cor	mponents/corre	elation	Number of obs = 1560					
			Number of comp. = 10					
			Ti	race = 10				
Rotation: (ur	nrotated = prin	cipal)	Rh	o = 1.0000				
Component	Eigenvalue	Difference	Proportion	Cumulative				
Comp1	4.332	2.797	0.433	0.433				
Comp2	1.534	.693	0.153	0.587				
Comp3	.841	.078	0.084	0.671				
Comp4	.764	.182	0.076	0.747				
Comp5	.582	.105	0.058	0.805				
Comp6	.477	.031	0.048	0.853				
Comp7	.445	.063	0.045	0.898				
Comp8	.382	.012	0.038	0.936				
Comp9	.370	.097	0.037	0.973				
Comp10	.273		0.027	1.0000				

Principal components (eigenvectors)

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Comp7	Comp8	Comp9	Comp10 Ur	nexplained
sv1	0.246	0.294	0.753	0.075	0.200	-0.272	0.170	0.368	-0.003	-0.0388	0
sv2	0.292	0.147	-0.062	0.767	0.279	0.349	-0.268	-0.104	0.122	0.0591	0
sa6	0.286	0.449	0.223	-0.293	-0.170	0.091	-0.173	-0.702	-0.140	0.0415	0
sa4	0.294	0.383	-0.273	-0.381	-0.079	0.289	-0.361	0.557	0.129	0.0061	0
sa1	0.279	0.330	-0.524	-0.023	0.376	-0.439	0.430	-0.105	0.079	-0.0419	0
to3	0.339	0.040	-0.105	0.307	-0.753	0.004	0.378	0.138	-0.214	0.0636	0
eff8	0.380	-0.325	-0.010	-0.036	0.015	-0.068	-0.163	-0.039	-0.120	-0.8376	0
eff13	0.352	-0.342	-0.060	-0.075	0.213	-0.205	-0.262	0.073	-0.620	0.4527	0
eff4	0.323	-0.312	0.108	-0.265	0.238	0.596	0.523	-0.050	0.122	0.1175	0
eff9	0.347	-0.3367	0.063	-0.053	-0.191	-0.345	-0.206	-0.103	0.696	0.2588	0

Scoring coefficients

sum of squares(column-loading) = 1

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Comp7	Comp8	Comp9	Comp10
sv1	0.2456	0.294	0.753	0.075	0.200	-0.272	0.170	0.368	-0.003	-0.039
sv2	0.292	0.147	-0.062	0.767	0.279	0.349	-0.268	-0.104	0.122	0.059
sa6	0.286	0.449	0.223	-0.293	-0.170	0.091	-0.173	-0.702	-0.140	0.042
sa4	0.294	0.383	-0.273	-0.381	-0.079	0.289	-0.361	0.557	0.129	0.006
sa1	0.279	0.330	-0.524	-0.023	0.376	-0.439	0.430	-0.105	0.079	-0.042
to3	0.339	0.040	-0.105	0.307	-0.753	0.004	0.378	0.138	-0.214	0.064
eff8	0.380	-0.325	-0.01	-0.036	0.015	-0.068	-0.163	-0.039	-0.120	-0.838
eff13	0.352	-0.342	-0.060	-0.075	0.213	-0.205	-0.262	0.073	-0.620	0.453
eff4	0.323	-0.312	0.108	-0.265	0.238	0.596	0.523	-0.050	0.122	0.118
eff9	0.347	-0.337	0.063	-0.053	-0.191	-0.344	-0.206	-0.103	0.696	0.259