

Assignment III.

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Students (individually or in pairs) will perform the simple multivariate analysis of the selected data source (concerning the research questions and hypotheses defined in the 1st assignment). The results should be presented in the 3,600-5,400 chars document with relevant tables and graphs. Tables should be formatted according to usual scientific standard (cf. Czech Sociological Review).

The assignment is twice as long as it should be, please correct it into final paper!

In this assignment we have performed several simple multivariate analyses on our dependent variables, upon which our four hypothesis rest upon, in order to see how our independent variables affect dependent ones. For our analysis to be valid, and for the sake of convenience, we have made changes to our variables. Firstly, independent variables V9 (Important in Life: Religion) and V147 (Are you a religious person?) had their values reduced to a binary form: with value 0 meaning “Religion is not important to me” and “I am not a religious person”, and 1 meaning “Religion is important to me” and “I am a religious person”, respectively. Variables V16 (Important child qualities: Tolerance), V37 (Would you not like to have as neighbors: People who speak different language) and V44 (Who would you not like to have as neighbors: People of a different race) had their values changed into a binary form for easier conducting of logistic regression. Lastly, we have recoded all variables, dropping every negative value, so that our analysis can be clearer and correct. **If the regression is logistic, you are interpreting it wrong. But OK, we will do logistic regression in our next lesson so it is not your fault**

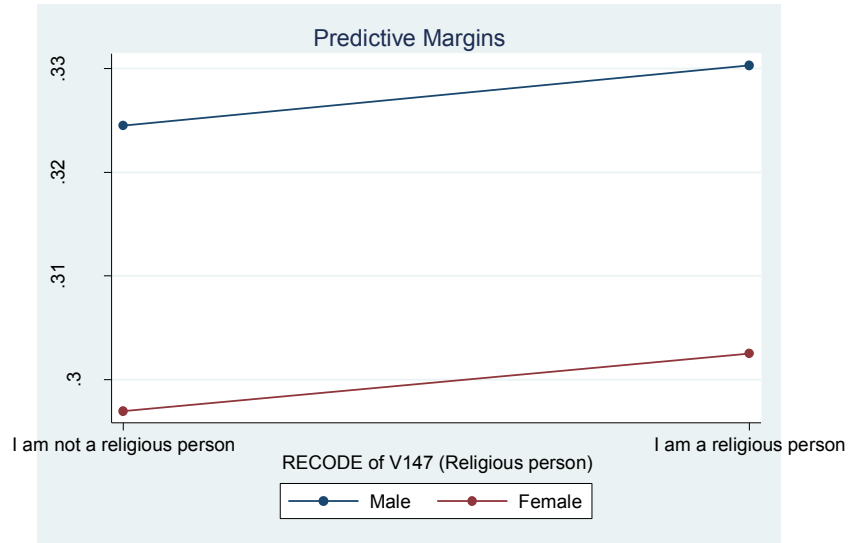
In all regression models we have used two additional control independent variables - sex (V240) and education (V248), in order to raise the statistical significance of our models. Furthermore, it is interesting to see if those two factors can have an impact regarding our hypotheses. Finally, we have created two new variables, labeled Valtruism and Vequality, by creating a sum index of our dependent variables. **If you have long continuous dependent variable, it is not a logistic regression ☺** The first is a combination V74 (Is it important to this person to do something for the good of society?) and V74B (Is it important to help those living nearby, to care for them?), while the second one consists of V139 (Democracy: Women have the same rights as men) and

V203 (Justifiable: Homosexuality?). We did this for the sake of convenience and practicality, because it is easier to measure them like this.

Hypothesis no. 1 (Religious people are more tolerant than non-religious people to different people.)

TABLE no. 1	*=p<0.05, **=p<0.01, ***=p<0.001	Important child qualities: tolerance (V16new)
Important in Life: Religion(V9new)	Religion is not important to me	Ref.
	Religion is important to me	.013
Religious person (V147new)	I am not a religious person	Ref.
	I am a religious person	.026
Education	Primary School	Ref.
	Secondary School	-.018
	University Education	-.080***
Sex	Male	Ref.
	Female	-.130***
Cons.		-.7311***
N		83889
R-squared		.0010

Graph no. 1



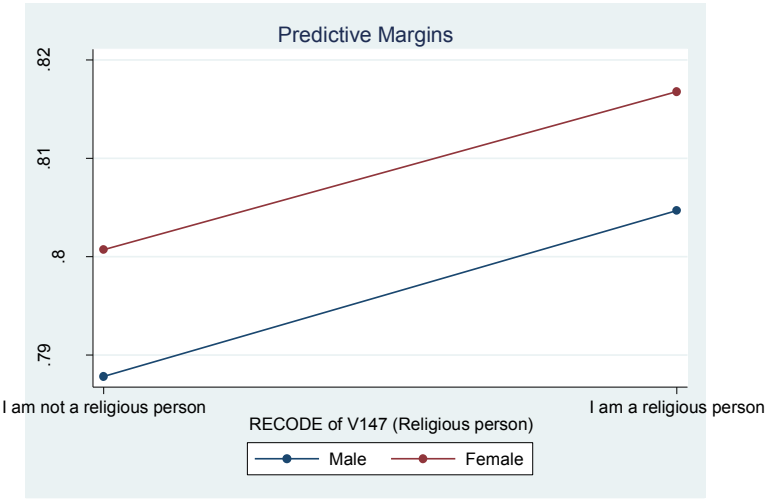
The table has bad format again ☹️ And doing graph for two values is nonsense, it is enough to put the two numbers 😊

Based upon the data in table no. 1, we can see that both religious people and those who consider religion important value tolerance as a child quality more than non-religious people and those who do not consider religion important, meaning that religious people are more likely to approve of the quality of tolerance in children than non-religious people, with values of 0.13 and 0.26 respectively for V9new and V147new. However, the differences are very small, the value of R-squared shows that the model has a very small statistical insignificance, and most of the probability measures for our independent variables show that there is no statistical relevance in them. All of this data is also shown in graph 1, which also shows the difference between sexes.

TABLE no. 2	*=p<0.05, ***=p<0.001	**=p<0.01,	Who would You like to have as neighbors? People who speak a different language (V37new)
Important in Life: Religion(V9new)	Religion is not important to me		Ref.
	Religion is important to me		-.426***

Religious person (V147new)	I am not a religious person	Ref.
	I am a religious person	.104***
Education	Primary School education	Ref.
	Secondary School education	.226***
	University education	.414***
Sex	Male	Ref.
	Female	.111***
Cons.		1.4010***
N		83884
R-squared		.0087

Graph no. 2



The same for this table and this graph

Table no. 2 shows that people who say that religion is important to them are more prone to not want to have people who speak different language as neighbor than people who do not consider religion important by the value of -0.426, meaning that people who do not consider religion

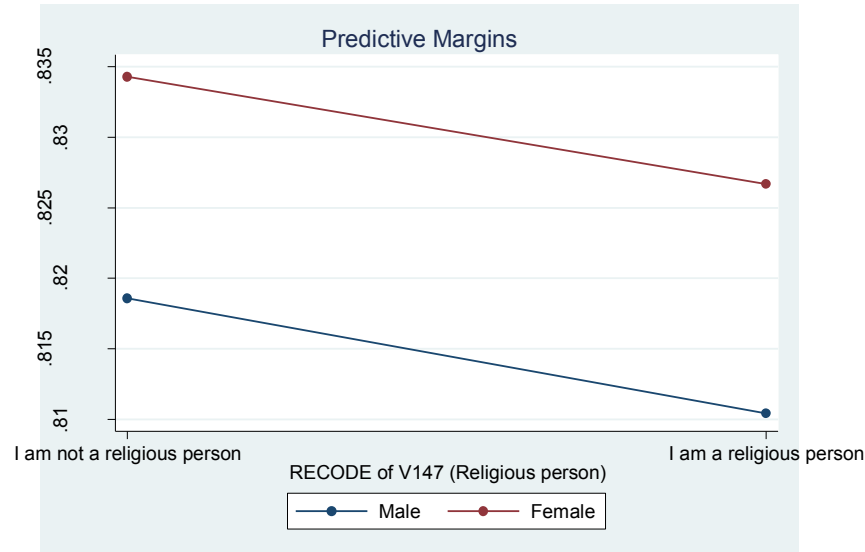
important are more likely to want neighbors who speak a different language than those who consider religion important. Interestingly, those who say that they are religious would like to have foreigners as neighbors more than non-religious people, by a value of 0.104, meaning that religious people are more likely than non-religious people to want to have neighbors who speak a different language than them. However, the value of R-squared is too low to consider these findings statistically relevant, even though this model is more relevant than the previous one. All this data can also be seen in graph 2, which also shows the difference between sexes.

TABLE no. 3	*=p<0.05, **=p<0.01, ***=p<0.001	Who would You like to have as neighbors? People of a different race (V44new)
Important in Life: Religion(V9new)	Religion is not important to me	Ref.
	Religion is important to me	-.327***
Religious person (V147new)	I am not a religious person	Ref.
	I am a religious person	-.054*
Education	Primary School Education	Ref.
	Secondary School Education	.350***
	University Education	.581***
Sex	Male	Ref.
	Female	.144***
Cons.		1.418***
N		83886

R-squared

.0119

Graph no. 3



No, the analysis is not correct. Please make an index: v16+v37+v44. Then make ONE model to test the “index of tolerance” and interpret just this model. Forgot the margins, make good model instead. And show as the way how you did it (i.e. first simple model, than add more variables, than add interaction...)

Table 3 shows that people who think that religion is important, and who say that they are religious are more likely not to want to have people of a different race as neighbors than people who do not consider religion important, or who are not religious, by values of -0.327 and -0.054 respectively. R-squared is again too low, which makes this model statistically insignificant, although all the independent variables are statistically relevant. All this data is shown in graph 3, which also shows the difference between sexes.

Hypothesis no 2. (2) Religious people are more involved in politics (voting, participating in politics) than non-religious people.)

Again, make and index “politic involvement” and one model, if you have so

TABLE no. 5	*=p<0.05, **=p<0.01, ***=p<0.001	Vote in elections: Local level (V226)
Important in Life: Religion(V9new)	Religion is not important to me	Ref.
	Religion is important to me	.0167
Religious person (V147new)	I am not a religious person	Ref.
	I am a religious person	-.285***
Education	Primary School	Ref.
	Secondary School	.179***
	University Education	.070***
Sex	Male	Ref.
	Female	.090***
N.		78255
Cut1		.2781
Cut2		1.519
Pseudo R2		.0032

Table no. 5 shows that people who consider religion to be important are more likely to belong in the voting groups of “Usually” and “Never”, than those who do not consider religion to be important, by a value of 0.167. However, those who are religious are more likely to belong in the group of people who vote “Always”, than those who are not religious, by a value of -0.285. Unfortunately, the Pseudo R-Squared shows that these findings are not statistically significant, even if almost all independent variables are statistically relevant.

TABLE no. 6	*=p<0.05, **=p<0.01, ***=p<0.001	Vote in elections: National Level (V227)
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Important in Life: Religion(V9new)	Religion is not important to me	Ref.
	Religion is important to me	-.036*
Religious person (V147new)	I am not a religious person	Ref.
	I am a religious person	-.316***
Education	Primary School	Ref.
	Secondary School	.123***
	University Education	-.166***
Sex	Male	Ref.
	Female	.094***
N.		80967
Cut1		.252
Cut2		1.428
Pseudo R2		.0052

Table no. 6, similarly to the previous one, shows that people who consider religion to be important, and those who are religious, are more likely to belong in the group of people who vote “Always”, than those who do not consider religion to be important, or are non-religious, by a value of -0.36 and -0.316 respectively. And as the previous table, the Pseudo R-Squared is too little for this model to be statistically significant, even if the independent variables are statistically relevant.

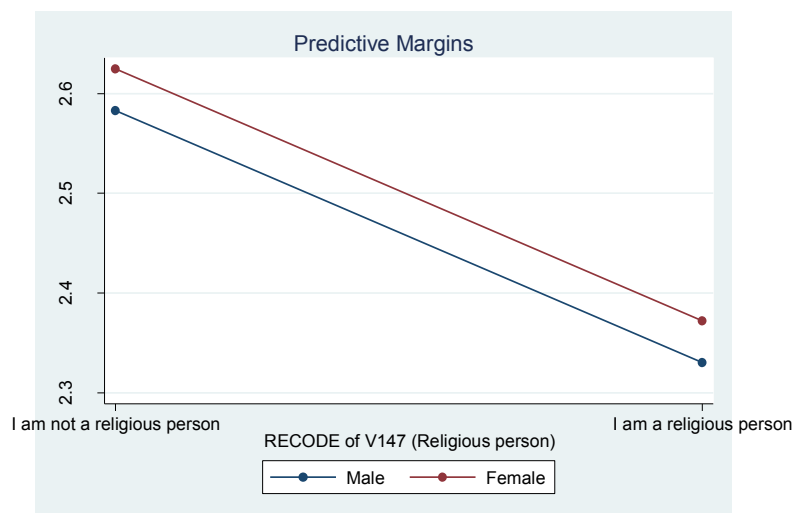
Hypothesis no 3. (Religious people want to do more good for society than non-religious people.)

Making two indexes is good start, but I would make just one 😊 Because now you have so many tables that if you put it into article, it will be probably rejected because of the number of tables. Keep your results as simple as possible.

TABLE no. 7	*=p<0.05,	**=p<0.01,	Valtruism (V74+V74B)
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	***= $p < 0.001$	
Important in Life:	Religion is not important to me	Ref.
Religion(V9new)	Religion is important to me	-.468***
	I am not a religious person	Ref.
Religious person (V147new)	I am a religious person	-.252***
	Primary School	Ref.
Education	Secondary School	.013
	University Education	-.129***
	Male	Ref.
Sex	Female	.050***
Cons.		2.96***
N		332583
R-squared		.0625

Graph no. 4



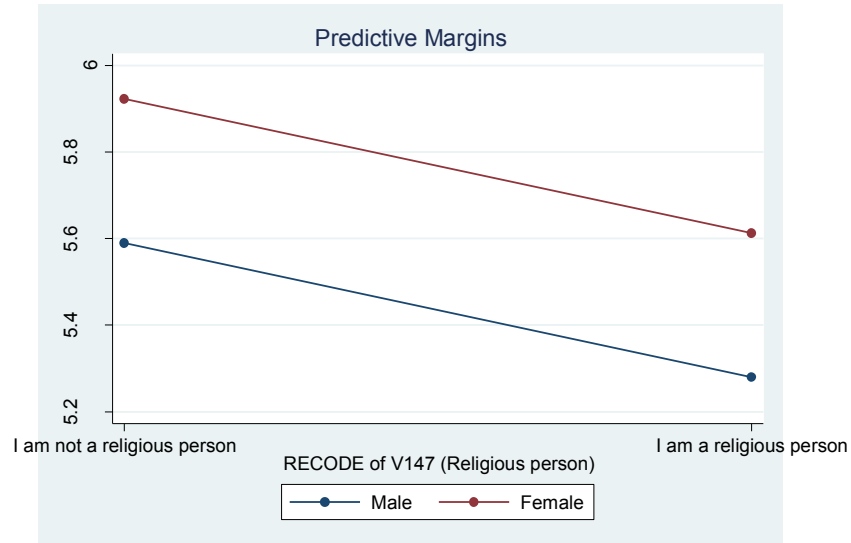
In table no. 7, the lower the score the more altruistic people are. People who consider religion important, and who are religious are more ready to act altruistically than those who do not consider religion important, or are non-religious, by a value of -0.468 and -0.252. Again, R-

squared shows that these findings are statistically insignificant, even if almost all independent variables are statistically relevant. Graph 4 shows this data, and also shows the difference between sexes.

Hypothesis no. 4 (Religious people want more equality than non-religious people.)

TABLE no. 8	*=p<0.05, **=p<0.01, ***=p<0.001	Vequality (V139+V203)
Important in Life: Religion(V9new)	Religion is not important to me	Ref.
	Religion is important to me	-1.16***
Religious person (V147new)	I am not a religious person	Ref.
	I am a religious person	-.310***
Education	Primary School	Ref.
	Secondary School	.179***
	University Education	.635***
Sex	Male	Ref.
	Female	.399***
Cons.		6.1409***
N		77696
R-squared		.1055

Graph no. 5



Our last table shows that people who think that religion is important, or are religious, in general want less equality in society than people who do not think that religion is important, or are non-religious, by values of -1.156 and -0.310 respectively. In this case R-squared is higher than 0.10, which makes these findings statistically significant, and all independent variables are statistically relevant. Graph 5 shows this data, while also showing the difference between sexes.

In conclusion, our first hypothesis can be considered refuted, because only one (V16new) variable supports it with a small margin, while the other two do not. Our second hypothesis can be considered as confirmed, as well as our third hypothesis. Lastly, our final hypothesis has been refuted. However, out of all of them, only the model used for the fourth hypothesis can be considered as statistically relevant and correct, as all others scored too little on the Probability test. Also, looking at our two control variables – sex and education, we can conclude that females scored higher than men, regardless if they were religious or non-religious, except on altruism and voting (second and third hypotheses), while higher educated people always scored higher, except on altruism. This would mean that women and the higher educated were more tolerant, more willing to participate in democratic practices, and more open to equality than men and lower educated people, but were not as ready to be altruistic, accept tolerance as a child quality, or participate in voting (for women), when compared to men or lower educated people.

The interpretation is good but the analysis is too long. Please make three indexes (one for each hypothesis) and prepare really good model to test them (model building from simple to bigger, adding an interaction...). You can choose just one hypothesis in your final paper, but do it good

Points:

-1 point for table format

-2 points for statistical correctness (too many simple models, no interaction, no model building...)

- 1 point for result presentation (marginal graphs for two values do not give as any information)