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The effect of political identity priming on altruism

Bachelor Thesis

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This paper examines the effect of a political identity prime on altruistic behavior, measured through dictator games. Using a word puzzle with words that have a right-wing connotation, subjects were primed before being presented with four games with both "deserving" (Red Cross) and neutral recipients. No significant effect of the political prime on altruism was observed. Findings from previous literature suggesting people donate more to "deserving" recipients were confirmed.

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1 Introduction

Donating blood to a stranger, volunteering to support refugees or lending tools to your neighbor. Altruism can be defined as a willingness to pay a personal cost to provide benefits to others (Fowler and Kam, 2007). It has become an important topic in behavioral economics because altruism can explain behavior that cannot be explained by the classical economical models. These models assume that agents are rational and maximize their utility. Donations in dictator games would be zero if players acted to maximize their utility. The fact that donations often exceed zero can be explained by altruism (Camerer, 2003; Engels, 2011). Instead of arguing selfish utility maximization is the only motivator for behavior, behavioral models accounting for altruism find people derive value from helping others, and determine altruism to be a motivating factor in human behavior (Eckel and Grossman, 1996). Altruism is also a topic in politics, with the redistribution of wealth being an important issue for many politicians. Certain party programs also increase development aid spending whilst others plan to abolish the practice altogether, which along with geopolitical goals also reflects on a sense of altruism. These political identities have over the years developed stereotypes: the left-wing is associated more strongly with altruism while right-wing ideology is more accepting of inequality and feels this is an inevitable part of a functioning society (Jost, Glaser, Kruglanski, & Sulloway, 2003).

Priming is a tool that is still used mainly in psychology, but there is scientific merit in researching its potential use in an economic setting. Participants of a study primed with a concept of rude behavior subsequently interrupted the experimenter more quickly, and those primed with an elderly stereotype went on to walk more slowly (Bargh, Chen, & Burrows, 1996). When researchers attempted to replicate this study, they were unable to find the same effect, and instead concluded that the expectations of the researchers were instrumental in explaining the walking speed difference (Doyen, Klein, Pichon, & Cleeremans, 2012). This indicates priming as a tool is still not fully understood. The perception-behavior link where perception provides an understanding of the world and these perceptual inputs generate corresponding behavioral outputs (Dijksterhuis and Bargh, 2001) could indicate political identity stereotypes as an effective way to prime people to show more altruistic behavior. With people trading traditional media for social media, “echo chambers” (in which individuals are exposed only to information from like-minded individuals) and “filter bubbles” (in which content is selected by algorithms according to a viewer’s previous behaviors) (Bakshy, Messing, & Adamic, 2015) could be providing a source for these political identity primes, if they are indeed effective.

This paper addresses the following question: “What is the effect of priming for political identity on altruistic behavior?”

Researching the effects of priming on altruistic behavior could provide real benefits to society. Politics has a very prominent presence in media and social media frequently feeds us content reminding us of our political preferences. During an election year especially, awareness of the priming effects of our political identities on our behavior could be warranted.

This paper comprises of a literature review on political identity, priming and altruism found in section 2. The hypotheses presented in section 2.5 are based upon this review. Then I will go over the main points of the survey used to collect the data in section 3.1. The collected data is presented in 3.2 and

methodology for analysis explained. Finally, the results are presented section 3.3. Conclusions and recommendations for further research are included in section 4.

2 Literature Review

This paper aims to research the effects of priming a political identity on a subjects' altruistic behavior. Firstly, this section will review literature on political identity, the distinctions between left-wing and right-wing politics and the psychological traits that predict political ideology. Secondly, priming as a psychological tool will be discussed to determine its usefulness and limits in this experiment. Finally, altruism will be defined and linked to political ideology, and the dictator game will be discussed as a way to measure altruistic behavior.

2.1 Psychological predictors of political orientation

To make claims about political identity, first the political spectrum must be defined. While it has proven difficult for scholars to come up with a final distribution, several accurate models have been proposed. The Chapel Hill expert survey (CHES) collects data policy issues and ideological positions of the national political parties in member states of the European Union (EU). The data is used to assign parties a position on the political spectrum on a general left-right scale, an economic left-right scale and a social left-right scale (green/alternative/libertarian (GAL) versus traditional/authoritarian/nationalist (TAN)). The economic and social divisions are defined as follows (Bakker et al., 2015).

For the economic left-right, "Parties can be classified in terms of their stance on economic issues. Parties on the economic left want government to play an active role in the economy. Parties on the economic right emphasize a reduced economic role for government: privatization, lower taxes, less regulation, less government spending, and a leaner welfare state."

For the GAL-TAN division, "Parties can be classified in terms of their stance on democratic freedoms and rights. "Libertarian" or "postmaterialist" parties favor expanded personal freedoms, for example, access to abortion, active euthanasia, same-sex marriage, or greater democratic participation. "Traditional" or "authoritarian" parties often reject these ideas; they value order, tradition, and stability, and believe that the government should be a firm moral authority on social and cultural issues."

This distribution provides a general framework in which to arrange political agents. The spectrum presents us with the stereotype of the economic right- wing as encompassing a want for smaller government and a leaner welfare state, halting redistribution of economic means. The social left-wing GAL are stereo- typed as favoring expanded personal freedoms. This could be interpreted as altruistic in the sense that while others might not live their lives in a way that makes the left-wing supporter feel best, he or she is willing to sacrifice a bit of that happiness to grant the other people theirs. The right-wing TAN side prefers stability, tradition and government as a firm moral authority. This could be interpreted as a less altruistic point of view. Inglehart and Klingemann (1976) found that a reliable way to place participants on the general left-right spectrum is to ask them to place themselves on

a scale from 0 (extreme left) to 10 (extreme right), with 5 being the equivalent of centrist ideology. A similar scale was used by Zettler and Hilbig (2010) and others. This experiment will use this self-reported place on the spectrum to identify respondents' positions on the general political spectrum.

Jost et al. (2003) proposed psychological motives that underlie political orientation. A social cognition framework was constructed to explain differences in ideological attitudes. To indicate the core components of right-wing conservatism, two dimensions were identified: resistance to change and acceptance of inequality. This resistance to change and justification of inequality (or hierarchy) is motivated by needs that vary situationally and dispositionally to manage uncertainty and threat. Embracing right-wing ideology serves to reduce fear and uncertainty, but also to avoid change and to "explain, order and justify inequality among groups and individuals." These findings suggest that people that identify with right-wing politics might be less inclined to show altruistic behavior, as they more readily accept inequality.

Thorisdottir, Jost, Liviatan, and Shrout (2007) builds on this framework and extends it to a European context. They note that the distinction between cultural and economic forms of conservatism roughly corresponds to the two dimensions, traditionalism and acceptance of inequality respectively. This may indicate that economic conservatism corresponds to altruism more so than cultural conservatism, and a distinction between the two might be warranted in the experiment. The distinction is defined as follows:

Cultural conservatism reflects a general concern with maintaining social order and a rejection of qualitative social change as well as a belief in the importance of religion, traditional family arrangements and conventional gender roles. Economic conservatism, by contrast, involves an ideological commitment to capitalism, private enterprise, and the value of competition among individuals and corporations in the context of a free market system. Because capitalist mechanisms magnify inequality, economic conservatism entails the acceptance and even justification of inequality.

Thorisdottir et al. (2007) mention that there is evidence that suggests a positive correlation between cultural and economic conservatism in Western societies. Eastern European countries show a negative correlation instead, meaning citizens who are cultural conservatives are not necessarily economic conservatives because of the communist legacy of these countries. Traditionalism was found to be a positive predictor of right-wing orientation in both Western and Eastern Europe, while acceptance of inequality was a significant predictor of right-wing orientation in Western Europe only. A correlation between a left-wing political orientation and a stronger want for equality in Western-Europe was also found.

In conclusion, previous literature has designated the economic right-wing as an ideology that prefers a reduction of role of government in general and the welfare state in particular. Research also suggests right-wing ideology is used to explain and justify inequality among groups and people. One of the core psychological motives found in determining political orientation was an acceptance of inequality for the right-wing ideology. In the current study, therefore, I propose that characteristics of altruism belong to the left-wing, more so than to the right-wing. I hypothesize priming respondents with a right-wing political identity produces a negative effect on altruistic behavior.

2.2 Priming

Priming is a psychological effect that works with the implicit memory. By subtly exposing a person to one stimulus, his or her behavior is influenced when they are responding to another stimulus. For instance, (Steele & Ambady, 2006) examined the effect of a category prime on women's attitudes towards the gender-stereotyped field of mathematics (negative stereotype) and found that women subliminally primed with female words expressed more stereotype- consistent attitudes towards mathematics than participants primed with male words. Male participants also performed worse when primed with female words. This research used the perceived gender-stereotype to prime people and shows that a social category prime can be effective. Similar results could be found when priming political identity, for which (often truthful) stereotypes are also established. By utilizing the willingness to accept inequality and thus the less altruistic image of the right-wing political identity, subjects could be successfully primed to show a reduction in altruistic behavior.

Dijksterhuis and Bargh, (2001) point to this perception-behavior link as a symptom of our propensity to imitate other people, meaning people will behave in accordance with a stereotype even if they themselves are not part of the social category in question. Through this mechanism, priming a left-wing supporter with a right-wing identity could decrease the altruism shown through his or her behavior. The ideomotor perspective explains that a person's schema of social categories will include information about not only stereotypes and traits but also about behavioral representations (such as actually underperforming in mathematics when primed with the female identity). Simply put, the ideomotor effect states that thinking of behavior increases the chances of engaging in that behavior. The behavioral effect can occur automatically and without conscious awareness (Kawakami, Young, and Dovidio, 2002; Steele and Ambady 2006).

The Active-Self framework provides a nuanced and elaborated view on how primes affect behavior. The perception-behavior link is mediated by the extent to which the social category that is primed has traits that become integrated into a subjects' self-concept. This is relevant when priming a subject with his own political identity, as the identity will share traits with the subject. This might result in a stronger priming effect than the effect that is found when priming a subject with an identity on the opposing side of his or her personal place on the political spectrum.

Because this research will be using a questionnaire to gather data, a priming task is needed that can work through written text. An effective task is solving a simple word puzzle. Shariff and Norenzayan (2007) researched the effect of priming a God concept on the amount of money subjects would allocate to a stranger through a dictator game. The priming task they used entailed unscrambling 10 five-word sentences, including one word that had to be removed to create a correct sentence. Five of these sentences contained words associated with religion, namely spirit, divine, God, sacred and prophet while the other five sentences contained only neutral words. In the religious-prime condition, players donated significantly more money to the stranger. The sentence construction priming task was first used by Srull and Wyer (1979) in their early research on priming and was shown to be an effective task to influence behavior. The aim of this paper is to explore the effects of a different prime using a similar task and dictator game. Instead of words with a religious connotation the priming task will include words that have a right-wing connotation. Right-wing words will be derived from the stereotypical definitions of

the ideologies listed above.

2.3 Altruism

Fowler and Kam (2007) state altruism can be defined as "a willingness to pay a personal cost to provide benefits to others in general." According to Zettler and Hilbig (2010) this definition emphasizes a sympathetic, soft-hearted and benevolent attitude. Helpfulness, generosity and a pro-social attitude are also seen as characteristics of altruism. Examples of altruistic behavior include giving money to a stranger, donating blood, or volunteering for a social cause. These behaviors include bearing a personal cost for the benefit of others. Zettler and Hilbig (2010) cite two reasons to suspect a relationship between altruism and political identity. Firstly, altruism and the left-wing ideology both usually strive for social equality (see also Thorisdottir et al., 2007). Secondly, some of the characteristics of altruism seem to conflict with aspects of the right-wing ideology. Specifically, the acceptance of inequality associated with right-wing ideology does not coincide with the attitudes associated with altruism (see also Jost et al. 2003; Thorisdottir et al., 2007). Zettler and Hilbig found the influence of altruism on political identity to be the strongest, as compared to the influence of the personality constructs taken from the HEXACO model[1]. Altruism appears to play a central role as an individual determinant of political orientation, and the two are "likely to be intertwined both through an overlap in concern for social equality and a discrepancy between characteristics more often found in right-wingers and those of altruistic individuals".

Research has shown substantial differences in altruistic behavior between men and women. Eckel and Grossman (1998) found through a dictator game experiment that women on average donate twice the amount to player two compared to their male counterparts. It therefore seems prudent to include a question to establish the respondents gender. Priming may have a stronger effect on a female's sense of altruism. Through a dictator game Andreoni, Harbaugh, and Vesterlund (2001) found men more likely to be perfectly selfish or perfectly selfless while women were more likely to look for equality. Furthermore, when altruism required little sacrifice, men donated more than women. When altruism became expensive, women donated more than men. Men are seemingly more responsive to price changes in altruism than women.

Religion's effect on pro-social and antisocial behavior have been researched extensively, but results have been mixed. Although religious people report more explicit willingness to care for others, this is not corroborated by laboratory measures. Furthermore, increased helpfulness is typically explained by egoistic motives such as avoiding guilt, rather than altruistic motives (Shariff & Norenzayan, 2007). Even so, a respondent's religion might influence the outcome of the dictator game and will therefore subjects will be asked for their religious affiliation.

Nationality might affect the answers of a respondent because cultural and socio-economic

[1] The HEXACO model of personality (Honesty-Humility, Emotionality, eXtraversion, Agreeableness, Conscientiousness, and Openness to Experience) was devised by Ashton and Lee (2007) and gives six testable factors of personality.

circumstances could impact one's altruism. In addition, a respondent from Eastern-Europe may have a different interpretation of economic conservativism because of their communist background as was found by Thorisdottir et al. (2007).

It is necessary to question a respondents' education because this might impact his or her understanding of the questions (which are written in English) as well as his or her behavior. A significant difference in donation choices was found by Carpenter, Connolly, and Myers (2008) between students and members of the community. Students donated less in general and were 32 percent less likely to donate the entire endowment. This needs to be considered when comparing the respondent groups.

A good way to measure altruistic behavior is to have subjects play a dictator game. For instance, Fowler and Kam (2007) use a dictator game to measure altruism and the effect of social identification. Bohnet and Frey (1999) found that decreasing social distance, for example by making players face one another, increases other regarding behavior.

2.4 Dictator Game

The willingness to pay a personal cost to provide benefits to others can be measured with a dictator game. In this game, there are two players. Player 1 is a dictator and makes the only choice in this game; player 2 has a passive role. Player 1 receives an endowment and is asked to donate part of this endowment to player 2 if he wishes to do so. If the first player acts like a 'homo economicus', motivated only by his/her own material gain and maximizing profit, he/she will refuse to share part of his/her endowment.

In practice however, player 1 often shares a part of his endowment with player 2, ranging between 10 and 52 percent. Scholars most prominently explain this excess giving through altruism. Player 1 is willing to bear a personal cost for the benefit of player 2 (see Camerer, 2003; Engel, 2011). Eckel and Grossman (1996) concludes "altruism is a motivating factor in human behavior in general and in dictator games in particular." In this paper, the dictator game will be used to measure the difference in altruistic behavior between primed and non- primed respondents. One can generally expect dictators to give less than half of their endowment to the second player. In fact, a meta study of papers covering the dictator game (studying a total of 616 treatments) found that dictators on average only give 28.35 percent of their endowment (or "pie") to the recipient (Engel, 2011). The dictator game used in this paper will allow participants to submit any sum between 0 and 10. The aim is to gather as much information as possible by giving the participants full control over the sum they want to divide.

In most dictator games, the pay-off is determined by the dictator. However, some instances have left this reward ambiguous or disproportionate to the amount donated by the dictator (see for instance Andreoni, Harbaugh, and Vesterlund, 2001). In these games it is less clear for the dictator what he or she sacrifices to make a donation. The questionnaire in this paper in complete control of his own reward. This way it is clear to the dictator that he must make a monetary sacrifice in order to donate to another person, thus measuring his sense of altruism.

The game used in this paper will not be presenting participants with an actual sum of money. Instead they will be asked a hypothetical question. This is mostly because this is a bachelor thesis paper and I do

not have access to the funds necessary to endow participants. It will allow me to spread the survey to a large group of potential respondents without considering the financial implications, providing me with a larger sample. Utilizing a hypothetical question is not expected to cause problems. The effect of the prime will be measured by comparing the prime group with the control group, and both will be playing with hypothetical money. Any effect that the lack of real money has on player behavior should therefore be present in both groups, and the difference between them should not be affected.

According to Engel the standard endowment in a dictator game for research is 10 dollars. Increasing the endowment results in dictators keeping more for themselves, absolutely and relatively. The questionnaire used in this paper presents a hypothetical endowment of 10 Euro for every respondent. This way, the results can be compared to the average results that emerge from the previously mentioned meta study on dictator games.

To look at the difference in priming effect on behavior towards a politically charged "deserving" recipient (refugee) and a neutral "deserving" recipient (Red Cross), as well as to test whether a political prime might emphasize altruism towards socially close recipients more or less, multiple dictator games will be played. This might itself have an impact on the amount dictators decide to share as Engel has shown multiple tests have a negative effect on giving. This will be considered in the discussion of the results. The refugee recipient is currently part of a heated political discussion and the right-wing political prime may show an increased effect because of this.

The effect of social control will also play a role in the multiple game setup. Because one recipient is identified as a family member, only games with the refugee, Red Cross and the stranger will be considered anonymous games. Social control can have a significant positive effect on the outcome of the dictator game. If dictators are identified by recipients, they are less likely to give nothing. Interestingly, another significant positive effect on sharing is found when the dictator is presented with a figure resembling a face (Engel, 2011). To avoid this effect, the priming task will not include a political poster containing a face.

A standard dictator game does not portray the recipient as underprivileged. The objective of this paper has an altruistic motive in mind with an emphasis on giving to the needy. The effect of a perceived "deserving" recipient needs to be considered. Engel (2011) shows that many studies show a significant positive effect when dictators are paired with recipients who are presented as being disadvantaged, such as charities. The number of dictators that keep everything is reduced by half, and at the same time the number of dictators that give everything increases to over 20 percent. This effect was also found by Eckel and Grossman (1996), where a significant increase in donations occurred when researchers increased the extent to which a donation goes to a generally agreed to be "deserving" recipient such as the Red Cross. This paper will aim to study the effects of priming on altruism for both neutral and "deserving" recipients, to see if the priming effect differs.

2.5 Goal of this study

The literature discussed above suggests a positive relationship between left-wing politics and altruism. It also suggests priming for a political identity might yield significant changes in altruistic behavior. This paper aims to answer the following research question: What is the effect of priming for political identity

on altruistic behavior? Hypotheses are formulated based on the literature previously discussed.

The first hypothesis, H1, is that people primed with a right-wing political identity will show a decrease in altruistic behavior compared to the control group. This hypothesis is derived from findings that altruism and the left-wing ideology both strive for social equality, whilst some characteristics of altruism seem to conflict with aspects of right-wing ideology. Furthermore, altruism appears to play a central role in determination of political ideology. (see Zettler and Hilbig (2010); Jost et al. (2003); Thorisdottir et al. (2007).

The second hypothesis, H2, is that "Deserving" recipients will receive a higher donation than neutral recipients. This hypothesis is derived from findings that altruistic behavior is increased when a subject is presented with a needy recipient.

3 Data and Methodology

3.1 Experimental design

A questionnaire was created to collect he data for this study. This questionnaire consists of four chronological sections. The first section asks the respondents to fill out some basic background information about themselves. The second part presents the respondent with a priming task, or a neutral task for the control group. The third section asks the respondents to play four dictator games to measure the effect of the prime. Finally, the fourth part asks some additional questions related to political engagement. The questions in each section are asked in a non-randomized order, so participants progressed through the questionnaire in the same order. This ensured that any effect the questions had on the dictator games, as well as effects that dictator games had on subsequent dictator games, was shared for all participants. Half of the participants are randomly assigned to the priming task while the other half are asked to complete a neutral task instead. This randomization was completed using an option in the Qualtrics menu.

The seven background questions ask the respondent about their gender, age, nationality, education, student or working status, religion and whether they can play an instrument. There is not a lot of research on the subject, but Lowe and Ritchey (1973) indicates a relationship between age and altruism. It is important to make sure one group is not comprised of significantly more students. Students donate significantly less to charity and are less likely to donate the entire endowment (Carpenter et al., 2008). Nationality was divided into Dutch, Western-European or other because while non-Dutch citizens may have a different view on altruism, Western- European citizens share the same correlation between cultural and economic conservatism. This correlation differs in Eastern-Europe and is negative, as was mentioned in section 2.1. The definition of these concepts might therefore differ for people outside Western-Europe. As mentioned previously, research has indicated differences in altruistic behavior between men and women. Literature on the effect of religion has been mixed but may have an impact. The level of education was added because it may influence understanding of the questions. The question

on musical instruments was added as a decoy question, to counter potential response bias during the dictator games.

The priming mechanism used comprises 10 five-word sentences that must be unscrambled, and include a word that should be removed, to create a correct sentence. The priming task contains five sentences with words that allude to a right-wing political identity. The words used are conservatives, Right-Wing, VVD, in addition to combinations such as free market trade and restricting economy bad. The words and sentences are derived from stereotypical definitions of the right-wing identity discussed previously. The definition of economic conservatism, with its ideological commitment to capitalism, was used to construct sentences about free market trade and restricting the economy. This was also reflected in the definitions by Bakker et al. (2015). A sentence on conservatism and change was based on the definition of cultural conservatism, and its rejection of qualitative social change. The VVD was used as because of its relatively right-wing party position on the Dutch political spectrum and the survey will be distributed to participants who live in the Netherlands. The remaining five sentences were selected from the neutral task. The neutral task contains ten sentences that were designed to avoid a priming effect. In addition to a lack of political context, no male or female pronouns were used to avoid gender priming. A coherent theme or message was avoided in the neutral task.

Four dictator games were included in the questionnaire, with different recipients. Apart from the recipient, the phrasing was identical in each of the four games. The "deserving" refugee was added because refugees are part of a heated political discussion and this might influence the effectiveness of the prime. The Red Cross was used as a politically neutral "deserving" recipient. Family was added to test if a political prime has a different effect on altruism towards someone who is socially close to the participant. The stranger was included as a neutral recipient, to test the general effect of the prime. Playing multiple dictator games in succession may influence donations adversely. This should be considered when comparing the means of games two, three and four to other research date. It should not be an issue in this research model, because both the control group and the primed group are subject to this effect and the difference between the two should not be affected.

The final part of the survey questioned the political interests and engagements of the participants. Because literature suggests that political identity influences altruism, a 10-point scale like the one mentioned previously was added to measure political identity. Another question was asked to indicate the level of interest respondents had for politics in general. An optional question asked recipients about their voting behavior in the recent election. A question regarding the amount of political content people consume through social media was asked to indicate the extent to which respondents are subjected to political identity primes during their day, if the priming effect is indeed found. Finally, respondents were asked to indicate whether they knew what the survey was about. If they answer this question correctly, the data will be removed to counter response bias. Respondents are expected to answer this question honestly because answering research questions with the researcher's goal in mind also implies answering this question honestly. The full survey can be found in appendix A.

The survey was distributed using Facebook messenger. Individuals were asked to fill out the survey and made aware it was for a bachelor thesis. Several respondents forwarded the survey to friends and colleagues. The respondents are expected to be comprised mostly of students, in addition to a moderate

number of respondents that have completed a degree.

3.2 Data

The questionnaire was completed by 102 respondents. Another 9 respondents partially completed the questionnaire, these responses have been discarded. One respondent submitted random answers to the priming task, this response has been left out. Another two respondents misunderstood the neutral task and submitted the word that was supposed to be left out. However, the fact that they retrieved these words suggests they assembled the proper sentences in their mind, therefore these responses have not been removed. None of the respondents correctly predicted the questionnaire was aimed at finding the effect of political identity priming on altruism, or came close enough to warrant removal of the data. The closest guess mentioned altruism, but did not link it to priming in any way. Finally, one respondent noted in his/her first dictator game response that he/she was currently not at liberty to disperse money to others and did not answer the other games. This response has also been removed, leaving 99 completed responses for further analysis.

Table 1: Descriptive statistics

	Non primed Mean	Primed mean
Gender	1.47	1.60
Age	26.14	30.21
Nationality	1.14	1.10
Education Completed	3.73	3.96
Student Status	1.25	1.38
Religion	5.29	4.71
Left-wing or Right-wing	4.84	4.77

The average time spent on the survey by respondents that received the neutral task was 516 seconds. The respondents with the priming task took on average 747 seconds to complete the survey. No outliers have been removed. The difference was tested using the Mann-Whitney U test and deemed to be significant at a p-value of 0.01. Even after removing the four outliers, ranging between 2039 seconds and 2979 seconds, the Mann-Whitney U test remained significant at a p-value of 0.05. In this case the mean duration for the control group was 516 seconds and the mean duration for the primed group was 604 seconds. This means that it took the prime group significantly longer to complete the survey compared to the control group. This could have an impact on the effectiveness of the prime, because the prime could wear off as time passes. In addition, tiredness could have had an effect on donations.

Both the priming task and the neutral tasks have been completed success- fully with occasional mistakes. In the priming task, out of 480 sentences four sentences were grammatically incorrect. In the neutral task five grammatically incorrect sentences were submitted out of 510 sentences. Some other mistakes such as typing errors were also discovered. The low rate of errors and the triviality of the errors (mostly spelling mistakes) indicate that respondents completed the priming task or the neutral task to the best of their abilities.

The samples used for the control group and the primed group should be similar. An independent

sample *t*-test was carried out to compare the control group with the primed group.

Table 2: Independent sample t-test for group differences

	Mean Difference	Sig. (2-tailed)
Gender	-.134	.187
Age	-.4071	.126
Nationality	.033	.618
Education Completed	-.316	.267
Student Status	-.120	.308
Religion	.586	.141
Left-wing or Right-wing	.07230	.868

The Levene's test, which tests equality of variances, had significant results for the variables Religion and Age. This indicates the group variances are unequal. This was adjusted for by disregarding the pooled estimate for the error term for the *t*-statistic and adjusting the degrees of freedom using the Welch-Satterthwaite method.

The p-values for all variables exceed 0.05. The results of the independent sample t-test indicates no significant differences between the primed group and the control group. This means the assignment of respondents into groups was indeed random. Results for the independent sample *t*-test can be found in Table 2.

3.3 Results

The mean donations for primed and non-primed were calculated for each of the four games. Interestingly, the mean donations of the primed group were higher for three out of four games. This implies that the primed group donated, on average, more to Strangers, Refugees and the Red Cross. Donations by the control group versus the primed group to the stranger were the lowest at 3.7 and 3.8 respectively. The highest donations went to the politically charged "deserving" refugee, with averages of 7.3 and 7.7 respectively. Donations to "socially close" family averaged on 4.9 and 5.2, while donations to the "deserving" Red Cross settled on 5.6 and 6.1. All mean donations exceed the average donation of 28.35 percent found in previous literature. The mean donations are presented in Table 3.

The Mann-Whitney U test was performed to test if the differences between the groups are statistically significant. Normality of distributions was tested with the Sharpiro-Wilk test. Results for all eight distributions (four for primed and four for non-primed) are significant with a p-value of 0.000, indicating significant deviation from normal distribution. The test can be found in Appendix B. Because of a lack of normal distributions, the Mann-Whitney U test is more suitable than an ordinary least squares regression, as it is non-parametric. The test reveals that the differences in mean donations between the control group and the primed group are not significant. None of the results have a p-value below 0.05. This means the test does not present any evidence that the political identity prime influenced

donations. The test results are presented in Table 3 and can be found more comprehensively in appendix B.

Table 3: Mean donations and Mann-Whitney U test

	Donation Stranger	Donation Family	Donation Refugee	Donation RedCross
Non primed mean	3.7451	5.2157	7.3529	5.6078
Primed mean	3.8125	4.9250	7.7292	6.0833
Asymp. Sig. (2-tailed)	.762	.429	.636	.450

A paired samples *t*-test was performed to test if the difference in donations between "deserving" recipients and their neutral counterparts was significant. The difference between Stranger and Refugee as well as Stranger and Red Cross was significant in both the primed and non-primed groups. Furthermore, the difference in donations between Family and the Red Cross was significant for the non-primed group. The difference between the mean donation between Family and Refugees was not significant for the non-primed group or the primed group. The difference between donations for Family and the Red Cross was not significant in the primed group. The finding that "deserving" recipients receive higher donations than their neutral counterpart Stranger is in line with previous literature. Family may not have been perceived as a neutral recipient because of social closeness, which may explain the lack of significant difference found here. An overview of the p-values is listed in the table 4.

Table 4: Paired Samples t-test for difference in "deserving" and neutral donations

	Stranger Refugee	Stranger RedCross	Family Refugee	Family RedCross
Non primed Sig.	.000	.000	.203	.027
Primed Sig.	.033	.002	.494	.236

In addition, four regressions with control variables were performed, because these allow for control variables to be added. The dependent variable is the amount of money donated in the dictator game. Because four games were played, regressions for four dependent variables will be performed. One was done for each of the different recipients (Stranger, Family, Refugee, Red Cross). The independent variable is the dummy for the group primed with a right-wing identity. Additionally, for each regression a histogram, normal probability plot and scatterplot were made.

To improve the explanatory capabilities of the regressions, control variables were added to all four. These variables were *gender*, *age*, *education*, *nationality*, *political identity*, *student/working status* and *religion*. The variables added were all suspected to influence the dependent variable. Gender was turned

into a dummy variable with Male as default and Female coded to 1. Nationality was treated similarly, with Dutch as the default and non-Dutch coded to 1. Education was separated into several dummies to account for the different levels of education. Dummies were created for MBO, HBO and University. High school served as a default. No dummy was needed for primary school as all participants had completed at least high school. One respondent entered "other", specifying he or she had earned a higher national diploma which is considered to be equivalent to the second year of a bachelor's degree. This participant is coded to have finished high school, but not yet university. Religion will also be added to the regression using a dummy: 0 for non-religious and 1 for religious. Political identity was added as a scale variable (0 being most left-wing). Finally, a dummy was added for the student variable coded 1 for students. People who were no (longer) students (either working or in between jobs) are considered part of the working community and coded 0.

For the OLS regression certain assumptions apply. Homoscedasticity will be tested with residual plots. Outliers and normality of residuals will be traced and tested using normal probability plots and histograms. All regressions and their corresponding plots can be found in appendix C.

The four regressions with control variables had a reasonable R-squared (0.17 for the Family regression and approximately 0.26 for Stranger, Refugee and Red Cross). Again, no significant effect was found for the priming variable, meaning the prime did not significantly influence the amounts donated in the dictator game. The results of the regressions are found in the table below.

Table 5: Regression results with control variables

	Donation Stranger		Donation Family		Donation Refugee		Donation RedCross	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Constant	6.054	.002	6.758	0.000	10.28	.000	10.240	.000
Dummy Primed	.087	.870	-.135	.770	.139	.808	.142	.824
Age	.003	.917	-.022	.439	-.051	.151	-.059	.140
Gender	.460	.424	.159	.749	1.954	.002	1.371	.049
MBO	2.464	.341	5.131	.023	5.191	.063	1.437	.643
HBO	1.421	.166	.693	.433	.951	.385	.762	.534
University	-.761	.180	-.202	.679	.682	.260	-.145	.831
Dutch	.470	.615	.598	.459	.047	.962	-.260	.816
Religious	.539	.404	-.357	.523	.716	.301	1.746	.026
Student	-1.393	.204	-2.02	.035	-2.37	.045	-4.065	.002
Left- or Right-wing	-.315	.035	.091	.475	-.275	.085	-.180	.311
R^2	.256		.168		.266		.262	

Several control variables had a significant effect on the dependent variable. Political identity had a small but significant effect in the Stranger regression. People that identified themselves as right-wing donated less. The effects of the control variables are in line with the usual findings in literature. The

student status had a significant effect in Family, Refugee and Red Cross donations, with a coefficient of -2.0, -2.4 and -4.1, respectively. This is in accordance with literature stating students donate less in dictator games due to their lack of financial independence. No evidence was found suggesting students donate significantly less to strangers. This may have been due to a small sample size. The gender variable yielded a significant positive effect in the Refugee and Red Cross regressions, implying women are more likely to donate to deserving parties compared to men. This finding is supported by literature as Andreoni et al. (2002) found women were more likely to look for equality in dictator games. The variable MBO had a very strong significant effect on donations to Family, with a beta over 5. This would suggest respondents with an MBO education donate significantly more to family, however since only one respondent falls in the MBO category this cannot be concluded from this data. Finally, the variable Religious had a significant positive effect on donations to the Red Cross. Although the Red Cross adheres religious neutrality, the fact that religious institutions encourage donation to charities, and the Red Cross is one of the most well-known charities in the world, might explain some of this behavior.

The assumptions made in the four models with control variables were tested. On the residual plots the Stranger, Refugee and Red Cross regressions reveal a distribution that almost suggest homoscedasticity, although more values are expected in the top right area of the plots for this assumption to be true. The plot for Family clearly reveals heteroskedasticity. The histogram for the Red Cross reveals a relatively normal distribution skewed only very slightly to the left. The same applies to the Stranger regression, although slightly more skewed. The distribution for Refugee is also relatively normal but skewed slightly to the right. Finally, the histogram for Family reveals a normal distribution concentrated in the middle with small tails. Normal probability plots are improved by the addition of the control variables for each regression and fit quite well. No obvious outliers are seen in any of the plots. All plots can be found in Appendix C.

4 Conclusion and Discussion

Findings in this paper did not find evidence that priming for political identity had a significant effect on the altruistic behavior of respondents and there- fore refute the hypotheses. Previous literature indicates a link between political identity and altruism, but this link was not observed through the priming mechanism used in this paper. Although the effects of the (control) variables are in line with literature, with significant effects for student status and gender (when donating to a “deserving” party), the prime did not have a significant effect on donations. Findings in previous literature indicating people show more altruistic behavior towards others who are deemed “deserving” are confirmed.

There are several limitations that could be addressed in future research. The observations of a total of 99 subjects could be analyzed. The hypothesized effect of priming was not very large. When split into two groups, the number of respondents may have been too small to perceive a significant effect. Finally, with more respondents, enough data will be available to separately analyze the effect of priming on people with either a left-wing or right-wing affiliation. A right-wing identity prime might be more effective on people that identify with this ideology already. Additionally, with the prospect of more respondents, a left-wing identity prime can be added to the questionnaire as well.

The lack of evidence found for the hypotheses may have been due to a (partially) ineffective priming

task. Different words or a different task may resolve this and yield stronger results, and more research on this topic is needed. In addition, more research is needed to accurately characterize a political identity for priming purposes.

The dictator games used to measure altruism did not use real money, and this may have influenced respondents' decisions. However, because both groups were asked to donate hypothetical money and the difference between the two groups was analyzed, this should not be a major problem in this research model. Previous literature has found evidence that playing multiple dictator games may decrease the donations of later games. This should be considered when comparing the mean donations of games two, three and four to the average donations found in other research. However, it should not be an issue in this research model, because again, both the control group and the primed group are subjected to this effect and the difference between the two should not be affected.

Response bias may have had an impact on the validity of the data. The phrasing of the questions used, especially in the dictator game, could influence responses. The desire of a participant to be a good respondent may have had a (subconscious) influence on their answers as well. The latter was addressed by asking if a respondent knew what the research was about. The desire to be a good respondent would hopefully also lead them to answer this question honestly. Although most did not, some answers indicate the respondent may have had a notion (although never enough to exclude from the data).

References

Andreoni, J., Harbaugh, W. T., (2001). Which is the fair sex? Gender differences in altruism. *The Quarterly Journal of Economics,* Vol. 116(1), 293-312.

Andreoni, J., Harbaugh, W. T., & Vesterlund, L. (2002). The carrot or the stick: Rewards, punishments and cooperation.

Ashton, M. C., & Lee, K. (2007). Empirical, theoretical, and practical advantages of the hexaco model of personality structure. *Personality and social psychology review*, *11*(2), 150–166.

Bakker, R., De Vries, C., Edwards, E., Hooghe, L., Jolly, S., Marks, G., … Vachudova, M. A. (2015). Measuring party positions in Europe: The chapel hill expert survey trend file, 1999–2010. *Party Politics*, *21*(1), 143–152.

Bakshy, E., Messing, S., & Adamic, L. A. (2015). Exposure to ideologically diverse news and opinion on facebook. *Science*, *348*(6239), 1130–1132.

Bargh, J. A., Chen, M., & Burrows, L. (1996). Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. *Journal of personality and social psychology*, *71*(2), 230.

Bohnet, I., & Frey, B. S. (1999). Social distance and other-regarding behavior in dictator games: Comment. *The American Economic Review*, *89*(1), 335–339.

Camerer, C. (2003). *Behavioral game theory: Experiments in strategic interaction*. Princeton University Press.

Carpenter, J., Connolly, C., & Myers, C. K. (2008). Altruistic behavior in a representative dictator experiment. *Experimental Economics, 11*(3), 282–298.

Doyen, S., Klein, O., Pichon, C.-L., & Cleeremans, A. (2012). Behavioral priming: it's all in the mind, but whose mind? *PloS one*, 7(1), e29081.

Dijksterhuis, A., & Bargh, J. A. (2001). The perception-behavior expressway: Automatic effects of social perception on social behavior. *Advances in experimental social psychology*, *33*, 1–40.

Eckel, C. C., & Grossman, P. J. (1996). Altruism in anonymous dictator games.

Eckel, C. C., & Grossman, P. J. (1998). Are women less selfish than men?: Evidence from dictator experiments. *The economic journal*, *108*(448), 726–735.

Engel, C. (2011). Dictator games: A meta study. *Experimental Economics*, *14*(4), 583–610.

Fowler, J. H., & Kam, C. D. (2007). Beyond the self: Social identity, altruism, and political participation. *Journal of Politics*, *69*(3), 813–827.

Inglehart, R., & Klingemann, H.-D. (1976). Party identification, ideological preference and the left-right dimension among western mass publics. *Party identification and beyond: representations of voting and party competition*, 243–273.

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). *Political conservatism as motivated social cognition*. American Psychological Association.

Kawakami, K., Young, H., & Dovidio, J. F. (2002). Automatic stereotyping: Category, trait, and behavioral activations. *Personality and Social Psychology Bulletin*, *28*(1), 3–15.

Lowe, R., & Ritchey, G. (1973). Relation of altruism to age, social class, and ethnic identity. *Psychological Reports*, *33*(2), 567–572.

Shariff, A. F., & Norenzayan, A. (2007). God is watching you: Priming god concepts increases prosocial behavior in an anonymous economic game. *Psychological science*, *18*(9), 803–809.

Srull, T. K., & Wyer, R. S. (1979). The role of category accessibility in the interpretation of information about persons: Some determinants and implications. *Journal of Personality and Social psychology*, *37*(10), 1660.

Steele, J. R., & Ambady, N. (2006). "math is hard!" the effect of gender priming on women's attitudes. *Journal of Experimental Social Psychology*, *42*(4), 428–436.

Thorisdottir, H., Jost, J. T., Liviatan, I., & Shrout, P. E. (2007). Psychological needs and values underlying left-right political orientation: Cross-national evidence from eastern and western

europe. *Public Opinion Quarterly*, *71*(2), 175–203.

Zettler, I., & Hilbig, B. E. (2010). Attitudes of the selfless: Explaining political orientation with altruism. *Personality and Individual Differences*, *48*(3), 338–342.

Zizzo, D. J. (2010). Experimenter demand effects in economic experiments. *Experimental Economics*, *13*(1), 75–98.

Appendix A

Questionnaire

Background questions

Q0 Thank you for participating in my survey. This study takes approximately 10 minutes to complete and will consist of 4 parts: Some background questions One game concerning language skills One game concerning economics Some final questions about your interests. If you are interested in my research you can leave your e-mail on the final page. Let's do some science!

Q1 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Other (3)

Q2 How old are you?

- ○ Please write down your age (1) _____

Q3 What is your nationality?

- ○ Dutch (1)
- ○ Other: (2) _____

Q4 What is your highest completed level of education?

- ○ Primary school (1)
- ○ High School (mavo/havo/vwo) (2) _____
- ○ MBO (3)
- ○ HBO (4)
- ○ University (WO) (5)
- ○ Other (6) _____

Q5 Are you a student (completing an education) or part of the community?

- ○ Student (1)
- ○ Working community (2)
- ○ Community, no permanent job (3)

Q8 What is your religion?

- ○ Christian (1)
- ○ Jewish (2)
- ○ Muslim (3)
- ○ Buddhist (4)
- ○ Hindu (5)
- ○ None (6)
- ○ Other: (7) _____

Q9 Do you play an instrument?

- ○ Yes (1)
- ○ No (2)

End of Block

Game 1

Q10 Please solve the following ten simple language puzzles. Rearrange the words to form a grammatically correct sentence of five words. (Remove one word). Example Question: The is computer shining sun bright.Example Answer: The sun is shining bright.

Q11 the old down fell tree so

Q12 rabbit habit drinking bad is a

Q13 protect ears wall earplugs will your

Q14 book this grey is a good

Q15 is very cold do the freezer

Q16 the stain has a window wire

Q17 the fast very is computer add

Q18 the leaks bottle ape water of

Q19 room the is clean very about

Q20 very long the is is wire

End of Block

Game 2

Q21 Please solve the following ten simple language puzzles. Rearrange the words to form a grammatically correct sentence of **five** words. (Remove one word). Example Question: The is computer shining sun bright. Example Answer: The sun is shining bright.

Q22 the old down fell tree so

Q23 protect ears wall earplugs will your

Q24 trade needs computer free market a

Q25 conservatives change rabbit do not like

Q26 the leaking bottle ape water is

Q27 is very cold do the freezer

Q28 restricting the economy is bad

Q29 election the VVD won the form

Q30 room the is clean very about

Q31 conservative water the right-wing party was

End of Block

Dictator Game

Q45 Please complete the following game: We give you 10 euros. You may divide this money between you and another player in any way you want. You will not meet this person. Please write down the amount of money you want to give to the second player. You keep what is left.

Page Break

Q44 Please complete the following game: We give you 10 euros. You may divide this money between you and a member of your family in any way you want. Please write down the amount of money you want to give to your family member. You keep what is left.

Page Break

Q46 Please complete the following game: We give you 10 euros. You may divide this money between you and a refugee in any way you want. Please write down the amount of money you want to give to the refugee. You keep what is left.

Page Break

Q43 Please complete the following game: We give you 10 euros. You may divide this money between you and the Red Cross in any way you want. Please write down the amount of money you want to give to the Red Cross. You keep what is left.

End of Block

Final questions

Q47 Almost there! Please write down if you know what we are researching. Fill out "no" and continue to the final questions.

- ○ Yes, this research is about: (1) _____
- ○ No (2)

Page Break

Q49 On a scale from 1 (left-wing) to 10 (right-wing) with 5 being center, please put yourself on the **political** spectrum as accurately as possible.

Left-wing (1)	

Q54 Cultural conservatives have a general concern with maintaining social order and a rejection of qualitative social change, as well as a belief in the importance of religion, traditional family arrangements and conventional gender roles. Do you agree with this ideology?

- Strongly agree (1)
- Agree (2)
- Somewhat agree (3)
- Neither agree nor disagree (4)
- Somewhat disagree (5)
- Disagree (6)
- Strongly disagree (7)

Q56 Economic conservatism has a commitment to capitalism, and the value of competition among individuals and corporations, in the context of a free market system. Government interference should be limited, even if capitalist mechanisms may magnify inequality. Do you agree with this ideology?

- Strongly agree (1)
- Agree (2)
- Somewhat agree (3)
- Neither agree nor disagree (4)
- Somewhat disagree (5)
- Disagree (6)
- Strongly disagree (7)

Q50 How interested are you in politics? Its...

- Extremely interesting (1)
- Very interesting (2)
- Moderately interesting (3)
- Slightly interesting (4)
- Not interesting at all (5)

Q51 How often does political content appear on your social media feed? (How often are you on Facebook, twitter, or similar services, and see something that reminds you of politics?)

- Multiple times an hour (1)
- Once an hour (2)
- A few times a day (3)
- Daily (4)
- Almost never (5)
- Never (6)

Q53 This survey was written in English. Did you understand the questions in this survey?

- Definitely yes (1)
- Probably yes (2)
- Might or might not (3)
- Probably not (4)
- Definitely not (5)

Q52 Finally, if you are a Dutch citizen, I would like to ask you what you voted in the 2017 elections. The survey is anonymous, but you may choose to leave this empty if you don't want to share this information.

Q57 Thank you for participating. If you are interested in the results of my research, please leave your e-mail below. Hand in the survey when you are finished.

End of Block

Appendix B

Shapiro-Wilk Normality Test

Table I: Shapiro-Wilk Normality Test

Recipient	Non primed or primed	Shapiro-Wilk		
		Statistic	df	Sig.
DonationStranger	Not Primed	.865	51	.000
	Primed	.854	48	.000
DonationFamily	Not Primed	.767	51	.000
	Primed	.777	48	.000
DonationRefugee	Not Primed	.803	51	.000
	Primed	.799	48	.000
DonationRedCross	Not Primed	.889	51	.000
	Primed	.888	48	.000

Mann-Whitney U test

Table II: Mann-Whitney U test of primed group vs non primed group

Non primed or primed	Donation Stranger	Donation Family	Donation Refugee	Donation RedCross
Non Primed Mean	3.7451	5.2157	7.3529	5.6078
Primed Mean	3.8125	4.9250	7.7292	6.0833
Assymp. Sig. (2-tailed)	.762	.429	.636	.450

Appendix C

Stranger Regression with control variables

Table III: Stranger Model Summary

Model	R Square	Adjusted R Square	Std. Error of the Estimate
1	.256	.172	2.50273

Table IV: Stranger Regression with control variables

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	6.054	1.863	3.250	.002
	Non primed or primed	.087	.532	.164	.870
	Age	.003	.033	.104	.917
	GenderDummy	.460	.572	.804	.424
	MBO	2.464	2.576	.956	.341
	HBO	1.421	1.018	1.396	.166
	University	-.761	.563	-1.352	.180
	Dutch	.470	.931	.505	.615
	dummy	.539	.643	.838	.404
	Student	-1.393	1.088	-1.280	.204
	Left-wing or Right-wing	-.315	.147	-2.139	.035

Charts for Stranger regression with control variables

Chart I:

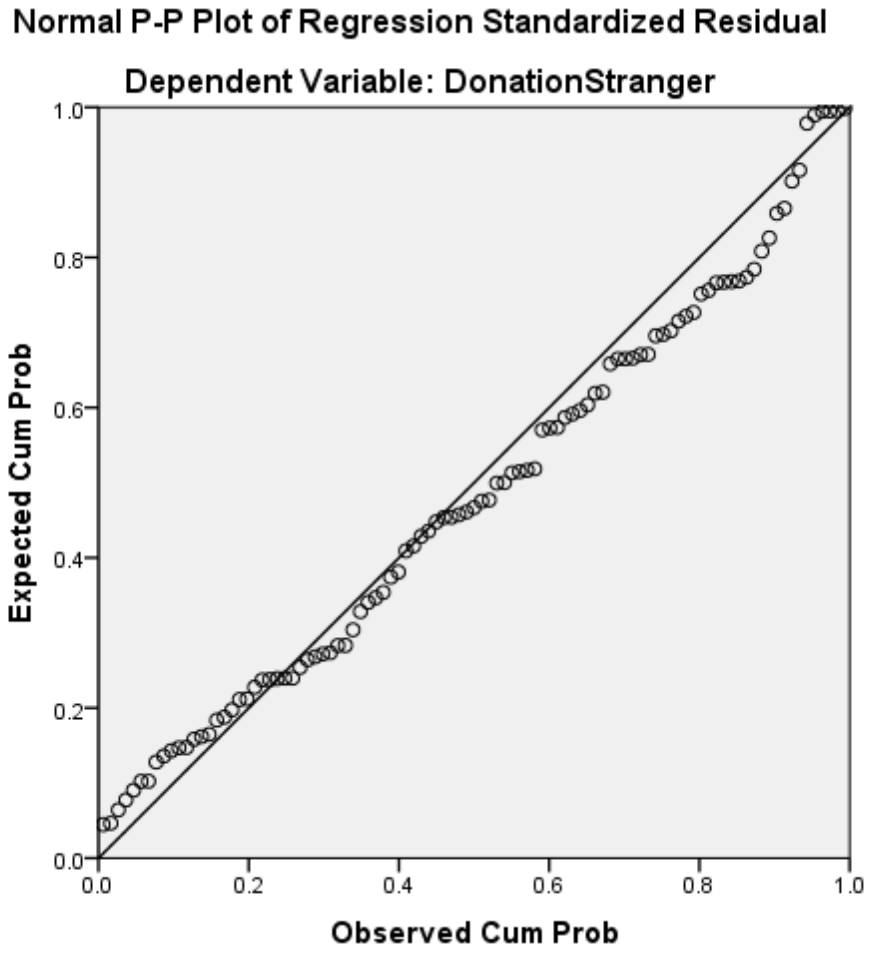
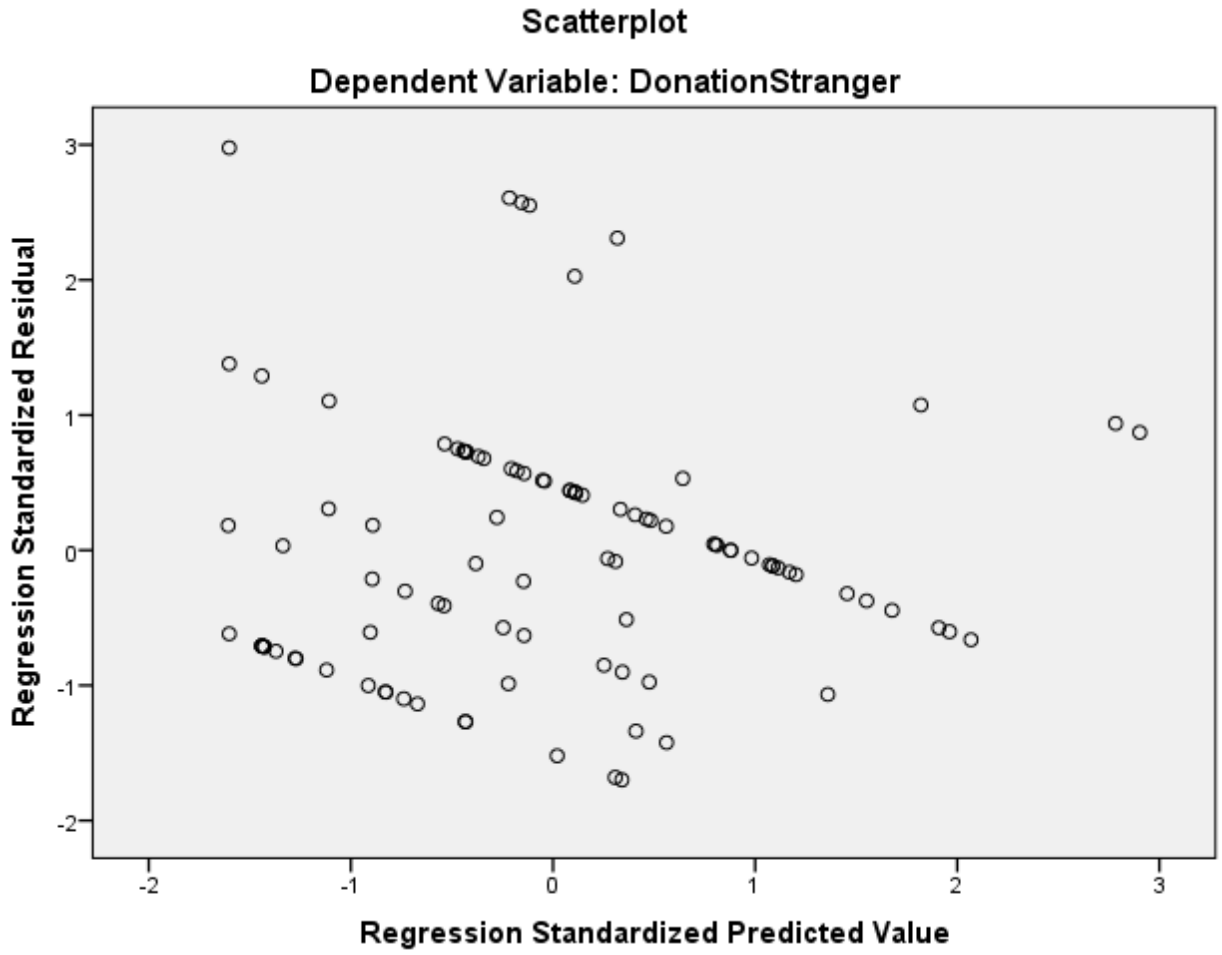


Chart II:


Scatterplot
Dependent Variable: DonationStranger
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-2
-1
0
1
2
3

Family Regression with control variables

Table V: Family Regression Model Summary

Model	R Square	Adjusted R Square	Std. Error of the Estimate
1	.168	.073	2.16133

Table VI: Family Regression with control variables

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	6.758	1.609	4.201	.000
Non primed or primed	-.135	.459	-.293	.770
Age	-.022	.028	-.778	.439
Gender	.159	.494	.321	.749
MBO	5.131	2.225	2.306	.023
HBO	.693	.879	.788	.433
University	-.202	.486	-.415	.679
Dutch	.598	.804	.744	.459
Religious	-.357	.556	-.642	.523
Student	-2.018	.940	-2.147	.035
Left-wing or Right-wing	.091	.127	.717	.475

Charts for Family regression with control variables

Chart III:

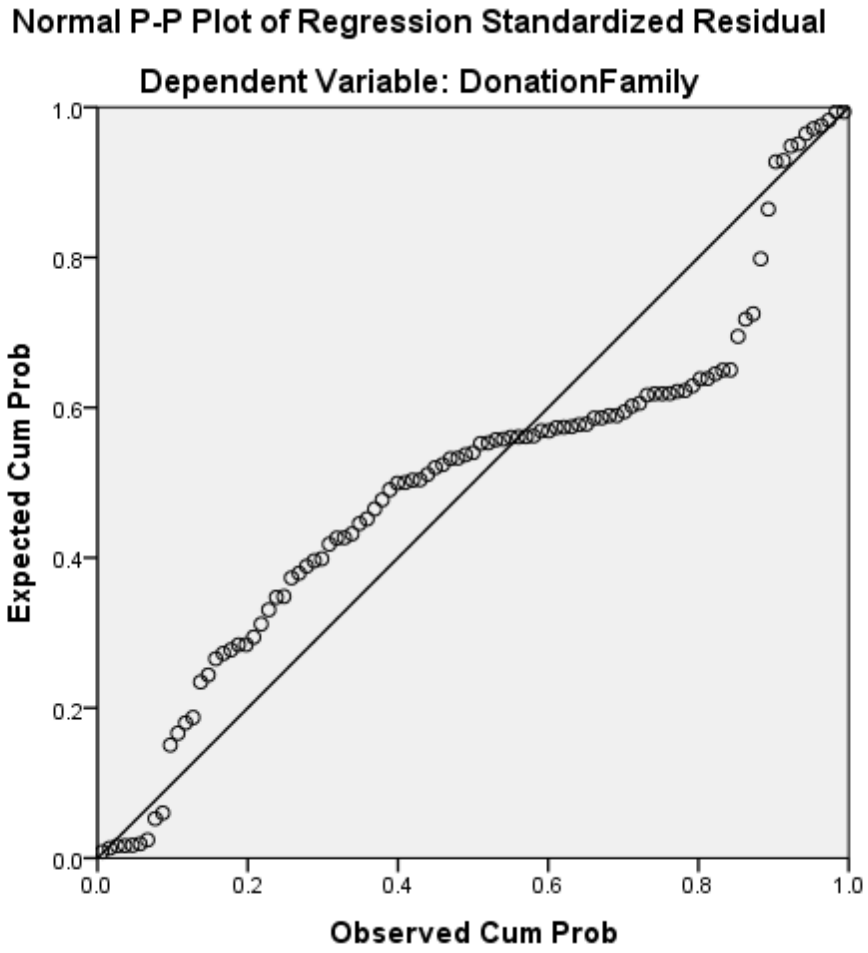
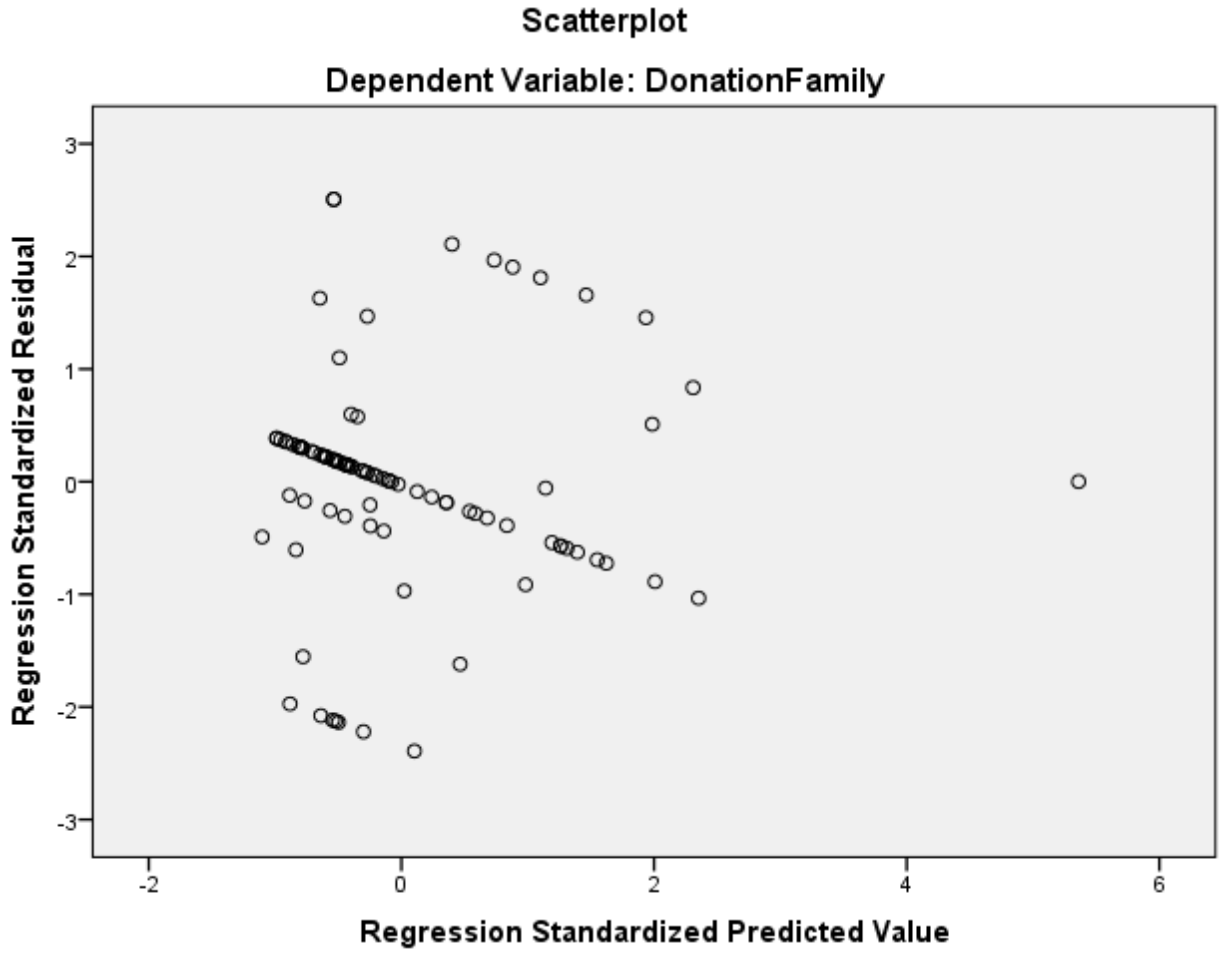


Chart VI:


Scatterplot
Dependent Variable: DonationFamily
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-3
-2
0
2
4
6

Refugee Regression with control variables

Table VII: Refugee Regression Model Summary

Model	R Square	Adjusted R Square	Std. Error of the Estimate
1	.266	.182	2.67681

Table VIII: Refugee Regression with control variables

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	10.276	1.992	5.158	.000
	Non primed or primed	.139	.569	.244	.808
	Age	-.051	.035	-1.449	.151
	Gender	1.954	.612	3.191	.002
	MBO	5.191	2.755	1.884	.063
	HBO	.951	1.089	.873	.385
	University	.682	.602	1.133	.260
	Dutch	.047	.996	.047	.962
	Religious	.716	.688	1.040	.301
	Student	-2.372	1.164	-2.038	.045
	Left-wing or Right-wing	-.275	.157	-1.744	.085

Charts for Refugee Regression with control variables

Chart V:

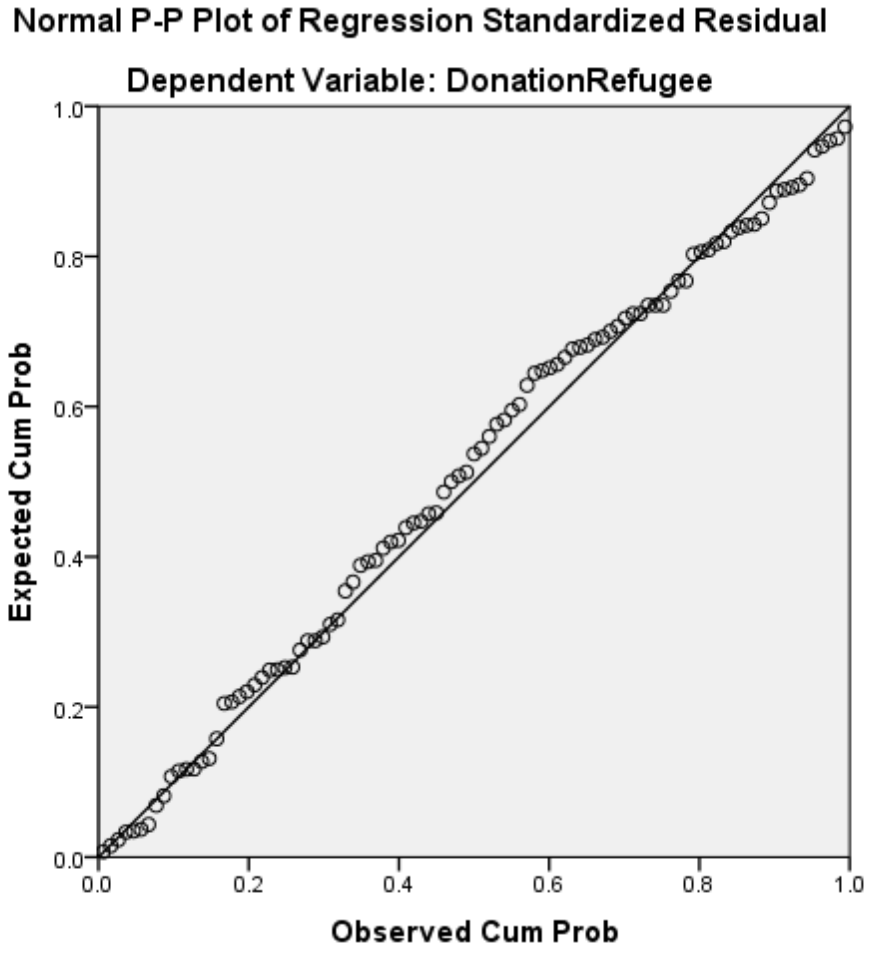
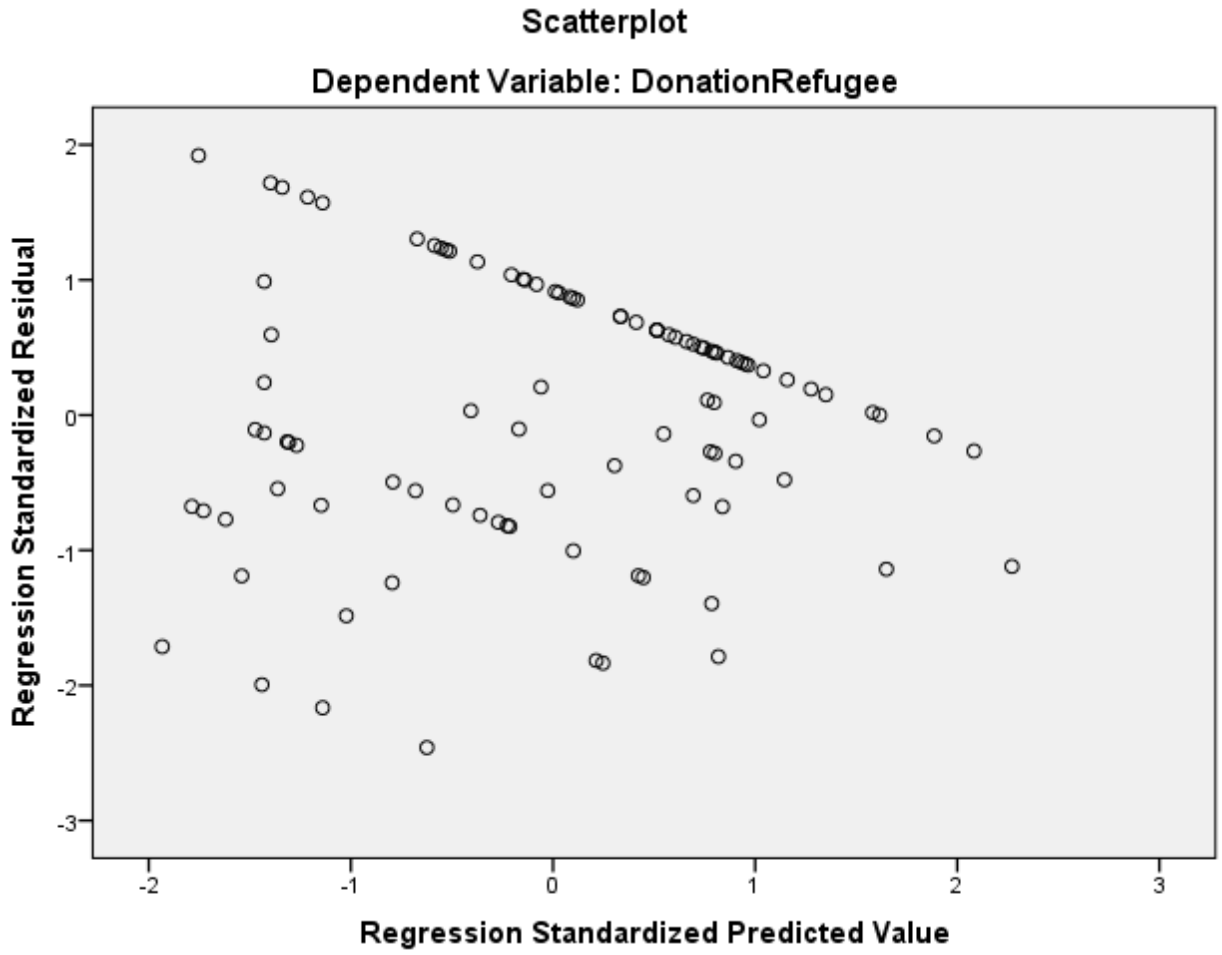


Chart VI:


Scatterplot
Dependent Variable: DonationRefugee
Regression Standardized Residual
Regression Standardized Predicted Value
2
1
0
-1
-2
-3
-2
-1
0
1
2
3

Red Cross Regression with control variables

Table IX: Red Cross Regression Model Summary

Model	R Square	Adjusted R Square	Std. Error of the Estimate
1	.262	.178	3.00201

Table X: Red Cross Regression with control variables

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	10.240	2.234	4.583	.000
Non primed or primed	.142	.638	.223	.824
Age	-.059	.039	-1.489	.140
Gender	1.371	.687	1.996	.049
MBO	1.437	3.090	.465	.643
HBO	.762	1.222	.624	.534
University	-.145	.675	-.214	.831
Dutch	-.260	1.117	-.233	.816
Religious	1.746	.772	2.263	.026
Student	-4.065	1.305	-3.114	.002
Left-wing or Right-wing	-.180	.177	-1.019	.311

Charts for Red Cross with control variables

Chart VII:

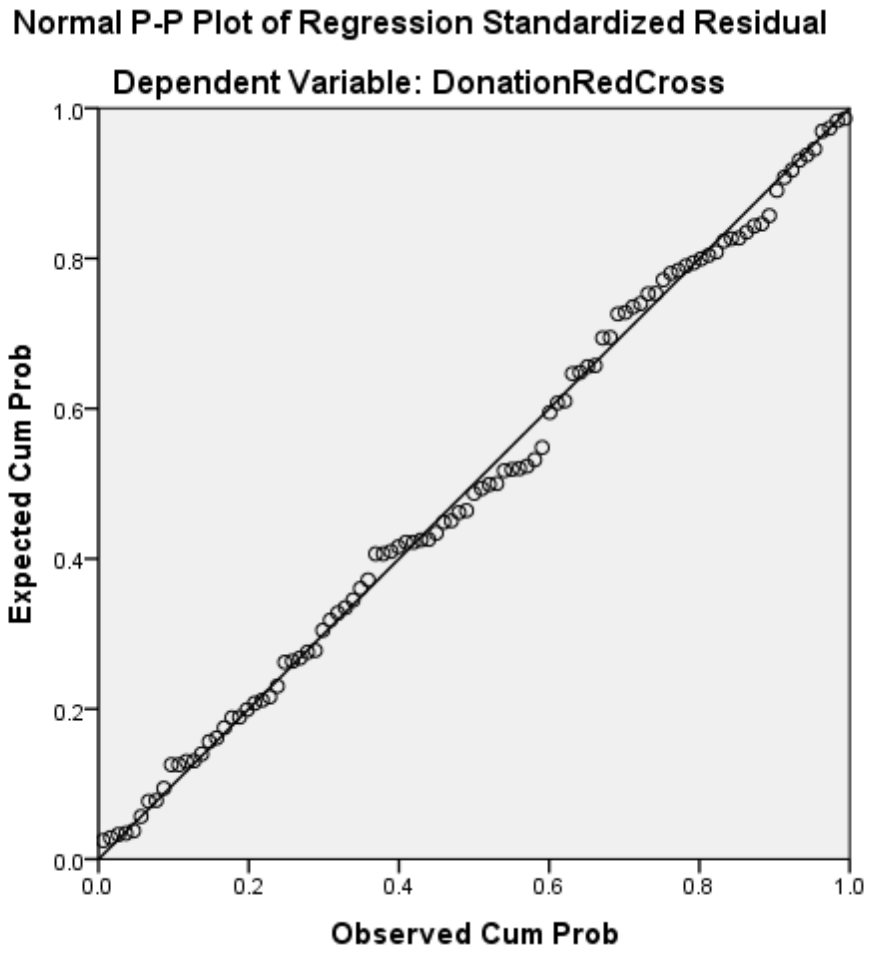
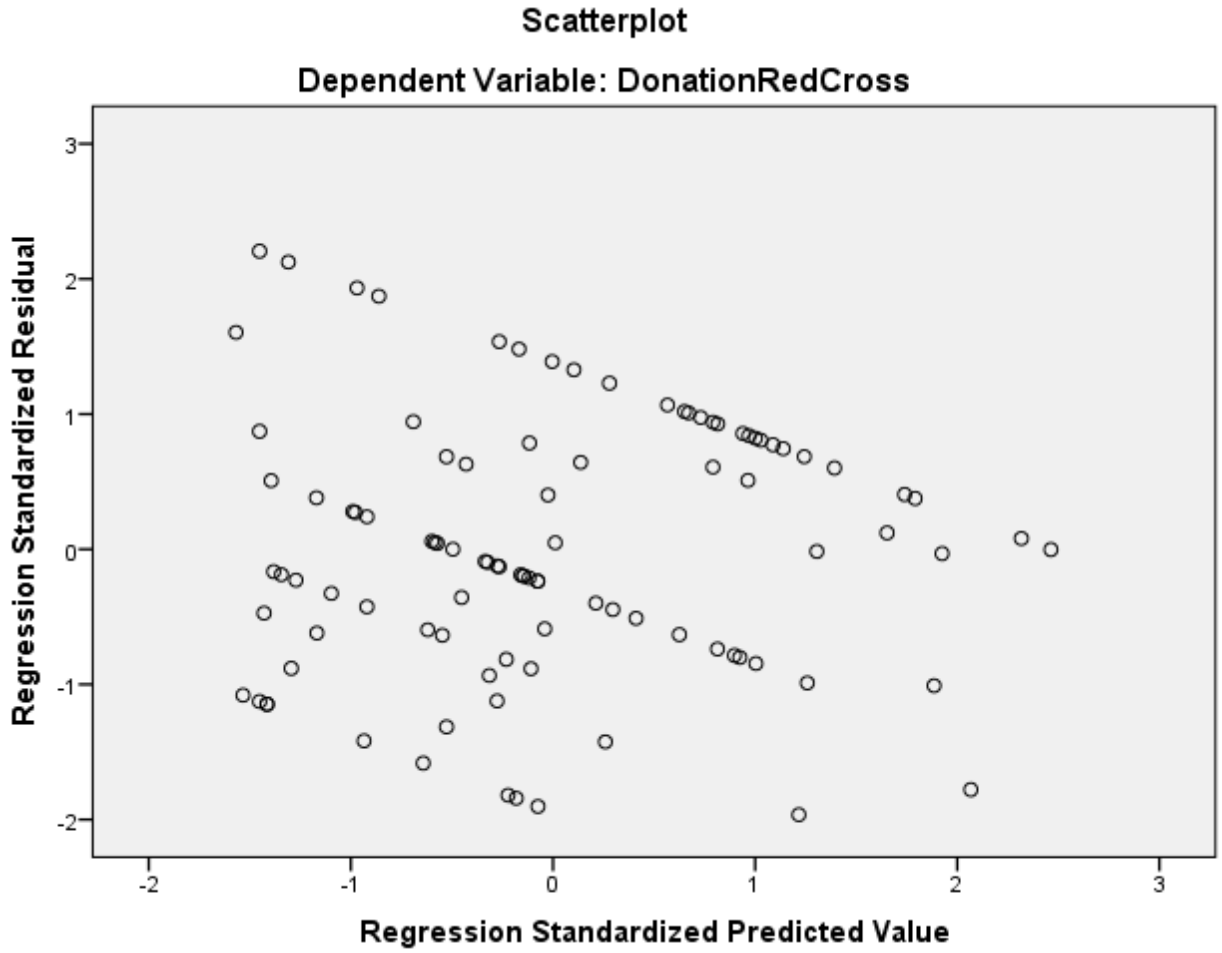


Chart VIII:


Scatterplot
Dependent Variable: DonationRedCross
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-2
-1
0
1
2
3