

Gender and political orientation as predictors of prosocial behaviour in Ireland.

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Abstract

Research into prosocial behaviour (PSB) has indicated that rates of PSB are affected by both gender and political orientation. These influences have only been examined in isolation. Drawing from prior research this study examined the influence of both gender and political orientation on Irish, adult participants' engagement in PSB. This study investigated gender differences in PSB in an Irish context, determining if there are differences in PSB scoring based on participants' political orientation, and if gender and political orientation interact in their influence on PSB. Participants were recruited through posters with QR code and social media using a snowball sampling technique (N = 313). Participants completed an online survey containing demographic information, Political Attitudes Scale, Political Spectrum Questionnaire and the 16 Items of the Pro-socialness Scale for Adults. Results of hierarchical regression analyses found that both gender and political orientation impacted prosocial behaviour scores. The study found significant association between political orientation and prosocial scores as well as a minor predictive link between gender and prosocial scores. Future studies may benefit from the addition of experimental measures when investigating PSB, as well as examining the influence that the types of measures used to investigate political orientation has on findings.

Table of Contents

Abstract.....	5
Introduction.....	9
Literature Review.....	11
Types of Measures Used.....	11
Empathy.....	11
Political Orientation.....	13
Gender.....	14
Political Orientation.....	15
Associated Regional Differences.....	16
The Present Study.....	17
Methodology.....	19
Participants.....	19
Measures.....	20
Demographics.....	20
Political Attitudes Scale (Adapted).....	20
Political Spectrum Questionnaire.....	20
The 16 Items of the Pro-socialness Scale for Adults.....	21
Design.....	21
Procedure.....	22

Results	23
Research Objective 1.....	26
Research Objective 2.....	27
Research Objective 3.....	28
Discussion.....	32
Research Objective 1.....	32
Research Objective 2.....	32
Research Objective 3.....	32
Practical Implications.....	33
Limitations.....	33
Future Work.....	34
Conclusion.....	34
References.....	36
Appendices.....	42
Appendix A. Recruitment Poster.....	42
Appendix B. Participant Information.....	44
Appendix C. Consent Form.....	45
Appendix D. Demographic Information.....	47
Appendix E. Political Attitudes Scale.....	49
Appendix F. Political Spectrum Questionnaire.....	50

Appendix G. The 16 Items of the Pro-socialness Scale for Adults..... 51

Appendix H. Debriefing Form..... 53

Appendix I. Evidence of Data..... 55

Gender and Political Orientation as Predictors of Prosocial Behaviour in Ireland

“Through others we become ourselves.”

— Lev S. Vygotsky (1987)

Gender and political orientation have often been explored separately when investigating prosocial behaviour (PSB). The aim of this study is to investigate to what degree PSB is influenced by both gender and political orientation as well as examining the interaction, if any, between gender and political orientation. This will be done through three research objectives: Determining if there are gender differences in PSB in an Irish context and if these differences, if any, vary based on how PSB is measured. Determining if there are differences in PSB based on political orientation in an Irish context and whether these differences vary based on how political orientation is measured. Determining if gender and political orientation interact in their influence on PSB.

Literature Review

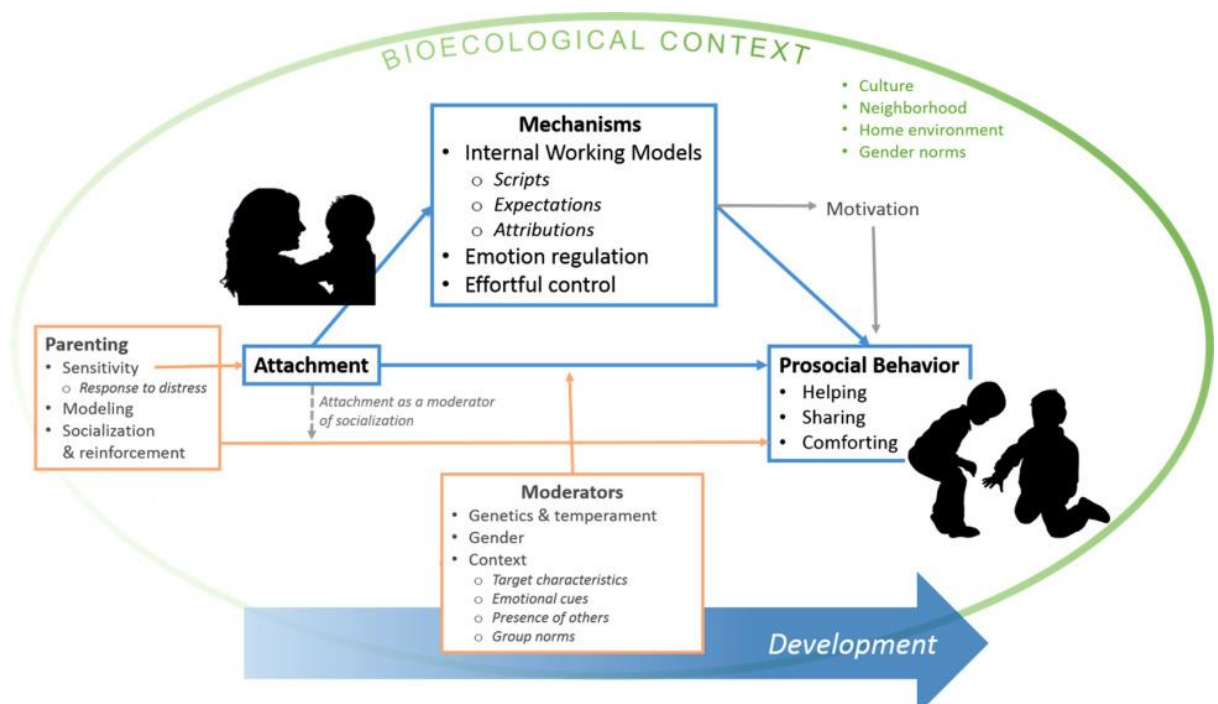
Prosocial behaviour (PSB) is an essential component for long lasting and peaceful coexistence between individuals and can be defined as voluntary and intentional actions that benefit others (Xiao et al., 2019). PSB constitutes a range of helpful, supportive, affirmative, and affiliative behaviours that are intended to provide benefit to others who may be in need or distress (Hastings et al., 2005). PSB is important for an individual from both a physical health and mental well-being perspective and is associated with higher levels of life satisfaction, well-being and stress reduction in individuals (Raposa et al., 2016). PSB has also been associated with physical restorative properties for the prosocial individual, such as possibly aiding in the reduction of chronic inflammation (Bierhoff, 2002; Brown & Brown, 2015).

Inclination towards PSB is not fixed within an individual but can be encouraged in different ways throughout their lifetime (Bénabou & Tirole, 2006; Dovidio et al., 2017). Childhood prosocial development is the result of multiple factors consisting of personality type along with socialisation,

family life, and peer group influences (Ruci et al., 2018). Encouragement for “nice behaviour” from parents, teachers, and siblings reinforces and rewards PSB in childhood; certain forms of play can also offer a PSB boost (Tai et al., 2011). In adulthood, PSB can still be encouraged through socialisation with other adults via the modeling of PSB such as helping behaviours, the recognition of the “kind” acts of others and other social pressures (Dovidio et al., 2017; Eisenberg, 2006; Malhotra, 2008). This type of helping PSB is often coded as female and is more highly associated with women i.e. shared housework or childcare. Gendered toys and play such as baby dolls can also be used to condition this type of behaviour in young girls very early in life (Coyne et al., 2016; Kuhnert et al., 2017). Please see figure 1 for a summary of some of the bioecological influences on the development of PSB.

Figure 1

Bioecological context for the development of PSB



Note. Figure from “The multifaceted nature of prosocial behavior in children: Links with attachment theory and research” by Gross, et al., 2017, *Social development*, 26(4), 661-678. Copyright 2017, Wiley Online Library.

Interpersonal PSB can have rewards associated with it such as stronger relationships with those aided, the assumption of reciprocity, and gaining social status within a group (Batson, 1987). These possible motivations, however, do not explain PSB that occurs outside of intimate interpersonal relationships and relationships where PSB can be rewarded. PSB also encompasses prosocial action directed towards groups or individual strangers as well. This type of PSB is one where a person engaging in PSB is not required to have direct contact with the recipient of the behaviour and cannot guarantee reciprocity or other rewards, an example would be charity fundraising. Frey et al. (2004), found that even in situations of anonymity large numbers of individuals will donate significant amounts of money to a charity.

Therefore, PSB is beneficial not just for the individual but also for groups and populations on a societal level. PSB reinforces a sense of community and shared responsibility for unknown others, which can be witnessed through the long term engagement in helping behaviour such as volunteering (Beilin, 2013; Dovidio et al., 2017). Traditionally, social liberalism has been associated with the development of higher levels of PSB; with liberals giving higher priority to the welfare of society at large over one’s own welfare when compared to conservatives (Saidi et al., 2019). Liberals have also been associated with higher levels PSB where there is no direct gain to themselves such as advocating for populations one is not a member of e.g. refugee populations (Beilin, 2013).

Previous research has suggested a number of demographic and social factors that may influence PSB. These are predominantly; social perspective, political orientation and gender. As social perspective can be expressed through and by a persons’ political attitudes, this research focuses on gender and political orientation as the two main factors discussed within the literature.

Types of Measures Used

One of the possible explanations for the discrepancies in the findings between genders and those of differing political orientations are the types of measurements used to measure PSB and political orientation.

Empathy. Empathy can be a useful measure of PSB but over reliance on it can create skewed results based on gender stereotyping. Women for example generally report higher levels of empathy but an empathetic outlook alone cannot be relied upon to predict prosocial attitudes (Triffaux et al., 2019). Cowling et al. (2019), found no relationship existed between reported levels of empathy and positive attitudes towards refugees. Positive attitudes in this study would be an indication of willingness to engage in PSB. They, however, did find significant positive correlation between political orientation and attitudes, that was not linked to empathy.

Hasson et al. (2018), reported results showing that left-wing oriented people, referred to as liberals in the study, were generally more empathic than conservatives. They did not examine gender. Hasson proposes that this gap in empathy may also exist with other prosocial emotions such as sympathy, as a function of political ideology. However, it is not possible to assume that this empathy gap would correspond to a difference in PSB as this was not investigated. Prosocial emotions such as sympathy have been shown in more recent studies to not be directly linked to PSB (Yue & Yang, 2021). Hanson suggests that a PSB gap does exist and that it is associated with multiple factors rather than exclusively gender or empathy as it is typically understood.

Xiao et al. (2019) also discusses the limitations of using empathy as a predictor of PSB. She posits that the differences in reported PSB levels between girls and boys may result from the use of empathy as a measure and empathy being female coded. Boys might be discouraged by gender norms from engaging in or reporting empathic responses when using empathetic exercises. They would thereby be recorded as less likely to engage in PSB when this is not an accurate recording of

actual behaviour. Xiao notes for future work that it would be useful to avoid possibly gendered language or situations when examining influencing factors on PSB, as well as using other measures of behaviour in tandem with empathetic exercises, rather than relying solely on empathy measures as a predictor.

Furthermore Hasson et al.'s (2018) and Cowling et al.'s (2019) work suggests that political ideology has a far greater predictive effect than reported levels empathy and this suggests that it may be possible for an empathetic female conservative to have prejudicial attitudes and therefore be less likely to engage in PSB when compared to an apathetic male liberal with beneficial (or at least neutral) attitudes towards others and therefore engages in a higher rate of PSB. This difference in PSB would reverse the empathy related assumption of PSB. Instead of measuring participants' empathy or emotional PSB in isolation, measurements of PSB in this study will incorporate questions of practical assistance along with questions on empathic or emotional PSB in order to be a better reflection of total behaviour. The expanded measurements of PSB will allow for a more complete understanding of the differences, if any, in PSB engagement between men and women and people of different political orientations. This study will investigate if differences in measuring PSB produce differing results through research objective 1: Determining if there are gender differences in PSB in an Irish context and if these differences, if any, vary based on how PSB is measured.

Political orientation. As different measures of PSB can produce differing results, similarly different measurements of political orientation can influence results. Self-reporting of political orientation may serve to push people into identifying as extremes by asking participants to categorise themselves as one of two or three groups, further exacerbating the difference between reporting groups of left and right (Federico & Malka, 2018). There are also instances in which there have been recorded differences in how people self-identity and their attitudinal positions, that is a person identifying as right-wing but holding left-wing views and vice versa (Yagci et al., 2020). Attitudinal measures of political orientation reduces the likelihood of extreme answers and allows

for a more complete mapping of participants' political outlook (Ziegler, 2019). This may allow for a deeper analysis if participants engage with the questions and will be used in the present study. This study will investigate whether the type of measure used to examine political orientation can be associated with significant variation in PSB through research objective 2: determining if there are differences in PSB based on political orientation in an Irish context and whether these vary based on how political orientation is measured.

Gender

Gender is one of the key factors examined when investigating differences in PSB and much of the research available covers this difference. It is often assumed that women, due to social and cultural norms in respect to caring duties, are inclined towards higher rates of PSB and much of the literature on PSB and gender seem to support this (Graça et al., 2018). Van der Graaff et al. (2018), found gender-based differences in their study, with results that indicated higher levels of PSB in girls than boys. They also suggest that PSB is predictive of empathy related traits rather than the reverse as usually assumed and that higher levels of PSB was indicative of higher levels of empathy, but in girls only. Xiao et al. (2019), suggested in their meta-analysis on gender differences in PSB that while most studies do consistently indicate that girls are more prosocial than boys; this difference is small and very difficult to accurately quantify because of differences present in testing and measuring. She also discusses the limitations of using empathy as a predictor of PSB, covered previously.

The majority of papers available only examine the differences in PSB in adolescents; but Cowling et al. (2019), replicated the same gender gap in PSB with adult participants in their meta-analysis on differences in attitudes to refugees. They found that there was a significant link between gender and attitudes. However, this link was influenced by other demographics and the intersections between them; participants who identified as male, religious, nationally identified, politically conservative, and less educated had a higher association with negative attitudes towards

refugees. Higher levels of negative attitudes towards refugees in this case would indicate lower levels of willingness to engage in PSB.

It must be noted here that any differences in results between men and women regarding PSB could stem from internalised gender stereotypes as well as the form that the attitude measuring scenarios took (Leman & Tenenbaum, 2013, p. 78). In summary, it is important to consider the multidimensionality of PSB because gender differences vary depending on the type of PSB, for example emotional or empathy-based motivations versus practical assistance (Xiao et al., 2019). In response to the lack of clarity in the literature, this study will investigate whether gender can be associated with significant variation in PSB through research objective 1: determining if there are gender differences in PSB in an Irish context and if these differences, if any, vary based on how PSB is measured.

Political Orientation

Political orientation is another of the key factors examined when investigating differences in PSB and after gender, much of the research available covers the difference in levels of PSB between left- and right-wing oriented people (Cowling et al., 2019). It is often assumed that liberal/left-wing people engage in higher levels of PSB and recent research on PSB and political orientation seems to support this. Saidi et al. (2019), while not investigating political outlook directly, found that like liberals in other studies, people who give higher priority to the welfare of society at large over one's own welfare were linked to higher levels of pro-sociality. Hasson et al.'s (2018) and Cowling et al.'s (2019) work support this finding as they suggest that political ideology has a greater predictive effect of PSB than other participant demographics such as gender.

Morris (2020), investigating the PSB divide between liberals and conservatives, states that any study that wishes to examine the difference in ideologically based groups must also consider the influence of group identification. Liberals may appear more prosocial when example scenarios

include depictions of characters coded as ones they *ought* to identify with e.g. refugees, whereas they may exhibit less PSB when characters are coded as conservatives (Frey et al., 2004). This is similar to the influence of both social conditioning and internalised stereotyping as covered under gender. In response to the lack of clarity in the literature, this study will investigate whether political orientation can be associated with significant variation in PSB through research objective 2: determining if there are differences in PSB based on political orientation in an Irish context and whether these differences vary based on how political orientation is measured.

Associated Regional Differences

Regional differences in personality have been found in studies across North America and Europe and indicate that political, economic, and health indicators can lead to large differences in personality within the same country (Rentfrow, 2020). In regards to PSB and the literature covered; small but significant differences were found between studies carried out in the United States and European countries such as Germany, as well as between European countries (Cowling et al., 2019; Xiao et al., 2019). Hasson et al. (2018) also found variation in their results dependent upon region, which shows the need for caution before extrapolating results across regions with different political or social histories and conditions.

The results and conclusions in the discussed studies are ones drawn from countries such as the United States of America and parts of Europe where political extremes have, to a large degree, become normalised (Cammaerts, 2020; Krzyżanowski, 2020). Ireland has an almost unique position in Europe; a former colony with a history of left-wing republicanism, a minority far right-wing presence, and centre-right parties which are both socially liberal and economically conservative (Fanning, 2018). Research in Ireland could provide a unique opportunity to investigate the predictive values of political orientation and gender on PSB. This study will investigate whether there are any significant differences in the findings in an Irish context through research objective 1: determining if there are gender differences in PSB in an Irish context and if these differences, if any, vary based on

how PSB is measured. And research objective 2: determining if there are differences in PSB based on political orientation in an Irish context and whether these differences vary based on how political orientation is measured.

The Present Study

The literature reviewed would suggest that both gender and political orientation are predictive of the likelihood of a person's engagement in PSB. To the best of the researcher's knowledge the intersection of the two spheres of gender and political orientation have not been examined in tandem to date, and this highlights a gap in the research that is worth investigating. This will be investigated through research objective 3: determining if gender and political orientation interact in their influence on PSB.

As the risk of biasing participants along either gender or political lines in PSB tests can be high, this study will use neutral characters and situations (not gendered, or politically identified) in statements such as "I am available for volunteer activities to help those who are in need" which examines practical assistance as well as statements such as "I intensely feel what others feel" which measures empathetic levels of PSB (Caprara et al., 2005). This study will use a measure that encompasses both empathic measures as well as practical measures of PSB. There will be the opportunity to examine if these different measures in PSB produce differing results between the two genders that will be examined – men and women.

This study will also investigate if left-wing political orientation leads to a greater likelihood of engagement in PSB. As left-wing politics are linked with challenging social and gender norms it is possible that left-wing orientated men may be more comfortable reporting engaging in empathic or emotional based PSB. Participants will also be required to take a political attitudes questionnaire as well as placing how they view their own political orientation on a spectrum. This will allow for a more accurate picture of participants' self-perception of their political orientation compared to their

attitudinal stances on economic and social issues. There will be the opportunity to examine if these different measures produce differing results between left- and right-wing rates of PSB.

As region-by-region differences in political understanding as well as cultural norms around PSB can vary dramatically it is important to gather information and findings from each country being investigated rather than extrapolating from research carried out in the United States or other parts of Europe. Research in the area of PSB has also been predominantly carried out on young adults and adolescents. There is a clear gap for this type of research in adult populations and in Ireland due to its unique political position and history in Europe.

Apropos of previous research it is hypothesised that PSB is influenced by demographic characteristics of the individual i.e. gender, as well as their personal preferences in respect to social and economic issues i.e. political orientation. From the hypothesis, this study will investigate the following research objectives:

- 1) Determining if there are gender differences in PSB in an Irish context and if these differences, if any, vary based on how PSB is measured.
- 2) Determining if there are differences in PSB based on political orientation in an Irish context and whether these vary based on how political orientation is measured.
- 3) Determining if gender and political orientation interact in their influence on PSB.

Methodology

Participants

Participants were recruited using an opportunistic snowball design. A brief description of the study and a link to the survey was shared on Facebook, Instagram and LinkedIn. Interested participants were also invited to share the survey link within their social networks where it may be of interest. A recruitment campaign with posters was also devised (Appendix A). Posters with QR code were placed in Dublin city centre in libraries and shopping centre poster boards. No incentives were offered or used in recruiting participants. As hierarchical regression analyses were conducted in this study, G*Power: Statistical Power Analyses was used to determine the sample size required for a statistically powerful analysis. As such, there was a 95% chance that the R-squared value would significantly differ from zero with a sample size of 107 or over, reducing the likelihood of a Type 1 error (Faul et al., 2009).

Initially 342 participants over the age of 18 years old and resident in Ireland engaged with the survey. Due to the nature of the study, the analyses were restricted to participants who identified as either men or women, therefore 7 non-binary, agender and other identifying participants were excluded. 1 trans woman and 1 trans man identifying participants were placed into the woman and man categories respectively, as the Trans or Cis status of participants was not sought. Furthermore, 22 participants were removed who took less than 3 minutes to complete the survey. The average time for completion of the survey was between 5 to 10 minutes and the 22 participants removed had unusually quick completion times.

The final sample comprised of 313 participants. 59.7% of participants were women and 40.3% of participants were men (187 women and 126 men), with a mean age of 38.45 years (SD = 13.02), ranging from 18 to 76. 72.5% of participants identified themselves as of a left-wing political orientation (N = 227), 22% identified themselves as moderates (N = 69) and 5.4% identified themselves as of a right-wing political orientation (N = 17).

Measures

Demographics

Participants were asked to indicate their gender identity (Man, Woman, Other) and to provide their age. Participants were also asked to indicate their cultural background (White Irish, Other white background, Black Irish, etc) and to identify if they currently reside in Ireland. Please see Appendix D for more information.

Political Attitudes Scale (Adapted)

The political attitudes scale was adapted for use in an Irish context from Koleva et al. (2012), with Siegel et al. (2012), as an additional source. The 11-item Political Attitudes Scale covers economic and social issues such as participants position on free trade, abortion, taxes, private and public healthcare, human influence on global warming, immigration, same-sex marriage and the United Nations. Questions took the form of statements such as “I support unrestricted free trade” and participants were asked to indicate their level of agreement or disagreement with the statements using a 6-point Likert scale ranging from (1) Strongly Disagree to (6) Strongly Agree. Higher scores above 3 corresponded to more left-leaning attitudes, lower scores below 3 suggest right-leaning attitudes and a score of 3 represented a neutral position. Economic issues were covered under questions 1, 5, 6, 7, 9 and 11. Social issues were covered under questions 2, 3, 4, 8 and 10. Reverse scoring was used on questions 1, 10 and 11. In the current study the Cronbach alpha coefficient was .67. This is comparable to a score of $\alpha = .69$ in Siegel et al.’s (2012) and $\alpha = .67$ in Koleva et al.’s (2012) study which the scale was adapted from. Please see Appendix E for the full questionnaire.

Political Spectrum Questionnaire

One question with a 5-point Likert scale was used to map participants' perception of where they fell on the political spectrum of (1) Far left to (5) Far right. This questionnaire was based on Federico et al. (2005), and Ellis et al. (1996). Please see Appendix F for the full questionnaire.

The 16 Items of the Pro-socialness Scale for Adults

The 16 Items of the Pro-socialness Scale for Adults (Caprara et al., 2005), tracks a participants' self-reported engagement in prosocial behaviour. Participants were informed they would be shown 16 statements that describe common situations. They were reminded that there were no 'right' or 'wrong' answers and that the best answer was their immediate, spontaneous one that best reflected their personal response. Participants were asked to read each phrase carefully and mark the answer that reflected their first reaction. Questions took the form of statements such as "I am pleased to help my friends/colleagues in their activities" and participants were asked to indicate how true or not true that statement was for them using a 5-point Likert scale ranging from Never/almost never true (coded as 1) to Almost always/always true (coded as 5). Higher scores indicated a higher level of engagement in prosocial behaviour. Practical forms of PSB were covered under questions 1, 2, 3, 4, 6, 7, 9, 11, 14, and 15. Emotional forms of PSB were covered under questions 5, 8, 10, 12, 13, and 16. According to Caprara et al. (2005), the scale has good internal consistency, with a Cronbach alpha coefficient reported of .91. In the current study the Cronbach alpha coefficient was .90. Please see Appendix G for the full questionnaire.

Design

The present study used a quantitative approach. It was cross-sectional with a between participant design. It used both descriptive and correlational methods of study. The predictor variables used throughout were gender, political outlook and political attitudes while prosocial behaviour scores were used as the criterion variable for the analyses conducted.

The study was used to create a snapshot of the situation in Ireland at the present time as well as to assess the relationships between the variables of gender, political orientation and prosocial behaviour. While it was not possible to draw definitive conclusions from the study, it was possible to use these methods to test the expected outcomes of these relationships. This will allow for the development of further study and to draw inferences about the causal relationships between and among the variables.

Procedure

Data was collected online through an anonymous, self-report survey delivered through Microsoft Forms. The survey was first tested several times by the researcher and the supervisor of the study to determine the length of the survey and to make sure no issues were encountered. The average time for completion of the survey was 10 minutes. This data was excluded from analysis.

A brief description of the study, the eligibility criteria for participation, and an invitation to anyone who wished to take part in the study to click the survey link was posted on Facebook, in various Facebook and WhatsApp groups as well as on Instagram and LinkedIn. A Dublin city centre poster campaign was also used and the QR code link attached brought participants directly to the survey (Appendix A). The first page of the survey contained a Participant Information sheet detailing the nature and purpose of the study, expected time commitment, and the requirements for eligibility in the survey (Appendix B). Participants were informed that their participation was voluntary and anonymous. They were reminded that they could rescind consent at any point without penalty before the answers were submitted. It was explained that as the results were unidentifiable, withdrawal from the study after this point was not possible. The next page of the survey contained the Consent Form, this again outlined the nature of the study, expected time commitment, detailed the participant's right to confidentiality, right to withdraw and their rights under GDPR. Researcher and supervisor details, as well as details of where to direct complaints and concerns in respect to ethical compliance and what the expected risks and benefits to participants

were, along with Samaritan contact details were also listed (Appendix C). To proceed with the survey, participants were required to verify that they had read and understood the consent form, that they were over the age of 18 years old and that they had consented to voluntarily take part in the study. The next page asked for demographic information such as age, gender, ethnic or cultural background as well as asking the participant if they currently reside in Ireland (Appendix D).

The survey questions were then presented in two sections, the first consisted of the Political Attitudes Scale (Adapted) (Appendix E) and the Political Spectrum questionnaire (Appendix F). The second section consisted of The 16 Items of the Pro-socialness Scale for Adults (Appendix G). The last page of the survey contained a Debriefing Form again detailing the nature of the study and thanking individuals for their participation. Participants were asked to confirm their wish to submit their survey answers (Appendix H). Though no obvious harm was expected to be encountered from this study the debriefing form included the Samaritans helpline in the event that any participant experienced psychological distress or upset by the material presented. Researchers and supervisor details as well as the NCI Ethics Committee details were also reiterated in debriefing. This research study was approved by the National College of Ireland's Ethics Committee and is in line with The Psychological Society of Ireland's Code of Professional Ethics (2019) and the National College of Ireland's Ethical Guidelines and Procedures for Research involving Human Participants (2018).

Results

Descriptive statistics for demographic variables are presented in Table 1 for 313 participants. 59.7% of participants were women and 40.3% of participants were men (187 women and 126 men). 81.7% of participants identified as coming from an Irish background (N = 255) with non-Irish backgrounds making up a minority of 18.3% of participants (N = 57). 72.5% of participants identified themselves as of a left-wing political orientation (N = 227), 22% identified themselves as moderates (N = 69) and 5.4% identified themselves as of a right-wing political orientation (N = 17).

Table 1

Frequencies for the current sample on each demographic variable (N = 313)

Variable	Frequency	Valid %
Gender		
Men	126	40.3
Women	187	59.7
Ethnicity		
Irish	255	81.7
Non-Irish	57	18.3
Political Spectrum (Pol Spec)		
Far Left	81	25.9
Left	146	46.6
Moderate	69	22
Right	15	4.8
Far Right	2	.6

Means (M), and standard deviations (SD) for all continuous variables are presented in Table 2. Participants had a mean age of 38.45 years (SD = 13.02), ranging from 18 to 76. Preliminary analysis indicated a significant result ($p < .05$) of the Kolmogorov-Smirnov statistic was found for all continuous variables indicating that the data is non-normally distributed. Tests of normality like Kolmogorov-Smirnov are quite sensitive with large sample sizes and it's been suggested that reliance on these types of normality tests increase concern for Type 1 error rates (Schoder et al., 2006). Inspection of the QQ-Plots and values of skewness and kurtosis, show that the data for Pol Att Cont and PSB Total were negatively skewed. All skewness and kurtosis scores are within the acceptable ranges with skewness falling between +/-2, and kurtosis from a range of +/-3 (George & Mallery, 2001). Though the data is non-normally distributed, the sample size is large, and ANOVA and regression are considered "robust" to violations of normality and as such these parametric tests will be used in analysis. 14 outliers were identified and for the purposes of the current study these outlying scores were retained. The relatively large SD suggests a good deal of variability around the figures presented and the relatively low standard error values and close 95% confidence intervals suggests that the current sample is reasonably representative of the population. Please see Appendix I for Normal Probability plot of PSB Total (Figure 3), scatter plot of PSB Total (Figure 4) and a scatter plot of PSB Total by Pol Att Cont by gender (Figure 5).

Table 2

Descriptive statistics for all continuous variables (N=313)

Variable	M [95% CI]	SD	Range
Age	38.45 [37.01 – 39.90]	13.02	18-76
Political Attitudes	62.18 [61.10 - 63.26]	9.70	24-80
Total (Pol Att Cont)			

Pol Att Economic	28.62 [28.21 – 29.03]	3.70	11-36
(Pol Att Econ)			
Pol Att Social	26.75 [26.37 – 27.12]	3.36	10-30
(Pol Att Soc)			
PSB Total	55.37 [54.69 – 56.04]	6.08	29-66
PSB Practical	38.84 [38.16 – 39.52]	6.11	13-50
(PSB Prac)			
PSB Emotional	23.35 [22.87 – 23.82]	4.27	7-30
(PSB Emo)			

Research Objective 1

To investigate the first research objective 3 t-tests were carried out to investigate the differences in gender and prosocial behaviour scores. The PSB scores were recorded under 3 headings: PSB total score, PSB Emotional score and PSB Practical score. The first t-test was conducted to compare PSB Total scores for men and women and revealed significant difference in the PSB Total scores for men ($M = 60.40$, $SD = 10.39$) and women ($M = 63.35$, $SD = 9.06$; $t(311) = 2.62$, $p = .009$, two-tailed). The magnitude of the difference in the means (mean difference = 2.91, 95% CI: .73 to 5.09) was large, however, the effect size was small (Cohen's $d = 0.3$)

The second t-test was conducted to compare PSB Emotional scores for men and women. The test revealed a significant difference in the PSB Emo scores for men ($M = 22.40$, $SD = 4.40$) and women ($M = 23.98$, $SD = 4.08$; $t(311) = 3.27$, $p = .001$, two-tailed). The magnitude of the difference in the means (mean difference = 1.59, 95% CI: .63 to 2.54) was large, however, the effect size was small (Cohen's $d = 0.37$)

The third t-test was conducted to compare PSB Practical scores for men and women. The test revealed no significant difference in the PSB Prac scores for men ($M = 38.05$, $SD = 6.61$) and women ($M = 39.37$, $SD = 5.69$; $t(311) = 1.08$, $p = .06$, two-tailed).

Research Objective 2

To investigate research objective 2 the relationship between PSB and political orientation as measured by Political Attitudes Scale (Adapted) was investigated using Pearson product-moment correlation coefficient, see Table 3. There was a small positive correlation between the two variables, $r = .28$, $n = 313$, $p < 0.01$, with greater left-wing outlook associated with higher levels of PSB.

Table 3

Table of correlations between Pol Att Cont and PSB Total.

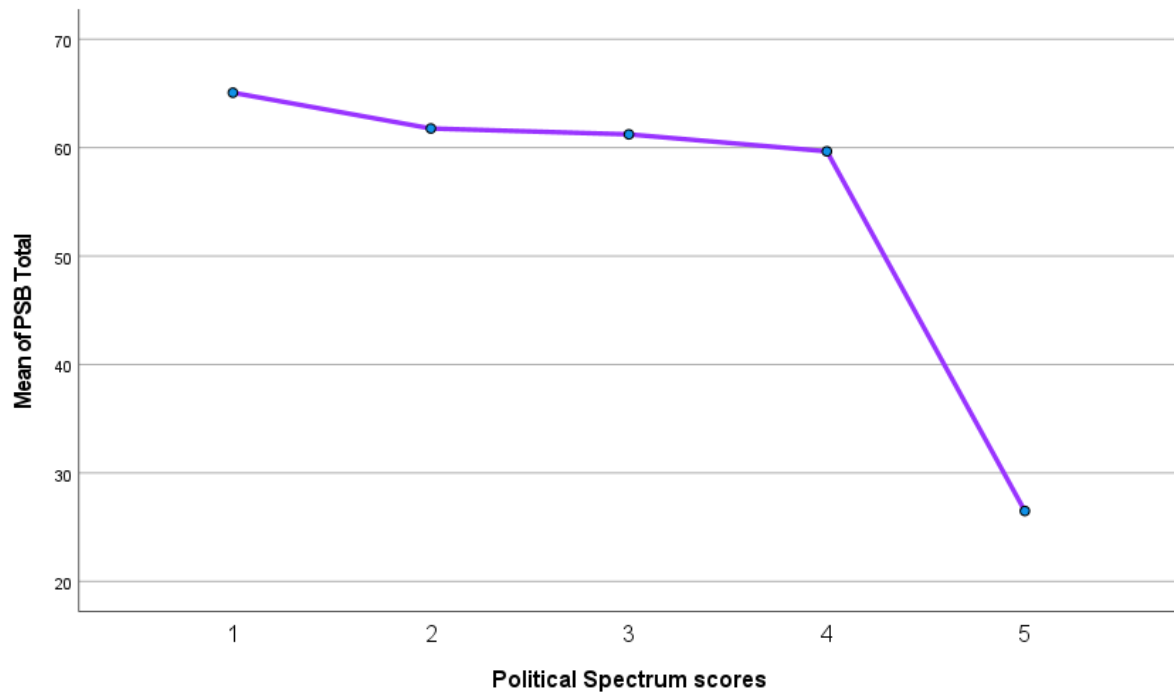
Variable	1.	2.
1. Pol Att Cont	1	.28**
2. PSB Total		1

Note: * $p < 0.05$; ** $p < 0.01$

The relationship between PSB and political orientation as measured by Political Spectrum Questionnaire was investigated using a one-way between groups analysis of variance. Participants were divided into 1 of 5 groups according to their Pol Spec scores (Group 1: Far Left; Group 2: Left, Group 3: Moderate, Group 4: Right, Group 5: Far Right). Please see Figure 2.

Figure 2

One-way ANOVA investigating relationship between Pol Spec Scores and PSB Total



There was a statistically significant difference at the $p < .05$ level in PSB scores for the 5 groups, $F(4, 308) = 10.09$, $p < .001$. The effect size was large (partial eta squared = .11). Post hoc comparisons using the Tukey HSD test indicated that the mean score for group 5 ($M = 26.50$, $SD = 3.54$) was significantly different from all other groups. Group 1 ($M = 65.07$, $SD = 8.68$), group 2 ($M = 61.77$, $SD = 8.95$), group 3 ($M = 61.23$, $SD = 10.10$) and group 4 ($M = 59.67$, $SD = 10.02$) did not significantly differ from each other.

Research Objective 3

To investigate research objective 3 two different routes of investigation were required due to the two different measurements used for political outlook. A Normal Probability plot of PSB Total can be found under Figure 3 in Appendix I. A scatter plot of PSB Total can be found under Figure 4 in Appendix I. A scatter plot of PSB Total by Pol Att Cont by gender, can be found under Figure 5 in Appendix I.

A table of correlations between gender, Pol Att Cont and PSB Total can be found under Table 4. There was a small negative correlation between the variable gender and PSB, $r = .15$, $n = 313$, $p < .01$, with women associated with higher levels of PSB. There was a small positive correlation between the variables Pol Att Cont and PSB, $r = .28$, $n = 313$, $p < .01$, with greater left-wing outlook associated with higher levels of PSB. There was no significant correlation between the variables of gender and Pol Att Cont.

Table 4

Table of correlations between gender, Pol Att Cont and PSB Total.

Variable	1.	2.	3.
1. Gender	1	-.06	-.15**
2. Pol Att Cont		1	.28**
3. PSB Total			1

*Note: * $p < 0.05$; ** $p < 0.01$*

Correlation coefficients were compared by gender, Table 5 and 6, Appendix I. A Fisher r-to-z transformation was carried out and the result was not statistically significant ($p = 0.6$) meaning there is no difference in the strength of correlation based on gender.

A hierarchical multiple regression was used to assess the ability of the two control measures (Political Attitudes: Pol Att Cont and gender) to predict levels of prosocial behaviour (PSB Total). Preliminary analyses were conducted to ensure no violation of the assumptions of multicollinearity and homoscedasticity. Tests for multicollinearity indicated that Tolerance and VIF values were in an acceptable range. Thus, indicating no violation of the assumption of multicollinearity. Gender was controlled for and entered at Step 1, explaining 2.2% of the variance in PSB. The total variance explained by the model, as a whole was, 9.5%, $F(1, 311) = 6.89$, $p < .001$. Pol Att Cont explained an additional 7.3% of PSB, after controlling for gender, R squared change = .07, F change (2, 310) =

24.99, $p < .001$. In the final model, the two control measures were statistically significant with Pol Att Cont ($\beta = .43$, $p < .001$) explaining greater variance than gender ($\beta = -2.91$, $p < .01$). Please see Table 7.

Table 7

Hierarchical multiple regression model predicting PSB total score

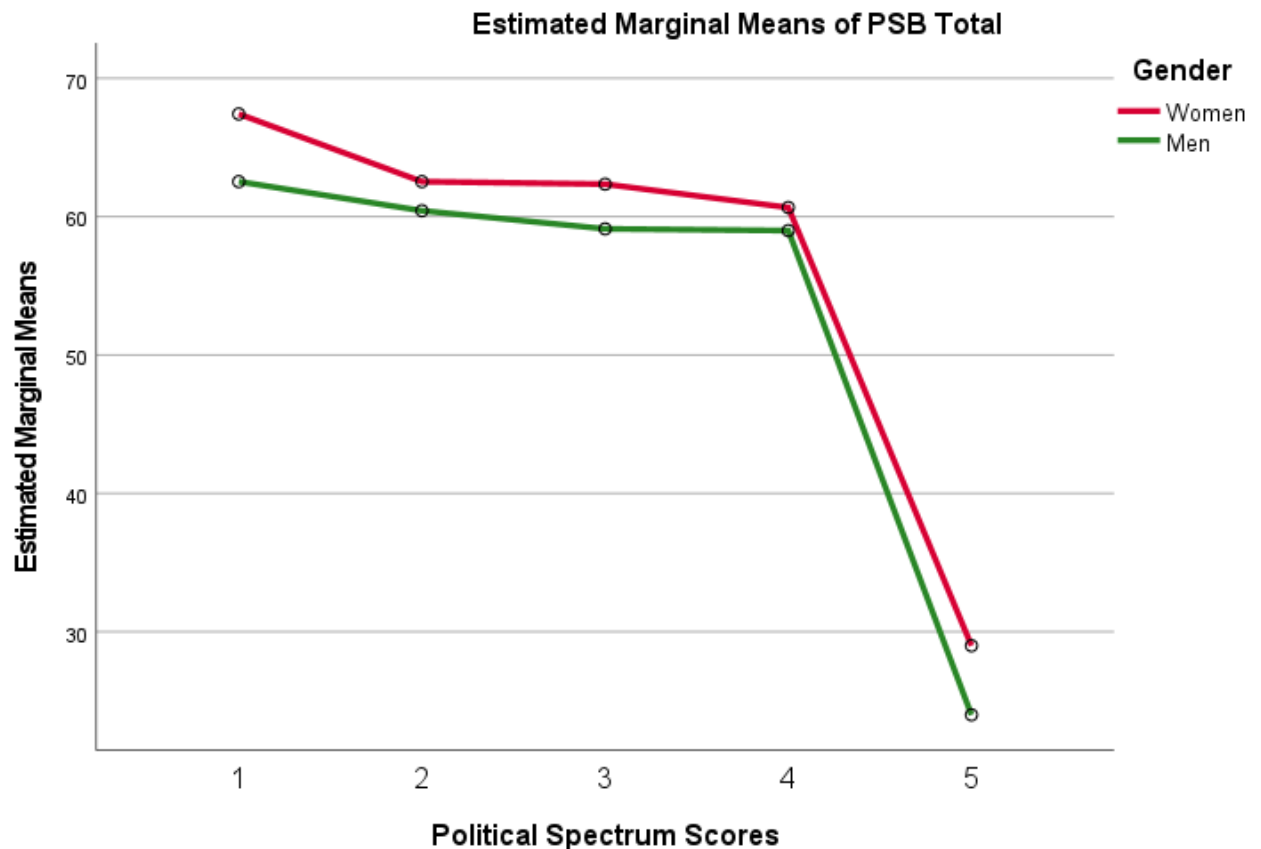
Variable	R^2	R^2	B	SE	B	t	p
<i>Change</i>							
Step 1	.022						
Gender			-2.91	1.11	-.15	-2.62	.00**
Step 2	0.95	.073					
Pol Att Cont			.43	.09	.27	5.00	.00***

Note: $N = 313$; $R^2 = R$ -squared; β = standardized beta value; B = unstandardized beta value; SE = Standard errors of B ; Statistical significance: * $p < .05$; ** $p < .01$; *** $p < .001$

The relationship between PSB and political orientation as measured by Political Spectrum Questionnaire was investigated using a two-way between groups analysis of variance was conducted to explore the impact of gender and political outlook on levels of PSB, as measured by the 16 Items of the Pro-socialness Scale for Adults. Participants were divided into 1 of 5 groups according to their Pol Spec scores (Group 1: Far Left; Group 2: Left, Group 3: Moderate, Group 4: Right, Group 5: Far Right). Please see Figure 6.

Figure 6

Two-way ANOVA investigating the interaction of Gender and Pol Spec Scores on PSB Total



The interaction effect between gender and political spectrum group was not statistically significant $F(4, 303) = .32, p = .86$ and there was no significant effect for gender $F(1, 313) = 1.41, p = .23$ and there was a statistically significant effect for Pol Spec $F(4, 313) = 10.36, p < .01$. The effect size was large (partial eta squared = .12). Post hoc comparisons using the Tukey HSD test indicated that the mean score for group 5 ($M = 26.50, SD = 3.54$) was significantly different from all other groups. Group 1 ($M = 65.07, SD = 8.68$), group 2 ($M = 61.77, SD = 8.95$), group 3 ($M = 61.23, SD = 10.10$) and group 4 ($M = 59.67, SD = 10.02$) did not significantly differ from each other.

Discussion

Through examining previous research it was hypothesised that PSB is influenced by demographic characteristics of the individual i.e. gender, as well as their personal preferences in respect to social and economic issues i.e. political orientation. From the hypothesis, this study investigated the following research objectives:

Research Objective 1

Determining if there are gender differences in PSB in an Irish context and if these vary based on how PSB is measured. The results of the study confirm previous findings that women are more likely to engage in PSB than men. This difference can be explained by the difference in results between these two groups scores in emotional PSB. No difference was found between the two measured genders in practical PSB. This confirms that types of measurement used to measure PSB are important and can provide gendered results. While there was a difference between men and women it is worth noting that the difference was small.

Research Objective 2

Determining if there are differences in PSB based on political orientation in an Irish context and whether these vary based on how political orientation is measured. The study found that left-wing people tend to engage in more PSB than moderate and right-wing people, this difference is more pronounced when participants were asked to place themselves on a political spectrum. This difference was not as pronounced where political attitudes were used to score participants. These findings lend credence to the suggestion that self-report measures using a spectrum encourages polarisation of participants. It suggests that attitudinal scoring rather than asking participants to place themselves on a political spectrum is a more accurate measure of their views and political orientation.

Research Objective 3

Determining if gender and political orientation interact in their influence on PSB. Using hierarchical regression analysis gender and political orientation were found to interact regarding PSB, however, the influence of gender is very small. Political orientation, no matter the type of measurement used, was shown to have a much stronger influence. Two-way analysis of variance found no significant influence on PSB scores and gender. These findings imply that men and women of the same political orientation have more in common with each other regarding prosocial engagement than they do with a person of the same gender and differing political orientation.

Limitations

There were a number of limitations to be considered in the present study. Firstly, as this is a cross-sectional design and as such no causality can be inferred. Secondly, this study relied on self-report measures to determine political orientation and PSB. As such, there is the possibility of a social desirability bias in effect, with individuals potentially marking themselves higher on questions of PSB, either consciously or unconsciously. It also must be noted that the sample would have a bias towards prosocial respondents, as respondents self selected for participation (Malhotra, 2008).

There were also a number of limitations due to participant bias and the measures used. The current sample was significantly biased towards left-wing individuals and consisted of a tiny minority of 17 right-wing self-identified people out of a sample size of 313. If this study had a more balanced sample regarding political groups, the analysis could have yielded different results that the researcher cannot speculate on. The Cronbach alpha coefficient was .67 for the Political Attitudes Scale (Adapted) which was low, however this is comparable to a score of $\alpha = .69$ in Siegel et al.'s (2012) and $\alpha = .67$ in Koleva et al.'s (2012) study which the scale was adapted from.

The study also has a number of strengths. The sample size was large and diverse with both genders examined well represented and participants from many different ethnic and racial backgrounds. Another of the strengths is that it attempts to expand upon previous research in a novel way by investigating the relationship between political outlook, gender and PSB. This type of

research had not been conducted in Ireland before. As far as the researcher is aware, this was the first time this type of research was carried out on an adult population where gender and political orientation were investigated together. The study also revealed a sharp difference in how people self-identity and their political attitudinal positions and this could be more thoroughly investigated (Yagci et al., 2020).

Future Work

Statistically significant findings were evident in reference to gender and it would be useful for future work to determine the degree to which gender differences in PSB are due to factors such as social desirability and stereotyping, as opposed to biological tendencies. The use of implicit bias testing may prove useful in the examining of any unconscious biases prior to PSB examinations, and a follow up study could incorporate an experimental element such as use of *the dictator game* to examine any possible inconsistency between self-reports of PSB and observed PSB (Rigdon et al., 2009).

Statistically significant findings were also evident regarding political orientation and it would be useful for future work to determine the degree to which political orientation can be influenced by the measure used to investigate it. The findings from this study in tandem with further future research could be used to help inform strategies to foster prosocial behaviours in populations by utilising the findings concerning political outlook and concepts of social responsibility. This is particularly important in the current climate as individuals' intentions to behave in a prosocial manner are important for effectively controlling and reducing the spread of COVID-19 (Yue & Yang, 2021).

Conclusions

The present study found significant association between political orientation and PSB as well as a minor predictive link between gender and PSB. The research has demonstrated that political

orientation has a more significant role to play as a predictive factor of PSB than previously concluded.

While this study was a novel attempt to expand on previous research, future studies may benefit from using experimental measures while investigating PSB as well as examining the influence that the type of measure used to investigate political orientation has on the findings.

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Appendix A

Recruitment Poster

Help me get my degree!

**PARTICIPANTS
NEEDED
FOR STUDY ON
GENDER,
POLITICAL
OUTLOOK AND
BEHAVIOUR**

Only 30 mins of your time and it's
all online!

<https://forms.office.com/r/j15tXhx15y>



Appendix B

Participant Information

Gender, political outlook and behaviour

The purpose of this study is to examine the influence of gender and political outlook on a person's behaviour. This will be done by gathering demographic information, followed by 2 questionnaires, the first will determine your political outlook and the second will examine behaviour. These questionnaires are self-reporting.

The questionnaires are aimed specifically at people who are resident in Ireland, over the age of 18 and who identify as either a man or a woman.

The questionnaires are completely anonymous, and no information will be held for any other reason than this study and only I and my supervisor will have access to the data. The questionnaires will take no longer than 20 minutes to complete in total and are completely voluntary. Participants can rescind consent at any time without penalty, just close the browser window to discontinue your participation. Once your responses are submitted it will no longer be possible to withdraw them as the data is anonymous. Please answer truthfully throughout. Thank you for your participation!

Appendix C

Consent Form

1. **Summary:** This research study will examine the influence of gender and political outlook on behaviour. If you agree to participate, you will be asked to answer questions that ask about your political outlook, as well as questions about your behavior.
2. **Your right to withdraw/discontinue:** Participation in this study is completely voluntary. There is no obligation to participate, and should you choose to do so you can refuse to answer specific questions or decide to withdraw from the study. You are free to discontinue your participation at any time without penalty.
3. **Benefits and Risks:** Participation in this research study does not guarantee any benefits to you. However, possible benefits include the fact that you may learn something about how research studies are conducted, and you may learn something about this area of research (i.e. factors that are related to behaviour). We do not anticipate any negative outcomes from participating in this study. This study has obtained ethical approval from the NCI Ethics Committee. If you need further support? Call 116 123 to speak to a Samaritan or view alternative ways to talk at the website - <https://www.samaritans.org/ireland/how-we-can-help/contact-samaritan/>
4. **Time commitment:** If you agree to participate in the study, it may take up to 20 minutes to complete the survey.
5. **Guarantee of Confidentiality:** All information you provide will be confidential and your anonymity will be protected throughout the study. IP addresses will not be collected at any point, meaning the data you provide cannot be traced back to you. All data from this study will

be protected from inappropriate disclosure and will be accessible only to the researchers and their faculty advisor. Data will be anonymous for analyses. The anonymous data will be stored on the National College of Ireland OneDrive system and subsequently on the NCI server, all of which are password protected. The researchers are not interested in anyone's individual responses, only the average responses of everyone in the study. You may print a blank, unsigned copy of this consent form from this page or save it to your device for your records.

6. **GDPR:** You maintain the right to withdraw from the study at any stage up to the point of data submission. At this point your data will be collated with that of other participants and can no longer be retracted. The anonymous data will be stored on the National College of Ireland OneDrive system and subsequently on the NCI server. The data will be stored for a maximum of 5 years in line with NCI research guidelines, after this time period all raw data will be deleted. The information you provide will be used to contribute to the primary researcher's final year project and may contribute to other research publications and/or conference presentations. If you have a concern about how we have handled your personal data, you are entitled to raise this with the Data Protection Commission -<https://www.dataprotection.ie/>

7. **Researcher Contact Information:** This research study is being conducted by Laura Duggan. The project supervisor is Dr. Lynn Farrell, National College of Ireland. If you have questions or concerns about your participation in this study, you may contact the researchers through NCI or at x18112994@student.ncirl.ie

8. **Results of the Study:** You may obtain information about the outcome of the study at the end of the academic year by contacting Laura Duggan at x18112994@student.ncirl.ie

9. **Complaints:** If you have a complaint about how this research was conducted, please contact in writing: The Ethics Committee, School of Business, National College of Ireland Mayor Street Lower, International Financial Services Centre, Dublin
-

Have you read and understood the consent form?

Yes

No

Are you over the age of 18 years old?

Yes

No

Do you consent to participate in this study?

Yes

No

Appendix D
Demographic Information

Which gender do you identify as?

Man (2)

Woman (1)

Other (Please specify) _____

What age are you? _____

What is your ethnic or cultural background?

White

Irish

Irish Traveller

Other White background

Black/Black Irish

African

Other Black background

Asian/Asian Irish

Chinese

Other Asian background

Other (Please specify): _____

Do you currently reside in Ireland?

Yes

No

Appendix E

Political Attitudes Scale (Adapted)

Instructions: Please indicate your level of agreement or disagreement with the following statements using the response options provided.

Scale: Six point Likert scale ranging from (1) Strongly Disagree, (2) Disagree, (3) Slightly Disagree, (4) Slightly Agree, (5) Agree, (6) Strongly Agree

1. I support unrestricted free trade** (Econ)
2. Abortion should be generally available to those who want it. (Social)
3. Human pollution is a significant cause of global warming. (Social)
4. There should be a way for illegal immigrants to apply for citizenship. (Social)
5. The government should provide access to health care regardless of peoples' ability to pay.
(Econ)
6. The country should have a temporary guest worker program for immigrants. (Econ)
7. I think the wealthiest Irish people should pay more taxes. (Econ)
8. Gay marriage should be legal. (Social)
9. I support tax cuts for middle-class families. (Econ)
10. Countries should be able to use military force on countries they see as a threat without the approval of the United Nations.** (Social)
11. Private, market based health insurance is the right way to provide health care to Irish people.** (Econ)

**Reverse scoring was used on questions 1, 10 and 11.

Appendix F

Political Spectrum Questionnaire

Instructions: On a scale of 1 to 5, please place yourself on the political spectrum.

Scale: Five point Likert scale ranging from 1) Far left, 2) Moderately left, 3) Centre/moderate, 4) Moderately right, 5) Far right.

Appendix G

The 16 Items of the Pro-socialness Scale for Adults

Instructions: The following statements describe many common situations. There are no 'right' or 'wrong' answers; the best answer is the immediate, spontaneous one that best reflects your personal response. Read each phrase carefully and mark the answer that reflects your first reaction.

Scale: Never/almost never true (coded as 1), occasionally true (coded as 2), sometimes true (coded as 3), often true (coded as 4), and almost always/always true (coded as 5)

1. I am pleased to help my friends/colleagues in their activities (Practical)
2. I share the things that I have with my friends (Practical)
3. I try to help others (Practical)
4. I am available for volunteer activities to help those who are in need (Practical)
5. I am emphatic with those who are in need (Emotional)
6. I help immediately those who are in need (Practical)
7. I do what I can to help others avoid getting into trouble (Practical)
8. I intensely feel what others feel (Emotional)
9. I am willing to make my knowledge and abilities available to others (Practical)
10. I try to console those who are sad (Emotional)
10. 11. I easily lend money or other things (Practical)
12. I easily put myself in the shoes of those who are in discomfort (Emotional)

13. I try to be close to and take care of those who are in need (Emotional)

14. I easily share with friends any good opportunity that comes to me (Practical)

15. I spend time with those friends who feel lonely (Practical)

16. I immediately sense my friends' discomfort even when it is not directly communicated to me
(Emotional)

Appendix H

Debriefing Form

Once you submit your answers, your consent can no longer be withdrawn!

At this point to withdraw your responses from the study you can close the browser window.

However, if you are happy to contribute your responses to this research then please submit your responses now. Once you have submitted your answers, your data cannot be withdrawn.

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Thank you for your participation in this research study! Political orientation is an important factor in prosocial behaviour but the degree to which it is an important factor may be dependent on the demographic characteristics of the individual, such as gender, as well as attitudes towards social and economic issues. This study aims to investigate if gender specific differences in prosocial behaviour can be observed in Ireland and to identify which variables beyond gender, such as political orientation, account for potential differences in prosocial behaviour.

The main researcher conducting this study is Laura Duggan, a Psychology undergraduate student, at the National College of Ireland. The project supervisor is Dr. Lynn Farrell, National College of Ireland. If you have questions about the study or concerns about your participation in this study, you may contact the researchers through NCI. If you have a complaint about how this research was conducted, please contact in writing:

The Ethics Committee,

School of Business,

National College of Ireland,

Mayor Street Lower,

International Financial Services Centre,

Dublin.

If you feel upset after having completed the study or find that some questions or aspects of the study were distressing, talking with a qualified clinician or counselor may help. You can also call 116 123 to speak to a Samaritan or view alternative ways to talk at the website -

<https://www.samaritans.org/ireland/how-we-can-help/contact-samaritan/>

If you would like to receive a copy of the final report of this study or a summary of the findings when it is completed, please feel free to contact the researcher at x18112994@student.ncirl.ie.

Thank you for your time!

Do you wish to submit your answers?

Yes

No

Appendix I

Evidence of Data

Figure 3

Normal Probability Plot of PSB Total

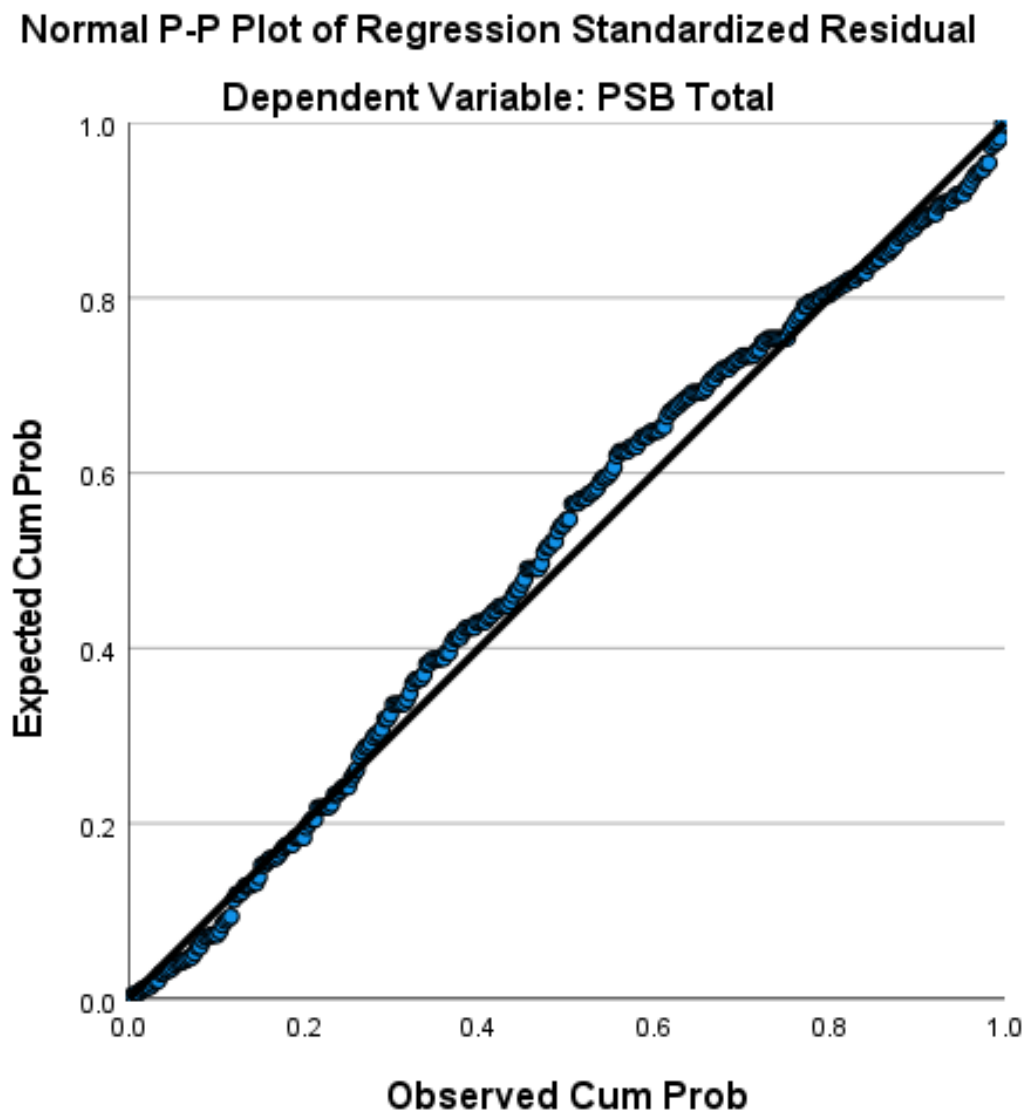


Figure 4

Scatter Plot of PSB Total

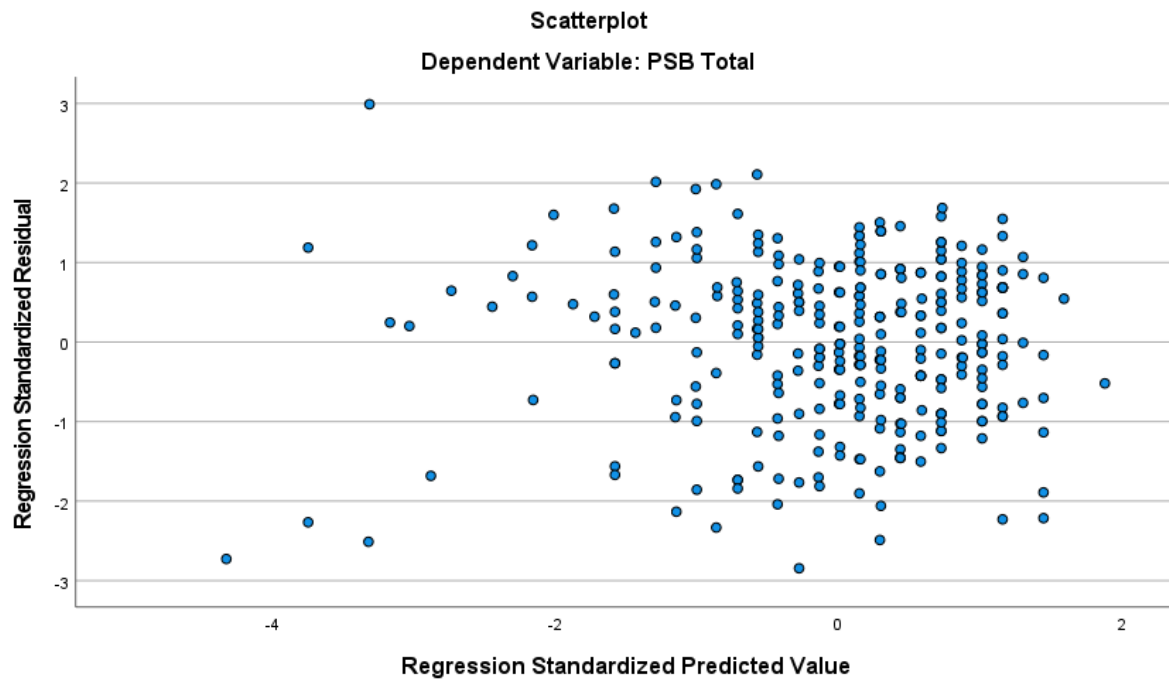


Figure 5

Scatter Plot of PSB Total by Pol Att Cont by Gender

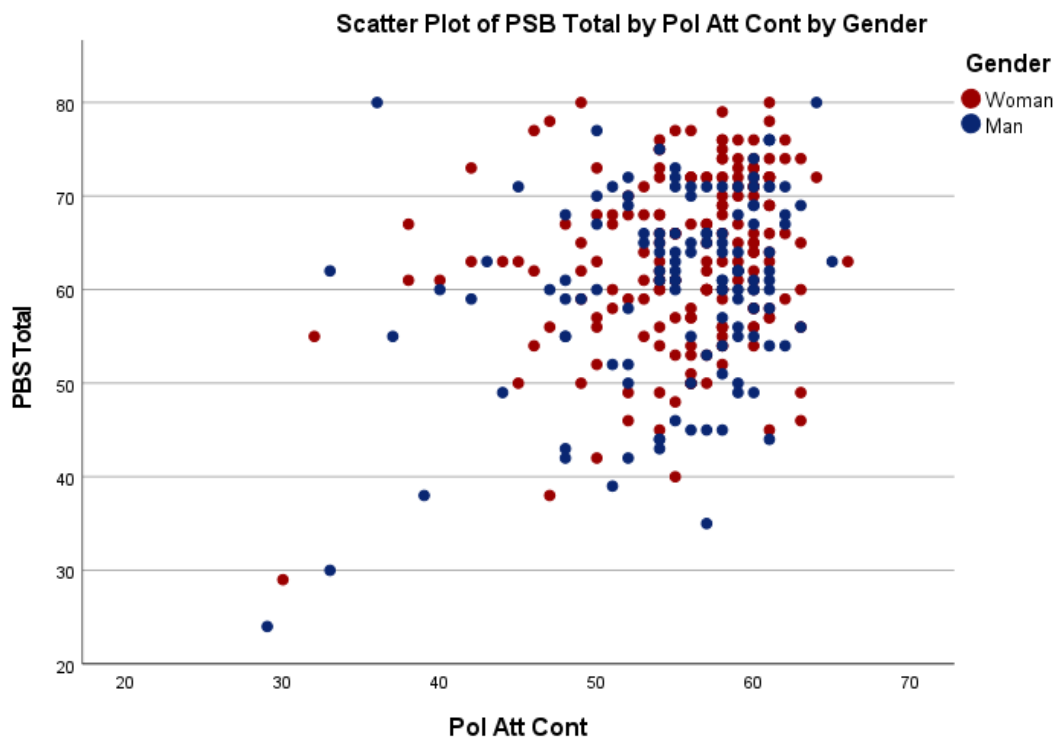


Table 5*Table of correlations for Women (n = 187) by Pol Att Cont and PSB Total.*

Variable	1.	2.
1. Pol Att Cont	1	.24**
2. PSB Total		1

*Note: ** $p < 0.01$* **Table 6***Table of correlations for Men (n =126) by Pol Att Cont and PSB Total.*

Variable	1.	2.
1. Pol Att Cont	1	.31**
2. PSB Total		1

*Note: ** $p < 0.01$*