The social psychology of charitable giving: determinants of individual donation decisions in intergroup contexts

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Declaration of Authorship

I, Trevor Keith James, hereby declare that this work was carried out in accordance with the Regulations of the University of London. I declare that this submission is my own work, and does not represent the work of others, published or unpublished, except where duly acknowledged in the text. No part of this thesis has been submitted for a higher degree at another university or institution.

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Abstract

Across nine studies, donation decisions towards charitable causes were investigated under a salient group membership. In studies 1 to 3, participants were told of a disaster that had occurred and a novel contribution was made by experimentally varying perpetrator group membership to investigate an ingroup bias, i.e. whether more donations would be associated when the disaster was supposedly caused by an ingroup member. In study 4, perpetrator group membership and victim group membership were manipulated together in the same design to demonstrate a novel interaction. Overall, the results indicated that perpetrator group membership can play an important role in affecting donation decisions; and moreover, that perpetrator groups can interact with victim groups to amplify prosociality towards ingroup members.

In study 5, cognitive reasoning styles were primed in order to investigate helping towards ingroup victims; while in study 6, reasoning style was primed alongside an anonymity manipulation to investigate helping towards outgroup victims. The results suggested an original finding; that an analytical reasoning style can in some cases result in increased prosociality towards victims that are presented as a statistical number.

Studies 7 to 9 manipulated the facial attractiveness of the victim in order to investigate donation decisions towards ingroup/outgroup members. There was some evidence that physical appearance can affect donation decisions and also interact with victim group membership.

Overall, the findings demonstrate the importance of considering intergroup processes in a charitable context, through selective emphasis of salient group memberships.

Acknowledgements

> "I shall be telling this with a sigh
> Somewhere ages and ages hence:
> Two roads diverged in a wood, and I,
> I took the one less traveled by,
> And that has made all the difference."
>
> -Robert Frost

Undertaking a Ph.D. was not something I had planned or dreamed of doing, but I am very glad that I walked down this path. I have learnt a great deal over the last three years, and I am sure that I will learn a great deal more over the next few years. If anything, undertaking a Ph.D. has made me realise that there is much more to discover. I would like to thank three persons in particular, for without these individuals, I think I would not have accomplished what I have.

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Chapter One

Introduction and contextualisation

Charitable giving and generosity

In 2014, individuals in the United Kingdom donated approximately 10.6 billion pounds to charities, and in 2013 they donated approximately 10.8 billion pounds (Charities Aids Foundation, 2014). In the same year in the United States, individual donations were approximately 258.5 billion dollars (Giving USA, 2015). Of course, economic wealth of nations varies greatly across the globe, and a better index of charitable giving may be the percentage of people who chose to donate in a particular country. In the 2014 World Giving Index (Charities Aid Foundation, 2014), Myanmar was ranked first with 91% of donors reporting having made a donation in the last 12 months. Malta came second (78%), followed by Thailand (77%), Ireland and the UK (74%), Canada (71%), Iceland and the Netherlands (70%), and the USA (68%). Cross-country comparisons of giving are misleading however, largely due to methodological differences in survey data collection (e.g. sampling methods), alongside differences in the operational definition of charitable giving (e.g., whether street begging or church taxes were included). This latter issue of monetary contributions to religious organisations is a pertinent issue, with approximately one third of charitable giving in the U.S. directed towards organisations based within ones faith (Giving USA, 2015), while U.K. figures for church based donations are approximately 12% (Charities Aids Foundation, 2014). Regardless, at face value,

these figures suggest that individuals and nations around the globe are remarkably generous.

However, despite what appears to be a high level of generosity on the surface, there are compelling reasons to remain dissatisfied with levels of giving; and compelling reasons to conduct empirical research into understanding the psychological processes behind monetary donations. For example, despite the sums given by donors in the U.K., overall giving represents as little as 0.8% of the U.K.'s gross domestic product (Brodie, Bhati, Jochum & Wilding, 2011). Again, the U.K. is not atypical in this regard, as only 6 of the 20 countries in global giving rankings are members of the Group of Twenty (G20), which comprises of 19 of the world's wealthiest nations defined in terms of gross domestic product (Charities Aids Foundation, 2014). To put another way, giving levels across the globe do not appear to be related to the level of wealth in different nations.

Interestingly, this disjunction between levels of income and giving has been observed not only at an international level, but also at an individual level. In the U.K., those who are financially poorer donate over 3% of what wealth they have available, compared to the richest in society who give around 1% of their discretionary income (Mckenzie & Pharoah, 2011). These trends have been observed over several decades in both the U.K. and in the U.S. (Banks & Tanner, 1997; Bennett, 2012; Brooks, 2008; Vazquez, 2011; Wiepking, 2007).

Despite so many individuals making private donations, and despite relative historical stability in donation levels, it is dangerous to assume that individual levels of philanthropy will remain high. For example, although it appears that individual donations are fairly robust in the face of brief economic recession (Charities Aid Foundation & NCVO, 2011) it is also true that donations in the UK and abroad have

fallen considerably in the past, and that economic predictions for charitable donations are currently flat (HM Government, 2011; Smith, 2012).

There may also be generational differences in attitudes towards philanthropy, a concern highlighted by the fact that the most generous donor group are the over 65s (Charities Aid Foundation & NCVO, 2011; Cowley, Smith, Mckenzie, & Pharoah, 2008; Pharoah & Tanner, 1997; Smith, 2012). Cowley, McKenzie, Pharoah and Smith (2011) and Smith (2012) have speculated that older generations, who were more closely affected by WW2 and are historically associated with the formation of strong social policies (e.g. the founding of the NHS in 1948), have stronger philanthropic values. There is also a concern that a younger 'generation me' will be less giving, perhaps growing up outside the shadow of WW2, and more under a spotlight of individualism and consumerism. One can only guess as to whether the younger generation will become more philanthropic as they age and match the donation levels of the current older generations.

There are also gender differences in relation to generosity and average donation amounts. Even amongst the most generous donor category, the over 65s, there is a large gender difference. Women are more likely to give, and also give a greater median amount (£20 per month compared to £12 per month) (Charities Aid Foundation & National Council for Voluntary Organisations, 2011). However, there is research to suggest that men may prefer to donate greater amounts but to fewer charities, perhaps in order to make the most impact (Andreoni, Brown, & Rischall, 2003). Regardless, these type of considerations led Breeze (2010; 2013) to argue that charitable donations cannot be predicted by a straightforward model based on the level of help needed, the level of media exposure, or the frequency of charitable

solicitations. Rather, her qualitative interviews suggest that donors often give for personal and emotive reasons as opposed to more practical considerations.

It is certainly the case in the U.K. that there are systematic differences in donations between types of charitable organisations. Medical, hospital and children's charities consistently receive more than appeals towards the homeless, the elderly, or overseas (Charities Aid Foundation & National Council for Voluntary Organisations, 2011). This latter point is of great concern. Approximately 870 million individuals, some 15% of the world's population, are severely undernourished and suffer from a life threatening lack of food (Food and Agricultural Organization of the United Nations, 2012). The United Nations Office for the Coordination of Humanitarian Affairs highlights that over 1 billion individuals are suffering from hunger, that humanitarian disasters occur more frequently than once per day, and that such disasters are on the increase due to climate change and political conflict (United Nations Office for the Coordination of Humanitarian Affairs, 2012). These figures suggest that Breeze (2013) is correct in suggesting that donors are not concerned with a straightforward analysis of the level of need.

It is clear from the context presented so far that charitable donations are not only of vital importance to local communities, but that they are also of international concern. There is an interesting moral distinction here. Charitable giving can be directed locally towards individuals and groups in our own country, or directed outward towards individuals and groups in other countries. This latter measure is perhaps a more accurate measure of unselfish altruistic behaviour (if one assumes that such a thing as human altruism exists). Unfortunately, as I have already alluded to, individual donors are not so generous with their donations towards other countries, and therefore towards other national groups. In the U.K., only 10% of donations are

towards overseas causes (Dobbs, Harrison, Jochum, Smith, & Wilding, 2012), and only 3% of donations go to overseas causes in the U.S. (Charities Aid Foundation, 2006). Thus, the observation can be made that even though we can be generous, we tend to be more generous to our own country, and to our own social groups.

The present thesis

The importance of social groups in the context of charitable donations is one of the reasons I adopt a social psychological approach in my exploration of what drives people to donate to charitable causes. Although the study of monetary donations is a truly cross-disciplinary subject (and I will continue to cite literature from disciplines such as experimental economics, business, and marketing), social psychology has a unique contribution to offer. This is not a new observation. Kurt Lewin argued in 1939 for the importance of social psychology in understanding broad societal issues (Lewin, 1997). It is in social psychology that the effects of group membership have been studied in many contexts, and over many decades. Despite this, there are relatively few studies to date in social psychology that have used experimental paradigms to investigate the psychology of monetary giving. Those studies have demonstrated that giving is not necessarily a rational process (e.g. donors give more when asked to focus on a single victim, even when their donation could benefit a larger group (Kogut & Ritov, 2005). Moreover, much of the past social psychological literature on charitable giving has emphasized interpersonal contexts, and few studies have investigated intergroup processes (for a review, Zagefka & James, 2015). Hence, there are clear gaps in our knowledge about the social psychological processes prompting individuals to donate money to charity, and it is these gaps which the current thesis aims to address.

It should be noted that donating is one type of helping behaviour. While there has been much research into other helping behaviours from a social psychological perspective, particularly in an interpersonal context, e.g. emergency helping in bystander contexts (Latane & Nida, 1981), there is much less research in this field that has investigated donation decisions. Charitable giving, I argue, is a special form of helping for a number of reasons. It is presumed that donors will not meet the victims they help, that their actions will not provide instant relief to victims, and that donors are donating to an organisation who will aid specific groups on their behalf. In this way, donation behaviour is often focused on helping other groups in need, in contrast to helping specific individuals in emergency situations. As a consequence, although the literature on interpersonal helping is useful, one can assume that the psychological processes involved in helping groups will be somewhat different. Moreover, donors generally have more time to consider charitable appeals, to encounter solicitations from charities on a more regular basis, to absorb media coverage, and to choose one appeal over another using a variety of cognitive and/or affective mechanisms. Indeed, many donors contribute a certain amount towards charitable giving as part of their household budget (Andreoni et al., 2003), and in this sense, financial donations can be considered a planned economic activity. There is also an applied distinction here, as monetary donations form the currency that charities need. Blood donations, volunteering, or donating unwanted clothes, are useful in some situations, but it is funds that charities require most. Moreover, it is unclear whether donating unwanted items such as clothes, or volunteering (where the volunteer has much to gain themselves), can always be considered forms of charitable helping. Overall, there are various reasons why one must assume that monetary donations present a special case, and should be studied in their own right.

As stated above, I adopt a social psychological perspective to the study of charitable donations, and a novel contribution is made by considering the role that salient group memberships can play in donation decisions. Chapter 2 reviews the literature relevant to this question. It begins with a discussion of the social identity approach. This approach allows for a group level perspective and is an important theoretical approach that I adopt throughout this thesis. Chapter 3 reviews research in the domain of reasoning styles in helping behaviour, while chapter 4 reviews research pertaining to the prosocial effects of facial attractiveness. Chapters 2 – 4 were written with an emphasis on theories and research which are directly relevant to the empirical components of this thesis, although they do also provide summaries of some of the most prominent theoretical accounts of prosociality, since no thesis related to this topic should ignore the most well developed and well known accounts.

Chapters 6, 7, and 8 are the empirical chapters. Chapter 6 presents four experiments that investigate helping under salient group memberships, and a novel contribution is made by focusing on the effects of a shared perpetrator group membership on donation decisions. Chapter 7 presents two experiments where reasoning style is manipulated, either alongside a salient group membership, or alongside a reputation manipulation. Chapter 8 presents three experiments where the facial attractiveness of ingoup members (same nationality) and outgroup members (other nationality) are manipulated. All studies emphasise group memberships by considering the nationality of the recipient and/or (where applicable) the perpetrator. Chapter 8 ends with a discussion that summarises the results, acknowledges limitations, and presents possibilities for future research.

Chapter Two

How did we learn to help other groups?

Social Identity Theory (SIT) and Self-Categorisation Theory (SCT): Helping the self and helping the group

In chapter 1, I argued that many of the world's wealthiest countries by GDP index are not the most generous. In making this claim, I do not argue that these countries are somehow less moral or less prosocial, but instead my claim is that these countries do not give as generously to overseas causes as one might expect given their relative wealth. Social Identity Theory (SIT; Tajfel, Billig, Bundy, & Flament, 1971) may serve to explain this. Fundamental to SIT is the importance of group memberships to the individual. According to SIT, individuals have social identities which are formed by the social groups that they are members of. Moreover, these social groups contribute to an individual's sense of identity and self-worth, and often prescribe social norms (Hewstone, Rubin, & Willis, 2002; Hogg & Reid, 2006; Rutland, Hitti, Mulvey, Abrams, & Killen, 2015). This implies that we have a vested interest in making favourable intergroup comparisons, and promoting the ingroup where possible, as doing so is linked to our self-esteem (Brewer, 1979, 1999; Tafjfel & Turner, 2004; Turner, 1975). SIT was originally born out of a desire to understand the intergroup atrocities in WW2; however, it can be applied to prosocial behaviour. If our social groups are so important to our self-esteem, and if a group that we belong to does well, then by some measure we have also done well (Hogg et al, 1995). In this sense, helping the ingroup becomes tantamount to helping the self.

SIT offers a compelling account of group memberships, but it does so broadly and without attention to more fine-grained psychological processes. In order to elaborate upon the cognitive mechanisms underlying SIT, Self-Categorization Theory (henceforth SCT) (Turner, Oakes, Haslam, & McGarty, 1994; Turner, 1987) was developed. According to SCT, people have a distinct cognitive capacity to consider themselves separately, e.g. 'I', or as a collective, e.g. 'we'. Moreover, the use of cognitive schemas allows easier mental processing of our environments by allowing us to construe the social landscape as consisting of groups to which we do, or do not, belong to. This results in a categorisation process, where the individual attempts to assign people (including the self) to a relevant social group. This categorisation process is influenced by cognitive factors related to the accessibility of information at hand (e.g. visual cues, context), as well as the comparative fit of the category (Turner et al., 1994; Turner, 1987).

The categorisation process can be thought of as a cognitive method of simplifying the vast amounts of information around us by contrasting groups in such a way that group boundaries are made distinct, and so that groups are seen as separate entities (Hogg, Terry, & White, 1995). This process encourages minimisation of *intra*-group differences, and maximisation of *inter*-group differences, i.e. groups are simplified both in terms of what they constitute, and in terms of how related they are. This encourages a 'black and white' view of social group categories that in turn leads to the simple mental stereotype of ingroup vs. outgroup. Moreover, this cognitive need to simplify and categorise the world into distinct social groups can lead to a process of deindividuation. Put simply, it is easier to categorise the world into social groups than to attempt to hold accessible the vast array of information that can be associated with any one individual. Importantly, the self is not excluded from this

cognitive process, and once an ingroup is made salient, we can see ourselves as part of that group and adhere to what we perceive to be relevant prototypical behaviour (Hogg et al., 1995; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). A by-product of the categorisation process is seeing other ingroup members as similar to the self, as 'we' in some sense, and seeing outgroup members as dissimilar, or as 'them'. Crucially, once a group membership is made salient, individuals can be seen and judged by their group category, rather than as an individual. The concept of salience is fundamental to SCT, which considers group memberships to be fluid. We are all members of a wide variety of groups, and whether deindividuation occurs depends on the salience of the group at any particular time.

Several studies lend support to the importance of group memberships in prosociality. Cuddy, Rock and Norton (2007) conducted a study following Hurricane Katrina in the U.S. and investigated the helping intentions of locals who lived or worked in affected areas. Locals reported lower helping intentions towards outgroup members (distinguished in this study by race, white vs. black/Latino). Decreased helping intentions towards outgroup members appeared to be driven by participants believing that outgroup members felt less negative emotion after the disaster (e.g. anguish and grief), suggesting that outgroup members were dehumanised.

The importance of group memberships in helping behaviour is also demonstrated in experimental work. Research in the domain of emergency bystander intervention has found that onlookers were more likely to help ingroup victims in need, and that other bystanders only influenced helping behaviours when they were also ingroup members (Levine, Cassidy, Brazier, & Reicher, 2002). In a similar paradigm that utilised rival football groups, a confederate who collapsed in a public area was more likely to be helped if they wore an ingroup team shirt compared to a rival team

shirt (Levine, Prosser, Evans, & Reicher, 2005). Importantly, helping was also less likely to occur if the confederate wore an unbranded (neutral) shirt, and in line with the social identity approach, helping only occurred when group memberships were made salient. According to the social identity approach, these results can be explained in terms of participants feeling that they have more in common with ingroup members, and crucially, that fellow ingroup members are similar to the self. Dovidio et al. (1997) emphasize the concept of 'we-ness'[1] as a sense of connectedness with one's own group that encourages acts of ingroup favoritism and helping (see also Brewer, 1999). Dovidio and colleagues found that participants were more willing to help when the target had been recategorised to a common ingroup. Participants were also more willing to self-disclose personal information and offer more positive evaluations to members of a common ingroup.

Many studies that have investigated the effects of group membership on prosociality have focused on prosociality other than donations, e.g. following a similar format to that used by Levine et al. (2005). However, there is some research that has investigated the effects of group membership specifically on charitable donations. Levine and Thompson (2004) manipulated whether a fictitious earthquake occurred in Europe or South America and measured subsequent hypothetical donation amounts.

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[1] The concept of 'we-ness' is somewhat similar to more recent work on 'fusion' (Burhmester & Swan, 2015; Fredman, Burhmester, & Gomez, et al., 2015). However, fusion can be considered a more extreme form of we-ness that is based on deontological principles, is resistant to change, and can involve a great level of self-sacrifice – particularly towards ingroup members who are seen as being fused to the self.

Interestingly, British participants donated more to the European relief fund, but only when they had been previously primed with European group membership. Again, this demonstrates not only the importance of group memberships in prosociality, but more specifically the importance of a salient group membership. Donation levels from British participants were indifferent to the nationality involved, and thereby to the location of the disaster, unless those British participants had been reminded of the superordinate national category of Europe which connected them to the recipients.

The importance of group memberships such as nationality in helping behaviour should not be overlooked as appeals to nationalistic pride can be an effective method of increasing prosociality. In a study involving Dutch helping intentions (ingroup) towards Jews (outgroup), appeals to collective pride were more effective than guilt appeals for high identifiers (van Leeuwen, van Dijk, & Kaynak, 2013). These results are in keeping with the social identity approach. High identifiers are likely to react strongly to negative connotations that are associated with the psychologically very important ingroup. Moreover, the results appeared to be driven by increased levels of empathy for the outgroup that were generated when high identifiers were exposed to the pride appeal. In a separate study, van Leeuwen (2007) demonstrated that making salient a relevant national expertise (Dutch water management) increased the likelihood of overseas aid following the Asian tsunami of 2004. Moreover, aid was more likely to be supported when Dutch national identity was threatened by alleged assimilation of the Dutch into a common EU identity.

In sum, consideration of group memberships goes some way to understanding why nationalities and other group memberships can be so important when it comes to helping behaviours, and why countries give relatively little to foreign aid. In the United States, a country that donated over $300 billion in 2012, only 6% went to

overseas causes (Giving USA, 2013). On the face of it, this behaviour might be surprising, but it is in line with expectations if one reconsiders U.S. donation behaviour under a social identity lens. Helping the ingroup is a typical behaviour, one that is expected, and local appeals to help fellow ingroup members are likely to be more effective in gathering support than overseas causes. One aim of the present thesis was to test the ubiquity of this ingroup helping preference, by studying it across a range of different settings.

The importance of the missing perpetrator in charitable donations: Human involvement and donor responsibility

I now turn to what I term the 'missing perpetrator' in charitable research. Until recently, the importance of the perpetrator (I define this as whoever/whatever is perceived to be at fault for the negative event) has been neglected. For example, the field of bystander intervention, which has been developing since the brutal attack on Kitty Genovese in 1964, has only recently acknowledged the role of the perpetrator in emergency helping (Wilson, 2011). Given that perpetrator group membership has only recently been considered in a prosocial research field that has been under investigation since the 1960s (Latané, & Darley, 1968), it is not surprising that the role of the perpetrator has remained largely unstudied in charitable research. More importantly, there is reason to suspect that causal attributions related to perpetrator group membership may play a vital role.

Firstly, in comparison to when disasters are believed to be caused naturally, there is evidence that participants are less prosocial when human involvement is highlighted in a negative event or disaster (Zagefka, Noor, Brown, de Moura, & Hopthrow, 2011). Moreover, the degree of intentionality by a human agent can also

affect prosociality. Ames and Fiske (2013) utilised two different contexts (fraud and drought) and demonstrated that if the human perpetrator behaved intentionally, then perceptions of financial harm were magnified. These irrational beliefs were increased even when participants were incentivised to make accurate predictions. These experimental findings can be explained at least in part by work by Lagnado and Channon (2008) into blame attributions. They demonstrated that intentional acts were rated as more causal, and thereby more blameworthy, than unintentional acts. Their results were explained partly due to foreseeability, with participants viewing human intentional acts as more foreseeable, and thereby more preventable and presumably less worthy of aid. Taken together, it appears that the presence of a human perpetrator can affect human prosociality negatively, with more pronounced effects likely to emerge when human acts are perceived to be intentional.

Although the findings above suggest that the mere presence of a human perpetrator can affect helping behaviour, the group membership of the perpetrators – i.e. who the perpetrators were in relation to the respondent – was not considered. However, it is plausible that perpetrator group membership has an important function as to how individuals donate. After all, if it matters to potential donors whether a human perpetrator is involved, then surely it will also matter who that perpetrator is, and more specifically, whether the donor sees the perpetrator as an ingroup or outgroup member.

Empirical research outside of the prosociality domain has demonstrated that the relationship between respondent and perpetrator can be vital. In a study conducted after the assassination of Dutch critic Theo van Gogh by a Muslim extremist, Dutch non-Muslim participants were more likely than Muslim participants to view the Muslim perpetrator as ‘evil’; i.e. lend weight to internal rather than external

motivations for the tragedy (Doosje, Zebel, Scheermeijer, & Mathyi, 2007). Dutch non-Muslim participants were also more likely to view the perpetrator as typical of a Muslim outgroup, with both findings reversed for Muslim participants. Finally, recategorising perpetrator groups to an inclusive category, e.g. 'human', has been shown to increase forgiveness of national groups for historical atrocities (Wohl & Branscombe, 2005).

While outgroup perpetrators are viewed more negatively, ingroup perpetrators are more likely to benefit from leniency. Studies have demonstrated an increase in secondary victim blame (where the victim is blamed in part for their plight by others not involved in the incident directly) when the perpetrator belonged to the ingroup. Bal and van den Bos (2010) demonstrated that when a perpetrator accused of rape shared group similarity with the participant, there was an increase in victim blame and victim derogation. These findings are in accordance with the social identity approach, where one might expect increased favouritism and greater leniency towards ingroup perpetrators. However, findings in this regard have been mixed. While some studies have demonstrated leniency towards ingroup perpetrators in a race context (Sommers & Ellsworth, 2000; Sommers & Ellsworth, 2001), as well as in a gender context (Steffensmeier & Demuth, 2006); others have found no difference (Mazzella & Feingold, 1994; Williams & Holcomb, 2001). Moreover, some studies have even demonstrated outgroup leniency (Feather & Souter, 2002; Gordon, 1993). Braun and Gollwitzer (2012) argue that outgroup perpetrator leniency is a result of reputation concerns relating to prejudice and egalitarianism. In a study investigating leniency towards a perpetrator from a majority group in Germany (Caucasian) who had committed an offence against an ethnic minority group (South-east Asian), they demonstrated that the outgroup leniency effect could be negated if white participants

were reminded beforehand that their group had done much to help the minority group in the past.

The concept of an ingroup perpetrator is related to that of an ingroup deviant, a term used to describe someone who violates a group norm but not necessarily a state law. In some cases, deviants too can receive increased punishment. These observations have often been thought of in terms of the black sheep effect (Marques, Yzerbyt, & Leyens, 1988), where ingroup deviants are presumably punished in order to protect the positive social identity that individuals derive. Although research into the black sheep effect was born out of a desire to understand a lack of prosociality towards a fellow ingroup member, it is possible to reinterpret the effect as an extreme form of prosociality. Punishing the ingroup member can be considered prosocial if one does not conflate prosociality with niceness. McKay and Whitehouse (2015) argue that there are less 'sanitised' forms of prosociality that do not always involve being nice to others. This type of moral backbone can include punishing offenders, and even using violence if necessary, to uphold important values. In this sense, the black sheep effect can be considered a type of altruistic punishment where one punishes and controls the ingroup member in order to do 'good', and thereby to benefit the larger group, as well as to maintain the norms and values pertaining to that group.

Importantly, there is also evidence that ingroup perpetrators might trigger a heightened desire in other group members of wanting to 'atone' for the evil deeds which have been committed (Brown, González, Zagefka, Manzi, & Cehajic, 2008). After all, according to SIT, if an ingroup member caused a problem, under conditions of salient group membership this can psychologically equate to the self having caused the problem. Hence, actions committed by an ingroup perpetrator might be associated with guilt, perceived responsibility, and motivation to make reparations.

In sum, there is a considerable amount of research suggesting that ingroup or outgroup memberships of human perpetrators can influence the psychological responses to their actions. One aim of this thesis was to present an inaugural exploration of these effects in the context of monetary donations.

Social learning and imitation

So far it has been argued, consistent with the social identity approach, that group memberships can play an important role in prosocial behaviour. But how do we learn to help the ingroup? One could attempt to explain ingroup helping as entirely driven by the aforementioned processes of SCT. This would suggest that ingroup helping is a by-product of cognitive categorisation processes, where one deindividuates group members to ingroup and outgroup categories, and where helping the ingroup becomes a process akin to helping the self. While this is possible, it is also probable that culture and learning play a role in determining how we respond to ingroup members in need, as well as how we distinguish which groups we belong to, and which groups are worthy of joining. To elaborate, if I identify as British, then I may have an inclination to help fellow Brits, and this is particularly true if the shared nationality is made salient by the context, e.g. in a helping situation abroad. However, in order for this process to be initiated, at some point I would have needed to learn that national identities exist, learn which characteristics signal Britishness (e.g. speech, appearance), and learn to see Britishness as an important and valuable group identity. These considerations lead us to early theories in social psychology that can help explain how we learn to help the ingroup, e.g. social learning theory (Bandura, 1977).

If donation behaviour were to be interpreted under social learning theory, then charitable giving would depend greatly on the social learning environment. The extent

to which acts of donation behaviour were reinforced, perhaps through social media or through peer group approval, would inform the extent to which those donation acts were adhered to. For example, a young child in one country may observe and subsequently model acts of charitable giving, but a young child in another culture may be exposed to and model other prosocial behaviours that are not related to monetary giving.

Evidence in support of social learning is provided not only by seminal experiments into playful child behaviour (Bandura & Huston, 1961), but also through research that has demonstrated the importance and prevalence of imitation in general learning. For example, Weeks and Anderson (2000) demonstrated that when learning how to serve legally in volleyball, adult participants who interspersed practice with observation outperformed a control group which focused on practice alone. Similarly, Adank, Hagoort and Bekkering (2010) found that participants who mimicked unfamiliar accents showed significant advantages in language learning. It seems clear that observation and imitation are linked to learning. Interestingly, Bird, Orsini and Heyes (2010) found that those in a prosocial priming condition produced a larger automatic imitation effect than those in the antisocial or neutral conditions. The researchers argue that there is a bidirectional relationship between imitation and prosocial behaviour. Not only do we learn through imitating, but we automatically imitate when in a prosocial frame of mind.

Importantly, social learning and imitation do not necessarily occur consciously. Infants as young as 18 months old have shown increases in prosocial behaviour after being imitated (Over & Carpenter, 2009). Focusing on adult populations, Chartrand and Bargh (1999) demonstrated that confederates who covertly mimicked participants' hand and foot tapping behaviours were subsequently rated as

more trusting and likeable; even though participants did not report being aware of the imitation. Van Baaren, Holland, Steenaert and van Knippenberg (2003) found that waitresses who mimicked their customers received higher tips. Researchers have even demonstrated that computerised avatars which mimic participants' head movements are subsequently rated as more persuasive and trusting (Bailenson & Yee, 2005).

Social learning theory, and research into automatic and unconscious imitation, offer an explanation as to why prosocial tendencies are observed in young children, as well as why much helping behaviour may be instinctual. We must learn how to function in society, and one can assume that this learning involves cultural information relating to how we interact and help others. A desire to help ingroup charities and ingroup victims in need might be socially learnt. The following section considers in more detail how cultural norms are relevant to prosociality.

Social norms

If one assumes that there are cultural differences in the expression of prosociality, then social learning theory can help to explain variations in giving behaviours. Chapter 1 provided descriptive evidence in the form of a world index of charitable giving, where some countries appear to have a culture of philanthropy and consistently report higher levels of individual donations. A possible explanation for these donation patterns is that there are different cultural social norms of giving that have become prevalent in different societies.

Social norm theory (Perkins & Berkowitz, 1986) was originally developed in order to explain drinking behaviour in U.S. college students, but may help to understand prosociality. The theory argues that excessive drinking behaviours such as binge drinking may be the result of a social norm, where excessive drinking

behaviour while at college is permissible or even encouraged. A student may observe other students drinking and jump to the (false) conclusion that all students engage in heavy drinking behaviour. Irrespective of the veracity of this observation, a social norm of excessive drinking has been created. This erroneous reasoning can be described as a 'false consensus' effect (for a review see Mullen et al. (1985); also, Gilovich, 1990).

Social norms that are conveyed through observation of behaviour may be considered a direct extension of social learning theory and imitation. However, as with the example above, social norms can be created directly (e.g. engaging in heavy drinking to fit with the student stereotype), or indirectly (e.g. by not challenging the assumption that most students drink heavily). It is easy to see how the drinking example could be applied to prosocial behaviour such as charitable donations. Norms can be created that relate to everyday acts of helping or generosity. These may then become universal norms, encouraging donations that are in line with real or perceived peer behaviour.

The social norms approach can be nuanced further by fractionating social norms into three distinct types: personal norms, descriptive norms, and injunctive norms (Cialdini & Goldstein, 2004). The first type of norm refers to a personal sense of moral acceptable behaviour in a specific situation, and may also reflect personal values. Personal norms may or may not be in line with evidence; however, the 'false consensus' effect argues that personal norms may become perceived as more general social norms if they are not challenged by others. Descriptive norms are essentially the general social norms discussed in the previous paragraph that apply to a particular social group, and that describe typical expected behaviours in a given context. Finally,

injunctive norms define moral behaviour by expressing what people ought, or ought not, do in society.

Social norms have been found to influence a wide range of pro- or antisocial behaviour such as alcohol use (Walters & Neighbors, 2005), safe-sex practices (van Empelen, Gok, Jansen & Hoebe, 2001) and littering (Cialdini, Reno & Kallgren, 1990). There have also been a few studies which have directly investigated the role of social norms and charitable giving. Frey and Meier (2004) manipulated social norms on a university campus and found that the creation of a pseudo injunctive social norm increased donations in a subsequent fundraising campaign. Croson, Handy and Shang (2009), and Croson and Shang (2011), found that descriptive social norms of donating increased donations to a charity appeal advertised on a public radio station. Hysenbelli, Rubaltelli, and Rumiati (2013) gave participants information on prior donation amounts and demonstrated that ingroup member donation information was particularly influential in increasing prosociality. These studies suggest that ingroup social norms are particularly important when it comes to creating norms that subsequently affect donation behaviour. According to the SIT approach, group memberships provide us with social norms in the form of prototypical behaviour. Not only are we expected to help our ingroup more, but other ingroup members can be influential in affecting the amount that we choose to donate.

As seen above, social norms clearly influence donation behaviour. An interesting question, however, is the extent to which this influence is automatic/intuitive or conscious/deliberate. In order for social norms to affect behaviour, those social norms must be made salient (Kallgren, Reno, & Cialdini, 2000). This suggests that social norms are not always instinctively adhered to, but that they sometimes need to be brought to awareness to be effective. The theory of

planned behaviour (TPB: Azjen, 1985) also conceives of behaviour as deliberate. TPB essentially argues that human behaviour is intentional and depends upon at least three factors: 1) the individual's personal intentions, attitudes and values; 2) the social norms of the situation as described above; and 3) the individual's perception of their own self-efficacy to make a difference. Hence, it is likely that donation behaviour is sometimes instinctive (as outlined previously), and sometimes consciously intentional (in line with research on social norms and TPB).

Moreover, even when donations are consciously intentional, donation decisions are not necessarily rational. Fetherstonhaugh et al., (1997) and Slovic (2007) have demonstrated that increasing the number of statistical victims actually results in *less* financial aid being donated. Other researchers have found that quick affective decisions result in higher donations than instructions to participants to deliberate and use reason (Dickert, 2008; Small, Loewenstein, & Slovic, 2007). There is also a substantial body of research on the 'identifiable victim' effect. These studies have all demonstrated that participants prefer to donate to a single identifiable victim rather than to a group of victims (Friedrich & McGuire, 2010; Genevsky, Västfjäll, Slovic, & Knutson, 2013; Hsee, Zhang, Lu, & Xu, 2013; Kogut & Kogut, 2013a; Kogut & Ritov, 2005b; Small & Loewenstein, 2003). Research pertaining to judgment and decision making will be touched upon again in chapter 3 but for now the 'take home' message is that donor rationality can be questioned.

Notwithstanding these considerations, social norm theory may help to explain systematic differences in donation behaviour. In fact, social norms might help explain some of the patterns outlined in chapter 1. Chapter 1 highlighted that poorer households donate a greater proportion of what wealth they have compared to wealthier households, and this appears to be true not only for charitable giving but also

for acts of trusting and general helpfulness (Piff, Kraus, Côté, Cheng, & Keltner, 2010). This could be explained with the existence of different social norms in different segments of the populations.

Empathy as a proximate ingroup helping mechanism

Earlier in section 2.1, I argued that donors have a preference for ingroup helping, and in doing so I also hinted that empathy is more strongly associated with ingroup helping. One explanation for increased ingroup helping is that we experience increased levels of empathic concern for ingroup victims in need. This present section provides an overview of the evidence for the link between empathy and prosociality in general, while the next section considers evolutionary accounts as to why empathy may be directed more towards the ingroup.

To begin, defining empathy is no easy task as there are varying definitions and conceptualisations. In an early meta-analysis, Eisenberg and Miller (1987) concluded that empathy was in conceptually muddy waters, with some researchers measuring empathy through affective measures of personal distress, others through cognitive measures of perspective taking, while others conflated empathy with sympathy. They also argued that differences in how empathy was defined and measured could explain why a previous meta-analysis by Underwood and Moore (1982) had found a non-conclusive relationship between empathy and prosocial behaviour in developmental research. Empathy may be measured situationally or via dispositional measures, but Eisenberg and Miller (1987) found the best empathic predictors to be situational measures. Studies which measured empathy using situational measures have typically found effect sizes between empathy and helping at around 36%, while dispositional measures tended to have much lower effect sizes of around 10%. This is not surprising

since situational empathy is not only a measure of dispositional empathy (dispositional empathy has been shown to correlate with situational empathy (Otten, Penner, & Altabe, 1991) but also a measure of the specific experimental context as well. Notwithstanding various definitional issues, empathy remains a strong predictor of prosociality across a wide range of contexts. For example, empathy has been shown to be an important predictor of donations to a telethon (Davis, 1983), as well as to victims of natural disasters (Marjanovic, Struthers, & Greenglass, 2012).

Interestingly, there is also some evidence to suggest that there might be an innate or biological basis to empathy. For example, empathy has been shown to be connected to feelings of attachment that are developed through infancy (Eisenberg, Fabes, Guthrie & Reiser (2000). Eisenberg and colleagues found that children who demonstrated higher levels of dispositional empathy were more likely to help, provided they could regulate their negative emotions and not feel overwhelmed. Further, adult empathy traits have been found to correlate with empathy ratings taken during childhood (Eisenberg et al., 2000), and children who demonstrated early temperament behaviours classified as 'resilient' were significantly more likely to volunteer during adulthood (Atkins, Hart & Donnelly, 2004). Finally, infants as young as 5 months old have been shown to prefer individuals who act prosocially (Hamlin & Wynn, 2011).

Although the developmental findings above suggest a biological basis, it is of course possible for these behaviours to be developed socially even at a very early age. There is however evidence from neuroscientific studies to suggest empathy may be innate. Neural activity in the mesolimbic reward areas of the brain (an area associated with feelings of pleasure and reward) has been demonstrated during donation behaviour. Increased activity in mesolimbic brain regions was observed when

participants were asked to make a charity donation, and further, these activations occur in a similar pattern to the activity observed when financial rewards were received (Moll et al., 2006). Harbaugh et al. (2007) also found activations in reward areas of the brain when individuals were asked to consider making a tax donation to a charitable cause, with a more pronounced (self-reported) pleasurable effect when the giving was voluntary. Overall, these findings suggest that helping behaviour is rewarded through neural mechanisms that reward certain behaviours, and therefore support the idea of a biological basis to giving behaviours. However, neural activity can be widespread and common to a range of tasks (for philosophical criticism of recent neuroeconomics research on questions related to human altruism, see Mukherjee (2013). Moreover, these particular studies do not provide evidence that empathy is necessarily involved.

In terms of a neural basis for empathy, donation behaviour has been associated with neural regions more commonly associated with attachment and perspective taking. For example, Ma, Wang and Han (2011) observed that watching others in pain generated activity in areas of the brain that are assumed to be associated with empathy, and this activation subsequently led to increased donations to an anonymous charity. Furthermore, EEG analyses of infants have found greater left frontal cortical activation associated with comforting tasks, and greater right temporal activation associated with helping tasks (Paulus, Kühn-Popp, Licata, Sodian, & Meinhardt, 2013). Taken together, these results suggest that empathy may have some neurological basis and is linked to prosocial behaviour.

There is a general agreement, then, that helping behaviour is demonstrated at an early age (which some might argue indicates a genetic basis), and that this behaviour continues into adulthood. However, there is less agreement as to whether

empathy leads to selfish egoistic helping (e.g. where the goal is to alleviate one's personal distress or improve one's reputation), or whether empathy can lead to non-selfish helping (where the goal is entirely to help the other person in need). Batson (1987) has argued that many researchers have conceptualised human altruism as primarily selfish in nature and arising from egoistic motivations. However, he has challenged this view with what he and colleagues have termed the *empathy-altruism hypothesis*; this hypothesis argues that humans can be truly altruistic and this can be demonstrated through feelings of empathic concern and distress for others in need.

To demonstrate the *empathy-altruism hypothesis*, Batson, Duncan, Ackerman, Buckley and Birch (1981) manipulated empathy (by telling participants that the target in need was similar to them), while also manipulating the ostensible difficulty of leaving the experiment and thereby *not* helping a confederate in distress. Their logic was that if participants were selfish altruists, entirely focused on reducing their own personal distress, then they would not continue with the experiment when it was easy to leave and avoid discomfort. By contrast, high empathisers would help irrespective of the difficulty of doing so. The results appeared to support the predictions. High empathisers stayed even when they were allowed to leave the experiment, suggesting that empathy results in a genuine desire to help others. Cialdini et al. (1987) disagreed with this interpretation. They argued that high empathisers were likely to experience increased feelings of sadness, and that this emotion could not be alleviated by simply leaving or turning 'off' the visual cues for the need for help. In their replication of the Batson study, they demonstrated that negative affect such as sadness could explain helping behaviour, and that when sadness was relieved (e.g. when the participant was given a prize before being asked to help the confederate), high empathisers were no longer significantly more helpful. Cialdini and colleagues refer to this behaviour as

the *negative-state relief model*, and place it in opposition to the empathy-altruism hypothesis (however, see Batson et al. (1989) for a rebuttal of the Cialdini experiment).

Irrespective of whether empathy leads to altruistic helping or 'selfish' helping, empathy has been shown to be a more important motivator of helping behaviour than the desire to alleviate guilt (Batson, 1988), to avoid social disapproval (Fultz et al. 1986) or to experience feelings of joy (Batson & Shaw, 1991). However, not all researchers are convinced of the fundamental role of empathy, and again, Cialdini has been vocal amongst the critics. Cialdini, Brown, Lewis, Luce and Neuberg (1997) argued that one cannot generalise the laboratory findings for empathic concern across all situations. For example, empathy may be proven to be a more important factor than guilt avoidance in one experimental paradigm, but it does not follow that guilt avoidance cannot explain helping behaviour better than empathy in other situations. Evidence for an empathy-altruism hypothesis would be stronger if empathy was considered alongside other competing variables simultaneously in the same design. Cialdini et al. (1997) did precisely this, using a regression model, and demonstrated that the extent to which the participant felt as 'one' with the target person was a more important predictor than empathy. Indeed, perceived 'oneness' mediated empathy effects in their model and was a stronger predictor of helping behaviour.

There appears to be at least two competing views with regards to empathy and altruistic behaviour, but there is evidence to support both the egoistic and altruistic accounts of helping. In the aftermath of 9/11, egoistic motivations to relieve personal distress were effective predictors of helping behaviour; however, only non-egoistic explanations were predictive of sustained giving behaviour (Piferi, 2006). It is unlikely that a consensus can be reached about the fundamental philosophical question

of whether human nature is truly altruistic or not. However, although there is still debate over the nature of human altruism, there is a general consensus that empathy is often an important predictor of helping.

Last but not least, it is important to mention that evidence has been generated to suggest that empathy is a proximate predictor of helping ingroup members, but *not* of helping outgroup members (Stürmer, Snyder, Kropp, & Siem, 2006). This suggests that it might be instructive to further study the effects of empathy in intergroup contexts. One aim of this research, as will become clear below, was to do precisely that.

Helping the ingroup: An evolutionary perspective

Chapter 2 will, somewhat peculiarly, be concluded with a discussion of the ultimate origin of prosociality, that is, its evolutionary roots. I will suggest that evolutionary and social psychological perspectives on prosociality can be complimentary. I will also briefly consider how an ingroup helping tendency may have evolved.

Just why would an individual engage in donation behaviour that apparently offers little self-directed benefit, and that appears to contradict Darwin's maxim of natural selection (Darwin, 1859)? Monetary giving, on the face of it, is an irrational economic behaviour. If one accepts that human behaviour is egoistically motivated, giving up wealth for the benefit of others, particularly for outgroup members who may never be met, makes little sense. Indeed, any form of altruistic behaviour could be considered irrational if humans are in competition for resources. There are, however, at least two evolutionary theories which develop Darwin's theory, and which can

account for altruistic behaviour in humans. These theories are kin altruism (Hamilton, 1964) and reciprocal altruism (Trivers, 1971).

Firstly, to understand kin altruism theory, it is helpful to imagine a scenario where organisms do not possess a biological tendency to help others in need. In this scenario, which could occur during the early origins of the human species, there are no reproductive advantages, and all have similar odds for survival and successful procreation. If a genetic mutation were to be introduced to this environment, one which encouraged the altruistic helping of kin, then the situation has changed. This genetic mutation would entail that parents (and possibly siblings) would show increased prosociality and concern towards their family. As a consequence, offspring with altruistic parents would have greater odds of survival relative to other offspring that had less caring parents. The altruistic gene would also increase the survival odds of any siblings, who have a 50% chance of carrying the genetic mutation themselves. They, in turn, would show increased care towards their siblings, and later, towards their own children. With such a strong reproductive advantage, those alleles that did not contain the altruistic variation would not be competitive, resulting in the gene pool becoming saturated with the altruistic gene. In this hypothetical scenario, it is now common for kin to show altruistic behaviour towards each other (i.e. to their ingroup).

There are several studies that have found behaviour consistent with kin altruism theory. Burnstein, Crandall and Kitayama (1994) found that participants were more likely to aid closer, rather than more distant kin, as well as more likely to help more fertile or younger individuals. Webster (2003) found that participants were more likely to allocate resources to blood relatives and to allocate increased resources when a kin relationship was more certain. These results are in line with inheritance

donations patterns that show that close kin, and more fertile kin, benefit the most from family legacies (Smith, Kish, & Crawford, 1987).

There are several misunderstandings in social psychology related to kin altruism theory, and authors have written extensively on the matter (Dawkins, 1979; Park, 2007). For example, it does not follow from the theory that individuals would *consciously* demonstrate altruistic behaviour only towards kin. Altruistic acts towards kin are more likely to be an instinctive behaviour, something which becomes accepted in society as normal. With regards to giving behaviour, this would suggest that such behaviour may be driven by non-conscious processes. Interestingly, such a view is convergent with the social psychological findings relating to social learning and imitation (see section 2.3). A second misunderstanding relates to ubiquity of helping. It does not follow that saturation of the gene pool with the altruistic gene would result in universal philanthropy. Any form of universal altruism would not remain as competitive as the more selfish and focused kin/proximity altruism mechanism. This can help to explain why individuals may go to great lengths to help certain people, but ignore the suffering of others. In terms of donation behaviour, there is an evolutionary advantage to helping those in our ingroup, while there is little advantage in helping those in an outgroup.

With the above discussion in mind, kin altruism is useful in that it offers a theory that explains why altruistic behaviour is not contradictory to Darwin's view of evolution. Moreover, kin altruism goes some way to explain how biological and cultural tendencies to help the ingroup may have been evolved. It appears that we all have the capacity to give and to help others, even if some approaches suggest that in doing so we will favour our own kin.

Moving on to the theory of reciprocal altruism (Trivers, 1971), this theory too uses the principle of reproductive success as a mechanism which is essential to prosocial behaviour becoming widespread. However, reciprocal altruism theory is more directly concerned with reputation and reciprocity. This focus allows the theory to understand why we help others who are psychologically distant from us. Genes that encouraged reciprocal helping in our evolutionary past would have been more competitive since favours would be returned, thus resulting in mutual helping and improved reproductive success.

Of course, in order for the reciprocal gene to flourish there would need to be a mechanism for identifying those individuals who would reciprocate. I would argue that group membership serves this function admirably. Note that in section 2.1, instances of emergency helping due to group membership were triggered by the confederate wearing a symbol that indicated ingroup membership (e.g. a football shirt). In section 2.2, we saw that human beings not only have the capacity to form groups, but also to identify those groups to which they belong. This is important if one takes an evolutionary lens to helping behaviour. If helping the ingroup is an act that is more likely to be reciprocated, group membership could be one important marker which signals likely reciprocity, allowing actors to choose their interaction partners to maximise instances of reciprocal altruism. Another important marker of likely reciprocity is reputation. There is a great deal of research that has linked positive reputation with prosociality; however, as much of this research is concerned with how reputation affects individual reasoning in a strategic manner (cf. van Leeuwen & Täuber, 2010), this evidence will be discussed in the next chapter.

Conclusion

Chapter 2 began by considering how the donation figures in chapter 1, and more specifically the lack of overseas donations, could be explained using a social identity approach. I concluded that donors are driven to help the ingroup, and that outgroup members are more likely to be helped for other strategic motives. I also briefly considered group memberships of other actors, e.g. perpetrators. Further, in order to better understand the preference for ingroup helping, I considered the role that social learning may play, and how such learning occurs in early infancy. Moreover, the way that we learn to help the ingroup is not necessarily a conscious process. Imitation is strongly linked to learning, and much of the robust research on imitation effects and prosociality has highlighted the involuntary and automatic nature of imitation. I also discussed evidence that we learn to help the ingroup through cultural and social norms. Chapter 2 also presented research related to empathic concern. Empathy has been demonstrated to be an important affective variable that can explain helping behaviour. Importantly, empathy has been more strongly associated with ingroup helping. Finally, in considering the adaptive benefits of ingroup helping, we came full circle by suggesting that social psychological theories of prosociality and evolutionary accounts can be considered complementary in some ways, at least when it comes to understanding why we help the ingroup.

An important 'take home' message in chapter 2 is that in order to better understand how or why donors give to overseas causes, we must consider the group relationships of those involved. This is especially true if one considers the 'missing perpetrator' in charity research. Charities themselves are adept at focusing on the victim, on their suffering and on their need, but often the more complex issue of who is responsible is avoided. There is 'good news' and 'bad news' in chapter 2. On the

one hand, we can see that people are evolved to help, and that we may learn to help others instinctively. On the other hand, it appears that we learn to help certain others, and that we can become indifferent to the suffering of those who we feel are dissimilar to ourselves.

Chapter Three

The role of reasoning in helping (or not helping) the outgroup

Reputation, anonymity, and strategic motives for helping

In this section, I will discuss the impact of 'reasoning' on donations. By this, I refer to how donors may consciously (or even non-consciously) evaluate donation appeals and take into consideration factors that may influence their donation decisions. I will start with one type of reasoning already touched upon in previous sections, 'reputation'. I will now discuss evidence of the importance of reputation effects in prosociality in more detail.

To begin, there is evidence from experimental economics that reputation has an important role in monetary giving. Clark (2002) found that informing participants of an overall donation contribution (measured over 10 rounds) did not increase individual donations, but knowledge of individual donation amounts in individual rounds did increase contributions. Andreoni and Petri (2004) demonstrated a similar effect, using an economic game where participants were asked to invest small sums into a charitable fund. They found that if participants knew that their identity would be visible *alongside* their donation amount, then this increased their contribution by 59%. The authors speculate that identity visibility led to participants being motivated to establish their reputation and moral credentials; i.e. donating became a self-serving behaviour. Furthermore, the increase in donations was more pronounced when participants were given the option of donating anonymously. Although very few participants chose to make an anonymous donation, having the choice of making a

public or anonymous donation appeared to make the reputational benefit of donating more salient, which in turn led to increased giving. Finally, *not* behaving prosocially can negatively affect one's reputation, e.g. in a cooperation game. Participants financially punished non co-operators, and this punishment appeared to be driven by negative emotions towards 'free-riders' (Fehr & Gächter, 2002). Interestingly, participants would punish non co-operators even when it resulted in an economic loss for them, a phenomenon that the researchers called 'altruistic punishment'.

Above, it was suggested that some participants made large donations for reputational benefits, and there is evidence that this strategy was not misguided. A highly rated reputation has been shown to increase instances of cooperation and giving behaviour from others (Barclay, 2012). Research using a reciprocity game has demonstrated that those who develop a reputation for giving benefit in both current and subsequent rounds; i.e. a reputational advantage is not only beneficial due to eliciting a direct reciprocal 'tit-for-tat' strategy from others, but also due to having lasting effects on how others cooperate in future rounds (Wedekind & Braithwaite, 2002). Milinski, Semmann and Krambeck (2002) found that donors gained political reputation benefits, and were subsequently more likely to be elected as group representatives. These findings are supported by cooperation games where participants appear to trust those with altruistic reputations over others (Barclay, 2004)[2].

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[2] Evolutionary psychologists would make the distinction between direct reciprocity where one cooperates for reciprocal benefits from one's interaction partner, and indirect reciprocity where one aims to establish a positive reputation in the eyes of others. For the purposes of this thesis, motivations based on both direct and indirect reciprocity should result in less prosociality in anonymous situations. Evidence to support this position is discussed on the next page.

Moreover, individuals appear to understand the social benefits of having a good reputation. For example, the desire to gain a good reputation has been shown to be an effective predictor of bystander intervention, over and above other trait variables such as tendency to cooperate and sensitivity to social norms (Bereczkei, Birkas, & Kerekes, 2007). In terms of charitable giving, donating appears to be internalised by most laypersons as a good deed, provided such behaviour is not construed as self-serving (Horne, 2003). Therefore, one can reason that monetary donations are an effective method of enhancing one's reputation. This is most evident when one considers donation behaviour that is linked to conspicuous displays of giving. Grace and Griffin (2006) demonstrated in a field study that conspicuous donations, such as those that involve displaying charity pins and 'empathy' ribbons, are popular due to being ostentatious. Such donation behaviour has been labelled as 'conspicuous compassion' (West, 2004). Overall, it seems that there are clear benefits to establishing a reputation through donating behaviour, and donors appear aware of the benefits of pursuing such a strategy.

I would now like to consider another variable that is theoretically related to reputation, and that is often manipulated in order affect reputational concerns, i.e. anonymity. If reputation is, in line with the evolutionary account of reciprocal altruism, considered a signal marker identifying those likely to return survival benefits, then giving and helping in anonymous situations should be less likely to occur. This was indeed the pattern found by Andreoni and Petri (2004), where donors avoided making anonymous donations, and there is further evidence. Reyniers (2013) manipulated whether donations were made anonymously (alone) or publicly (in pairs). The manipulation resulted in what Reyniers called, 'reluctant altruism', a term coined to indicate the phenomenon of pairs donating more frequently but less generously.

Presumably, participants in pairs felt more social pressure to do a good deed since their actions affected their reputation, but they did not truly wish to donate their resources. In support of this interpretation, another study found that prosociality is diminished towards outgroup members if ingroup reputation is bolstered beforehand (Braun & Gollwitzer, 2012).

The relationship between anonymity, reputation, and giving behaviour is further highlighted in field experiments that demonstrate the increased likelihood of giving when potential donors are part of a group, as opposed to when individuals are solicited for donations alone (Knutsson, Martinsson & Wollbrant, 2013; Martinsson & Alpizar, 2013). In these studies, individuals who were approached as they arrived at a national park in Costa Rica were significantly more likely to donate if they were asked in a group than if they had arrived alone. This ties in with earlier field research which found that donations made publicly were significantly higher than privately made donations (Alpizar, Carlsson & Johansson-Stenman, 2008). These findings also support earlier field research in social psychology that found anonymous donations reduced both the frequency and amount of contributions, irrespective of the method of solicitation or the picture and/or message framing of the appeal (Thornton, Kirchner, & Jacobs, 1991). Overall, it seems that anonymity it strongly linked to reputation, and that anonymous situations decrease the likelihood of prosocial behaviour.

The link between anonymity, reputation, and prosociality, may also explain why the presence of eye images can dramatically increase donations. In one field study, the presence of eye images on a supermarket collection tin increased donations by approximately 40% relative to a control image (Powell, Roberts, & Nettle, 2012). In a non-exhaustive list, eye-images have also been found to have general prosocial effects relating to bicycle theft (Nettle, Nott, & Bateson, 2012), supermarket recycling

(Ekström, 2011), littering (Ernest-Jones, Nettle, & Bateson, 2011) and online cooperation (Bateson, Nettle, & Roberts, 2006). Interestingly, these effects occurred with stylised eye images and also when the eye images had a non-conscious effect, i.e. when the participant did not report awareness of the eye stimuli (Haley & Fessler, 2005). The effect of eye images on prosocial behaviour may be due to the feeling of being watched, and this feeling is presumably linked to reputational concerns.

At this point, it seems prudent to offer an alternative explanation to the findings above. Researchers have also taken the position that the positive effect of religious and secular moral primes on prosociality is due to the sense of being watched by a supernatural agent that enhances motivation (Gervais & Norenzayan, 2012; Harrison & Mckay, 2013; Shariff & Norenzayan, 2007). Thus, the sense of being watched elicited by the eye images mentioned above, and the subsequent benefits for donation levels, might not have to do with reputation concerns, social norms, or a sense of being watched by other people. It might instead be related to a sense of being watched by a supernatural power, and/or to the increased salience of moral values and moral behaviour. Regardless, evidence suggests that non-anonymous situations will lead to increased helping behaviour.

Before ending this discussion of reputation and anonymity, I would like to briefly consider reputation effects at a broader level. Thus far, the evidence pointing to reputational concerns as a prosocial motivator has been situated mainly at the interpersonal level. However, this thesis is largely concerned with group level helping or, at the very least, individual helping when group relationships are made salient. The importance of reputation for the group has already been mentioned in chapter 2, during the discussion of ingroup perpetrator leniency, and there is further evidence of the role of reputation at the group level. Hopkins et al. (2007) demonstrated that participants

will help outgroup members in order to refute negative ingroup stereotypes from other groups (meta-stereotypes) related to being mean. Moreover, increasing the salience of a negative meta-stereotype increased the level of helping. Van Leeuwen and Täuber (2010) have argued that results such as these can be explained by strategic motives related to reputational concerns. A good reputation often comprises of ingroup warmth and competence, which encourages the positive group distinctiveness that is so important to the social identity approach. If this is true, and helping sometimes occurs due to such strategic motives, then we should expect to see situations where the outgroup is helped *more* than the ingroup. Van Leeuwen, Oostenbrink and Twilt (2014) found increased outgroup helping (in this case a confederate who needed help with directions) when a meta-stereotype (presumably negative) had been activated beforehand. Moreover, concern over one's ingroup image following a salient negative meta-stereotype has been shown to predict helping towards an outgroup (Van Leeuwen & Tauber, 2012). Interestingly, in this latter study, concern for one's personal reputation was not a strong predictor of outgroup helping, suggesting that concerns for the group's reputation are paramount. Although there are other strategic motives relevant to outgroup helping, e.g. maintaining group power and autonomy (Nadler, 2002), or maintaining group distinctiveness (cf. Van Leeuwen & Täuber, 2010), reputation management is clearly an important motive to consider in intergroup helping.

Cost-reward considerations and the crowding-out effect

If conscious reasoning is involved in helping behaviour, then one might expect individuals to appreciate the costs and rewards involved in helping. Indeed, this idea has been a focus in the domain of bystander emergency intervention. The Arousal:

Cost Reward Model (Dovidio, Piliavin, Gaertner, Schroeder & Clark, 1991) proposes that bystanders engage in a deliberate cost-reward evaluation while also experiencing negative arousal associated with the emergency situation. The observation of a person in desperate need causes negative arousal which can motivate the bystander to help (thereby reducing their negative emotions). However, whether help occurs is at least partly dependent on cognitive considerations. Therefore, although help is proposed to be a function of negative arousal, bystanders also engage in a weighing-up of the costs and rewards involved. Costs may include perceived danger, time involvement, physical effort, as well as emotional costs such as the blame and guilt associated with not helping. Piliavin and Piliavin (1972) had a confederate collapse in a subway station, either with or without a trickle of blood from the mouth, and found that participants in the blood condition were less willing to help. They argued that the presence of blood increased the perceived costs, which included fear and revulsion. In another study testing the effects of costs, there was evidence that when under time pressure (e.g. when late for a meeting), bystanders were less likely to help a confederate slumped in a doorway (Darley & Batson, 1973).

Much of the cost-reward research from a social psychological perspective has been focused in the area of bystander intervention, but there is also evidence that cost-reward considerations are important for other forms of helping. Economists have investigated the effects of subsidies and pricing on subsequent donations. A recent meta-analysis of these studies shows that higher suggestive donation amounts are usually negatively correlated with actual donations, although the effect size can vary widely between studies (Peloza & Steel, 2005). In addition, donation requests have been found to be more effective when the solicited amount is smaller (Andreoni & Miller, 2002; Eckel & Grossman, 2003, 2004). The importance of costs and benefits

in prosociality is therefore at least partly evinced by studies conducted in experimental economics.

In discussing economic research, it is worth noting that a traditional approach has been to associate costs with the potential donor, while rewards (benefits) are typically associated with the person in need. Thus, the donor may weigh up costs to themselves with the general utility and benefit of helping. However, it is also possible to think of benefits in terms of gains to the individual donor (as indeed Dovidio, Piliavin et al.'s model advocates). From the viewpoint of an economist, as financial benefits to the individual increase, e.g. in the form of tax breaks, so too should the likelihood of that individual making a donation. However, it has been observed in numerous studies that as benefits to the individual increase, giving may, rather counterintuitively, *decrease*. Heyman and Ariely (2004) demonstrated the effect in three experimental economic studies where financial rewards to the donor were manipulated and where donors demonstrated less helping as rewards increased. Experimental dictator games have also shown that factors such as religious and altruistic values had a greater effect on helping behaviour than monetary rewards (Eckel & Grossman, 2000). Additionally, economic field studies have shown that subsidies can result in a temporary donation boost, but that such subsidies can have a negative effect by lowering contributions in the long-run once the incentivisation is removed (Meier, 2007). This deleterious effect has been labelled the 'crowding-out' effect (Titmuss, 1970), and is not solely limited to a reduction in economic giving. For instance, research has also found a decrease in church attendance, a morally normative activity, after a financial reward incentive was made available to encourage church-going (Gruber et al., 2004).

So why do we sometimes see a crowding-out effect? Titmuss (1970) argued that a helping act such as donating blood to a person in need is intrinsically motivated. However, this intrinsic desire to help another in need will decrease if replaced by an extrinsic motivation (e.g. donating blood in order to receive a cash incentive). Therefore, a possible explanation for the crowding-out effect may involve the moral perceptions of the donor. One may intend to do a good deed for the intangible and non-economic benefit of 'feeling good' or 'doing the right thing'. Then, when an extrinsic reward is introduced, the donation act shifts from a moral arena to a financial one. Whereas the donor previously had an intrinsic motivation (I'm doing this because it's right), they now have a financial motivation (I'm doing this to get value). Since a donor is always financially better off not giving, the psychological motivation to help is 'crowded-out' (Heymann & Ariely, 2004).

Crowding-out does not always have predictable effects, and some studies have not been able to demonstrate it (Brooks, 1999; Marcuello & Salas, 2001). While other studies have found financial incentives to be effective in increasing the overall number of contributors, although not necessarily the total donation amount (Brooks, 2003; Kropf & Knack, 2003). The precise conditions for the emergence of the crowding-out effect are still unclear. However, the presence of the effect does highlight that government incentives such as tax aids are not always an effective strategy.

In sum, it would seem that costs and benefits are mechanisms which can be tangible (e.g. involving time or money) or intangible (e.g. providing benefits to reputation). Cost-reward approaches offer an intuitive or 'common sense' explanation for when people help. Despite this, as the discussion of the crowding-out effect demonstrates, such models may struggle to account for inconsistencies in observed helping behaviour. The Arousal Cost-Reward Model (Piliavin et al, 1981) goes some

way to include affect and arousal alongside cognitive factors. But, even in this model Piliavin acknowledges that in some cases individuals will bypass the cognitive considerations entirely and act instinctively.

Three factors that may affect donation reasoning: donation need, donation effectiveness, and donation impact

It is reasonable to assume that donors of charitable donations have more time to consider cost-benefit factors than those helping in the emergency situations typically studied in bystander research. As such, the remainder of this section considers three important factors that may influence a donors' reasoning. These are the perceived need that victims have for a donation, the perceived efficacy of donating to a particular charity, and the perceived impact of individual donations to make a difference.

Firstly, I would like to consider the role of perceived need in helping a victim. One might assume that the level of need largely explains giving behaviour; that is, increased need will result in a greater likelihood that a donation will be made, as well as increased giving amounts. There is some evidence to support this intuition with perceived need correlating with donations towards disabled individuals (Levitt & Kornhaber, 1977), alumni contributions (Diamond & Kashyap, 1997), and intentions towards international relief organisations (Cheung & Chan, 2000). Media coverage of an earthquake has also been found to be positively correlated with contributions (Simon, 1997), and hours spent watching television (presumably increasing the awareness of need for public events) correlates with amounts donated to disaster relief (Bennett & Kottasz, 2005).

However, it does not necessarily follow that increased donation amounts are caused by an increased awareness of need. For example, as outlined above, medical charities receive the highest level of donations in the U.K. One could therefore assume that the recipients of medical donations are likely to be viewed as the neediest. However, a previous study found that manipulating perceived need increased the likelihood of donating but, counterintuitively, lowered average contributions (Dolinski, Grzyb, Olejnik, Prusakowski, & Urban, 2005). Of course, we could interpret these findings as expressions of 'reluctant altruism' or reputational concerns related to social norm expectations. However, there is further evidence that need and donation behaviour are not so perfectly correlated. In order to realise that perceived need cannot fully account for giving behaviour, we need only look back to two recent disaster appeals. In 2004, two global humanitarian appeals received widespread media coverage, the Asian 'Boxing Day' tsunami, and the violent civil unrest in Darfur, Sudan. The latter had been described as the world's worst humanitarian crisis (UN News Centre, 2004). Despite the severity of the situation in Darfur, and despite a long running campaign for aid over several months, U.K. donations to the Disasters Emergency Committee (DEC) for the Asian tsunami were approximately 10 times higher than to Darfur, and in just a little over two months (Eldridge, 2005). Around the globe aid agencies attempted to redirect aid to Darfur, with aid workers in Australia referring to Darfur as a forgotten catastrophe (Gooch, 2005).

In sum, it would appear that the perceived need of the disaster appeal is not sufficient to explain large scale helping behaviours. Thinking back to chapter 1, and the donation behaviour of the G20 countries, there are greater populations in need in economically weaker countries abroad than at home. Yet, giving to overseas causes is miniscule in comparison to this need. It would appear that perceived need is an

important factor to consider, but like the cost-reward models presented above, need cannot fully explain helping behaviour.

This brings us to a second consideration. Perhaps one of the reasons for lower overseas donations is that donors perceive helping overseas to be less effective? Strictly speaking, donation effectiveness can be defined in terms of whether donations are in principle effective, e.g. whether donations will reach their intended target and be used efficiently by charitable organisations. One common sense intuition might be that the more effective a donation is perceived to be, the more likely it is that a donation will occur. This idea is supported by survey research that has found perceptions of low efficacy to correlate with a lower likelihood of a donation being made (Diamond & Kashyap, 1997). However, it is not clear from these studies if the effect was due to perceived efficacy, or due to a reverse justification whereby donors retrospectively justified their donation behaviour. There is, however, at least one study that has manipulated perceived effectiveness, and has found it to have a significant causal effect on donation levels (Warren & Walker, 1991).

Related to concerns over the effectiveness of a donation is the consideration of whether the donation is impactful. Donation impact can be defined in terms of the influence that an *individual* donation will have on a person/persons in need. When a layperson makes a donation because their donation is the last needed to meet a funding goal, or when they feel that their donation can save many lives, they are concerned with impact. Qualitative interviews of donors suggest that donation effectiveness and donation impact are related concepts that go hand in hand, and that donors are concerned with both (Breeze, 2010).

The above conceptualisation of donation impact has been proposed by (Duncan, 2004) who formulated an economic model of philanthropic impact, arguing

that donors want their donation to both be effective and impactful. Duncan's economic model of philanthropy may provide a useful way of understanding, for example, why donors may prefer to have their donation go fully to a single cause, rather than have their donation dispersed amongst several causes.

Although not the main focus of the thesis, as will become clear in chapter 6, one aim of this work was to explore whether the effects of some of these variables would replicate in the donation contexts studied in the present body of work.

Fallacious donation reasoning, Type 1 versus Type 2 decision-making, and the potential role of group memberships

In this section, I conceptualise donation decisions as a type of problem-solving. There are many different causes to choose from, and thinking of whether to donate, and to whom, can create a problem. Section 3.1 presented evidence for the role of reputation concerns and strategic thinking in relation to helping decisions. However, in chapter 2 I suggested that helping can also be considered a more automatic process that is related to empathy or social learning. This present section considers whether individuals have in fact two methods for decision-making, one that is more automatic and instinctive, and another that is more rational. Evidence for this idea is presented below. I begin by first presenting evidence of fallacious reasoning in a donation context, notably the 'identifiable victim' effect and the 'psychophysical numbing' effect. I then introduce dual-process reasoning theories, briefly consider how dual-process reasoning theories can explain the fallacious effects, and end by commenting on how reasoning styles may be especially important in an intergroup helping context.

The 'identifiable victim' effect (Jenni & Loewenstein, 1997; Kogut & Ritov, 2005, 2007) focuses on evidence that has found increased prosociality to a single

victim (e.g. a single sick child), as opposed to a group (e.g. eight sick children) (Kogut & Ritov, 2005). The identifiable victim effect can be considered a cognitive fallacy, as in these paradigms participants can offer the same aid to several victims at no increased cost (greater efficiency), but instead opt to help an individual victim (reduced efficiency). Researchers have found that focusing on an identifiable victim increases generosity compared to focusing on larger groups in need, but that being made aware of the effect has the perverse effect of diminishing prosociality (Small & Loewenstein, 2003). The identifiable victim effect seems to be partly driven by the effectiveness of a single victim in invoking perspective taking, and thereby magnifying negative emotions such as distress that are aroused by the appeal (Kogut & Ritov, 2005; Kogut, 2011). These findings would suggest that identifiable victims are more effective at generating empathic concern, or at the very minimum, at increasing the psychological vividness of the charitable appeal (cf. Jenni & Loewenstein, 1997).

There is also evidence that the identifiable victim effect may be related to another fallacy referred to as 'psychophysical numbing' (Fetherstonhaugh et al., 1997; Friedrich et al., 1999; Slovic, 2007). These researchers argue that participants are insensitive to the value of human life when that life is presented in statistical terms. For example, Fetherstonhaugh et al. (1997) found that participants prefer to fund disaster interventions that save a greater proportion of lives. When considering the merit of two disaster interventions that claim the ability to save 5,500 lives, it was the proportion of lives that participants focused on, i.e. whether the charity in question could save 5,500 out of 11,000 lives, or 5,500 out of 25,000 lives. This logic can be considered erroneous in that the value of 5,500 lives is seemingly dependent upon the proportion those lives make up out of the 'total pot'. Although one could argue that

donors are merely being efficient, this type of logic also suggests that donors are being callous. Moreover, the value of 5,500 lives should remain constant, no matter what proportion of lives the 5,500 amount to.

With regards to the link between the identifiable victim effect and psychophysical numbing, Slovic (2007) has argued that focusing on a single victim can counter the deleterious effects of presenting victims in statistical terms. Moreover, Hsee et al. (2013) found that asking participants to think of a hypothetical donation amount for a single victim resulted in subsequently greater donations for a group of statistical victims. They argued that donations towards groups of victims are lower due to scope insensitivity, and that focusing participants on a single victim before considering the larger group can help to correct this fallacy.

Taken together, it would seem that the identifiable victim effect can be at least partly explained by a donor's insensitivity to statistical victims, and warns us that a common sense factor related to donation decisions, specifically the scale of the problem, may not be predictive of prosociality in certain contexts. The donation 'fallacies' summarised above all suggest that donors do not necessarily make straightforward donation decisions. Clearly, there is more than one type of decision making which seems to be at play. Donors might 'go with their gut', or try to rationally weigh up the pros and cons between different donation options.

Indeed, there is evidence that individuals have two distinct sets of cognitive modes that are related to this type of problem-solving. One of these sets of systems is automatic, requires fewer mental resources, and tends to be faster; while the other set of systems is more analytical, requires effort, and tends to be slower – these sets of systems are referred to as Type 1 vs. Type 2 systems (Evans, 2010; Frankish & Evans, 2009). A dual-process position is based on experimental evidence that humans have

essentially two cognitive modes when it comes to decision making (e.g. Gawronski & Creighton, 2013; Kahneman, 2011). There are essentially three types of evidence that supporters of dual-process theories call upon in order to support their demarcation. These three types can be broadly categorised under experimental research that aims to manipulate one type of reasoning while leaving the other unaffected, neuroscientific research that shows specific brain areas correspond to a specific reasoning style, and correlational studies that show Type 2 reasoning is related to cognitive reasoning where Type 1 is not. These three areas are briefly discussed below.

Evidence for an experimental distinction has been provided by studies that have shown a decrease in logical accuracy, and an increase in belief bias, when under time pressure (Evans & Curtis-Holmes, 2005), or when under cognitive load (De Neys, 2006). Since Type 2 processing is linked to greater cognitive effort and is associated with being slower, these types of studies suggest that Type 2 reasoning is a distinct set of systems from the faster Type 1 reasoning that remains unaffected by such manipulations. Note that in these types of paradigms, inducing time-pressure and/or cognitive load does not merely result in increased errors or increased random error. Introducing time pressure and/or cognitive load encourages polarisation of logical accuracy and belief bias, decreasing the former and increasing the latter, thereby suggesting that the two systems operate independently. Importantly, Small and Loewenstein (2003) argue that helping towards an identifiable victim is somewhat instinctual (i.e. presumably a Type 1 process), while the deleterious effects of a deliberate reasoning style (presumably a Type 2 process) is due to a lack of empathic concern. This would suggest that the two types of reasoning might interfere with each other, and there is evidence to support this view in the next paragraph.

In addition to experimental findings, there is evidence from neuroscientific research that suggests different brain regions correspond to the two types of reasoning. When presenting a participant with a belief or logic based problem, conscious reasoning is associated with activation in the right prefontal cortex (an area typically associated with executive control) (De Neys, Vartanian, & Goel, 2008; Goel, 2008; Goel & Dolan, 2003; Tsujii & Watanabee, 2009). The logic here is that increased activity occurs in a specific brain region when requiring problem solving that requires Type 2 reasoning, but such activity does not occur on simpler tasks. Moreover, the two types of reasoning are proposed to inhibit each other (Lieberman, 2009). For example, when faced with a moral dilemma that involves making a rational (as opposed to an emotional) choice, there was increased activity in the dorsolateral prefrontal cortex and parietal lobes, areas that are linked with inhibiting emotional responses, with emotional responses presumed to be related to faster Type 1 processes (Greene, Nystrom, Engell, Darley & Cohen, 2004). Finally, cognitive load has been shown to interfere with the ability to make more complex utilitarian moral judgments, while simpler non-utilitarian judgements remained unaffected (Greene, Morelli, Lowenberg, Nystrom, & Cohen, 2008). These results are in keeping with the aforementioned behavioural studies that found cognitive load and time pressure to inhibit logical reasoning and increase belief bias.

If errors in reasoning are increased by cognitive load and time pressure, then one might predict that individuals with greater cognitive ability would perform better on such tasks and choose the correct answer on more occasions. In general, this seems to be the case, e.g. individuals significantly higher on cognitive ability (measured by SAT scores) were more likely to choose the maximum utility (i.e. correct) answer on a probabilistic task (West & Stanovich, 2003). Individuals who scored higher on

intelligence tests have also been shown to be more likely to solve abstract versions of the Wason selection task (Stanovich & West, 1999). These studies support the view that individual differences play a role in reasoning, as well as the view that Type 2 reasoning is linked to intelligence.

Intelligence is not the only individual difference variable which might matter. Preference for critical thinking (need for cognition), or preference in trusting gut responses (faith in intuition), can predict the likelihood of fallacious reasoning. A preference for critical thinking (need for cognition) has been shown to predict correct performance on a range of tasks such as syllogistic reasoning, argument evaluation, and hypothesis testing (Stanovich & West, 1998). It has also been linked to the ability to avoid cognitive biases (West, Toplak, & Stanovich, 2008). In line with Type 1 vs. Type 2 theory, there is evidence that critical thinking is able to interrupt intuitive thought processes, thereby leading to increased deliberation that in turn increases the odds of a correct response. This idea has been tested using the Cognitive Reflection Test (Frederick, 2005), which is a measure of individual tendency to override an initial response and engage in further reasoning which subsequently leads to a correct response. The Cognitive Reflection Test has been shown to predict the likelihood of biased answers (e.g. on a syllogistic reasoning task), and although the test is positively correlated with intelligence, it remains a predictor of correct responses even when intelligence is controlled for (Toplak, West, & Stanovich, 2011). Note that it is possible that Type 2 decision making can be done quickly, perhaps in situations where the individual is highly skilled and able to make fast calculations or utilise a heuristic (note that this implies that heuristics are not necessarily a Type 1 process). Nonetheless, in most cases Type 2 thinking is a much slower process than Type 1.

Dual-process reasoning theory is not without its critics. Some researchers have voiced concerns over difficulties in classifying the two sets of systems, and even arguing for a unitary system (cf. Evans & Stanovich, 2013). Nonetheless, I would argue that the evidence presented above provides a compelling argument for two broad cognitive reasoning systems that are related to problem-solving. Type 1 is an automatic process that results in instinctive decision making that tends to be fast, while Type 2 requires conscious engagement, can override Type 1, is vulnerable to cognitive load and time-pressure, and tends to be slower (Evans & Stanovich, 2013).

So, how does a Type 1 and Type 2 theoretical approach to reasoning help us understand the fallacious donation reasoning associated with identifiable victims or psychophysical numbing? If participants were to utilise a Type 1 decision-making process, then they might be more likely to consider the proportion rather than total number of lives saved when making donation decisions. When presented with an identifiable victim, those operating under a Type 1 process may be moved to action because the case is more vivid and because it generates more empathic concern. Alternatively, Type 2 reasoning may result in participants considering objective economic value and utility or other strategic motives.

A few researchers have attempted to manipulate reasoning styles in an effort to increase charitable giving. Dickert, Sagara and Slovic (2011) primed participants to either a deliberate more calculating reasoning style (i.e. a Type 2 process), or an affective reasoning style (i.e. a more Type 1 process), or a neutral prime. Affective reasoning was found to increase donations. It was associated with empathic concern, which in turn was a predictor of donation amount. The authors suggest that mood management (i.e. regulating negative emotions aroused by the appeal) was predictive of donation decisions. Interestingly, the authors also attempted, but failed, to replicate

the identifiable victim effect. They argued that the reason for the failure was due to the victims in their charity appeal (Israeli children) not being part of their participants' ingroup.

The above speculation from Dickert and colleagues in explaining a null finding by way of group membership brings me to the final point I wish to make in this section. There has been a great deal of research into Type 1 and Type 2 processes, and a great deal of research into the effects of group membership, but little attempt to marry the two. This is particularly the case when it comes to understanding prosocial effects. And yet, one could reason that the categorisation process that underlies the social identity approach is in many ways compatible with a Type 1/Type 2 conceptualisation. Classification of the social landscape into ingroups and outgroups has the effect of enabling fast automatic decisions as to how to treat other individuals. Group membership categorisation can be conceptualised as a type of intuition, one that allows fast decision-making.

To illustrate the above point, consider the example of the lack of donations to overseas outgroup members presented in chapter 1. It may be easier to donate to ingroup causes at home (a Type 1 response based on group membership), rather than override this response and engage in the cognitive effort required to evaluate the efficacy and worthiness of an overseas cause. Moreover, neuroscience findings presented in this section suggest Type 1 decisions to be related to emotional brain regions, and ingroup helping has been linked to empathic concern and negative affective arousal (see chapter 2). In the same manner that Type 1/Type 2 responses can be distinguished by automaticity and effort (Evans & Stanovich, 2013), it seems reasonable to assume that ingroup helping can be a relatively automatic response that can occur quickly, while outgroup helping is a more conscious response that is slower

and more thoughtful. The role of dual process reasoning and group memberships is a novel line of research and will be empirically investigated in chapter 6. In other words, one aim of this thesis was to explore the applicability of a Type1/Type 2 framework to ingroup and outgroup helping, focussing specifically on donations.

To increase donations to 'naturally' unpopular causes, researchers have encouraged people to become more aware of their donation behaviour and change their cognitive process from a more intuitive thinking style, to a more deliberate and analytical thinking style (Small et al., 2007). Unfortunately, these attempts have been met with deleterious consequences. As Small and colleagues demonstrated across four studies, simply informing participants about fallacious reasoning (in this case the identifiable victim effect), resulted in participants rejecting the automatic response to help, and thereby lowered overall contribution levels. Small and colleagues have speculated that an analytical reasoning style may block the affective response that leads to helping. Although they do not refer to Type 1/Type 2 processes in their work, we can see now that what they argue is perfectly in line with dual-process theories of reasoning. Further, this line of reasoning is compatible with that of experimental economists who argue that a more analytical and 'business' cognitive style negates moral focus, as helping is rarely beneficial to the self from an economic viewpoint (Heyman & Ariely, 2004).

Before we accept the conclusion that a Type 2 reasoning style leads to less prosociality, I would like to consider this position more carefully. In fact, there might be boundary conditions to this pattern. First, the findings that deliberate reasoning style deteriorates prosociality have largely been conducted in the context of identifiable victims. There is much less evidence about the effect of 'deliberate' priming when victims are presented statistically. The only study that has compared

donations towards both statistical and identifiable victims (to my knowledge), has found a slight, albeit non-significant, *increase* in donations (study 1: Small et al., 2007). This would suggest that the context and framing of the charitable appeal may offer some nuance to the role of reasoning style in helping behaviour. An interesting endeavour would therefore be to study the effects of reasoning styles more thoroughly in the context of statistical victims. As will become clear, this was one aspect which the empirical part of this thesis explored.

Moreover, there is reason to believe that a deliberate reasoning style may actually increase prosociality in certain situations. Researchers have identified that outgroup members can be helped for strategic purposes (cf. Van Leeuwen & Täuber, 2010), that reputation concerns can increase donation amounts (Alpizar, Carlsson, & Johansson-Stenman, 2008; Martinsson & Alpizar, 2013; Reyniers, 2013), and that reputation may be managed strategically for financial or political benefit (Fehrler & Przepiorka, 2013; Milinski et al., 2002). Given that strategy is intuitively linked to a more analytical (i.e. Type 2) reasoning style, one could expect a deliberate reasoning style to lead to increased prosociality in certain contexts, e.g. when reputation is made salient, or when the donation in question is to outgroup recipients (given that such donations have been shown to be of more reputational concern than donations towards one's own ingroup members). Deliberate reasoning may harmonise well with other strategic motives which inform outgroup helping, and thereby particularly enhance helping for outgroup members.

If deliberate reasoning is concerned with strategic evaluations of when to help, intuitive reasoning should be effective when strategic motives are less likely to be involved. Ingroup helping has been linked to affective processes such as empathy (Stürmer et al., 2006), and it reasonable to assume that an affective response generated

by seeing another's suffering will at least partly be intuitive and instinctive. Another line of argument which would suggest that ingroup helping might benefit from an intuitive reasoning approach can be based on self-categorisation theory (SCT: Turner, 1987), which has already been discussed in chapter 2. As a person joins a group, a perceptual shift occurs where one begins to see ingroup members as similar to the self, and outgroup members belonging to a different group as dissimilar. Ingroup victims in need may then be perceived as automatically worthy of help, since helping an ingroup member becomes much like helping the self (and this can be assumed to be a fairly intuitive response). Thus, intuitive reasoning should be particularly well aligned with automatic helping of ingroup members, which is also frequently based on affective, intuitive responses.

Finally, as has already been discussed, it is well documented by previous research that donations are increased in public compared to private settings (Alpizar et al., 2008; Andreoni & Petrie, 2004; Bateson, Callow, Holmes, Redmond Roche, & Nettle, 2013). Moreover, an analytical thinking style may be more strategic in nature, and researchers have demonstrated that reputation concerns are often exploited for strategic benefits (Barclay, 2012; Milinski et al., 2002). It is therefore possible that in addition to a positive main effect of public observability on donation contributions, that there will also be an interaction between the anonymity of a donation appeal and reasoning style. Specifically, participants primed to a strategic thinking style may be more aware of reputational motives and therefore more likely to act upon them, whereas participants primed to trust their gut instinct may not act upon such nuances.

Conclusion

In sum, chapter 3 establishes the importance of reasoning in prosociality. It would seem that people have two distinct cognitive modes when it comes to problem-solving, and donation decisions can be considered in this framework. People may make quick, instinctive donation decisions, or they may engage in a more deliberate and analytical thought process. This latter process may take into account reputational concerns as well as cost-reward factors. An analytical approach may also encourage donors to consider strategic motives for outgroup helping, as well as consider factors related to the level of perceived need, efficacy, and the impact of their personal contribution. When participants engage in deliberate reasoning, there are many more variables that may affect their giving behaviour.

In the present chapter, I presented evidence of fallacious reasoning in donation decisions, and attempted to explain these findings using a dual-systems, Type 1/Type 2 approach. I argued that fallacious reasoning is associated with insensitivity towards statistical victims which in turn may be due to participants adopting a Type 1 response, rather than engaging in more critical Type 2 thinking. The tendency to adopt a Type 1 process, and thereby avoid lengthy deliberation of humanitarian issues, may go some way in understanding the donation patterns presented in chapter 1. Finally, I noted that researchers have attempted to manipulate reasoning styles in an attempt to increase prosociality. These attempts have resulted in mixed findings, but in general it appears that a more deliberate (Type 2) reasoning process results in decreased prosociality. Interestingly, there is little theoretical work (to my knowledge) that has attempted to marry the robust findings in the cognitive literature with social psychological theories pertaining to group memberships. I suggest that the two may be compatible, and that adopting a group view of helping behaviour can help to

understand why quick instinctive donation decisions may occur in an ingroup context, and why more strategic reasoning is likely engaged in an outgroup context. I explore this further in chapter 7.

Chapter Four

Facial attractiveness and helping behaviour

Understanding the halo effect

Thus far, much of the focus in this thesis has revolved around the potential donor, their relationship with the victims and (where applicable) perpetrators, and how they reason about helping. However, a question central to all charitable organisations is how best to frame and solicit donation appeals. The present chapter returns to a maxim held by many laypersons and studied in early social psychological research: 'what is beautiful is good' (Dion, Berscheid, & Walster, 1972). Dion and colleagues were referring to physical attractiveness, one of the most easily observable characteristics of others, and thereby one of the most accessible characteristics for a potential donor to base a helping decision on. As we will see below, attractive others are seen as more positive on a range of dimensions that are not necessarily related to physical appearance. These positive associations between physical attractiveness and other dimensions have been referred to as a form of stereotyping known as the 'halo effect' (Nisbett & Wilson, 1977). This section provides a brief overview of research that has demonstrated the halo effect, while the following section focuses on research that has linked beauty with prosociality.

To begin, participants have been shown to rate attractive faces (compared to neutral or unattractive faces) as having better social skills, increased happiness, more likelihood of achieving higher status occupations, and increased competence (Dion et al., 1972). These early findings are supported by a subsequent literature review that

found laypersons associate attractiveness moderately with increased intelligence and most strongly with increased social competence (Eagly, Ashmore, Makhijani, & Longo, 1991). It may be especially worth highlighting that benefits associated with the halo effect may apply even to tasks that are seemingly irrelevant to one's appearance, e.g. competence as an airline pilot (Webster & Driskell, 1983); although this view is in line with the general belief that attractive others are more intelligent.

The relationship between traits such as intelligence and physical beauty may be unrelated; however, there is some evidence to suggest that attractive people may benefit from their good looks, perhaps by maintaining an evolutionary advantage. Kanazawa and Kovar (2004) argue that in evolutionary terms, physically attractive others are likely to be more intelligent (see also Grammer, Fink, Møller, & Thornhill, 2003). Their argument is derived from their literature review. They suggest that intelligent men are likely to achieve higher status roles, that men in higher status roles will have more attractive female partners, and that both intelligence and beauty are heritable. Moreover, Rhodes, et al. (2001) found a negative correlational between non-attractive (asymmetrical) faces and general health, although there were sex differences and the correlation was not maintained consistently from childhood into adulthood. In an earlier longitudinal study, Kalick, Zebrowitz, Langlois and Johnson (1998) did not find a relationship between attractiveness and health, although both male and female raters erroneously judged attractive others as having improved health. Overall, regardless of whether one believes that there is a genuine link between attractiveness and other dimensions such as intelligence or health, it seems clear that laypersons tend to perceive attractive people as superior on these dimensions.

The layperson perception that attractive others are superior on other dimensions has also been demonstrated in situations that may have real world

consequences. In a mock jury experiment, jurors were less confident that attractive perpetrators were guilty, and they were more likely to recommend lenient sentences (Efran, 1974). These results appear to be driven by increased physical attraction between jurors and more attractive targets, and consequently biases held by the jurors. Moreover, these effects occurred despite prior avowals from jurors that physical appearance should be irrelevant in the jury process. In addition, findings in business and marketing research show that more attractive salespersons are more effective, and that evaluators place greater confidence in the abilities and social skills of attractive others (McElroy & Decarlo, 1999; Mobius & Rosenblat, 2006). In sum, it seems that there is much evidence to support the halo effect. The view that 'what is beautiful is good' does indeed seem to be widespread.

There is also general agreement as to what is or isn't physically attractive, with a seemingly common agreement across cultures as well as in young infants (Langlois et al., 2000). Researchers have demonstrated gaze preference for attractive faces in infants a mere 6 months old (Langlois, Ritter, Roggman, & Vaughn, 1991; Rubenstein, Kalakanis, & Langlois, 1999). These effects have been demonstrated in both female and male infants, and they do not appear to be influenced by race, age, or the facial attractiveness of the mother.

A more cognitive explanation however is that infants prefer attractive faces because they are more average, and that average faces carry fewer distinguishing features that require effortful categorisation and are therefore easier to process (Rubenstein et al., 1999). This explanation has the benefit of being convergent with findings in other domains related to cognitive fluency, e.g. researchers have demonstrated ease of processing can result in increased ratings of attractiveness for objects (Reber, Schwarz, & Winkielman, 2004).

In attempting to explain why attractive faces are considered attractive, a common position is that attractive faces are more average, and much research has demonstrated positive effects of averageness on facial attractiveness ratings (Rhodes et al., 2001; Valentine, Darling, & Donnelly, 2004). In fact, even non-face objects that are averaged are considered more attractive (Halberstadt & Rhodes, 2000; Halberstadt & Rhodes, 2003), lending support to averageness as the underlying mechanism. Perhaps as faces become more representative of a population (and therefore more average), they are likely to be viewed as more attractive (Langlois & Roggman, 1990). This means that one may expect to find increased prosociality towards attractive others, and that attractiveness can be manipulating by modifying the averageness of a person's facial features.

Finally, one might expect cultural differences with regards to attractiveness, but facial attractiveness ratings (of photographs) have been demonstrated to be similar across cultures in both infant and adult populations, and even after controlling for media influences (Rhodes et al., 2001). These findings suggest that there might be, to some extent, cross-cultural agreement of what is beautiful. Overall, there appear to be commonly shared ideas of what is beautiful, and perceived beauty exerts a halo effect such that it leads to more favourable perceptions on other, probably unrelated, dimensions.

The persuasive effects of beauty on helping behaviours

Of particular interest to the present thesis is the role that physical attractiveness may play in soliciting prosocial behaviour. Behavioural studies have found increased rates of helping physically attractive confederates who solicited help on a student campus (Benson, Karabenick, & Lerner, 1976; West & Brown, 1975). Other

researchers have found that solicitations from a more attractive person resulted in increased donations (Reingen & Kernan, 1993), and that a picture of an attractive person on a poster (that included a disfigured victim) also increased donation amounts (Bennett, 1997).

In the context of time spent volunteering to help AIDS victims, researchers have found a positive link between the level of attraction between the victim and volunteer (Stürmer, Snyder, & Omoto, 2005); although attraction in this case was operationalised as interpersonal attraction, rather than the physical beauty associated with the halo effect. Research that *has* focused on physical attraction has found beauty to affect interpersonal helping between opposite sexes (Nadler, Shapira, & Ben-Itzhak, 1982). These findings are not consistent with Dion (1972) who did not find interaction effects between participant gender and the target being evaluated. By contrast, Nadler and colleagues found a prosocial effect from females towards attractive males, but not from males towards attractive females. However, the paradigm in these studies involved requesting additional help from an attractive or unattractive other, leading to speculation that heterosexual males were perhaps unwilling to appear less competent in the presence of an attractive female. Moreover, Nadler and colleagues investigated the likelihood of asking an attractive other for help, rather than that of helping an attractive other. Hence, while these results suggest that attractiveness plays a role in interpersonal helping, it does not provide evidence for the facilitating role of physical attractiveness in being successful at eliciting donations.

One study which did manipulate the attractiveness of the victim in a donation paradigm found increased donations towards an attractive person in need, but only when the need was very urgent, i.e. in an emergency situation (West & Brown, 1975). Another study found that student volunteers were more likely to deliver an important

document across campus for an attractive person (Benson et al., 1976). In this latter study, the results may be due to a physically attractive other being more persuasive. For example, in a consumer study, buyers were more likely to treat an attractive seller cordially and be persuaded by their offer and, when ostensibly working for a charity, attractive sellers solicited significantly more donations (Reingen & Kernan, 1993). Finally, as mentioned above, in a study measuring empathy towards facial disfigurement victims, the presence of an attractive other alongside the disfigured victim elicited the most support (Bennett, 1997). These results are interesting, given that the attractive person was not the victim in need. Overall, it would seem that physical beauty can increase donation contributions.

More recently, researchers have used data mining techniques to investigate donor behaviour on charitable micro lending sites such as KIVA (www.kiva.org). Although these sites procure loans from donors, they can be considered charitable in the sense that donors are motivated for prosocial reasons. The loans are geared towards helping individuals in developing countries, and the donor forgoes any interest payments and typically reinvests the funds to another person in need, leading to the term 'prosocial lending' (Liu, Chen, Chen, Mei, & Salib, 2012). One study, which analysed borrowing patterns of 6,977 loans in June 2009, found that darker skin tone and/or obesity of the borrower reduced lending rates, while borrowers who were above normal in physical attractiveness were more likely to be funded by a value of around 11% (Jenq, Pan, & Theseira, 2015). The researchers found that more experienced lenders were less influenced by the physical attractiveness of the borrower. They suggest that new lenders, faced with a huge amount of first time information, are more likely to be swayed implicitly by the physical appearance of the borrower. Given my discussion of reasoning in chapter 3, we can now interpret their

conclusion under a dual-process lens. New lenders may fall back on a Type 1 process that is influenced by the physical appearance of the borrower, while more experienced lenders may use a Type 2 process to weigh-up the numerous pros and cons of the appeal. Finally, a recent analysis of giving behaviour for a charity run on the U.K. Just Giving website (www.justgiving.com) has found that physical attractiveness played a role between male donors and female runners (Raihani & Smith, 2015). The authors found that male donors gave more to attractive female fundraisers, particularly when other males had made a prior donation, suggesting that the increased donations were due to evolutionary competitiveness.

Taken together, it seems clear that physical attraction may play an important role in subsequent helping behaviour, and the last study mentioned alludes to one of the reasons for this effect. Consistent with an evolutionary approach, helping due to physical attractiveness may be the result of a biological desire to be physically (and presumably psychologically) closer to the more attractive and therefore more desirable individual (Fink & Penton-Voak, 2002; Grammer et al., 2003). In addition to the study by Raihani and Smith (2015), other researchers have argued that interpersonal helping can be driven by physical attraction. For example, in a largely heterosexual culture, same-sex pairings (between helper and helpee) do not benefit from attraction effects, and may even be associated with lower prosociality perhaps due to jealousy or other social concerns (Maria Agthe, Spörrle, & Maner, 2011; Nadler, 1980). Thus, while the halo effect may lead to increased ratings of competence, intelligence, and success from both sexes, interpersonal helping due to attraction may be more effective in opposite-sex dyads (although, as the findings previously discussed show, the pattern is far from unequivocal).

Regardless, few if any studies (to my knowledge) have investigated physical attraction in an intergroup helping context, and it is unclear as to whether group memberships would interact with the physical appearance of the person in need. There is, however, one study that has suggested that political ingroup leaders are viewed as more physically attractive than corresponding outgroup leaders (Kniffin, Wansink, Griskevicius, & Wilson, 2014). However, this effect appeared to be driven by familiarity, i.e. an exposure effect. The 'mere exposure' effect (Zajonc, 1968), demonstrates a cognitive preference or liking of an object that is more familiar. Therefore, Kniffin and colleagues argue that a shared ingroup membership would significantly moderate the familiarity of the political candidate, thereby increasing physical attractiveness ratings. One aim of this research was to probe the relationship between attractiveness and group memberships, and their joint effects on donation decisions, further. Above, I outlined that the research on Type 1/Type 2 reasoning styles has hitherto not been considered systematically within an intergroup framework, and the same can be said about the research on physical attractiveness. One aim of this research was to remedy this, as outlined in detail in chapter 8.

Conclusion

This chapter considered evidence of the role physical attractiveness may play in prosociality. I outlined that the 'halo effect' is a robust phenomenon that applies equally to both genders. This effect can result in increased ratings of desirable attributes such as intelligence, social skills and competence. There is also evidence of physical attractiveness shaping patterns of interpersonal helping behaviour. While aforementioned work by Maria Agthe, Spörrle and Maner (2011), and Nadler (1980), provide evidence to suggest that helping due to physical beauty is more pronounced

between opposite-sexes. Given that we live in a heterosexually dominant culture, it has been proposed that interpersonal helping driven by attractiveness is partly due to mating preferences which serve evolutionary functions. However, some of the findings which could be interpreted as evidence for an innate/evolved preference for attractiveness could, however, easily be reinterpreted. For example, preferences in infants for attractive faces have been suggested to be driven by a need for cognitive fluency. Importantly, I noted that there is little research that has investigated group memberships alongside physical attractiveness. One aforementioned study has found that the physical attractiveness of political leaders was linked to group membership. Still, it is unknown whether ingroup members will receive more aid if they are physically attractive, or whether the physical appearance of outgroup members can result in increased prosociality.

Having outlined the theoretical background which informed my research (with omissions dictated by brevity requirements), I will now turn to the empirical part of my work. In the following three chapters, I will outline a series of studies which, taken together, address my main questions. Chapter 6 will zoom in on the effects on donations by group membership perceptions. These studies will consider both the in- or outgroup membership (vis-à-vis the donor) of the potential recipient of help, but also that of a potential perpetrator who has put the victims in their undesirable position of need. Chapter 7 will explore the effects of reasoning styles, and particularly investigate how the use of Type 1/Type 2 processes might alter responses to help needed by ingroup or outgroup victims. Chapter 8 will put at its centre the question of how perceived attractiveness of a victim might affect donation responses, again in an intergroup context where those in need are either ingroup or outgroup members.

Chapter Five

The effects of group memberships on charitable donations

Introduction

The present chapter is comprised of four studies which investigate intergroup processes in the context of donations to large groups in need. As outlined above, there is a large literature on charitable helping, but there are some notable gaps in that literature. Firstly, much of the past literature on charitable helping has focused on features of the people in need, and features of potential perpetrators have been largely ignored (see chapter 2). Thus, the present studies offer a novel contribution by focusing not only on victims in need, but also on the perpetrators involved, and on the important role that some thinkers have reasoned that perpetrators play in humanly caused problems (Gray & Wegner, 2012). To recap what was reviewed in chapter 2, some studies have demonstrated that mere human involvement can influence prosociality, while studies in non-charitable contexts have demonstrated that perpetrators can play an important role in how respondents perceive tragic events. Given this pattern, one may expect a salient perpetrator group to affect donation decisions, and this research will investigate this possibility.

Secondly, much of the past research has been situated at an interpersonal level, i.e. it has focussed on how/why a respondent helps a specific person in need. With the exceptions already noted in the review above (c.f. chapter 2), the role group memberships may play in charitable helping has been relatively neglected. Thus, the studies in this thesis adopt a social identity approach that considers the importance of

salient group memberships. As already discussed, there is robust evidence of the importance of group memberships in helping behaviours in other domains. It is therefore surprising that there is relatively little research that has investigated the specific effect of group memberships on donation decisions.

Overview of hypotheses

The hypotheses below are largely derived from the literature reviewed in the previous chapters. Hence, the theoretical rationale for each hypothesis will be summarised, but not in too much detail. For a more thorough discussion, the reader is referred back to the theoretical chapters above.

Hypothesis 5.1. A salient shared group membership between donor and perpetrator will increase donations towards the victims. The prediction for this main effect rests on the literature reviewed in chapter 2. In line with a social identity approach, it is presumed that participants feel existentially intertwined with other group members (Zagefka, Nigbur, Gonzalez, & Tip, 2012); therefore, a salient shared group membership with the perpetrator should result in the participant feeling increased social responsibility to help. To put more simply, participants will feel that the helping situation they are faced with is their ‘problem’, and not a problem for someone else to solve. Participants will therefore be more open towards making financial reparations when they share group membership with the perpetrator.

Hypothesis 5.2. The present studies predict increased prosociality when the victim and donor share a salient group membership. This prediction follows from much of the research detailed in chapter 2 which has found an ingroup bias/preference that some have referred to as 'ingroup love' (Brewer, 1999). This prediction is consistent with the social identity approach. As the self becomes intertwined with the group, a process of de-individuation can occur, where one sees the self and others as

group members. In this manner, helping an ingroup victim is analogous to helping the self.

Hypothesis 5.3. Prosociality will be highest when both the victim and perpetrator are ingroup members. One can expect that any feelings of empathic concern for the victim will be amplified when the donor also feels that they are somewhat responsible for the negative event. The rationale for this will become clearer with the discussion of the mechanisms of responsibility and empathy in the predictions below. Essentially, when the donor accepts that they have a responsibility to help, they should be more open to feelings of empathic concern and distress, and therefore any negative feelings that are generated will be far more effective.

Hypothesis 5.4. A shared perpetrator group membership will positively increase attributions of perceived donor responsibility. Perceived donor responsibility is defined as the extent to which the donor feels that they have a duty to help others in need. As discussed in chapter 2, outgroup helping has been linked to various strategic motives which in turn are often related to how the ingroup (and thereby the self) will be perceived by others (van Leeuwen & Täuber, 2010). Thus, whether a donor accepts responsibility to help an outgroup member may be influenced partly by strategic image concerns that are related to perceptions of egalitarianism and fairness (Braun & Gollwitzer, 2012; van Leeuwen, Dijk, & Kaynak, 2013). One situation where an individual will feel responsible to help an outgroup member is when the ingroup is designated as the perpetrator, evinced by studies which have investigated helping due to feelings of guilt (Brown et al., 2008). Therefore, one may expect a shared perpetrator group membership to impact upon responsibility ratings.

Hypothesis 5.5. Whereas the perpetrator effect described above is predicted to operate via a mechanism related to perceived responsibility, the ingroup victim

helping preference will be driven by greater empathy for ingroup victims compared to outgroup victims. As seen above, there is a large body of work that has identified empathic concern as a proximate mechanism which triggers helping, and many of the paradigms in this research area have inadvertently focused on ingroup helping (see chapter 2). Most of all, the prediction is based on previously mentioned work that has demonstrated that ingroup (but not outgroup) victims are helped due to empathy responses (Stürmer et al., 2006). As elaborated upon previously, a shared victim group membership is linked with empathic responses, which in turn are linked to ingroup (but not outgroup) helping (Stürmer et al., 2006). This implies an intrinsic desire to help ingroup victims that may not be present for outgroup victims. Thus, there is reason to expect that a shared victim group membership will increase helping due to feelings of empathic concern.

Hypothesis 5.6. The relationship between empathy and prosociality will be mediated by a sense of donor responsibility to help the victim. It is proposed that a heightened feeling of concern and distress for the victims should lead to a heightened desire and felt obligation to intervene and help, i.e. empathic concern should result in feeling responsible to help. This position is based on work that has demonstrated that responsibility mediates negative affective emotions such as guilt (Basil, Ridgway, & Basil, 2006), and that empathy directed towards others who are suffering is an effective method of generating negative affective responses which prompt helping (Basil, Ridgway, & Basil, 2008). Basil and colleagues do not develop the link between empathy and responsibility, but this link is made explicitly in the current thesis. Given that Basil and colleagues have demonstrated responsibility to mediate negative affective emotions in a charity appeal, and given that empathy is highly effective in

generating helping responses, it is reasonable to test the assumption that empathy will be mediated by responsibility.

Finally, effects on the perceived scale of the disaster (operationalised in the current studies as the extent of the suffering and financial damage incurred) were explored. The perceived scale of the disaster has been shown to positively predict donation aid; however, this has been attributed to the impact that the scale of a disaster has on subsequent media coverage (Simon, 1997). Of greater interest, the subjective scale of the disaster has been shown to be inflated when human involvement is due to an intentional act (Ames & Fiske, 2013). Given that human intentionality has been shown to affect the perceived scale of a tragic event, it would be interesting to test whether shared group memberships (particularly with a perpetrator group) can also affect subjective perceptions of harm and damage, i.e. the perceived scale of the disaster.

Study 1

Study 1 uses an experimental design, and varies the group membership of the perpetrators in an airline disaster, to test the prediction that a shared group membership between donors (participants) and perpetrators will increase donation levels (*Hypothesis 5.1*). Further, study 1 is particularly focused on the minimal conditions needed to achieve such an effect.

Study 1 also includes some exploratory aspects. To begin, rather than focus on a simple comparison between ingroup and outgroup perpetrator, study 1 distinguishes between two types of outgroup perpetrators. In one case, the perpetrators belong to the same group as the victims. In the other case, the perpetrators do not share a membership with either the victims or the donors – instead, they are of a third

party. The purpose of this demarcation was to nuance the ingroup/outgroup relationship. While it may be tempting to think of the perpetrator relationship as a simple ingroup/outgroup dichotomy, it is reasonable to expect that it will matter to potential donors which other groups the perpetrator is associated with. More specifically, study 1 explores whether there will be deleterious consequences when the perpetrator is related to the victim in need. Therefore, the inclusion of a third party perpetrator group, where the perpetrator is not related to either the victim or the donor, allows for a more nuanced comparison.

In line with what is outlined in section 5.1., the present study also included a measure of the perceived scale of the disaster. As noted above, the present study included this measure for exploratory purposes.

Method

Participants

Eighty-four participants completed the study (61 female, 23 male). Participants consisted of an opportunity sample of undergraduate students who took part in the study online for course credit (N = 65) and participants recruited on campus who participated voluntarily (N = 19). Ages ranged from 18 to 54 (M_{age} = 23.16, SD = 8.75). Participants were randomly assigned to one of three group membership conditions: i) the perpetrator belonged to the participants' own country; ii) the perpetrator belonged to the victims' country; or iii) the perpetrator belonged to a third, non-specified country not shared with the participant or the victims.

Procedure and measures

Participants answered standard demographic questions and then, via the use of an online random number generator, were assigned to one of three experimental

versions of a fictitious news report. The news report covered an accidental disaster that involved a plane crash in a foreign location. The crash resulted in an explosion that caused the deaths of hundreds, as well as substantial environmental damage. The content of the news reports was kept deliberately abstract and provided no salient or relevant information other than the group membership of the perpetrator. To illustrate, the manipulation stated that the plane causing the accident was either from: 'your country', 'the victim's country', or 'a different country'. Thus, the perpetrator shared group membership with either the donor, the victim, or a non-specified third party. Aside from this small change, all other features of the three conditions were identical (see Appendix A).

Participants in each condition subsequently answered a short questionnaire beginning with an item asking them to make a hypothetical donation by writing down how much they would donate to aid the victims using an open response format to avoid potential anchor effects (Hysenbelli, Rubaltelli, & Rumiati, 2013). Previous research has demonstrated that hypothetical donations are correlated with actual donations (Alpizar, Carlsson, & Johansson-Stenman, 2008; Macmillan, Smart, & Andrew, 1999; Macmillan, 2004; Zagefka et al., 2011). Moreover, several studies in the domain of experimental economics have demonstrated that hypothetical financial estimates are reliable proxies for real monetary behaviours (Champ, Bishop, Brown, & McCollum, 1997; Johannesson et al., 1999; Loomis, Brown, Lucero, & Peterson, 1996). Importantly, the purpose of the study was not to assess accurate mean levels of giving (which might be inflated in hypothetical rather than real donations), but to assess the effects of the perpetrator group membership manipulation (which can be assumed to affect hypothetical and real donations in a similar way).

In the present study, and all subsequent studies, participants answered a series of measures on seven point scales (1 = not at all/disagree strongly to 7 = very much/agree strongly).

Willingness to donate included four items to measure giving prosociality: 'I would be willing to give donations to the victims of the disaster', 'I think it is important to give donations to the victims of the disaster', 'I think it is the right thing to do to give donations to the victims of the disaster' and, 'I would give the maximum amount I could afford according to my means to the victims of the disaster'; $\alpha = .89$.

Disaster scale was measured using three items asking the participant to rate the disaster for the surviving victims in terms of: 'human suffering', 'irreparable mental scarring', and 'loss of housing and livelihoods'; $\alpha = .81$.

Upon completion of the study all participants were debriefed. The present study, and all following studies, conformed to APA ethical guidelines, as well as to standard BPS and APA procedure for online psychological research, where relevant.

Results

The effect of ingroup and outgroup perpetrators on hypothetical donations and willingness to donate

In order to address the issue of outliers and inflated giving estimates associated with hypothetical spending (Kirby & Herrnstein, 1995), following previous research which used open format donation estimates (Dickert, Sagara, & Slovic, 2011) hypothetical donation amounts were $\log^{10}$ transformed.

Hypothesis 5.1 predicted a difference in prosociality depending on whether the perpetrator was ingroup or not. Therefore, the victim perpetrator and third party perpetrator conditions were collapsed into a single outgroup condition (these

conditions will be analysed separately in an exploratory manner). A multivariate analysis of variance (MANOVA) was conducted with perpetrator group membership (ingroup vs. outgroup) as the independent factor, and *hypothetical donations* and *willingness to donate* as the dependent variables. There was a significant effect of perpetrator group membership on the dependent factors, *Pillai's Trace* = .089, $F(2,71) = 3.45$, $p = .037$, partial $\eta^2 = .089$. Univariate analyses indicated a significant effect of perpetrator group membership on *hypothetical donations*, $F(1,72) = 6.91$, $p = .010$, partial $\eta^2 = .088$; participants donated an average of £1.59 when the perpetrator belonged to the ingroup, but only £1.14 was donated on average when the perpetrator was from an outgorup. There was also a marginal effect on *willingness to donate*, $F(1,72) = 3.21$, $p = .077$, partial $\eta^2 = .043$, with participants more willing to help when the perpetrator was from the ingroup (5.34), than when the perpetrator was from the outgroup (4.69). These results support *Hypothesis 5.1*, in that donors responded more prosocially when the perpetrator was a member of their ingroup.

Analyses investigating the effect of victim and third party perpetrator group membership on hypothetical donations and willingness to donate

Next, to explore whether it mattered whether perpetrators shared the same group membership as the victims, the above analyses were repeated, but with three levels of the independent variable (IV): (donor group perpetrator vs. victim group perpetrator vs. third-party perpetrator). *Hypothetical donations* and *willingness to donate* remained as the dependent variables. The multivariate effect of the perpetrator group membership factor was not significant, *Pillai's Trace* = .111, $F(2,70) = 3.32$, $p = .086$, partial $\eta^2 = .055$. Univariate analyses yielded a significant effect of perpetrator group membership on *hypothetical donations*, $F(2,71) = 3.64$, $p = .031$, partial $\eta^2 = .093$; and a non-significant effect on *willingness to donate*, $F(2,71) = 2.44$, $p = .094$,

partial η^2 = .064. Post hoc pairwise comparisons (Bonferroni adjustment applied) revealed that donations in the donor perpetrator condition were significantly higher than in the third-party outgroup perpetrator condition (p = .033) but not the victim perpetrator condition (p = 1.91) (see Table 1 below).

Exploratory analyses on the effect of perpetrator group and victim group on the perceived scale of the disaster

The effect of donor perpetrator versus outgroup perpetrator (victim and third party outgroups combined) was investigated. An independent t-test was conducted with ingroup and outgroup perpetrator as the between subjects factor and *disaster scale* as the dependent variable. There was a significant effect of perpetrator group on *disaster scale*, $t(82) = 2.02$, $p = .046$, such that the disaster was seen as more damaging for the victims when the perpetrator belonged to the ingroup (5.42), than when the perpetrator belonged to an outgroup (5.00).

Next, a univariate analysis of variance was run with three levels of perpetrator group membership (donor group perpetrator vs. victim group perpetrator vs. third-party perpetrator) as the independent factor, and with *disaster scale* as the dependent variable. Results indicated an effect of perpetrator group membership on the perceived scale of the disaster, $F(2,81) = 3.74$, $p = .028$, partial $\eta^2 = .085$. Pairwise comparisons (Bonferroni adjusted) indicated a significant difference between the donor perpetrator condition and the other country perpetrator condition (see Table 1).

Table 1

The effect of perpetrator group membership on giving prosociality (Study 1)

	Donor Group Perpetrator	95 % CI	Victim Group Perpetrator	95% CI	Third party perpetrator	95% CI
Hypothetical donations	£1.59$_{a}$ (.79)	1.3:1.8	£1.21$_{a,b}$ (.75)	.91:1.5	£1.07$_{b}$ (.58)	.79:1.3
Willingness to donate	5.34$_{a}$ (1.23)	4.7:5.9	4.97$_{a}$ (1.52)	4.3:5.5	4.44$_{a}$ (1.59)	3.8:5.0
Disaster scale	5.42$_{a}$ (.79)	5.0:5.7	5.22$_{a,b}$ (.85)	4.8:5.5	4.78$_{b}$ (1.02)	4.4:5.1

Note. Standard deviations in parentheses.

Across rows: Items that do not share a subscript are significantly different at $p < .05$.

Discussion

Study 1 demonstrates that perpetrator group membership can play an important role in intergroup giving. Both hypothetical donation amount and general willingness to donate were highest when the perpetrator shared the respondent's group, confirming *Hypothesis 5.1*. Exploratory analyses were also conducted to investigate whether the outgroup perpetrator relationship could be further demarcated, and more specifically, whether donations would be affected by the perpetrator sharing (or not sharing) a group membership with the victims. After all, one might expect prosociality to be reduced when the victim and perpetrator are related (possibly due to increased victim blame). Surprisingly, the donor perpetrator condition differed significantly from the third party perpetrator condition but not the victim perpetrator condition (although the pattern was evident). Overall, it is fair to conclude that prosociality towards a humanitarian disaster was higher when ingroup status was shared with the perpetrator than when the perpetrator was an outgroup member (and particularly when the perpetrator belonged to a third party).

Exploratory analyses were also conducted on the perceived scale of the disaster. One might expect donors to protect their reputation, by downplaying the scale of the disaster, if the perpetrator was from their ingroup – but this was not the case. The disaster was seen as more damaging when the respondent shared an ingroup membership with the perpetrator, and much less damaging when the perpetrator was from a third party. Potentially, this finding could be due to participants caring more about events which are caused by ingroup members, and hence by participants psychologically magnifying the scale of such events. This is a tentative explanation however, as it is worth noting that the scale of the disaster was seen as similarly damaging when the perpetrator shared a group membership with the victim. Although disaster scale was not significantly different across the victim and third-party conditions, the pattern of data would suggest that the difference in disaster scale was driven by the low scores in the third-party condition, i.e. when the perpetrator was associated with a third-party that the disaster was seen as *less* damaging.

Taken together, the results of study 1 suggest increased prosociality when the perpetrator belongs to the ingroup, and decreased prosociality when the perpetrator belongs to a third-party. Moreover, results suggested that a third-party perpetrator was associated with less helping than a perpetrator from the victims' group (although this was only a trend, as these two conditions did not significantly differ from each other). The results are in line with research that has demonstrated bystander apathy when one country commits an offence against another, most notably during acts of collective violence and genocide (Staub, 1999). Staub has commented on the failure of international bystanders to intervene when a third-party is involved, and the present results illustrate his argument in minimal conditions. Merely associating the perpetrator with a third-party led to deleterious effects, possibly more so than

associating the perpetrator with the victims. One can speculate that participants felt a lack of responsibility to help when the perpetrator was associated with a third-party. Of course, one may also feel less responsibility to help when the perpetrators are related to the victims. In real world scenarios, international aid may be offered to countries that require aid for a variety of reasons – Staub argues that the same aid is offered less quickly when a third-party is involved.

Finally, unlike studies that have investigated helping behaviour towards minority groups (Saucier, Miller, & Doucet, 2005), or to specific causes (Cuddy et al., 2007), the context used in the present study was kept deliberately abstract. Therefore, the differences in giving behaviour reported in the present study cannot be explained by stereotype activations. The findings demonstrate that in order to elicit a difference in giving behaviour, it is enough to merely categorize and make salient a distinctive perpetrator group.

Study 2

Study 2, also testing *Hypothesis 5.1*, is a replication of study 1 in a different context. The aim was to test the generalisability and potential boundary conditions of the findings of study 1. Whereas study 1 used the context of an accidental disaster, study 2 utilises the context of a military incursion. Study 2 also investigates the underlying processes related to prosociality by including a measure of donor responsibility (testing *Hypothesis 5.4*). To recap, increased perceived *donor responsibility* was expected to be the mechanism explaining why donor perpetrators would be associated with higher donations. As such, *donor responsibility* was expected to be an explanatory factor for increased prosociality due to the donor being

associated with the perpetrator. To test *Hypothesis 5.6*, a measure of empathic concern, henceforth referred to as empathy, is also included.

The present study also includes a number of exploratory aspects. Firstly, *disaster scale* is again included in order to attempt to replicate the findings from study 1. Secondly, although *Hypothesis 5.4* predicts an effect of victim group on empathy, the current thesis does not make a similar prediction that perpetrator group will affect empathy. Nonetheless, it would be interesting for exploratory reasons to investigate whether perpetrator group membership can also affect empathy levels.

Finally, study 2 also investigates perceived responsibility attributions (for the donor, victim, or government). This is an exploratory aspect designed to nuance the donor responsibility measure and better understand the third-party effects identified in study 1.

Method

Participants

One hundred and ten participants completed an online survey with the opportunity to win a £50 raffle voucher. The survey was advertised on an online campus notice board, opportunistically via social networking websites, and advertised on websites that list social psychology experiments, e.g. http://www.socialpsychology.org. Ages ranged from 18 to 80 (M = 27.94, SD = 10.87) and there were 74 females and 36 males. Study 2 utilised the same design as in the previous study, with participants randomly assigned to one of three perpetrator membership groups.

Procedure and Measures

Participants were randomly allocated by the survey software to one of the three group membership conditions. The order and presentation of the stimuli was kept similar to study 1, except that the vignette now described military action taken in another country. Participants read that there was a threat of chemical weapons from militant groups and that military action was taken as a response to this threat (Appendix B). As in Study 1, there were three distinct perpetrator groups in the manipulation (donor perpetrator, victim perpetrator, third-party perpetrator), thus the perpetrator either shared group membership with the participant, the victim, or with neither.

All measures described in study 1 were also included in this study. *Hypothetical donations* (as with all other measures henceforth) was now measured on a seven point scale. This change was due to the highly inflated (and variable) donation amounts in the open-ended response format used in study 1. The use of a seven point scale also avoids the need for a log transformation. The new scale for hypothetical donation amount ranged from £0 to £12, measured in £2 increments.

The new alpha reliability for *willingness to donate* was .86, and for *disaster scale* the new reliability was .81.

Empathy was measured using a modified version of the Impression Check Questionnaire (Davis, 1980), which consists of five items designed to measure situational empathy as used by Stürmer et al. (2006): 'I felt great sympathy for the victims and their suffering', 'I felt very compassionate for the victims of the disaster', 'I had a lot of empathy with the victims for the horrors they suffered', 'I felt very concerned for the victims of the disaster' and 'I felt very sorry for the victims of the disaster'; $\alpha = .92$.

Additionally, a 3 item measure of *donor responsibility* (Basil et al., 2006) was included: 'I believe that I have a responsibility to help because I am so much better off than the victims'[3], 'I believe that I have a responsibility to do what I can to help', and 'I believe that helping is the right thing to do'; $\alpha = .82$.

The present study also included explanatory variables that may aid in understanding the mechanisms of charitable helping. Firstly, two further single item measures of responsibility were included. *Victim responsibility*, 'I think the victims of the disaster might have been responsible for their situation at least to some extent'; and, *government responsibility*, 'I think my country/the victims' country/the neighbouring country should accept responsibility for what happened'. This latter measure is in fact a measure of perpetrator responsibility, as in the current context the government, be it the donor's government, the victims' government, or the neighbouring country's government, was described as instigating the military incursion.

[3] The responsibility items were selected by drawing upon past research, although on reflection, one could argue that at face value there is a danger of the first responsibility item prejudging donation decisions. Due to this potential concern, all of the main analyses, i.e. non-exploratory analyses that test a hypothesis, were re-analysed in the current study with this first item omitted. The alpha reliability for the two item measure of responsibility was .754 and the results were near identical for both the MANOVA tests and for the mediation and bootstrapping tests. Therefore, I concluded that although the responsibility scale could be refined, removing item 1 of the scale was not necessary in this study or in subsequent analyses.

Results

The effect of perpetrator group membership on donation amount, willingness to donate, empathy, and donor responsibility

A MANOVA was conducted with perpetrator group membership as the independent factor (donor perpetrator vs. outgroup perpetrator, again collapsing across the two outgroup conditions) and *hypothetical donations* and *willingness to donate* as the dependent measures. Contrary to study 1, and contrary to *Hypothesis 5.1,* the multivariate test was not significant, *Pillai's Trace* = .003, $F(2,106) = .166$, $p = .848$, partial $\eta^2 = .003$. Univariate tests confirmed that the donor perpetrator condition (5.69) did not significantly differ from the outgroup perpetrator condition (5.54) on *hypothetical donations,* $F(1,107) = .032$, $p = .858$, partial $\eta^2 < .001$. Neither did the donor perpetrator condition (5.33) differ significantly from the outgroup perpetrator condition (5.17) on *willingness to donate,* $F(1,107) = .279$, $p = .598$, partial $\eta^2 = .003$.

In order to test *Hypothesis 5.4,* the above analyses were repeated with *donor responsibility* and *empathy* as the dependent measures. *Hypothesis 5.4* predicted an effect of perpetrator group on responsibility to help; *empathy* was included in these analyses for completeness. The multivariate test indicated that perpetrator group membership did not have a significant effect, *Pillai's Trace* = .002, $F(2,106) = .084$, partial $\eta^2 = .002$. Contrary to *Hypothesis 5.4,* univariate tests showed that the donor perpetrator condition (4.84) did not significantly differ from the outgroup perpetrator condition (4.72) on *donor responsibility,* $F(1,107) = .165$, $p = .685$, partial $\eta^2 = .002$; nor did the donor perpetrator condition (5.28) differ from the outgroup perpetrator condition (5.21) on *empathy,* $F(1,107) = .063$, $p = .803$, partial $\eta^2 = .001$.

Analyses investigating the effect of victim and third party perpetrator group membership on hypothetical donations and willingness to donate

The above analyses were repeated but with the perpetrator outgroup nuanced to victim and third party outgroup conditions. A MANOVA was conducted with perpetrator group membership as the independent factor (donor perpetrator, victim perpetrator, third-party perpetrator) and *hypothetical donations* and *willingness to donate* as the dependent measures. The multivariate test was not significant, *Pillai's Trace* = .003, $F(4,212) = .087$, $p = .986$, partial $\eta^2 = .002$; indicating a null effect of perpetrator group on the dependent measures. The univariate test confirmed a null effect of perpetrator group on *hypothetical donations*, $F(2,106) = .017$, $p = .983$, partial $\eta^2 < .001$; and also confirmed a null effect of perpetrator group on *willingness to donate*, $F(2,106) = .140$, $p = .870$, partial $\eta^2 = .003$ (see Table 2).

The above analyses were repeated with *donor responsibility* and *empathy* as the dependent measures. The multivariate test indicated that perpetrator group membership was not significant, *Pillai's Trace* = .007, $F(4,212) = .193$, $p = .942$, partial $\eta^2 = .004$. Univariate tests indicated that perpetrator group did not affect donor responsibility, $F(2,106) = .769$, $p = .714$, partial $\eta^2 = .006$. There was also no effect of perpetrator group on *empathy*, $F(2,106) = .214$, $p = .808$, partial $\eta^2 = .004$ (see Table 2).

Exploratory analyses on the effect of perpetrator and victim group on the perceived scale of the disaster

An independent t-test was conducted with perpetrator group (donor perpetrator vs. outgroup perpetrator) as the independent variable and *disaster scale* as the dependent measure. There was no significant difference between the donor perpetrator (6.18) and outgroup perpetrator (6.31) conditions on the perceived scale of the disaster, $t(108) = -.747$, $p = .457$.

Exploratory analyses were then conducted with three levels of the perpetrator condition. An ANOVA was run with perpetrator group (donor perpetrator, victim perpetrator, third-party perpetrator) as the independent factor and *disaster scale* as the dependent variable. Contrary to study 1, there was no significant effect of perpetrator group on the perceived scale of the disaster, $F(2,107) = .355$, $p = .702$, partial $\eta^2 = .007$ (see Table 2).

Table 2

The effect of perpetrator group membership on giving prosociality (Study 2)

	Donor Perpetrator	95 % CI	Victim Perpetrator	95% CI	Third party perpetrator	95% CI
Hypothetical donations	£5.69$_a$ (4.4)	4.3:7.0	£5.56$_a$ (3.9)	4.1:6.9	£5.51$_a$ (4.1)	4.0:6.9
Willingness to donate	5.33$_a$ (1.3)	4.8:5.8	5.16$_a$ (1.6)	4.6:5.6	5.18$_a$ (1.6)	4.6:5.7
Empathy	5.28$_a$ (1.3)	4.8:5.7	5.30$_a$ (1.2)	4.8:5.7	5.10$_a$ (1.5)	4.6:5.5
Donor responsibility	4.84$_a$ (1.6)	4.3:5.3	4.84$_a$ (1.4)	4.3:5.3	4.58$_a$ (1.5)	4.0:5.1
Disaster scale	6.18$_a$ (.93)	5.9:6.4	6.28$_a$ (.84)	5.9:6.5	6.36$_a$ (.87)	6.0:6.6

Note. Standard deviations in parentheses.

Across rows: items that do not share a subscript are significantly different at $p < .05$.

The mediating relationship of donor responsibility and empathy on prosociality towards disaster victims

In order to further test *Hypotheses 5.4*, the SPSS PROCESS macro (Hayes, 2012) was used (set to 5,000 bootstrap re-samples) to investigate whether *donor responsibility* mediated the relationship between perpetrator group (with two levels: ingroup vs. outgroup) and *hypothetical donations.* The indirect path was not significant, point estimate = -.269, CI 95% [-1.42, .736]. This result was confirmed

with a Sobel test, $Z = -.490$, $p = .624$. The analysis was then repeated with *willingness to donate* as the outcome variable; again the result was not significant, point estimate = -.091, CI 95% [-.544, .374], $Z = -.386$, $p = .700$. These results do not support *Hypothesis 5.4.*

The relationship between donor responsibility, empathy, and donation decisions

Next, a series of analyses were conducted to test if empathy, responsibility, and helping were sequentially related, in line with the process proposed by *Hypothesis 5.6*. To begin with, *donor responsibility* was significantly bivariately correlated with *hypothetical donations,* r = .622, $p < .001$, and with *willingness to donate,* r = .729, $p < .001$. *Empathy* was also significantly correlated with *hypothetical donations,* r = .237, $p = .013$ and *willingness to donate,* r = .453, $p < .001$. Moreover, *empathy* was significantly correlated with *donor responsibility,* r =.467, $p < .001$.

To test *Hypothesis 5.6* (that donor responsibility mediates empathic concern), mediation analyses were conducted, again using the SPSS PROCESS macro. Bias corrected bootstrapping analysis, with 5,000 re-samples, indicated that the indirect path between *empathy* and *hypothetical donations*, via *donor responsibility,* was significant, *point estimate* = .840, CI 95% [.45, 1.34]. A Sobel test confirmed this result, $Z = 3.92$, $p < .001$. The mediation analysis was then repeated with *willingness to donate* as the outcome variable. Again, the indirect path between *empathy* and *willingness to donate* via *donor responsibility* was significant, *point estimate* = .346, CI 95% [.20, .52]. A Sobel test confirmed the bootstrapping analyses, $Z = 4.15$, $p < .001$. Together, these results support *Hypothesis 5.6,* by suggesting that feelings of empathy increase prosociality towards victims via the mechanism of accepted responsibility.

Exploratory analyses investigating the effect of perpetrator group membership on responsibility attributions (donor, victim, and government)

Exploratory post hoc analyses were conducted in order to further investigate the effect of perpetrator group membership on different types of attributions of responsibility.

A three-way mixed measures ANOVA was conducted with perpetrator group membership (donor perpetrator, victim perpetrator, and third-party perpetrator) as the independent variable, and with responsibility attribution (donor responsibility, victim responsibility, and government responsibility) as the repeated measures variable. Results revealed a significant main effect of responsibility attribution, $F(2,218) = 13.25$, $p < .001$, partial $\eta^2 = .11$. Bonferroni adjusted comparisons revealed that donor responsibility (4.71) was significantly lower than both victim responsibility (5.55) and state responsibility (5.58), $p < .001$. Across conditions, individuals felt they were less responsible than either the victims or the government when it came to helping those in need (see

Figure 1 below).

There was also a significant interaction between perpetrator group membership and responsibility attributions, $F(4,218) = 3.19$, $p = .014$, partial $\eta^2 = .05$. Post hoc comparisons (Bonferroni adjusted) revealed that when the donor shared group membership with the perpetrator, donor responsibility was attributed as significantly lower (4.82) than state responsibility (5.98), $p < .001$. The difference between donor responsibility and victim responsibility was not significant, $p = .223$; although the pattern was interesting in that victim responsibility (5.19) was attributed as marginally higher than donor responsibility (4.82).

A similar pattern was observed for responsibility attributions when the victim shared group membership with the perpetrator; however, in this condition the victims were seen as most responsible (5.68), while donor responsibility was again lowest (4.92), p = .060. Government responsibility (5.16) was also higher than donor responsibility (4.92), but this result was not significant, p = .460.

Finally, when the perpetrator belonged to a third country, donor responsibility (4.41) was significantly lower than both victim responsibility (5.79) and state responsibility (5.58), p = .001 and p = .003, respectively (see Figure 1).

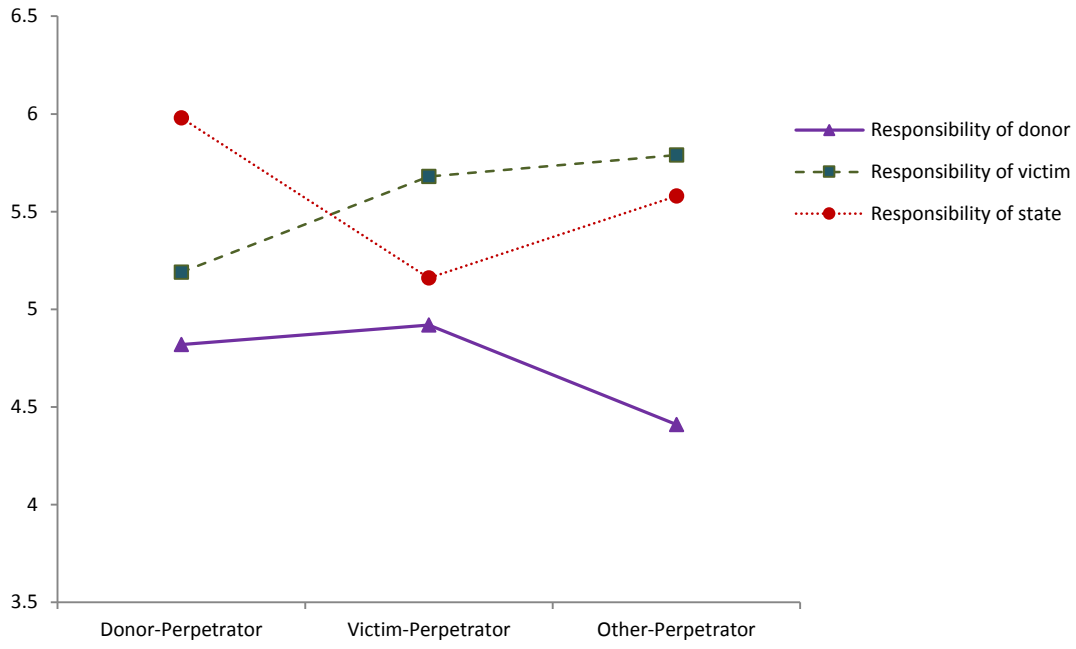

Figure 1

Responsibility to help attributions by perpetrator group membership

Discussion

Study 2 did not replicate the results from the previous study regarding *Hypothesis 5.1*. Crucially, the ingroup bias effect on donations was negated. There were no differences in donations across experimental conditions, with donors giving similar amounts irrespective of the perpetrator's group membership; nor was there an exploratory effect of perpetrator group on the perceived scale of the disaster. This is in direct contrast with study 1, which found perpetrator group membership to affect both giving decisions and perceptions over the magnitude and harm caused by the disaster. There was also no difference in individual responsibility attributions due to shared perpetrator group membership (*Hypothesis 5.4*), with similar levels of donor responsibility displayed irrespective of perpetrator group. Finally, although the pattern was not consistent across all three conditions, it is fair to conclude that donor's perceived their responsibility to help as substantially lower than responsibility attributed to the government, or responsibility attributed to the victims.

One explanation for these null results could be the increased human involvement and the intentionality inherent in contexts that involve military action. Zagefka et al. (2011) demonstrated that natural disasters were viewed more favourably than disasters perceived to be caused by human involvement. Although the disaster in study 1 involved an accidental explosion, participants may have viewed this as less foreseeable and more similar to an 'act of God'. Certainly, they would not have viewed the accidental scenario as intentional. Researchers have demonstrated that intentional acts are viewed more harshly, particularly as they are foreseeable with the

benefit of hindsight (Ames & Fiske, 2013; Lagnado & Channon, 2008). Put simply, when human action is involved, something that is inherent in a situation that involves the military, participants may become less forgiving and thereby less prosocial. It is therefore possible that participants may see any form of military action as an intentional human act that deserves less sympathy.

The above reasoning, that participants would feel less prosocial due to human involvement, has a strong theoretical basis, but it is presented tentatively given that the mean levels in the current study for willingness to help were similar to the midpoint levels obtained in study 1. However, the context in the present study was quite different from the accidental disaster in study 1, so it is debatable as to how strong a conclusion can be drawn from comparing these means across studies. Moreover, participants would not wish to appear callous, so it is likely that any deleterious effects pertaining to prosocial behaviour would affect one condition more than the others, i.e. it would likely diminish helping in the prosocial condition as opposed to resulting in no helping across all conditions. Nonetheless, there is some evidence of decreased prosociality due to the context if one considers the exploratory analyses into responsibility attributions. The present study found that perpetrator group membership affected attributions of responsibility, such that donor responsibility remained low irrespective of the perpetrator group involved. This suggests (at least in a military context) that when government action is involved, e.g. in a military incursion such as the Gulf War or the war in Afghanistan, that individuals may feel less responsible for providing subsequent aid.

It is also interesting that there were significant differences between responsibility attributions between the ingroup condition and the third-party outgroup condition. When the perpetrator belonged to the ingroup, the government was

perceived to be most responsible. However, when the perpetrator was not part of the ingroup, the victims were held as most responsible. Victim responsibility remained high even when a third-party (presumably neighbouring country) was the perpetrator, and victim responsibility was in fact attributed as marginally higher than the responsibility of the invading state. Although this latter result did not represent a significant difference, the pattern does suggest that victims are often held responsible for their own plight, particularly in political situations that may occur overseas. It is also notable that donor responsibility to help was lowest when the perpetrator was from another country.

These results effectively demonstrate the bystander effect at an international level. This returns the discussion to a point already mentioned in study 1. Staub (1999) has long argued that atrocities such as attempted genocide are foreseeable, with many political and economic markers occurring before violent action takes place. Despite this, there is often little in the form of intervention from international onlookers, who in practice become bystanders. Further, when genocide happens (Rwanda, Darfur), there is often a delay in political aid and public support. One can speculate that this delay is tied to a feeling of low responsibility towards the plight of victims in another country, particularly when a third country is involved.

Finally, exploratory analyses revealed no effect of perpetrator group on empathy. However, in support of *Hypothesis 5.6*, donor responsibility was found to mediate empathy towards victims in need. This supports the notion that empathy subsequently lead to a sense of donor responsibility to help victims in need. The present study utilised a traditional scale of empathy (based on work by Batson and colleagues) that measures distress, concern and sympathy towards the victims, and found evidence in support of the proposed mediation process.

Study 3

Study 3 replicates the paradigm used in the previous studies (testing *Hypotheses 5.1, 5.4 & 5*.6), but does so in the context of an environmental oil spill disaster. Also, the previous two studies used abstract category representations for the groups involved. Although abstract representations can be considered a strength in experimental designs because they minimise the potential for introducing confounds, the use of abstract representations can also be criticised for being artificial and more difficult for participants to envisage. To illustrate, in study 1 (Appendix A), there may have been ambiguity as to which country the spokesperson was claiming responsibility from, and this ambiguity may have attenuated potential differences between the victim and third party conditions. Therefore, study 3 uses genuine country names. In study 3, the perpetrator is a U.S. oil company that has caused an environmental disaster in Estonia. Since study 3 investigates helping towards European victims from U.S. citizens, a measure of nationality identification is included. Nationality can be an effective tool for manipulating group memberships and prompting prosociality, but the effectiveness of appeals to collective pride or guilt may depend on the level of identification. In particular, high identifiers may reject appeals driven by guilt (e.g. being associated with the perpetrator), as this has negative consequences towards the ingroup that they value so highly (van Leeuwen, van Dijk, & Kaynak, 2013b; Zebel, Doosje, & Spears, 2009). A measure of the perceived scale of the disaster was included for exploratory reasons, as in the previous two studies. However, the

exploratory aspect that included additional measures of responsibility was not included due to space constraints.

Method

Participants

Participants were recruited via Mturk, which has been demonstrated to provide a reliable participant pool (Buhrmester, Kwang, & Gosling, 2011; Chandler, Mueller, & Paolacci, 2014; Goodman, Cryder, & Cheema, 2013). Participants were paid around 50 cents to take part in a 5 minute survey. This amount is considered moderate compared to other tasks on MTurk, and workers appear incentivised to complete surveys at this price point (Buhrmester et al., 2011). Ages ranged from 21 to 73 (M_{age} = 39.07, *SD* = 13.07). Twenty-eight participants were excluded for not being of U.S. nationality (this was a necessary requirement for the design of the current study). A further twelve participants were excluded for not answering over 95% of the questions, and five participants were excluded for providing duplicate responses. Interquartile ranges were examined and no participants were excluded for being extremely fast, or slow, on survey completion time. This left a total of sixty-four participants[4] who completed the study (28 female, 36 male).

[4] In general, power analyses using G-power 3.1, along with consideration of previous sample sizes in published work, suggested that approximately 66 participants (22 per condition) was the minimum requirement needed to detect a medium to large effect size using a one-way ANOVA. This minimum number was achieved in the current study, although I note in the study discussion that this number is

Procedure and measures

The procedure was identical to that in previous studies, except that participants read about an environmental oil spill. The disaster occurred off the coast of Estonia and the perpetrator (the oil company at fault) was manipulated to be either from the U.S. (ingroup), Estonia (victim outgroup), or Latvia (third-party outgroup). Participants were also shown an image of animal wildlife covered in crude oil.

Measures were identical to those used in study 2, except that items now referred to the oil disaster. As in the previous study, *hypothetical donations* were measured with a single item on a 7 point scale. The new reliabilities for the composite measures were: *willingness to donate,* $\alpha = .88$; *empathy,* $\alpha = .82$; *donor responsibility,* $\alpha = .87$; and *disaster scale,* $\alpha = .76$. An additional two item measure was included to measure *U.S. identification*, 'I strongly identify with being a U.S. citizen', and, 'Being a U.S. citizen is important to me'; $\alpha = .93$.

Finally, Oppenheimer, Meyvis and Davidenko (2009) recommend using a check to ensure that MTurk participants remain diligent and attend to the stimulus and experimental instructions. Using a procedure termed the *Instructional Manipulation Check (IMC)* (Oppenheimer et al., 2009), it is possible to prevent participants from continuing the experimental survey until they have demonstrated sufficient diligence. The procedure involves presenting a large section of onscreen text, with a standard 'next' button displayed on the bottom of the screen. However, participants must not click on the next button (as they have done previously), but instead they must read all

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questionably low for an online study. The minimum participant number is substantially higher in other studies, particularly when the design attempts to detect a possible interaction.

of the displayed text which gives them an alternative instruction. In the present study, the IMC text told the participants about the importance of attention in scientific research, praised them for fully reading the text and demonstrating such attention, and then instructed them to click elsewhere on the screen. Failure to do this resulted in participants being returned to the IMC screen until they either quit the study, or successfully passed the check. Previous research has demonstrated that participants are not antagonised by the check since they had already agreed to answer the question items in good faith as a condition of the survey (Oppenheimer et al., 2009). Moreover, participants who repeat the check several times are not significantly different in their responses from participants who pass the check on the first attempt (Oppenheimer et al., 2009). No participants failed to complete the check in the present study. On average, participants clicked on the IMC screen 3.5 times (i.e. attempted to click on the next button once or twice before following the correct instructions) and spent a mean time of 43.4 seconds on the IMC page.

Results

The effect of ingroup and outgroup perpetrator group membership on donation amount and willingness to donate

In order to test *Hypothesis 5.1,* a MANOVA was conducted on two levels of perpetrator group (ingroup donor perpetrator vs. outgroup perpetrator) and with *hypothetical donations* and *willingness to donate* as dependent measures. The multivariate test was not significant, *Pillai's Trace* = .054, $F(2,61) = 1.732$, $p = .186$, partial $\eta^2 = .054$. Univariate tests indicated that the donor perpetrator group (4.82) did not significantly differ from the outgroup perpetrator group (5.28) on *hypothetical donations,* $F(1,62) = .373$, $p = .544$, partial $\eta^2 = .006$. Further, there was not a

significant difference between the donor perpetrator group (4.82) and the outgroup perpetrator group (5.49) on *willingness to donate*, although this effect was somewhat closer to significance, $F(1,62) = 2.85$, $p = .096$, partial $\eta^2 = .044$.

The analyses above were repeated with *U.S. identification* as a covariate. The multivariate test indicated that the covariate was significant overall, *Pillai's Trace* = .159, $F(2,60) = 5.69$, $p = .005$, partial $\eta^2 = .159$. Further, univariate tests indicated that the covariate was significant for both *hypothetical donations*, $F(1,61) = 10.39$, $p = .002$, partial $\eta^2 = .146$ and *willingness to donate*, $F(1,61) = 8.66$, $p = .005$, partial $\eta^2 = .124$. However, the inclusion of the covariate did not meaningfully alter the multivariate test results for perpetrator group, which remained non-significant, $p = .202$. Univariate tests for perpetrator group on *hypothetical donations* indicated little change in mean levels between the donor perpetrator group (4.99) and the outgroup perpetrator group (5.26), $F(1,61) = .261$, $p = .611$, partial $\eta^2 = .004$. The same was true for the univariate effect on *willingness to donate*, donor perpetrator group (4.86) compared to outgroup perpetrator group (5.48), $F(1,61) = 2.74$, $p = .103$, partial $\eta^2 = .043$. Overall, these results are in contrast to the results in study 1, and do not support *Hypothesis 5.1*[5].

Analyses investigating the effect of ingroup, victim, and third party perpetrator group membership on hypothetical donations and willingness to donate

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[5] *U.S. identification* was also examined as a potential moderator in order to investigate whether high and low identifiers responded differently to being associated with the perpetrator group. Using PROCESS (model 1), *U.S. identification* was entered as a mean centred variable along with perpetrator group (ingroup vs. outgroup) with *hypothetical donations* as the outcome variable. *U.S. identification* was a significant predictor, $p = .049$, but the interaction term was not significant, $p = .956$. The analysis was repeated with *willingness to donate* as the outcome variable. However, neither *U.S. identification*, $p = .108$, nor the interaction term, $p = .799$, were significant.

The above analyses were repeated but with three levels of perpetrator group membership for exploratory reasons. A MANOVA was conducted with perpetrator group membership as the independent variable (donor perpetrator, victim perpetrator, third-party perpetrator) and *hypothetical donations* and *willingness to donate* as the dependent variables. The multivariate test indicated that the effect of perpetrator group on the dependent variables was not significant, *Pillai's Trace* = .061, $F(4,122) = .956$, $p = .434$, partial $\eta^2 = .030$. Univariate tests indicated that perpetrator group membership did not have a significant effect on *hypothetical donations*, $F(2,61) = .194$, $p = .824$, partial $\eta^2 = .006$; or a significant effect on *willingness to donate*, $F(2,61) = 1.47$, $p = .238$, partial $\eta^2 = .046$ (see Table 3).

The above analysis was repeated with *U.S. identification* as a covariate. Multivariate tests revealed that *U.S. identification* was a significant covariate, *Pillai's Trace* = .173, $F(2,59) = .6.18$, $p = .004$, partial $\eta^2 = .173$. Perpetrator group did not, however, have a significant effect on the dependent variables, *Pillai's Trace* = .076, $F(4,120) = 1.17$, $p = .324$, partial $\eta^2 = .038$. Univariate results indicated that *U.S. identification* was a significant covariate for *hypothetical donations*, $F(2,60) = 11.75$, $p = .001$, partial $\eta^2 = .164$; and a significant covariate for *willingness to donate*, $F(2,60) = 1.47$, $p = .236$, partial $\eta^2 = .047$.

Nonetheless, perpetrator group membership did not have a significant effect on *hypothetical donations* with the inclusion of the covariate, $F(2,60) = .795$, $p = .456$, partial $\eta^2 = .026$; nor was there a significant effect on *willingness to donate*, $F(2,60) = 1.47$, $p = .238$, partial $\eta^2 = .046$ (see Table 3).

The effect of ingroup and outgroup perpetrator group membership on donor responsibility and empathy

In order to test *Hypothesis 5.4,* a MANOVA was conducted with perpetrator group (donor perpetrator vs. outgroup perpetrator) and with *donor responsibility* and *empathy* as the dependent measures. As in the previous study, *empathy* was included for exploratory reasons. The multivariate test was not significant, *Pillai's Trace* = .049, $F(2,61) = 1.55$, $p = .219$, partial $\eta^2 = .049$. Univariate tests indicated that there was no significant difference between donor perpetrator (4.94) and outgroup perpetrator (5.40) for *donor responsibility*, $F(1,62) = 1.29$, $p = .260$, partial $\eta^2 = .020$. Nor was the difference between donor perpetrator (5.73) and outgroup perpetrator (5.69) significant for *empathy*, $F(1,62) = .025$, $p = .875$, partial $\eta^2 < .001$.

Analyses were repeated but with *U.S. identification* as a covariate. The covariate had a significant effect across both *donor responsibility* and *empathy*, *Pillai's Trace* = .139, $F(2,60) = 4.83$, $p = .011$, partial $\eta^2 = .139$. Univariate tests indicated that *U.S. identification* was a significant covariate for *donor responsibility*, $F(1,61) = 4.25$, $p = .043$, partial $\eta^2 = .065$; and for *empathy*, $F(1,61) = 9.81$, $p = .003$, partial $\eta^2 = .139$. However, as before, the covariate did not meaningfully alter the results. The donor perpetrator condition (4.97) did not significantly differ from the outgroup perpetrator condition (5.40) on *donor responsibility*, $F(1,61) = 1.15$, $p = .287$, partial $\eta^2 = .019$. Nor did the donor perpetrator condition (5.75) differ from the outgroup perpetrator condition (5.68) for *empathy*, $F(1,61) = .095$, $p = .759$, partial $\eta^2 = .002$.

The effect of donor perpetrator, victim perpetrator, and outgroup perpetrator group membership on donor responsibility and empathy

The above analyses were repeated but with perpetrator group demarcated to three levels as in previous analyses. *Donor responsibility* and *empathy* remained as dependent measures. Multivariate tests revealed no significant effect of perpetrator

group on the dependent variables, *Pillai's Trace* = .070, $F(4,122) = 1.10$, $p = .356$, partial $\eta^2 = .035$. Univariate tests confirmed that perpetrator group did not have a significant effect on *responsibility*, $F(2,61) = .746$, $p = .479$, partial $\eta^2 = .024$. Similarly, perpetrator group did not have a significant effect on *empathy*, $F(2,61) = .596$, $p = .554$, partial $\eta^2 = .019$ (see Table 3 below). These results are contrary to *Hypothesis 5.4* which predicted an effect of donor perpetrator group membership on perceived responsibility to help victims in need. Note that the analysis was repeated with *U.S. identification* as a covariate. Similar to the previous analysis, *U.S. identification* was a significant covariate ($p < .05$), but did not meaningfully alter the results.

Exploratory analyses on the effect of perpetrator and victim group on the perceived scale of the disaster

Finally, as per the previous studies, exploratory analyses were conducted on the perceived scale of the disaster. An independent measures t-test with perpetrator group (donor perpetrator vs. outgroup perpetrator) as the independent variable found no significant difference on the perceived scale of the disaster, $t(62) = .061$, $p = .952$. The analysis was repeated by running a univariate ANCOVA that included *U.S. identification* as the covariate. The covariate was not significant, $F(1,61) = 3.31$, $p = .074$, partial $\eta^2 = .051$, and did not meaningfully alter the results.

A one way ANOVA was then run with three levels of perpetrator group membership (donor perpetrator, victim perpetrator, third party perpetrator) and with *disaster scale* as the dependent variable. Perpetrator group membership was not significant, $F(2,61) = 1.06$, $p = .350$, partial $\eta^2 = .034$. The analysis was repeated with *U.S. identification* as a covariate, but again the covariate was not significant, $F(1,60) = 2.11$, $p = .152$, partial $\eta^2 = .034$, and again did not meaningfully alter results.

Table 3

The effect of perpetrator group membership on giving prosociality (Study 3)

	Donor Perpetrator	95 % CI	Victim Perpetrator	95% CI	Third-party perpetrator	95% CI
Hypothetical donations	£4.93$_a$ (2.3)	3.9:5.9	£5.33$_a$ (1.9)	4.4:6.1	£5.25$_a$ (1.9)	4.5:5.9
Willingness to donate	4.82$_a$ (1.7)	4.1:5.5	5.41$_a$ (1.1)	4.4:6.1	5.55$_a$ (1.2)	4.5:5.9
Empathy	5.73$_a$ (1.3)	5.2:6.1	5.54$_a$ (1.2)	5.1:5.9	5.80$_a$ (1.5)	5.4:6.1
Donor responsibility	4.94$_a$ (1.6)	4.2:5.6	5.30$_a$ (1.4)	4.6:5.9	5.48$_a$ (1.5)	4.9:6.0
Disaster scale	5.96$_a$ (.95)	5.4:6.4	5.71$_a$ (1.0)	5.2:6.1	6.12$_a$ (.91)	5.7:6.4

Note. Standard deviations in parentheses.

Across rows: items that do not share a subscript are significantly different at $p < .05$.

The mediating relationship of donor responsibility on prosociality towards disaster victims

As a further test of *Hypothesis 5.4*, mediation analyses were conducted using the PROCESS macro for SPSS (Hayes, 2012). Bootstrapping with 5,000 re-samples indicated that the indirect path from perpetrator group to *hypothetical donations*, via *donor responsibility*, was not significant, point estimate = .452, CI 95% [-.46, 1.57].

A Sobel test corroborated this result, $Z = .844$, $p = .399$. Similarly, the indirect path from perpetrator group to *willingness to donate,* via *donor responsibility,* was not significant, point estimate = .377, CI 95% [-.42, 1.28]. These results do not support *Hypothesis 5.4*.

The relationship between donor responsibility, empathy, and hypothetical donations and willingness to donate

To test *Hypothesis 5.6,* a mediation analysis was conducted using the SPSS PROCESS macro. *Empathy, donor responsibility, hypothetical donations,* and *willingness to donate* were all significantly correlated with each other ($p < .001$). Bootstrapping with 5,000 resamples indicated that the indirect path from *empathy* to *hypothetical donations,* via *donor responsibility,* was significant, *point estimate* = 1.00, CI 95% [.50, 1.55]; Sobel test, $Z = 4.08$, $p < .001$. The above analyses were then repeated, but with *willingness to donate* as the outcome variable. Bootstrapping analysis indicated that the indirect path from *empathy* to *willingness to donate,* via *donor responsibility* was again significant, *point estimate* = .665, CI 95% [.36, .98]. A Sobel test confirmed this result, $Z = 3.67$, $p < .001$. These results support *Hypothesis 5.6,* in that empathy towards victims in need was again mediated by a sense of responsibility to help.

Discussion

The results of the present study are in contrast to study 1; however, the results are somewhat similar to that in study 2. Contrary to *Hypothesis 5.1,* these studies both displayed a pattern (though non-significant) of lower donations when the perpetrator and participant shared a common group membership. *Hypothesis 5.4* was also rejected, as there was no effect of perpetrator group membership on donor's perceived

responsibility to help victims in need. However, *Hypothesis 5.6* was again supported, with donor responsibility mediating the path between empathy and prosociality. This latter result is in keeping with the proposed hypothesis that empathy increases perceived individual responsibility to help others in need, which in turn may affect donations. Finally, exploratory analyses did not confirm a significant effect of perpetrator group membership on the perceived scale of the disaster.

There is a practical explanation that could explain the null findings. The present study used MTurk for participant recruitment, a platform where participants are paid small sums of money to complete tasks. MTurk has been demonstrated to be a suitable platform to conduct scientific research (Buhrmester et al., 2011; Goodman et al., 2013; Paolacci, Chandler, Stern, & Ipeirotis, 2010), however it may not be suitable for conducting work in the domain of prosociality. There is evidence that merely activating the concept of money can decrease prosociality (Vohs, Mead, & Goode, 2006, 2008). In MTurk samples, participants are motivated by the small sums they are paid. The salience of money is present throughout, e.g. participants are reminded of the pay amount several times in the process of accepting and completing a task. Moreover, although it is possible that the negative effect of money activation on subsequent prosocial behaviour would affect mean levels across conditions, there is a possibility that it would more greatly affect whatever condition would normally elicit the most prosociality.

It should also be noted that a more mundane explanation may account for the issues related to data collection using MTurk. The current sample size may be acceptable for a one-way ANOVA using a traditional sample where data is analysed in a controlled setting; however, online data is considerably ‘noisier’ than data collected in the lab, and researchers have suggested that sample sizes using MTurk

need to be much larger, with potentially 47 participants per cell (see Simmons (2014) for a brief discussion).

It may also be the case that the context of the charitable appeal is paramount in an intergroup context where group memberships are made salient. Study 1 was set in the context of an accidental disaster where the perpetrator (the pilot) was a person responsible for the disaster. By contrast, study 2 used a context of intentional political and military action where the perpetrator was represented by an organisation (the government). Similarly, study 3 alluded to incompetence of a perpetrator that was again an organisation (an oil company). In situations where culpability for the disaster (and thereby responsibility for reparations) is allocated to a group, shared perpetrator group membership may be less effective as a method of eliciting prosociality from individuals. Making inferences across studies in this manner is speculative, but nonetheless, the issues associated with participant payment, alongside questions over the context of the scenario, suggest that the present results should be treated with caution.

Study 4

In light of the previous argument over the context of the disaster, study 4 tests *Hypothesis 5.1* by returning to a scenario where the disaster can be at least partly attributed to a person, rather than to a group level organisation. Study 4 also advances the previous paradigms by manipulating both victim and perpetrator group memberships simultaneously. By doing this, it is possible to comment for the first time on how victim group and perpetrator group interact to affect donations. As with the previous studies, it was predicted that the shared group membership with the perpetrator would positively affect donor responsibility to help the victims

(*Hypothesis 5.4*). However, study 4 also tests the prediction that shared group membership with the victims will increase donations (*Hypothesis 5.2*), and that prosociality would be highest when the respondent shares group membership with both the perpetrator and the victims (*Hypothesis 5.3*). It was also predicted that shared victim group membership would positively affect empathy levels (*Hypothesis 5.5*). Moreover, when considering the underlying processes of the predicted effects, it was predicted that the process would be such that the effect of empathy on donation decisions would be mediated by donor responsibility (*Hypothesis 5.6*). Finally, exploratory analyses were again conducted to investigate whether shared group membership of the perpetrator or victim affected the perceived scale of the disaster.

Method

Participants

One hundred and eighty-two participants (111 female, 71 male) were invited to take part in a study and be entered in a prize draw for a £50 voucher. Participants were recruited through online campus notice boards and websites that host psychology experiments (M_{age} = 28, SD = 11.8). Participants were randomly assigned to a 2 (perpetrator ingroup/outgroup) x 2 (victim ingroup/outgroup) independent factorial design. As in the preceding study, prosocial behaviour was measured through *hypothetical donations* and *willingness to donate*.

Procedure and measures

Participants first answered standard demographic items before being randomly allocated by survey software (*Qualtrics*) to one of four experimental conditions. In each condition, participants read a short vignette that described a coach crash that killed or left injured 100 tourists. Group membership of the victims was manipulated

so that the tourists were either from the participant's own country, or from another country, 'Esturia' (this was in fact a fictional country, although it was presented as a real country to participants). None of the participants reported being suspicious about the veracity of the vignette; indeed, large-scale flooding has been a regular occurrence in recent years both in the UK and abroad (e.g., along the Thames, along the Danube). Moreover, all participants were asked, via an open ended response format, to guess the purpose of the study and comment on anything they perceived to be unusual. None of the participants were able to guess the nature of the study, nor did they express any suspicion over the use of 'Esturia' as a fictitious country.

In order to manipulate victim group membership, a technique referred to as 'piping' was used. This involved recording the nationality entered by the respondent (ostensibly before the start of the study) and subsequently inserting this data into the vignette. Piping was also used to manipulate the nationality of the perpetrator (coach driver), who was described as being at fault for the crash due to speeding. Participants were also told that either the participant's own country, or Esturia, had poor driving license regulations. Thus, both victim membership and perpetrator membership were manipulated. The location of the crash was not specified, and each vignette included an identical non-descript image of a coach wreckage and rubble.

Hypothetical donations were again measured on a seven point scale, from £0 to £12, measured in £2 increments.

The same seven point composite measures were included as in previous studies, with the exception of *U.S. identification* which was no longer relevant. The new alpha reliabilities were: *willingness to donate*; $\alpha = .90$; *empathy*, $\alpha = .92$; *donor responsibility*, $\alpha = .81$; and *disaster scale*, $\alpha = .79$. Note that the latter measure no longer referred to 'housing' in one of the items, and instead consisted of two items

similar to those previously used, ‘The suffering of the coach crash victims was huge’, and ‘The mental scarring of the coach crash victims was huge’.

Results

The effect of perpetrator and victim group membership on donation amount and willingness to donate

In order to test *Hypotheses 5.1, 5.2 & 5.3,* a two-way MANOVA was conducted with perpetrator group membership (donor perpetrator vs. outgroup perpetrator) and victim group membership (ingroup victims vs. outgroup victims) as between subject factors. *Hypothetical donations* and *willingness to donate* were entered as the dependent variables. There was no significant multivariate effect of perpetrator group on the dependent measures, *Pillai's Trace* = .007, $F(2,117) = .612$, $p = .543$, partial $\eta^2 = .007$. There was, however, a significant effect of victim group membership, *Pillai's Trace* = .041, $F(2,117) = 3.74$, $p = .026$, partial $\eta^2 = .041$. There was also a significant interaction effect, *Pillai's Trace* = .043, $F(2,117) = 3.98$, $p = .020$, partial $\eta^2 = .043$.

Univariate tests confirmed that, contrary to *Hypothesis 5.1,* perpetrator group membership did not significantly affect *hypothetical donations,* $F(1,178) = 1.17$, $p = .281$, partial $\eta^2 = .007$; nor did it significantly affect *willingness to donate,* $F(1,178) = .760$, $p = .385$, partial $\eta^2 = .004$.

However, in support of *Hypothesis 5.2,* victim group membership did significantly affect *hypothetical donations,* $F(1,178) = 7.40$, $p = .007$, partial $\eta^2 = .040$; as well as *willingness to donate,* $F(1,178) = 3.90$, $p = .050$, partial $\eta^2 = .021$. As expected, donations were higher for ingroup compared to outgroup victims. For

hypothetical donations, means were £5.59 for ingroup vs. £3.86 for outgroup. For willingness to donate, means were 4.79 for ingroup and 4.32 for outgroup.

Further, the interaction between perpetrator and victim group had a significant effect on *hypothetical donations*, $F(1,178) = 7.79$, $p = .006$, partial $\eta^2 = .042$; and a significant effect on *willingness to donate*, $F(1,178) = 4.47$, $p = .036$, partial $\eta^2 = .025$. As predicted by *Hypothesis 5.3, donations were magnified when both perpetrators and victims were ingroup members* (see Table 4).

The effect of perpetrator group and victim group on donor responsibility and empathy

In order to test *Hypothesis 5.4 & 5.5*, the MANOVA above was repeated with *donor responsibility* and *empathy* as the dependent measures. The multivariate test indicated a marginal effect of perpetrator group on the dependent measures, *Pillai's Trace* = .027, $F(2,177) = 2.46$, $p = .088$, partial $\eta^2 = .027$; a significant effect of victim group on the dependent measures, *Pillai's Trace* = .044, $F(2,177) = 4.08$, $p = .018$, partial $\eta^2 = .044$; and a marginal effect of the interaction on the dependent measures, *Pillai's Trace* = .030, $F(2,177) = 2.69$, $p = .071$, partial $\eta^2 = .030$.

Univariate tests were then inspected. Perpetrator group had a significant effect on *donor responsibility*, $F(1,178) = 3.99$, $p = .047$, partial $\eta^2 = .022$; but a marginal effect on *empathy*, $F(1,178) = 3.30$, $p = .071$, partial $\eta^2 = .018$. In support of *Hypothesis 5.4*, responsibility was higher when the perpetrator was ingroup to the donor (m = 4.88, sd = 1.3) compared to when the perpetrator was outgroup to the donor (m = 4.48, sd = 1.3).

Victim group did not have a significant effect on *donor responsibility*, $F(1,178) = 2.51$, $p = .114$, partial $\eta^2 = .014$; but had a significant effect on *empathy*, $F(1,178) = 8.15$, $p = .005$, partial $\eta^2 = .044$. In support of *Hypothesis 5.5*, empathy

was higher when victims were ingroup members (5.22) compared to when they were outgroup members (4.88) (see Table 4).

Exploratory analyses on the effect of perpetrator and victim group on disaster scale

An exploratory ANOVA was conducted on the perceived scale of the disaster. Results indicated that perpetrator group did not affect *disaster scale*, $F(1,178) = .074$, $p = .786$, partial $\eta^2 < .001$. Victim group did however affect *disaster scale*, $F(1,178) = 4.60$, $p = .033$, partial $\eta^2 = .025$; with the scale of the disaster perceived as more damaging for ingroup victims than for outgroup victims (see Table 4). There was no effect of the interaction, $F(1,178) = .009$, $p = .925$, partial $\eta^2 < .001$.

Table 4

The effect of perpetrator group membership on giving prosociality (Study 4)

	Donor Perpetrator	95 % CI	Outgroup Perpetrator	95% CI
Ingroup Victim				
Hypothetical donations	£6.83$_a$ (4.5)	5.5:8.1	£4.36$_b$ (4.5)	3.1:5.5
Willingness to donate	5.15$_a$ (1.7)	4.6:5.6	4.44$_b$ (1.5)	3.9:4.8
Donor responsibility	5.24$_a$ (1.1)	4.8:5.6	4.44$_b$ (1.3)	4.0:4.8
Empathy	5.67$_a$ (1.0)	5.3:6.0	4.97$_b$ (1.2)	4.6:5.3
Disaster scale	6.06$_a$ (1.0)	5.7:6.3	6.01$_a$ (1.0)	5.7:6.3
Outgroup Victim				
Hypothetical donations	£3.32$_a$ (3.8)	2.2:4.4	£4.41$_a$ (4.0)	2.9:5.8
Willingness to donate	4.17$_a$ (1.5)	3.7:4.8	4.47$_a$ (1.4)	3.9:5.0
Donor responsibility	4.52$_a$ (1.4)	4.1:4.8	4.53$_a$ (1.2)	4.0:4.9
Empathy	4.78$_a$ (1.1)	4.4:5.1	4.80$_a$ (1.3)	4.3:5.2
Disaster scale	5.7$_a$ (1.0)	5.4:5.9	5.69$_a$ (1.0)	5.3:6.0

Note. Standard deviations in parentheses.

Across rows. Items that do not share a subscript are significantly different, p < .05.

The mediating relationship of donor responsibility and empathy on prosociality towards disaster victims

As in previous studies, the SPSS PROCESS macro (Hayes, 2008) was used, set to 5,000 bootstrap resamples, in order to test *Hypotheses 5.4 & 5.5*. Victim group membership was significantly correlated with *hypothetical donations*, r = -.204, *p* = .006; and with *willingness to donate*, r = -.151, *p* = .042. Perpetrator group was not significantly correlated with *hypothetical donations*, r = -.053, *p* = .480; nor was it significantly associated with *willingness to donate*, r = -.046, *p* = .542.

Donor responsibility was investigated as a mediator of perpetrator group membership (testing *Hypothesis 5.4*). The indirect effect from perpetrator group membership to *hypothetical donations* was not in evidence, point estimate = -.604, CI 95% [-1.31, .047]; a Sobel test indicated that the effect was marginal, *Z* = -1.74, *p* = .081. In a similar pattern, the indirect effect of *donor responsibility* on *willingness to donate* did not emerge, point estimate = -.279, CI 95% [-.583, .021]; with a Sobel test indicating that the effect was marginal, *Z* = -1.77, *p* = .076. However, *donor responsibility* significantly mediated the interaction between victim group and perpetrator group membership on *hypothetical donations*, *point estimate* = 1.16, CI 95% [.529, 2.00]; Sobel test, *Z* = 2.98, *p* = .002. Moreover, a similar pattern was obtained for the mediation of the interaction term on *willingness to donate*, *point estimate* = .569, CI 95% [.239, .936]; Sobel test, *Z* = 3.13, *p* = .001.

Donor responsibility was also investigated as a possible mediator of victim group membership on prosociality. The indirect path between victim group membership and *hypothetical donations*, via *donor responsibility*, was not significant, point estimate = -.473, CI 95% [-1.18, .117]; Sobel test, *Z* = -1.42, *p* = .154. Neither

was the indirect path via *donor responsibility* significant between victim group membership and *willingness to donate*, point estimate = -.222 CI 95% [-.548, .059]; Sobel test, Z = -1.44, p = .148. Taken together, these results offer little support for *Hypothesis 5.4,* in that *donor responsibility* was not a significant mediator of the effect of perpetrator group membership on donations.

Analyses were then repeated to investigate whether *empathy* was a significant mediator of the effect of victim group membership on prosociality. In support of *Hypothesis 5.5, empathy* was found to be a significant mediator of the effect of victim group membership on *hypothetical donations*, *point estimate* = -.617, CI 95% [-1.22, -.191]. A Sobel test confirmed this significant indirect effect, Z = -2.37, p = .017. *Empathy* also significantly mediated the effect of victim group membership on *willingness to donate*, point estimate = -.296, CI 95% [-.548, -.096]; Sobel test, Z = -.2.53, p = .011. *Empathy* also mediated the interaction between victim group membership and perpetrator group membership on *hypothetical donations*, point estimate = .914, CI 95% [.454, 1.56]; Sobel test, Z = 2.89, p = .003. Similarly, empathy mediated the effect of the interaction on *willingness to donate*, point estimate = .459, CI 95% [.249, .737]; Sobel test, Z = 3.25, p = .001.

As expected, *empathy* was not a significant mediator of perpetrator group membership on *hypothetical donations*, i.e. the indirect path from perpetrator group membership to *hypothetical donations* via empathy was not significant, point estimate = -.342, CI 95% [-.897, .115]; Sobel test, Z = -.1.33, p = .183. Neither was *empathy* a significant mediator of the effect of perpetrator group membership on *willingness to donate*, point estimate = -.157, CI 95% [-.388, .064]; Sobel test, Z = -.1.35, p = .174.

Overall these results support *Hypothesis 5.5,* and suggest that *empathy* is a central mechanism that can account for prosocial behaviour when victim ingroup membership is made salient.

The relationship between donor responsibility, empathic concern, and donation decisions

Donor responsibility was a significant correlate of *hypothetical donations,* r = .515, $p < .001$, and of *willingness to donate,* r = .647, $p < .001$. Similarly, *empathy* was a significant bivariate predictor of *hypothetical donations,* r = .377, $p < .001$, as well as *willingness to donate,* r = .471, $p < .001$[6]. Moreover, *empathy* was significantly related to *donor responsibility,* r = .512, $p < .001$.

To test *Hypothesis 5.6* (that donor responsibility mediates effects of empathic concern), mediation analyses were conducted using the SPSS PROCESS macro (Hayes, 2012). Bias corrected bootstrapping analysis, with 5,000 resamples, indicated that the indirect path between *empathy* and *hypothetical donations*, via *donor responsibility,* was significant, *point estimate* = .840, CI 95% [.45, 1.34]. A Sobel test was also conducted and confirmed this result, z = 3.92, $p < .001$. The mediation

[6] As discussed in chapter 2, findings by Stürmer et al. (2005; 2006) found empathy to be a stronger predictor for helping ingroup victims compared to outgroup victims. So far, in the current thesis, studies 2, 3, and 4 have all found empathy to be a significant predictor of prosociality towards outgroup victims. However, it is possible that empathy is a stronger predictor for ingroup victims, and this notion was tested in the current study. Using PROCESS for SPSS (model 1), an interaction term was created with empathy and victim group (ingroup vs. outgroup) and with *hypothetical donations* as the outcome. The three predictor variables were entered simultaneously into the model. The interaction term was not significant, $p = .430$. The analysis was repeated with *willingness to donate* as the outcome variable and again the interaction term was not significant, $p = .873$. These findings, along with the significant correlations between empathy and prosociality in studies 2 and 3, suggest that empathy is an equally effective predictor of helping for both ingroup and outgroup victims. Although these findings are not in line with research that has indicated differences in physical or neurological empathic responses as a function of group membership (c.f. Cikara, Bruneau & Sax, 2011), it should be noted that much of this past research has focused on racially defined groups, whereas the present line of research manipulates national group membership.

analysis was then repeated with *willingness to donate* as the outcome variable. Again, the indirect path between *empathy* and *willingness to donate* via *donor responsibility* was significant, *point estimate* = .346, CI 95% [.20, .52]. A Sobel test confirmed the bootstrapping analyses, z = 4.15, $p < .001$. Together, these results support *Hypothesis 5.6*, by suggesting that feelings of empathy increase prosociality towards victims via the mechanism of responsibility.

Structural model of perpetrator group, victim group, donor responsibility, and empathy on prosociality

To further investigate the underlying processes, a structural equation model was built in order to examine the relationship of all variables simultaneously (see Figure 2). As theorised in the introduction to this chapter, perpetrator group membership predicted *donor responsibility*, which in turn predicted prosociality. Victim group membership predicted *empathy*, which in turn predicted *donor responsibility*, which in turn predicted prosociality. The prosociality latent outcome variable consisted of *hypothetical donations* and *willingness to donate*, with the path from prosociality to *willingness to donate* fixed to 1. The interaction between victim and perpetrator group membership was also included in the model.

The model fitted the data well given the sample size, $\chi^2(61) = 130.23$, $p < .001$, χ^2 / df = 2.13; CFI = .954; RMSEA = .079; SRMR = .055; and accounted for 63.7% of the variance in prosociality. Although the χ^2 test was significant, it has been argued that this test of model fit is overly strict, unrealistic, sensitive to both sample size and data normality, and dichotomous in nature (Bentler, 2007; Curran, Bollen, Chen, Paxton & Kirby, 2003; Jöreskog, 1987; Steiger, 2007). χ^2 / df is considered a fairer test of model fit as it is somewhat less susceptible to these issues, with an acceptable value being < 3 and ideally < 2; thus the current model demonstrated good fit (Hu &

Bentler, 1999). RMSEA is generally considered to have good fit at ≤ .06, CFI at ≥ .95, and SRMR ≤ .05-08 (Byrne, 2001; Hu & Bentler, 1999). Although the RMSEA fit could be improved in the current model, overall the four fit statistics demonstrate a good level of fit.

Both bootstrapping (using 5,000 resamples), and Sobel tests, indicated that victim group membership had a significant indirect effect on prosociality through *empathy*, which in turn led to *donor responsibility*, point estimate = .648, 95% CI [.241, 1.20]; Z = 2.88, p = .001. Similarly, bootstrapping results indicated that the interaction between victim group and perpetrator group had a significant positive effect on prosociality through *empathy* and *donor responsibility*, point estimate = .403, 95% CI [.007, .908]; with a marginally significant Sobel test result, Z = 1.91, p = .055. In the final model, the direct path between perpetrator group and *donor responsibility* was not significant, p = .236 (see Figure 2).

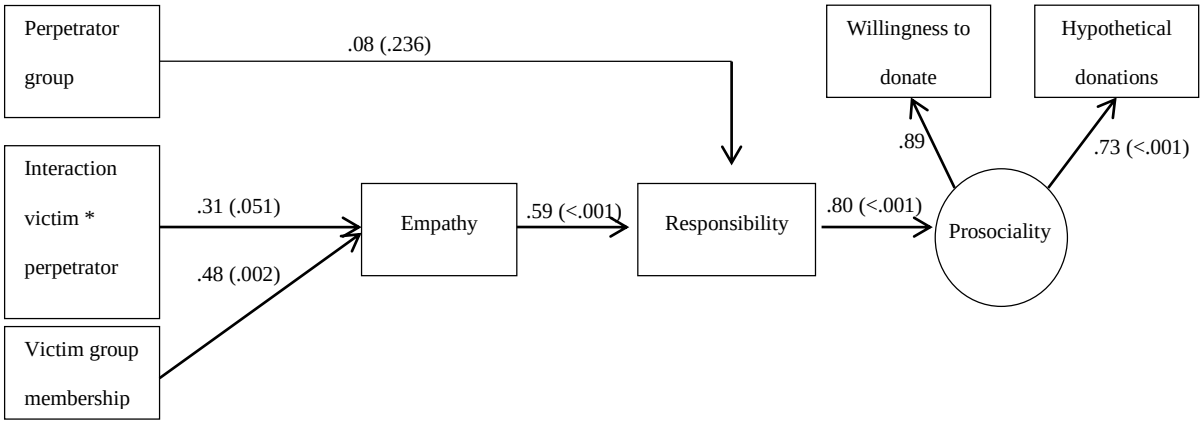

Figure 2

Structural equational model of group memberships on prosociality (Study 4). Significance levels in parentheses.

Alternative structural models

Alternative structural models were tested, with a view to demonstrating that the preferred model would fit better than other plausible models. To begin, alternative models related to the mediators (*donor responsibility* and *empathy*) were investigated. The first model was identical to the previous model above, but with direct paths from perpetrator group membership, victim group membership, and the interaction term, to the latent prosociality variable. A χ^2 comparison of model fit was conducted to establish whether this model, with additional direct paths, would be superior to the present model. The χ^2 of this new model was subtracted from the χ^2 of the current model. The chi square difference was not significant, $\chi^2(3) = 5.01$, $p = .200$, suggesting that the mediators of *empathy* and *donor responsibility* are fully capable of accounting for the variance in prosociality.

A second alternative model was again identical to the proposed model above, but included a direct path from *empathy* to prosociality. This model was included in order to confirm that the direct effect of *empathy* on prosociality was not a more substantial effect than the novel process presented in the current model where *empathy* leads to *donor responsibility* (*Hypothesis 5.6*), which in turn leads to prosociality. The fit statistics of this alternative model were similar to the current model and the chi square difference between the models was not significant, $\chi^2(3) = 5.01$, $p = .150$; indicating that an additional direct path from *empathy* to prosociality does not improve the overall model fit and is not required.

Two further theoretical models were next tested, to ascertain that the preferred model does indeed fit better than other plausible alternatives. The first competing hypothesis was that rather than predicting a linear relationship between *empathy* and *donor responsibility* that leads to prosociality, it could be that *empathy* directly affects

prosociality, and that *donor responsibility* also directly affects prosociality, in a parallel process. This would refute *Hypothesis 5.6,* in that the link between *empathy* and *donor responsibility* would be redundant. In order to test this possibility, a direct path between *empathy* and the latent prosociality variable was added, and the path between *donor responsibility* and prosociality was kept, while the path between *empathy* and *donor responsibility* was removed. This alternative model had poor fit, $\chi^2(61) = 179.06$, $p < .001$, χ^2 / df = 2.93; CFI = .921; RMSEA = .103; SRMR = .183; particularly on the latter three indicators, supporting *Hypothesis 5.6*.

Another competing hypothesis is that the linear relationship that predicts a path from *empathy* to *donor responsibility* (*Hypothesis 5.6*) could be reversed, and that donors first feel responsible for helping, which in turn leads to greater empathy and thereby greater helping. In order to test this, the paths between *empathy* and *donor responsibility* were reversed in an alternative model, such that *donor responsibility* now predicted *empathy*, which in turn predicted the latent prosocial variable. This alternative model was inferior to the proposed model, demonstrating poorer fit on three out of four model fit indicators, $\chi^2(61) = 188.12$, $p < .001$, χ^2 / df = 3.08; CFI = .915; RMSEA = .107; SRMR = .099.

Discussion

Study 4 extended the findings of the previous studies by including victim group membership and perpetrator group membership in the same design. As predicted, shared victim group membership resulted in increased prosociality (*Hypothesis 5.2*). Furthermore, a novel contribution was made with the confirmation that a salient perpetrator group can also affect donation decisions that are placed in an intergroup context. Interestingly, rather than a direct effect of perpetrator group on prosociality

(*Hypothesis 5.1*), the effect was present only through the interaction with victim group (*Hypothesis 5.3*). This interaction demonstrated that donation decisions were more favourable when both victims and perpetrators shared the donor's group membership.

Study 4 also provided some evidence that salient victim and perpetrator group memberships may affect donations through different mechanisms. Experimental results demonstrated an effect of victim group on empathy *(Hypothesis 5.5)* but not on donor responsibility. By contrast, perpetrator group affected donor responsibility *(Hypothesis 5.4)*, but not empathy. Moreover, whereas donations to the victim ingroup were mediated by empathy (supporting *Hypothesis 5.5*), there was no evidence that the effect of perpetrator group membership on donations was mediated by a sense of donor responsibility (contrary to *Hypothesis 5.4*). The structural equation model yielded evidence that empathy was mediated by donor responsibility (in support of *Hypothesis 5.6*).

Finally, exploratory analyses yielded a significant effect of salient victim group on the perceived scale of the disaster, such that ingroup victims were seen to have suffered more, and that the cost of the disaster was greater for ingroup victims. It is unclear as to why perpetrator group did not have a similar effect (as in study 1), but it is interesting that shared group membership again affected a variable that is, on first inspection, irrelevant. One might anticipate different estimates of financial harm, but it is unclear as to why sharing victim group membership (the present study), or perpetrator group membership (study 1), would affect the perceived level of suffering. It could be that participants are more willing to acknowledge the harm of a disaster when they are somehow related via a shared group membership, perhaps as a form of social support. Or, it could be that they genuinely feel that the disaster was more harmful, perhaps due to transference of the increased negative feelings they

themselves experience, which colours their judgement when asked to rate the scale of the disaster. No doubt other explanations could be offered, suggesting this to be a promising line for future research.

General Discussion

Understanding the mechanisms through which individuals help other groups is vitally important given the vast sums involved, and given the number of lives that depend on such aid. Although individuals can show amazing generosity towards local and national causes, generosity directed towards other groups and other countries tends to be lower. The present studies investigated the role of shared group memberships in attitudes towards charitable giving.

As a package, the studies demonstrate that donors are more generous when they share a group membership with the perpetrator (*Hypothesis 5.1*, shown in study 1 – although not confirmed in studies 2, 3, and 4). Further, donors prefer to give to ingroup rather than outgroup victims (*Hypothesis 5.2*, shown in study 4). Results also suggest that, as predicted, the effects of victim ingroup (rather than outgroup) membership with the donor on donations were mediated by empathy (*Hypothesis 5.5*, shown in study 4). Contrary to predictions, the effects of perpetrator ingroup (rather than outgroup) membership with the donor on donations were not mediated by perceived responsibility (*Hypothesis 5.4*, no support found in studies 2, 3, or 4). Instead though, responsibility mediated the effect of empathy on donations (*Hypothesis 5.6.*, supported in studies 2, 3, and 4). Last but not least, victim and perpetrator group memberships interacted in their effect of donations, so that donations were highest if both were ingroup members (Hypothesis 5.3, supported in study 4).

Having said this, results were not 'perfect' in all respects. Notably, the perpetrator group effect was particularly pronounced in study 1 when the outgroup perpetrator was from a third party, and less so when the perpetrator was from the victim group itself. Moreover, perpetrator group membership was not impactful in itself in study 4, but the effect emerged in the form of the interaction when considered in conjunction with the victim group membership manipulation. This raises some interesting questions. The findings point to the possibility that studying whether perpetrators belong to the donor's ingroup or outgroup is possibly too simplistic. It may *not* be the case that a salient outgroup perpetrator merely provides motives for not helping, i.e. that presenting a charitable appeal with an intergroup dimension merely engenders a lack of prosociality. Rather, it appears that under conditions where perpetrators do not share a group membership with donors, it might matter *which* other group they belong to. For example, outgroup members are sometimes helped in order to distinguish the ingroup from one or more outgroups (van Leeuwen & Mashuri, 2011). If perpetrators belong to a third party, it might matter what the precise relations are between the third party, the donors' group, and the victims' group. Therefore, it is hoped that although the present contribution cannot possibly answer all questions raised by group membership effects in the context of donations to humanly caused events, an important contribution might be to raise awareness for these issues, and put them firmly on the research agenda going forward.

Based on the aforementioned discussion, an interesting question for future exploration is to study in more depth the effect of group membership of the perpetrator in different groups. For example, it has been mentioned previously that intentional harms are viewed as more damaging than non-intentional harms (Ames & Fiske,

2013), and it would be interesting to investigate whether intentional harms are further magnified when the negative deed is committed by an outgroup perpetrator.

Moreover, although the current thesis focused on empathy and responsibility as explanatory mechanisms, it is unlikely that the array of possible mediators has been exhausted. Other previously studied mediators of prosociality such as interpersonal attraction (Stürmer et al., 2006), similarity (Bal & van den Bos, 2010; Chandler, Griffin, & Sorensen, 2008), or oneness (Cialdini et al., 1997) could be investigated, to see if they have explanatory power for the effects of victim and perpetrator group memberships on donation behaviour.

Across studies, only a subtle abstract manipulation that involved changing three or four keywords was needed to achieve a salient group membership effect. The fact that such a minimal manipulation triggers experimental effects speaks to the importance of group membership cues for informing donation decisions. These findings are consistent with Levine and Thompson (2004), who found location of the disaster (which one might consider a 'common sense' variable), to be irrelevant in charitable helping, but that a salient group categorization was enough to affect giving behaviour. However, the present results extend these findings by demonstrating that the technique can also apply to manipulation of perpetrator groups.

Thus far, the discussion has been theoretical in nature, but the present findings may also have applied importance. While some charity appeals highlight shared group memberships between donors and recipients, suggesting that practitioners are to at least some extent aware of the importance of victim group memberships, few appeals seem to utilize the importance of perpetrator group memberships. Yet, when confronted with humanly caused events, laypersons may well ask themselves who they believe is responsible for the problem and, depending on perpetrator group

membership, they may well become indifferent. As such, pursuing these issues further will not only be of theoretical importance, but will also have potential applied benefits. Given that charitable giving is a billion dollar industry, even a small increase in donations at an individual level might save thousands of lives, as well as reduce poverty and suffering worldwide. This work addresses an important gap in the literature not only because group memberships in donations contexts have not sufficiently been theorized, but also because of the frequency and multitude of humanitarian crises that mar our recent history – and because of the number of lives that depend on donations for survival.

Chapter Six

Deliberate and intuitive reasoning styles and outgroup helping

Introduction

As discussed in some length in chapter 3, there is evidence that people have two distinct modes of thinking when it comes to problem-solving and, by extension, when it comes to donation decisions (Evans & Stanovich, 2013). To recap, Type 1 decision making is considered to be relatively fast, automatic, and based on instinctual processes; while Type 2 is considered to be much slower, effortful and more evolutionarily advanced (Kahneman, 2011).

As outlined in detail in chapter 3, there are reasons to assume that reasoning styles might affect donations as well as empathic concern for those in need. Moreover, as outlined in that chapter, there are reasons to assume that reasoning styles interact with reputation concerns in their effect on donations, and that reputation concerns in themselves will also affect donations. The present chapter will investigate these ideas.

The chosen approach comprises several important innovations beyond previous research. Firstly, the manipulation of victim group membership alongside a manipulation of reasoning style is novel. Previous research has manipulated reasoning style in the context of identifiable victims (Dickert et al., 2011; Small et al., 2007); however, the present thesis is concerned with group level processes, and it could be argued that when participants focus on an identifiable victim they are helping in a more interpersonal context. As such, study 5 utilises the context of general statistical

victims in need. To date, there is much less evidence about the effect of 'deliberate' priming when victims are presented statistically.

Secondly, the present approach is novel in investigating reputation effects and reasoning style in the same design. It is a rather obvious question whether reasoning styles are sensitive, and exert different effects, depending on contextual demands and characteristics. For example, as outlined in chapter 3, there are reasons to assume that the effects of an analytically focused reasoning style will be amplified if congruent situational characteristics also invite an analytical focus. The present thesis presents an inaugural test of these ideas.

Overview of hypotheses

As before, hypotheses are largely derived from the literature reviewed in the previous chapters. Hence, the theoretical rationale for each hypothesis will be summarised, but not in too much detail. For a more thorough discussion, the reader is referred back to the theoretical chapters above.

Hypothesis 6.1. In line with the predictions of the previous chapter, consistent with a social identity approach, and consistent with previous research that has found a preference for ingroup helping (e.g. Levine & Thompson, 2004; Stürmer et al., 2005), it is predicted that there will be a main effect of victim group membership, such that ingroup members will receive greater donations.

Hypothesis 6.2. Moreover, consistent with the results in study 4 and the rationale previously outlined, it is predicted that victim group membership will affect empathic concern, with ingroup victims receiving greater empathy compared to outgroup members.

Hypothesis 6.3. With regards to reasoning style, since empathy is considered an affective response (Batson et al., 1989), participants primed to trust their own

affective responses, i.e. go with their 'gut', should feel more empathic concern than those primed to think analytically. This prediction is based on arguments by Small and colleagues who argue that the deleterious effects of a deliberate reasoning style (albeit in the context of helping identifiable victims) is due to a lack of empathic concern (Small et al., 2007).

Hypothesis 6.4. It is also predicted that an intuitive reasoning style will increase donations towards fellow ingroup members. This prediction is derived by assuming that the social identity process by which the self can become intertwined with other ingroup members is an automatic, intuitive process. When it occurs, ingroup helping necessarily involves helping others who are similar to the self. Or, put another way, helping the ingroup is much like helping the self, which would be considered an intuitive 'gut reaction' for most people. By contrast, a deliberate reasoning style may be able to inhibit this tendency, and engage in more effortful reasoning that considers other motives/factors for helping.

Hypothesis 6.5. With regards to reputation effects on giving behaviour, it is predicted that when donation decisions are made public, participants will donate more. As discussed in chapter 3, this is consistent with research that has demonstrated increased donations in various public settings (Alpizar et al., 2008; Andreoni & Petrie, 2004; Bateson, Callow, Holmes, Redmond Roche, & Nettle, 2013). It should be noted that in this past research, soliciting donations in public were reasoned to make salient individual reputation concerns, which in turn were hypothesised as increasing prosociality. Although researchers have demonstrated that ingroup members are concerned with how the outgroup sees them (Hopkins et al. (2007; van Leeuwen & Tauber (2012)), the aforementioned studies that manipulate anonymity also demonstrate that individuals are concerned with impression management when it

comes to other ingroup members. In particular, an ingroup member will not desire to appear callous in the eyes of a fellow ingroup member, particularly if generosity and kindness are considered positive group qualities.

Hypothesis 6.6. It is also predicted that reputation concerns will interact with reasoning style, such that participants primed to think more analytically will be more affected by reputation concerns than those who are primed with intuition. It is reasonable to assume that an analytical thinking style is more strategic in nature, and researchers have demonstrated that reputation concerns are often exploited for strategic benefits (Barclay, 2012; Milinski et al., 2002). The interaction between the two factors is predicted to impact on donation decisions.

Finally, note that no main effects of reasoning style are predicted. This is because the deleterious effects of a deliberate reasoning style on donations has previously been studied using identifiable victims, whereas the present studies use a context of statistical victims in order to investigate group level processes. The study by Small et al. (2007) is the only study that has investigated reasoning prime effects in the context of statistical victims (to my knowledge), and found an increase (albeit a non-significant increase) of a deliberate reasoning prime on donation decisions. One goal of the present studies is to explore whether an analytical reasoning style can lead to increased helping in certain contexts.

Study 5

Study 5 primes participants to either a deliberate analytical reasoning style, or a more intuitive heuristic reasoning style, and measures subsequent prosocial intentions towards either ingroup or outgroup victims. The design allows testing of whether donations to ingroup (rather than outgroup) victims are indeed more

forthcoming *(Hypothesis 6.1,* c.f. also *Hypothesis 5.2).* The design also allows investigation of an interaction effect between reasoning style and ingroup/outgroup status of the victims *(Hypothesis 6.4).*

Study 5 improves upon previous studies by including several predictor variables that may be associated with charitable donations. Two of these predictor variables are directly related to reasoning style, *need for cognition* (a measure of the extent that participants desire more effortful cognitive modes of thinking), and *faith in intuition* (a measure of how instinctive participants are and how likely they are to 'go with their gut'). These two measures were also included as an alternative way of tapping into the constructs of interest, in case the manipulations would prove not effective. In particular, a tendency for critical thinking has been linked to the ability to provide normative answers on a range of common problem-solving tasks (Frederick, 2005; Toplak, West, & Stanovich, 2011; West, Toplak, & Stanovich, 2008).

Additionally, as discussed in chapter 3, there are several variables that may be related to how donors reason about charitable appeals, e.g. the perceived need for a donation, and the perceived effectiveness of donating. These two variables are included as potential predictors in the present study, alongside variables that have already been shown to be relevant in chapter 5, i.e. the perceived scale of the disaster, and empathy towards the victims. Thus, although these inclusions are somewhat exploratory, study 5 offers an additional contribution by assessing several relevant predictors of charitable helping simultaneously in the same design. The inclusion of an empathy measure also allowed for testing of *Hypothesis 6.2 (c.f. Hypothesis 5.5),* which suggested that *empathy* would be affected by victim group membership, and of *Hypothesis 6.3*, which predicted an effect of reasoning style on empathy.

Method

Participants

Ninety-two undergraduate students completed the study for course credit (M_{age} = 19.16, *SD* = 3.38; 83 female, 9 male). 66.1% of the sample identified as British, the remaining 33.9% of participants represented various nationalities.

Procedure

Participants were randomly assigned to a 2 (reasoning prime: deliberate/intuitive) x 2 (victim group membership: ingroup/outgroup) independent factorial design. Participants were first asked to provide demographic data and answer trait items relating to *need for cognition* and *faith in intuition* (see measures section below). They were then instructed to read a short vignette modelled on the manipulations used by Levine and Thompson (2004). The vignette described a fictitious natural disaster of floods that had killed or left homeless several thousand victims (see appendix H). Using piping, the vignettes were manipulated to state that the disaster took place either in the participant's own country, or in an unbeknownst fictional country (Esturia). Thus, participants either read of a flood in their own country, affecting ingroup victims (ingroup victim condition), or of a flood in Esturia affecting Esturians (outgroup victim condition). Piping ensured that a relevant group membership was salient for all participants in the ingroup condition, irrespective of their country of origin, while the use of a fictional country avoided pre-existing biases. As in study 4, participants were asked to guess the nature of the study and comment on any aspects of the study via an open-ended response format. Participants did not indicate any suspicion of 'Esturia' as a fictitious country.

Before reading the vignette, participants were randomly assigned to either a deliberate reasoning prime condition, or an intuitive reasoning prime condition. Both

primes were modelled on manipulations shown to affect reasoning style and subsequent monetary behaviour (Dickert et al., 2011). The deliberate prime condition involved answering six mathematical questions, e.g. 'If an object travels 5 metres in 60 seconds, how many metres will it travel in 360 minutes?' Participants were instructed to think carefully and to deliberate on each question. The intuitive prime condition also consisted of six items; however, participants were instructed to answer the questions quickly, using their instinct and intuition. Three of the six intuitive items had a negative focus, while three of the items had a positive focus, e.g. 'When you hear the word 'failure', what do you feel?' or, 'When you hear the word 'love', what do you feel?' The use of both positive and negative items reduces the likelihood of the item content confounding the manipulation. Items for both conditions, deliberate and intuitive, were presented in random order to the relevant participant group (see appendix E).

Aside from the manipulations described above, all other information was kept identical between conditions. Before being debriefed, participants were asked to guess the purpose of the study. None of the participants guessed the nature of the manipulations, nor did they report being suspicious of the veracity of the vignette; indeed, large-scale flooding has been a regular occurrence in recent years both in the UK and abroad (e.g., along the Thames, along the Danube).

Measures

Several of the measures previously described in studies 1 to 4 were included in the present study. *Hypothetical donations* were measured from £0 to £12 in £2 increments (resulting in a 7-point scale); again, this was used as a monetary index of prosocial behaviour. The new alpha reliabilities for the composite measures were as follows: *willingness to donate,* $\alpha = .86$; *empathy,* $\alpha = .92$; and *disaster scale*, $\alpha = .85$.

Donation effectiveness was measured with a single item, 'I think donating to the flood victims will be effective'. *Donation need* was also measured with a single item, 'I think that the flood victims will need help'.

The present study also included items designed to measure and tap into individual differences related to reasoning style. Since these were dispositional measures, they were taken before the experimental manipulation. The ten item short form of the Rational-Experiential Inventory (REI) (Norris, Pacini, & Epstein, 1998) was included which consists of two subscales, *need for cognition* (based initially on work by Cacioppo, Petty & Kao, 1984), and *faith in intuition* (Epstein, Pacini, Denes-Raj, & Heier, 1996).

Need for cognition was measured with five items, 'Thinking hard and for a long time about something gives me little satisfaction' (reverse coded), 'I prefer complex to simple problems', 'I prefer to do something that challenges my thinking ability rather than do something that requires little thought', 'I try to avoid situations that require thinking in depth about something' (reverse coded), and, 'I don't like to have to do a lot of thinking' (reverse coded); $\alpha = .79$.

The items for *faith in intuition* were, 'In general, I trust my initial feelings about people', 'I believe in trusting my hunches', 'My initial impressions of people are almost always right', 'When it comes to trusting people, I can usually rely on my gut feelings', and, 'I can usually feel when a person is right or wrong even if I can't explain how I know', $\alpha = .84$.

Finally, the length of time that participants spent on the reasoning prime, the charity appeal, the overall survey, and the time spent answering the hypothetical donations items, was measured in seconds. Participants in the intuitive reasoning condition should complete the manipulation more quickly than participants in the

deliberate condition that involved mathematical answers. Moreover, if the effects of the intuitive prime are lasting, then one would expect participants to continue to 'go with their gut' after the manipulation and complete subsequent survey items more quickly.

Results

Bivariate correlations are displayed in Table 5. Empathy, donation need, effectiveness, and responsibility were all significantly associated with *hypothetical donations* and *willingness to donate*, although empathy was a much stronger predictor for the latter. The perceived scale of the disaster did not co-vary with helping intentions, nor did need for cognition or faith in intuition. There was also a strong correlation between empathy, and *willingness to donate*.

Table 5
Zero order correlations (Study 5)

		1.	2.	3.	4.	5.	6.	7.
1.	Hypothetical donation							
2.	Willingness to donate	.534**						
3.	Empathy	.261*	.665**					
4.	Donation effectiveness	.367**	.367**	.481**				
5.	Disaster scale	.141	.505**	.515**	.258*			
6.	Donation need	.337**	.692**	.654**	.449**	.585**		
7.	Need for cognition	.023	.090	.145	-.086	.278**	.198	
8.	Faith in intuition	-.178	-.099	-.078	-.357**	.177	-.027	.207*

*Note. ** p < .001. * p < .05.*

Manipulation check

As discussed in the introduction to chapter 6, deliberate reasoning involves an analytical reasoning style, and is therefore likely to be slow and effortful. By contrast,

intuitive reasoning is more closely associated with a heuristic reasoning style that draws upon 'gut instincts' and is thus quicker and less effortful. Therefore, participants in the deliberate reasoning condition should take longer to complete the priming task, and moreover, spend a longer amount of time processing the vignette, completing the survey, and deciding on answers for the dependent measures.

Independent measures t tests were conducted with reasoning style as the independent variable, and time in seconds as the dependent variable, for reasoning prime, vignette exposure, survey completion, and *hypothetical donations* decision time. Results indicated that participants in the deliberate priming condition were significantly slower on all of the aforementioned measures: reasoning prime, $t = -12.62$, $p < .001$ (281.28s vs. 81.53s); vignette exposure time, $t = -4.40$, $p < .001$ (54.04s vs. 36.48s); survey time, $t = -5.51$, $p < .001$ (1017.37s vs. 748.17s); and *hypothetical donations* decision time, $t = -2.30$, $p = .023$ (10.02s vs. 14.21s).

The results indicate that the reasoning prime manipulation was successful. Note that an alternative method of assessing the manipulation would be to observe the written answers in the intuitive prime condition, and count the number of correct answers in the deliberate prime condition. However, although all participants wrote an answer in the intuitive prime condition, this does not prove that their answers were generated intuitively; suggesting that a time based manipulation check is a superior method for assessing this condition. Similarly, scoring the number of correct maths answers in the deliberate prime condition does not prove or disprove the type of reasoning style engaged in problem solving; and besides, Type 2 problem solving does not necessarily result in correct answers (Kahneman, 2011).

Effect of reasoning style and victim group membership on hypothetical donations and willingness to donate

A two-way MANOVA was conducted with reasoning style (intuitive vs. deliberate) and victim group membership (ingroup vs. outgroup) as between subject factors (testing *Hypotheses 6.1 & 6.4*). *Hypothetical donations* and *willingness to donate* were entered as the dependent variables. Multivariate tests indicated that victim group membership was significant, *Pillai's Trace* = .093, $F(2,88) = 4.53$, $p = .013$, partial $\eta^2 = .093$. Reasoning style was close to significance, *Pillai's Trace* = .065, $F(2,88) = 3.05$, $p = .052$, partial $\eta^2 = .065$. The interaction between victim group membership and reasoning style did not significantly affect the dependent measures, *Pillai's Trace* = .009, $F(2,88) = .388$, $p = .679$, partial $\eta^2 = .009$.

Univariate analyses indicated that victim group membership had a significant effect on *hypothetical donations*, $F(1,89) = 5.15$, $p = .026$, partial $\eta^2 = .055$, with ingroup victims receiving increased donations (£7.94) compared to outgroup victims (£6.00) (supporting *Hypothesis 6.1*). There was no effect of victim group membership on *willingness to donate*, $F(1,89) = .157$, $p = .693$, partial $\eta^2 = .002$. Reasoning style also had a significant effect on *hypothetical donations*, $F(1,89) = 5.74$, $p = .061$, partial $\eta^2 = .061$, with those primed to a deliberate reasoning style donating greater amounts (£8.00) compared to those primed to an intuitive style (£5.95). Reasoning style did not have a significant effect on *willingness to donate*, $F(1,89) = .629$, $p = .430$, partial $\eta^2 = .007$. The interaction term was not significant for either *hypothetical donations*, $F(1,89) = .191$, $p = .663$, partial $\eta^2 = .002$, nor for *willingness to donate*, $F(1,89) = .157$, $p = .693$, partial $\eta^2 = .002$ (not supporting *Hypothesis 6.4*).

The above analyses were repeated but *need for cognition* and *faith in intuition* were included as covariates. This was to test whether the manipulation would be

effective once dispositional individual differences related to the manipulation were controlled for. Neither *need for cognition* nor *faith in intuition* were significant covariates in the multivariate test (p = .491 and p = .290, respectively). With regards to univariate tests, *need for cognition* did not have a significant effect on either *hypothetical donations*, p = .383, nor on *willingness to donate*, p = .245. Similarly, *faith in intuition* did not have a significant effect on *hypothetical donations*, p = .131, nor on *willingness to donate*, p = .227. Furthermore, as indicated above, the two measures had been included to have an alternative to the manipulation to tap into the constructs of interest. However, as seen in the bivariate correlation table, the constructs did not correlate significantly with donation preferences, meaning that there was little to be gleaned from this approach.

The effects of reasoning style and victim group membership on empathy

Further analyses were conducted in order to ascertain whether *empathy* was affected by victim group membership *(Hypothesis 6.2)* or reasoning style (*Hypothesis 6.3*). An ANOVA was conducted with the two IVs as experimental factors, with *empathy* as the dependent variable.

This revealed that, contrary to *Hypothesis 6.2*, victim group membership did not significantly affect empathy, $F(1,89) = 1.34$, $p = .248$, partial $\eta^2 = .015$. Reasoning did not significantly affect *empathy*, $F(1,89) = .201$, $p = .655$, partial $\eta^2 = .002$, in contrast to *Hypothesis 6.3*. The interaction did not significantly affect *empathy*, $F(1,89) = .020$, $p = .887$, partial $\eta^2 < .001$.

The effects of reasoning style and victim group membership on disaster scale, donation effectiveness, and donation need

Finally, for exploratory reasons, the above analyses were repeated in order to ascertain whether reasoning style and victim group affected variables that pertain to

how donors may reason about charitable appeals, these variables were the perceived scale of the disaster, the perceived need for a donation, and the perceived effectiveness of donating. These three variables were entered as dependent variables in a MANOVA, with victim group membership and reasoning style as the independent variables.

Multivariate tests indicated a significant effect of victim group membership, *Pillai's Trace* = .112, $F(3,83) = 3.48$, $p = .020$, partial $\eta^2 = .112$. The multivariate effect of reasoning was not significant, *Pillai's Trace* = .060, $F(3,83) = .060$, $p = .158$, partial $\eta^2 = .060$. The interaction was not significant, *Pillai's Trace* = .014, $F(3,83) = .388$, $p = .762$, partial $\eta^2 = .014$.

Univariate analyses revealed that victim group membership had a significant effect on the perceived scale of the disaster, $F(1,85) = 5.38$, $p = .023$, partial $\eta^2 = .060$, with the scale of the disaster seen as worse for outgroup victims (for the means, see Table 6). This was contrary to the pattern obtained in previous studies. There was no effect of victim group membership on the perceived effectiveness of making a donation, $F(1,85) = .251$, $p = .618$, partial $\eta^2 = .003$; however, there was an effect on the perceived need for donations, $F(1,85) = 5.45$, $p = .022$, partial $\eta^2 = .060$. Again, this was in the direction of the outgroup, with outgroup victims perceived as having greater need (see Table 6).

With regards to the reasoning manipulation, there was no significant effect on the perceived scale of the disaster, $F(1,85) = .219$, $p = .641$, partial $\eta^2 = .003$; nor was there a significant effect on the perceived need for a donation, $F(1,85) = .242$, $p = .624$, partial $\eta^2 = .060$. There was, however, a marginal effect on donation effectiveness, $F(1,85) = 2.97$, $p = .088$, partial $\eta^2 = .034$; again, this was in the direction of the outgroup (see Table 6). Finally, the interaction term was not significant for

scale, $F(1,85) = .540$, $p = .465$, partial $\eta^2 = .006$; need, $F(1,85) = .030$, $p = .863$, partial $\eta^2 < .001$; or donation effectiveness, $F(1,85) = .162$, $p = .688$, partial $\eta^2 = .002$.

Table 6

The effect of victim group membership and reasoning style on giving prosociality (Study 5)

	Intuitive Reasoning	95 % CI	Deliberate Reasoning	95% CI
Ingroup Victim				
Hypothetical donations	£7.11$_a$ (5.0)	5.5:8.6	£8.76$_a$ (3.4)	7.0:10.4
Willingness to donate	5.33$_a$ (1.0)	4.9:5.7	5.60$_a$ (1.3)	5.1:6.0
Empathy	5.22$_a$ (.98)	4.7:5.6	5.07$_b$ (1.3)	4.5:5.5
Disaster scale	5.61$_a$ (1.0)	5.2:5.9	5.66$_a$ (1.0)	5.2:6.0
Effectiveness	4.04$_a$ (1.3)	3.5:4.5	4.39$_a$ (1.0)	3.8:4.9
Donation need	5.01$_a$ (1.1)	4.5:5.4	4.84$_a$ (1.4)	4.3:5.3
Outgroup Victim				
Hypothetical donations	£4.80$_a$ (3.9)	2.9:6.6	£7.21$_b$ (3.5)	5.5:8.9
Willingness to donate	5.51$_a$ (1.0)	5.0:6.0	5.60$_a$ (.94)	5.1:6.0
Empathy	5.47$_a$ (1.0)	4.9:5.9	5.39$_a$ (1.2)	4.9:5.8
Disaster scale	6.22$_a$ (.69)	5.8:6.6	5.98$_a$ (.90)	5.5:6.3
Effectiveness	3.80$_a$ (1.2)	3.2:4.3	4.36$_a$ (1.1)	3.8:4.9
Donation need	5.57$_a$ (1.0)	5.0:6.1	5.49$_a$ (1.2)	4.9:6.0

Note. Standard deviations in parentheses.

Across rows. Cells that do not share a subscript are significantly different, p < .05.

Multiple regression of predictor variables on hypothetical donations and on willingness to donate

Exploratory analyses were conducted to investigate simultaneously the relationship between victim group membership, reasoning style, empathy, donation effectiveness, donation scale, donation need, need for cognition, and faith in intuition on *hypothetical donations*. A hierarchical multiple regression was conducted with the experimental manipulations (victim group membership and reasoning style) entered

in model 1, and with empathy, disaster scale, donation effectiveness, donation need, need for cognition, and faith in intuition, entered in model 2. Model 1 was significant, $F(2,86) = 5.06$, $p = .008$, adjusted $R^2 = .085$. As expected, and in line with the MANOVAS reported above, there was a negative relationship between outgroup victim membership and donation amount, $\beta = -2.06$, $t = -2.38$, $p = .019$, and a positive relationship between a deliberate reasoning style and donation amount, $\beta = 1.89$, $t = 2.18$, $p = .031$. Model 2 was also significant, $F(8,80) = 4.31$, $p < .001$, adjusted $R^2 = .232$. Moreover, model 2 was a significant improvement over model 1, $F_{change}(6,80) = 3.74$, $p = .002$. In the final model, in addition to the variables from step 1, the level of perceived need was a significant predictor (see Table 8 for beta and significance values).

The above analyses were repeated but with *willingness to donate* as the outcome variable. Model 1 was not significant, $F(2,86) = .324$, $p = .724$, adjusted $R^2 = -.016$. Neither victim group membership nor reasoning style were significantly correlated with helping intentions, $\beta = .074$, $t = .321$, $p = .749$, and $\beta = .167$, $t = .727$, $p = .469$; respectively. Model 2 (the overall model) was significant, $F(8,80) = 18.74$, $p < .001$, adjusted $R^2 = .652$. Contrary to previous results, victim group membership and reasoning style were not significant predictors. Empathy, donation effectiveness and donation need positively predicted *willingness to help* (see Table 7).

I also carried out further exploratory analyses testing moderation effects; however, these did not yield interesting results and will not be reported for reasons of brevity.

Table 7
Predictors of donation decisions for overall model (Study 5)

	β	*t*	*p*
Hypothetical donations			
Victim group membership	-2.71	-3.20	.002
Reasoning style	1.92	2.33	.022
Empathy	.072	.150	.882
Donation effectiveness	.399	.950	.345
Disaster scale	-.348	-.595	.553
Donation need	1.33	2.77	.007
Need for cognition	.358	.836	.406
Faith in intuition	-.121	-.293	.771
Willingness to donate			
Victim group membership	-.209	-.138	.171
Reasoning style	.118	.802	.425
Empathy	.244	2.83	.006
Donation effectiveness	.285	3.81	.006
Disaster scale	-.012	-.116	.908
Donation need	.346	4.02	<.001
Need for cognition	.036	.469	.640
Faith in intuition	.087	1.18	.241

Discussion

Study 5 investigated whether an intuitive or deliberate reasoning style can affect donation decisions, and whether these distinct styles can interact with victim group membership. There was a main effect of reasoning prime on donations, such that participants given an analytical prime were more prosocial to both ingroup and outgroup victims. With regards to victim group membership, the present study found, in line with *Hypothesis 6.1* (*Hypothesis 5.2* in the previous chapter), that ingroup members resulted in increased donation amounts. Although it should be noted that

these results were not replicated for self-reported willingness to help, increased donations towards ingroup victims are in line with the results from study 4, not to mention a robust literature that has demonstrated increased ingroup prosociality (Levine et al., 2005; Levine & Thompson, 2004; Stürmer et al., 2006). The interaction between victim group and reasoning style was not significant however, yielding no support for *Hypothesis 6.4,* which had predicted an intuitive reasoning style would amplify benefits yielded by an ingroup membership of the victims.

Contrary to *Hypothesis 6.3*, there was no effect of reasoning style on empathy. Contrary to *Hypothesis 6.2* (which tested the same idea as hypothesis 5.5 in the previous chapter), there was also no effect of the manipulations on empathy. The null result for empathy contradicts those results of study 4 which found an effect of victim group membership on empathic concern. One potential explanation is that the context used in the present study did not elicit levels of distress and concern high enough to be compared to that elicited for the victims in study 4. In this thesis (and in line with Batson et al. 1981; Batson & Toi, 1982), empathy has been operationalised as an affective variable that measures concern and distress for the victim. The context in study 4 described a horrific coach crash that could be easily imagined by participants, and that concerned a scenario that could affect anyone who travels. By contrast, the flood scenario in the present study had a greater number of statistical victims and may well have suffered from statistical insensitivity (Fetherstonhaugh et al., 1997; Friedrich et al., 1999; Slovic, 2007), with participants less able to imagine being themselves in a similar situation. Although logically speaking flooding is arguably a common potential natural disaster in many different climates, nonetheless it is perhaps less vivid than the description of a coach crash. Admittedly, though, reasonably high mean levels for empathy in the present study make this explanation tentative.

A number of other exploratory analyses were conducted. There was an effect of victim group membership on scale, such that the scale of the disaster was perceived to be higher for outgroup members. Again, this result is in direct opposition to the pattern found in study 4, and again the context may be relevant. As the majority of participants were from the U.K. or major European economies, it could be that participants in the present study assumed that outgroup members from a 'smaller nation' would be more greatly affected by the floods.

Finally, regression analyses were conducted on donation amount with a number of predictor variables that pertain to charitable helping. Interestingly, other than the experimental manipulations, only the perceived need for a donation positively predicted donation amount in a simultaneous model that included empathy, disaster scale, and effectiveness. Empathy is generally considered to be one of the most important variables related to helping behaviour (see chapter 2), yet it accounted for little variance in a model predicting donation amount that contained multiple predictors. With regards to willingness to help, donation need was again positively correlated, although in this model empathy and donation effectiveness were also significant predictors. Finally, for both outcome variables, the perceived scale of the disaster, as well as trait measures of need for cognition and faith in intuition, were not statistically significant predictors.

Study 6

Study 6 continues to manipulate reasoning style, but replaces victim group membership with a reputation concern manipulation where participants make a public or private donation *(Hypotheses 6.5 & 6.6).* As discussed in chapter 3, reputational image concerns have been shown to be a robust method of affecting charitable helping,

and the present study is novel in investigating reputation effects and reasoning style in the same design. As noted in chapter 3, reputation concerns are often manipulated through varying anonymity, which is considered a close proxy. Following this approach, study 6 manipulates whether participant donation decisions are known to other participants.

Study 6 also continues to investigate the relationship between empathy, allowing a further test of *Hypothesis 6.3*. Moreover, measures of donation effectiveness, and donation need are included, as before. Additionally, a measure of donation impact is included (c.f. chapter 3) as this variable has been shown to be an important predictor of donation behaviour (Cryder, Loewenstein, & Scheines, 2013).

Method

Participants

One hundred and eighteen undergraduate students completed the study for course credit (M_{age} = 19.15, SD = 3.6; 106 female, 12 male). 68% of the sample identified as British, the remaining 32% of participants represented various nationalities.

Procedure

Participants were randomly assigned to a 2 (reasoning prime: deliberate/intuitive) x 2 (anonymity: public/private) independent factorial design, with the procedure to manipulate reasoning style identical to that in the previous study.

The current experiment was conducted in a computer lab with eight terminals. Each terminal was shielded and each participant was instructed to not sit directly adjacent to another student. Participants first answered standard demographic items

and trait items relating to *need for cognition* and *faith in intuition* (see measures section below).

Anonymity was manipulated via participant instructions that indicated that they would need/not need to explain their donation decision to another student. Participants were reminded of their anonymity (or lack of anonymity) via an instruction presented ostensibly at the end of the study. This instruction informed participants in the 'no anonymity' condition to indicate to the researcher that they had finished and to wait before being paired with another student. While waiting to be paired, each participant had the opportunity to change their donation amount, although unbeknownst to them, their original donation amount was still recorded.

Participants in the 'anonymity' condition underwent an identical procedure, except that they were not told that they would be paired to discuss their donation decision with another student. However, they were also given the opportunity to 'change' their donation amount at the end.

Measures

The following items were included in the present study and have been previously described in study 5. *Hypothetical donations* was again measured on a seven point scale as in the previous study. However, the present study also included a measure of *donation change,* which was the difference between participant's original donation amount and their second donation amount after being reminded of the anonymity manipulation.

The new alpha reliabilities for the composite measures were as follows: *willingness to donate,* $\alpha = .86$*; empathy,* $\alpha = .87$; *need for cognition,* $\alpha = .73$; and, *faith in intuition,* $\alpha = .78$. *Donation effectiveness* and *donation need* were measured with

the same single items as before. Additionally, a single item measure of *donation impact* was also included, 'I think that my donation can make a big difference'.

Finally, as in the previous study, the length of time that participants spent on the reasoning prime, the charity appeal, the overall survey, and the time spent answering the hypothetical donations items, was measured in seconds.

Results

Bivariate correlations are presented below in Table 8. All of the predictor variables were significantly correlated with both *hypothetical donations* and *willingness to donate,* with the exception of *faith in intuition.* Surprisingly, but in line with results obtained in study 5, this latter variable did not significantly correlate with any predictor other than *need for cognition.*

Table 8

Zero order correlations (Study 6)

		1.	2.	3.	4.	5.	6.	7.
1.	Hypothetical donation[1]							
2.	Willingness to donate	.594**						
3.	Empathy	.408**	.588**					
4.	Donation effectiveness	.271**	.362**	.274**				
5.	Donation impact	.279**	.380**	.302**	.587**			
6.	Donation need	.306**	.385**	.520**	.197*	.198*		
7.	Need for cognition	.253**	.296**	.131	-.089	.012	.212*	
8.	Faith in intuition	.105	.034	.062	-.072	-.134	.180	.254**

*Note. ** p < .001. * p < .05.*

[1]Hypothetical donations were the original donation amount before participants were given the option of changing their decision.

Manipulation check

Consistent with the previous study, independent measures t-tests were conducted with reasoning style as the independent variable and time in seconds as the dependent variable for reasoning prime, vignette exposure time, survey time, and *hypothetical donations* decision time. As explained in the manipulation check for the previous study, participants were primed to be slower and more thoughtful in the deliberate priming condition. Thus, a successful manipulation should result in slower decision making on the aforementioned variables.

An independent t-test indicated that participants in the deliberate priming condition participants were slower on reasoning prime, $t(116) = -8.80$, $p < .001$ (236.39s vs. 86.25s); vignette exposure time, $t(116) = -2.20$, $p = .030$ (42.08s vs. 36.16s); *hypothetical donations* decision time, $t(116) = -2.75$, $p = .007$ (10.17s vs. 7.72s); and survey time, $t(116) = -7.92$, $p < .001$ (459.18s vs. 280.43s). Unlike in the previous study, this latter item represented the time spent on the main survey items only and did not include time spent on the information sheet or debrief. It was not necessary to measure the time spent on these sections as they were not relevant to the experiment, and removing these sections improved timing accuracy. Overall, these results indicate that the reasoning style manipulation was successful.

The effects of reasoning style and public vs. private anonymity on donation decisions

A first test of the potential effects of the anonymity manipulation on donations was carried out, using t-tests. A t-test was conducted on participants' *hypothetical donations*, with anonymity as the IV. Results indicated that initial donation decisions did not differ between the two conditions, $t(116) = -.157$, $p = .875$ (mean for the public condition = £3.75; mean for the private condition = £3.69). The same test was repeated, but this time with *donation change* scores as the dependent variable. Results

indicated that donation change was £0.05 in the public condition, and £0.20 in the private condition; however, this difference was not significant, $t(112) = 1.06$, $p = .290$. Given that participants donated very similar amounts on both occasions, *donation change* was not analysed further.

I also wanted to test the effect of the manipulations on the DVs in a more complete design. A 2 (reasoning style: deliberate vs. intuitive) x 2 (anonymity: public vs. private) MANOVA was conducted, with *hypothetical donations* and *willingness to donate* as the dependent measures. Multivariate tests indicated no significant effect of reasoning prime, *Pillai's Trace* = .012, $F(2,113) = .681$, $p = .508$, partial $\eta^2 = .012$. There was also no significant effect of anonymity, *Pillai's Trace* = .003, $F(2,113) = .186$, $p = .830$, partial $\eta^2 = .003$. The interaction effect was also not significant, *Pillai's Trace* = .012, $F(2,113) = .663$, $p = .517$, partial $\eta^2 = .012$.

As with the previous study, univariate analyses revealed that participants donated slightly more to statistical victims when primed to a deliberate reasoning style compared to an intuitive reasoning style (see Table 9); however, the difference was not significant, $F(1,114) = .684$, $p = .410$, partial $\eta^2 = .006$. There was also no effect of reasoning on *willingness to donate*, $F(1,114) = .028$, $p = .868$, partial $\eta^2 < .001$.

The anonymity manipulation was also not significant, with the public condition (£3.75) receiving similar amounts to the private condition (£3.69), $F(1,114) = .02$, $p = .868$, partial $\eta^2 < .001$ (contrary to *Hypothesis 6.5*). A similar result was obtained for the effects of anonymity on *willingness to donate*, $F(1,114) = .138$, $p = .711$, partial $\eta^2 = .001$.

The interaction between reasoning style and anonymity was also not significant for *hypothetical donations*, $F(1,114) = .509$, $p = .477$, partial $\eta^2 = .004$, and not significant for *willingness to donate*, $F(1,114) = .089$, $p = .766$, partial $\eta^2 = .001$

(contrary to *Hypothesis 6.6*). Analyses were repeated with *need for cognition* and *faith in intuition* as covariates; however inclusion of these variables did not meaningfully alter any of the above results.

Table 9

The effects of reasoning style and anonymity on donation decisions (study 6)

			Mean	SD	95% CI
Hypothetical donations	Intuitive	Anonymous	3.67_a	(1.8)	3.0:4.3
		Public	3.50_a	(1.6)	2.8:4.1
		Marginals	3.59_a	(1.7)	
	Deliberate	Anonymous	3.71_a	(1.7)	3.0:4.3
		Public	4.00_a	(1.7)	3.3:4.6
		Marginals	3.85_a	(1.7)	
	Total	Anonymous	3.69_a	(1.8)	
		Public	3.74_a	(1.7)	
		Marginals	3.72_a	(1.7)	
Willingness to donate	Intuitive	Anonymous	5.64_a	(.88)	5.3:5.9
		Public	5.63_a	(.84)	5.3:5.9
		Marginals	5.63_a	(.85)	
	Deliberate	Anonymous	5.66_a	(.85)	5.3:5.9
		Public	5.55_a	(.95)	5.2:5.8
		Marginals	5.61_a	(.90)	
	Total	Anonymous	5.65_a	(.85)	
		Public	5.59_a	(.89)	
		Marginals	5.62_a	(.87)	

Note. Standard deviations in parentheses.

Along columns. Items that do not share a subscript are significantly different, $p < .05$.

The effect of reasoning style and anonymity on empathy

As in the previous study, the analyses above were repeated, in order to test whether *empathy* was affected by reasoning style *(Hypothesis 6.3)*. Anonymity was

also included in the design for exploratory purposes. If *empathy* is affected by anonymity, then this would suggest that these variables are at least in part measuring social norms of helping.

Analyses indicated that there was no effect of reasoning style on *empathy*, $F(1,114) = .084$, $p = .773$, partial $\eta^2 = .001$. There was no significant effect of anonymity on empathy, $F(1,114) = .73$, $p = .394$, partial $\eta^2 = .006$; with participants reporting similar levels of empathy in the public condition (5.49) and in the private condition (5.39). The interaction between reasoning style and anonymity on empathy was also not significant, $F(1,114) = .38$, $p = .534$, partial $\eta^2 = .003$ (see Table 10).

Table 10

The effects of reasoning style and anonymity on empathy (Study 6)

			Mean	SD	95% CI
Empathy	Intuitive	Anonymous	5.42_a	(.93)	5.0:5.7
		Public	5.46_a	(.85)	5.1:5.8
		Marginals	5.44_a	(.88)	
	Deliberate	Anonymous	5.26_a	(1.2)	4.9:5.6
		Public	5.52_a	(.75)	5.1:5.8
		Marginals	5.39_a	(1.0)	
	Total	Anonymous	5.34_a	(1.0)	
		Public	5.49_a	(.80)	
		Marginals	5.42_a	(.95)	

Note. Standard deviations in parentheses.
Along columns. Items that do not share a subscript are significantly different, $p < .05$.

The effect of reasoning style and anonymity on perceived donation effectiveness, donation impact, and donation need

Further analyses were conducted to explore the effects of reasoning style and anonymity on variables that may affect donation decisions, specifically the

effectiveness of donating, the need for donations, and the impact of making an individual donation. These three variables were assigned as dependent variables in a MANOVA, with reasoning style and anonymity as independent variables.

Multivariate tests indicated that reasoning style did not have a significant effect, *Pillai's Trace* = .009, $F(3,112) = .356$, $p = .785$, partial $\eta^2 = .009$. Anonymity also did not have a significant effect, *Pillai's Trace* = .010, $F(3,112) = .386$, $p = .778$, partial $\eta^2 = .010$; nor did the interaction, *Pillai's Trace* = .011, $F(3,112) = .430$, $p = .732$, partial $\eta^2 = .011$.

Univariate analyses indicated no significant effect of reasoning style on *donation effectiveness*, $F(1,114) = .071$, $p = .790$, partial $\eta^2 = .001$; *donation impact*, $F(1,114) = .050$, $p = .855$, partial $\eta^2 < .001$; or, *donation need*, $F(1,114) = .439$, $p = .302$, partial $\eta^2 = .009$. Similarly, there was not a significant effect of anonymity on *donation effectiveness*, $F(1,114) = .915$, $p = .341$, partial $\eta^2 = .008$; *donation impact*, $F(1,114) = .871$, $p = .353$, partial $\eta^2 = .008$; or, *donation need*, $F(1,114) = .001$, $p = .972$, partial $\eta^2 < .001$. Finally, the interaction was not significant for *donation effectiveness*, $F(1,114) = .708$, $p = .402$, partial $\eta^2 = .006$; *donation impact*, $F(1,114) = .015$, $p = .901$, partial $\eta^2 < .001$; or, *donation need*, $F(1,114) = .269$, $p = .605$, partial $\eta^2 = .002$ (see Table 11).

Table 11

The effects of reasoning style and anonymity on donation effectiveness, donation impact, and donation need (Study 6)

			Mean	SD	95% CI
Donation effectiveness	Intuitive	Anonymous	4.95_a	(1.2)	4.5:5.3
		Public	4.56_a	(1.2)	4.1:4.9
		Marginals	4.76_a	(1.2)	
	Deliberate	Anonymous	4.71_a	(1.1)	4.2:5.1
		Public	4.68_a	(1.0)	4.2:5.1
		Marginals	4.70_a	(1.1)	
	Total	Anonymous	4.83_a	(1.1)	
		Public	4.62_a	(1.1)	
		Marginals	4.73_a	(1.1)	
Donation impact	Intuitive	Anonymous	4.35_a	(1.2)	3.9:4.7
		Public	4.11_a	(.97)	3.6:4.5
		Marginals	4.23_a	(1.1)	
	Deliberate	Anonymous	4.28_a	(1.4)	3.8:4.7
		Public	4.10_a	(1.1)	3.6:4.5
		Marginals	4.19_a	(1.3)	
	Total	Anonymous	4.32_a	(1.3)	
		Public	4.11_a	(1.0)	
		Marginals	4.21_a	(1.2)	
Donation need	Intuitive	Anonymous	6.29_a	(.69)	6.0:6.5
		Public	6.23_a	(.67)	6.0:6.4
		Marginals	6.26_a	(.68)	
	Deliberate	Anonymous	6.10_a	(.68)	5.8:6.3
		Public	6.17_a	(.46)	5.9:6.4
		Marginals	6.14_a	(.58)	
	Total	Anonymous	6.20_a	(.68)	
		Public	6.20_a	(.58)	
		Marginals	6.20_a	(.63)	

Note. Standard deviations in parentheses.

Along columns. Items that do not share a subscript are significantly different, $p < .05$.

Multiple regression of predictor variables on hypothetical donations and on willingness to donate

Exploratory analyses were conducted to investigate the relationship between several predictor variables and *hypothetical donations*. As in study 5, a hierarchical multiple regression was conducted with the experimental manipulations (victim group membership and reasoning style) entered in model 1. Empathy, donation effectiveness, donation impact, donation need, need for cognition and faith in intuition were entered in model 2. As already suggested by the MANOVA analyses reported above, Model 1 was not significant, $F(2,115) = .356$, $p = .701$, adjusted $R^2 = -.011$. Neither reasoning style, $\beta = .269$, $t = .829$, $p = .409$, nor anonymity, $\beta = .046$, $t = .143$, $p = .887$, were significant predictors of donation amount. Model 2 (the overall model) was significant, $F(8,109) = 5.13$, $p < .001$, adjusted $R^2 = .274$. Moreover, model 2 was a significant improvement over model 1, $F_{change}(6,109) = 6.68$, $p < .001$. Empathy and need for cognition were significantly correlated with *hypothetical donations* (see Table 12 for beta and significance values).

The above analyses were repeated with *willingness to donate* as the outcome variable. Model 1 was not significant, $F(2,115) = .081$, $p = .922$, adjusted $R^2 = .001$. Reasoning style was not a significant predictor, $\beta = -.027$, $t = -.168$, $p = .867$, nor was anonymity, $\beta = -.059$, $t = -.363$, $p = .718$. Model 2 was significant, $F(8,109) = 12.09$, $p < .001$, adjusted $R^2 = .431$, and a significant improvement over model 1, $F_{change}(6,109) = 16.07$, $p < .001$. Empathy, and need for cognition were positively associated with *willingness to help* (see Table 12).

Table 12

Predictors of donation decisions for overall regression model (Study 6)

	β	*t*	*p*
Hypothetical donations			
Reasoning style	.418	1.45	.149
Anonymity	.117	.400	.690
Empathy	.465	2.50	.014
Donation effectiveness	.173	.977	.331
Donation impact	.208	1.19	.233
Donation need	.220	.810	.420
Need for cognition	.390	2.38	.019
Faith in intuition	.117	.650	.517
Willingness to donate			
Reasoning style	.043	.353	.725
Anonymity	-.018	-.141	.888
Empathy	.398	5.01	< .001
Donation effectiveness	.098	1.29	.199
Donation impact	.126	1.70	.091
Donation need	.076	.656	.513
Need for cognition	.228	3.25	.002
Faith in intuition	-.030	-.388	.699

Discussion

The present study investigated whether reasoning style and anonymity would affect donations towards statistical outgroup victims after flooding. Contrary to the results of the previous study there was no significant effect of reasoning style on prosociality, with participants reporting similar helping levels regardless of an intuitive or deliberate focus on the appeal. Contrary to *Hypothesis 6.5*, there was also no effect of anonymity on donation amount, nor an interaction between reasoning style and whether the donation decision was public or private *(Hypothesis 6.6)*. These

findings are contrary to previous studies which have found public settings to increase donations (Alpizar et al., 2008; Ernest-Jones, Nettle, & Bateson, 2011; Martinsson & Alpizar, 2013). Finally, and contrary to *Hypothesis 6.3*, no effect was found of reasoning style on empathy.

As outlined above, Reyniers (2013) found an effect of 'reluctant altruism', with participants more likely to donate when their donation decision was made public. The result was an increase in donation frequency in the public condition, but a decrease in mean donation levels. The discrepancy between the results of the present study and Reynier's could be partly due to the use of hypothetical donations. Although hypothetical donations are a good proxy for monetary donations in most situations, they are perhaps less susceptible to the reluctant altruism identified by Reyniers. This may be because hypothetical donations can be made without any financial cost to one's self, and there are perhaps less sensitive to a public/private manipulation. In other words, since hypothetical donations tend to be somewhat inflated compared to monetary donations, the anonymity effect may have been masked by a ceiling effect. However, one previous study did find reputation concerns to affect hypothetical giving (Francisco Alpizar, Carlsson, & Johansson-Stenman, 2008), therefore this explanation is tentative.

Another, more practical explanation, might be that the anonymity manipulation in the present study was simply not strong enough to elicit the reputational concerns needed to affect giving amounts. It may be worth noting that the manipulation in the current study differed from the manipulation by Reyniers in that it asked participants to explain their donation decision. This focus on accountability is presumably inherent in the design by Reyniers, i.e. participants would be concerned over how their donation decision was perceived by a peer, and although

they were not asked to explain their decision, it is presumably this focus on accountability that accounted for the 'reluctant altruism' observed by Reyniers. Since the current study obtained null findings, the question of whether accountability was manipulated alongside anonymity, and the degree to which accountability can be considered a proxy for anonymity, is a moot point. It is possible that participants reacted negatively to having to justify their donation decision and that this negatively affected their donation decisions. However, observation of mean donation levels suggests that the null findings in the present study were not due to a lack of donations in the public condition, but rather due to unexpected generosity in the anonymous condition. This point is elaborated upon in more detail in chapter 8.

General Discussion

All in all, little support for the predicted effects was found across studies 5 and 6. There was again evidence that ingroup victims receive more donations than outgroup victims (*Hypothesis 6.1*, supported in study 5 but only for one of the outcome measures). There was no evidence that ingroup victims elicit more empathy (*Hypothesis 6.2.*, no support in study 5. There was no evidence that Type 1 reasoning is associated with stronger empathic responses (*Hypothesis 6.3*, no support in studies 5 and 6). Further, there was no evidence that Type 1 reasoning would be particularly effective in eliciting donations to ingroup victims (*Hypothesis 6.4*, no support in study 5). There was no evidence that lack of anonymity increases donations (*Hypothesis 6.5*, no support in study 6). Finally, there was no evidence that reasoning type and anonymity interact in their effect on donations (*Hypothesis 6.6.*, no support in study 6). However, despite these findings, several interesting effects were found for which

no strong a priori hypotheses had been held, which point towards interesting avenues for further exploration.

Study 5 found that a deliberate reasoning style led to increased prosociality, while Study 6 found a null effect. At first glance, the results of study 5, where a deliberate style ameliorated giving, appears contrary to previous findings that found a deliberate reasoning style to lower generosity (Dickert, 2008; Small et al., 2007). However, it should be noted that the present study described statistical victims, while previous studies found negative deliberate reasoning effects when an identifiable victim (in both studies a sick Israeli child) was the target in need. When the target was a statistical victim (e.g. study 1: Small et al., 2007), deliberate reasoning resulted in increased donations. Although the study by Small and colleagues found greater donations towards statistical victims following a deliberate reasoning prime, they did not find a significant difference. However, the present study 5 did find a significant difference.

The results in study 5 (but not study 6) appear to be in line with the argument, made by Small and colleagues, that helping identified victims is linked to emotional affect, and that an analytical prime somehow blocks this affective process. When the victims are referred to as statistics, and when they are outgroup members, helping might be affected by processes other than emotions, and so analytical reasoning styles may not reduce helping. If anything, a more rational thought process should lead to more helping when the targets are not identified.

The results of study 5 suggest that the current position in the literature can be nuanced. Recently, researchers appear to have settled on the position that intuitive thinking leads to more helping (Dickert et al., 2011; Small et al., 2007), while statistical framing of victims leads to less helping (Fetherstonhaugh, Slovic, Johnson,

& Friedrich, 1997). However, the results from study 5 suggest that analytical thinking can be beneficial if the charitable appeal focuses on statistical rather than identified victims, i.e. on logic, rather than emotion. These are tentative suggestions however, especially given that the effect was not replicated in study 6. It may be that the appeals used in the current studies were not emotionally strong enough to generate the levels of distress and concern needed, and no firm conclusions can be drawn. Although alleviating negative mood has been linked to reasoning styles and donations (Dickert et al., 2011), it remains unclear as to how reasoning style affects donation behaviour outside the context of identifiable victims, and it also remains unclear as to whether the process is related to the effects of rational thinking on empathic concern.

Finally, if reasoning style is directly linked to problem-solving, then a clearer effect may be obtained by placing participants in moral dilemma situations where they need to choose between various charitable causes. So far, the aforementioned studies that have attempted to manipulate reasoning style have done so in a single context (as have the present studies), but a more complicated design with several charitable causes may be better able to distinguish the effects of intuitive verses deliberate reasoning.

Chapter Seven

Group membership and facial attraction effects on giving behaviour

Introduction

As discussed in chapter 4, there is much evidence of a 'halo effect' (Nisbett & Wilson, 1977) where physically attractive others benefit from positive ratings on a host of dimensions that relate to social competence, intelligence, and success. Moreover, chapter 4 presented evidence that the positive characteristics associated with attractive others may result in increased prosociality. However, as seen in chapter 4, most of this research has been focused on interpersonal helping other than donations. Hence, a novel contribution of this present thesis was to test if advantageous effects of attractiveness would also be visible for the specific type of intergroup prosociality that charitable appeals represent.

As study 4 and 5 investigated, there is an ingroup bias (Brewer, 1999) that may result in increased prosociality towards fellow ingroup members. However, the literatures on attractiveness effects and on group membership effects have hitherto developed separately. Hence, another important innovation of this thesis was to consider both types of effects in one comprehensive framework.

It is also possible that attractive ingroup members will benefit even further from this effect. As discussed previously at length, one of the key mechanisms associated with ingroup helping is empathy, and, as discussed in chapter 2, one of the key mechanisms of learning how and who to help is presumably imitation. It is

interesting then that researchers have found empathy to be a predictor of imitation behaviour, but only for attractive others (Müller, van Leeuwen, van Baaren, Bekkering, & Dijksterhuis, 2013). This suggests a potential link between empathy and attraction. Moreover, other researchers have found ingroup leaders to be perceived as more physically attractive than similar outgroup leaders (Kniffin et al., 2014). These two separate strands of research suggest that there may be a link between ingroup membership that is strongly associated with empathy (e.g. Stürmer et al., 2006a; 2005), physical attractiveness of the target, and increased helping. Specifically, it is possible that physical attractiveness will amplify the generally agreed upon ingroup bias effect, and result in increased prosociality. People may be more ready to empathise with physically attractive others, particularly if they are from the ingroup. In this manner, the plight of an attractive ingroup victim may be more vivid and compelling, and thereby of much greater public interest than the plight of an outgroup member or of an unattractive other.

Overview of hypotheses

Hypothesis 7.1. In line with the previous studies in this thesis it is predicted that there will be increased helping towards ingroup (rather than outgroup) victims.

Hypothesis 7.2. Consistent with work on the 'halo' effect, as well as studies into the effects of beauty on interpersonal helping, it is predicted that attractive victims will increase donations compared to unattractive victims.

Hypothesis 7.3. For the reasons discussed in the introduction to this chapter, it is predicted that attractive ingroup victims will receive disproportionally higher donation amounts than all other recipient types (unattractive ingroup, attractive outgroup, unattractive outgroup), over and above what one would expect to emerge on the basis of the two main effects described in the two previous hypotheses.

Hypothesis 7.4. As already outlined in previous chapters (c.f. *Hypotheses 5.5, and 6.2.*), there is reason to assume that ingroup membership status of a victim might have a positive effect on empathic concern for that victim. Although effects on empathy were not the principal concern of this present chapter, the present studies did again include measures of empathy, meaning that they are well placed to consider additional evidence related to this prediction.

Study 7

Study 7 begins by testing the effects of facial attractiveness on donation decisions *(Hypothesis 7.2).* In order to do this, a charity poster was designed that included attractive and unattractive male and female faces. The faces used were averaged faces from a database that have been extensively tested for facial attractiveness (Braun, Gruendl, Marberger, & Scherber, 2001). Study 7 inserts these faces alongside a charitable appeal to investigate the effects of physical attractiveness on prosociality. Additionally, in order to rule out other characteristics of the faces that may account for donation decisions, study 7 includes measures of facial emotion, facial expression, and how needy each face looks, alongside soliciting a donation amount.

Method

Participants

Two hundred and eighty-four participants were recruited via Crowdflower, a similar participant database to Mturk (Buhrmester et al., 2011; Chandler et al., 2014; Goodman et al., 2013), and paid around 25 cents to take part in a 2 minute survey. Eighty of these participants were excluded for providing duplicate answers (identifiable via IP addresses), leaving a total of two hundred and four participants

(M_{age} = 37.03, *SD* = 12.89; 99 female, 105 male). All participants were of U.S. nationality.

Procedure

Participants were told that they would evaluate a real charity poster. Each participant was randomly assigned to one of four experimental face conditions via *SurveyGizmo* (a survey platform similar to *Qualtrics*). Each condition consisted of a small amount of text and a large portrait photograph of the victim, either 'Sophie', or 'Thomas'. Both Sophie and Thomas were computer generated images, and participants were randomly assigned to either a same-sex or opposite-sex face.

Each stimulus face was morphed (using Morpher 3.0), from an existing database of faces, to create an average composite image (Braun, Gruendl, Marberger, & Scherber, 2001). The female 'attractive' face was averaged/morphed approximately 64 times, while the female 'unattractive' face was averaged only 4 times. Similarly, the male 'attractive' face was averaged 32 times, while the male 'unattractive' face was averaged 4 times. In the present study, each face was presented as a portrait, and each model wore a plain white t-shirt with shoulders just visible. Hair was tied back or made non-descript, and each face consisted of a neutral expression. In addition to the attractiveness manipulation, each charity poster displayed text soliciting help for a homeless person who had suffered from domestic violence (see appendix I).

Measures

Participants were paid a small sum for completing the present study and did so online; because of this, following Crowdflower guidelines only a handful of measures were included (but a larger sample size was obtained). As in previous studies, each participant was asked to make a *hypothetical donation*, this time ranging from $0 to

$12 in $2 increments, creating a 7 point scale. A series of single item measures followed:

Facial attractiveness. In order to show that victim faces differed in attraction as intended, each participant was asked to rate the facial attractiveness of the victim in the poster, 'I think the person is good looking'. In case some participants were reluctant to say that they found a same-sex face attractive, a more objective norm of facial attraction was also measured, 'Most other people would say the person is good looking.' These two items were combined to form a *facial attractiveness* rating; α = .92.

Facial emotion. It is possible that attractive and unattractive faces will be perceived by participants as varying in emotional expression, and that the degree of facial emotion expressed subsequently affects helping behaviour. In order to rule out this possibility, participants were also asked to rate the facial emotion of the face, 'The person in the poster looks emotional, e.g. sad, happy, etc'.

Facial neediness. Similar to facial emotion above, attractive and unattractive faces may vary with the perceived level of need. Specifically, less attractive faces may be seen as more needy, while attractive faces may be seen as more competent and thereby not needing help. Facial neediness was therefore measured with the following item, 'The person in the poster looks like they need help.'

Results

Manipulation check

Independent t-tests were conducted to determine whether the attractive and unattractive faces differed in perceived attractiveness as intended. T-tests were also conducted in order to determine whether attractiveness varied by victim sex, as well

as to rule out that the stimuli did not differ in perceived levels of emotionality or neediness.

The facial group attractiveness manipulation was successful, with more average faces seen as more attractive and better looking (m = 5.35, sd = 1.3) than less average faces (m = 4.09, sd = 1.4), $t(202) = -6.37$, $p < .001$. With regards to the victim sex, attractiveness ratings did not differ significantly between male victims (m = 4.81, sd = 1.5) and female victims (m = 4.63, sd = 1.5), $t(202) = .812$, $p = .418$. There was no significant difference between attractive faces and unattractive faces on facial emotion ratings, $t(202) = 2.05$, $p = .476$ (attractive faces: m = 3.49, sd = 1.5; unattractive faces: m = 3.74, sd = 1.6). There was a significant difference with regards to the perceived level of neediness, with unattractive faces being seen as needier than attractive faces (unattractive faces: m = 3.64, sd = 1.7; attractive faces: m = 3.17, sd = 1.5), $t(202) = 2.05$, $p = .041$. However, this difference was small, and moreover, neither attractive nor unattractive faces were perceived as particularly needy on the seven point scale. Finally, there were no significant sex differences on facial emotion, with male victims (m = 3.70, sd = 1.5) having similar emotion levels compared to female victims (m = 3.54, sd = 1.5), $t(202) = .681$, $p = .497$; nor was there a significant difference on perceived neediness between male victims (m = 3.45, sd = 1.7) and female victims (m = 3.36, sd = 1.5), $t(202) = .371$, $p = .711$.

Taken together, the above analyses demonstrate that the facial stimuli differed as intended on attractiveness ratings, with more averaged faces being seen as more attractive. Moreover, there was little difference between the stimuli on other facial measures that could explain subsequent helping behaviour (with the possible exception of perceived neediness).

The effects of facial attractiveness on hypothetical donation amount

A 2 (attractive vs. unattractive) by 2 (male victim vs. female victim) by 2 (male participant vs. female participant) ANOVA was conducted with *hypothetical donations* as the dependent measure (see Table 13). Facial group did not have a significant effect on donation amount, $F(1,196) = .065$, $p = .798$, partial $\eta^2 < .001$; with attractive faces receiving similar donation amounts to unattractive faces (not supporting *Hypothesis 7.2*). There was no effect of victim sex on donation amount, with females and males receiving similar amounts, $F(1,196) = .032$, $p = .858$, partial $\eta^2 < .001$. Male and female participants also donated similar amounts overall, $F(1,196) = .459$. $p = .499$, partial $\eta^2 = .002$. Finally, there were no significant interaction effects. Facial group did not significantly interact with the sex of the victim, $F(1,196) = .003$, $p = .959$, partial $\eta^2 < .001$; nor did it interact with the sex of the participant, $F(1,196) = 2.14$, $p = .145$, partial $\eta^2 = .011$. Participant sex and victim sex did not interact, $F(1,196) = 2.71$, $p = .101$, partial $\eta^2 = .014$. The three way interaction was also not significant, $F(1,196) = .347$, $p = .556$, partial $\eta^2 = .002$.

The same analysis was repeated, but this time controlling for perceived neediness. Given that previous analyses had suggested that neediness is potentially confounded with perceived attractiveness, this would mean that neediness might 'muddy' and obscure existing effects of attractiveness. As such, perceived neediness was added to the above analysis as a covariate to control and partial out its potential effects. Neediness was a significant covariate, $F(1,193) = 20.93$, $p < .001$, partial $\eta^2 = .098$. However, the inclusion of the covariate did not meaningfully alter the above results, i.e. none of the analyses reported above were close to significance, with one exception. The interaction between sex of the participant and sex of the victim was now statistically significant, $F(1,193) = 4.36$, $p = .038$, partial $\eta^2 = .022$. Simple

pairwise comparisons indicated that male participants donated more to male victims (£2.60), compared to female victims (£2.07), however this difference was not significant, p = .114. Similarly, female participants donated more to female victims (£2.58) than to male victims (£2.10), but again the difference was not significant, p = .171. Looking at the comparisons another way, male victims received more donations from male participants (£2.60) than they did from female participants (£2.10) but the difference was not significant, p = .150. Moreover, female victims received more from female participants (£2.58) than from male participants (£2.07), but again the difference was not significant, p = .137.

Table 13
The effect of facial attractiveness on hypothetical donations (study 7)

	Male victim	95% CI	Female victim	95% CI
Male participant				
Unattractive face	$2.92 (2.3)	2.2:3.5	$2.33 (1.5)	1.6:3.0
Attractive face	$2.36 (1.9)	1.6:3.0	$2.03 (1.5)	1.3:2.7
Female participant				
Unattractive face	$1.82 (1.4)	1.0:2.5	$2.35 (1.7)	1.6:3.0
Attractive face	$2.29 (1.6)	1.5:3.0	$2.50 (1.9)	1.7:3.2

Note. Standard deviations in parentheses.

Discussion

The present study investigated whether facial attraction could affect helping towards an identifiable victim in a charity appeal. The pattern of results was unexpected; there were no significant effects of facial attractiveness or victim sex on donation amount, nor did the two interact significantly. These results are inconsistent with previous research that has demonstrated a halo effect where more attractive

people are more persuasive and likeable (Nisbett & Wilson, 1977), and where increased helping is demonstrable in opposite-sex pairings (Maria Agthe et al., 2011; Nadler et al., 1982).

One explanation for the non-significant results may relate to the level of identification between the participant and the victim presented in the charity appeal. The present study used a charity appeal that visualised a younger person in need, and although the age range of the present sample was 18-99, many participants were in their late 30s or older. Such a sample may feel that they are less similar to the young homeless person depicted in the charity appeal, and similarity with a victim in need has been linked to empathy and caring (Davis, 1994; Krebs, 1975). If the present sample felt they had little in common with the young person depicted in the charity poster, then that could explain the low levels of empathy in each condition which may have masked any effects on donations. Moreover, it is important to note that the benefits of similarity are not restricted to physical appearance. A sense of similarity on attributes unrelated to the charity appeal (e.g. group membership) can also lead to increased empathy, which in turn can lead to increased helping (Batson, Lishner, Cook, & Sawyer, 2005). Again, one might speculate that perceived similarity on those other attributes might also have been quite low.

Study 8

Study 8 continues to test the effects of facial attractiveness on donation decisions, and specifically whether attractive victims will benefit from increased prosociality *(Hypothesis 7.2).* However, study 8 builds upon the previous study by manipulating the nationality of the victim, also testing the prediction that ingroup victims will benefit from increased prosociality *(Hypothesis 7.1).* The inclusion of a

salient shared nationality should increase the likelihood that participants will feel something in common with the victim, consequently, a measure of victim identification is included. Additionally, the inclusion of victim group membership allows for testing of the prediction that attractive ingroup members will benefit from the highest levels of prosociality *(Hypothesis 7.3).*

Study 8 doubled the participant payment and was able to include a measure of willingness to donate, as well as several exploratory variables such as empathy, and the perceived effectiveness and impact of donating. Disaster scale was not included in the present study as the context did not represent a disaster. The inclusion of the empathy measures allowed to, yet again, test the hypothesis that ingroup victims would generate more empathic responses (Hypothesis 7.4., c.f. also Hypothesis 6.2.).

Finally, study 8 includes measures of facial attraction of the victim, facial emotion, facial expression (neutral vs. otherwise), perceived neediness, and perceived facial similarity. These measures were included in order to test that the facial stimuli remained equivalent on all dimensions except for the intended attractiveness manipulation.

Method

Participants

Two hundred and four participants were recruited online (via Crowdflower) and paid 50 cents to take part in a five minute survey. Several participants were excluded because they did not identify as being of 'American/US' nationality, which was essential for the group membership manipulation in the present study.

In addition to this *a priori* exclusion, analysis of two multiple response items, designed to check if participants paid attention to the stimuli, revealed that 27

participants failed one or both of the attention check questions. These participants demonstrated a lack of attention, as they could not correctly answer which countries were involved in the text they had just read, or why donations were being solicited by the charity appeal. Twenty-seven participants were excluded from subsequent analyses for this reason.

Finally, participants who provided a duplicate response (identifiable via IP address) were also excluded. This left a total of 117 participants (66 female, 51 male; M_{age} = 39.32, SD = 11.8) for subsequent analyses.

Procedure

The procedure was nearly identical to that of the previous study, with participants randomly assigned to one of four experimental conditions that contained a charity poster with either 'Thomas' or 'Sophie'. Therefore, participants were randomly assigned to a same-sex or opposite-sex pairing. Identical images were used as in the previous study, with each male or female victim manipulated to be either attractive (more average) or unattractive (less average). The poster was also identical, except that each poster now included the image of either an American or European flag beneath the text (see appendix I). Participants were also informed that the study was being conducted on behalf of either an American or European charity. Since all participants identified as being of American nationality, this allowed the nationality of the charity to be manipulated to either ingroup (American) or outgroup (European).

Measures

All participants were asked to make a hypothetical donation, from $0 to $12, presented in $2 increments. Participants were then asked to answer a series of seven point scales as follows:

Willingness to donate was measured with three items, 'I would be willing to donate to help Sophie/Thomas', 'I think helping homeless people is the right thing to do', and 'I think it is important to donate to homeless charities'; α = .78.

Empathy was again measured using a modified version of the Impression Check Questionnaire which consisted of five items designed to measure situational empathy (e.g. Davis, 1980; Stürmer et al., 2006): 'I feel very concerned for Sophie/Thomas', 'I feel very compassionate towards Sophie/Thomas', 'I have a lot of empathy for Sophie/Thomas', 'I feel great sympathy for how Sophie/Thomas has suffered', and 'I feel distressed about Sophie's/Thomas' situation'; α = .93.

Donation effectiveness and *donation impact* were measured with the same single items as used previously in studies 5 and 6. *Victim identification* was measured with two items taken before the experimental manipulations, 'I can identify with people who are homeless', and 'I can identify with people who have suffered from domestic violence'; α = .88.

As in the previous study, participants were also asked to answer items related to the model used in the charity appeal. *Facial attractiveness* was measured using two items, 'I think the model in the poster looks attractive', and, 'Most other people would agree that the model looks attractive'; α = .75. Additional single items were included to measure the following stimulus attributes: *facial emotion*, 'I think the model in the poster looks upset and emotional'; *facial expression*, 'I think the model has a neutral expression'; and *facial neediness*, 'I think the model looks like they need help'.

Results

Bivariate correlations are presented below in Table 154. Empathy, donation effectiveness and donation impact were relatively strong predictors. Victim identification was correlated with empathy, donation effectiveness, and donation impact, but not with donation decisions.

Table 14
Zero order correlations (Study 8)

		1.	2.	3.	4.	5.
1.	Hypothetical donation					
2.	Willingness to donate	.523**				
3.	Empathy	.480**	.690**			
4.	Donation effectiveness	.386**	.699**	.616**		
5.	Donation impact	.392**	.680**	.599**	.795**	
6.	Victim identification	.163	.230*	.219*	.231*	.204*

*Note. ** p < .001. * p < .05.*

Manipulation check

Independent t-tests were conducted to determine if the facial stimuli differed on measures of attractiveness, similarity, facial emotion, neutrality of expression, or neediness. The facial group attractiveness manipulation was again successful, with more average faces rated as more attractive (m = 5.43, sd = 1.0) than less average faces (m = 4.14, sd = 1.4), $t(115) = -5.62$, $p < .001$. There were also no significant differences with regards to the perceived level of emotion in attractive faces (m = 2.51, sd = 1.4) and unattractive faces (m = 2.36, sd = 1.0), $t(115) = -.662$, $p = .510$. There

were also no significant differences on neutrality of expression, with both attractive faces (m = 5.82, sd = 1.4) and unattractive faces (m = 5.83, sd = 1.0) viewed as having a neutral expression, $t(115) = .015$, $p = .988$. Finally, and in contrast to the previous study, there were no significant differences between attractive faces (m = 3.48, sd = 1.8) and unattractive faces (m = 3.52, sd = 1.6) on perceived neediness, $t(115) = .131$, $p = .896$.

With regards to the sex of the victim, results indicated that female and male victims were equally attractive (m = 5.00, sd = 1.4 vs. m = 4.59, sd = 1.2), $t(115) = 1.59$, $p = .114$. Neutrality of expression was similar for female victims (m = 5.98, sd = .92) and male victims (m = 5.68, sd = 1.1), $t(115) = 1.51$, $p = .132$. Perceived neediness was also similar for female victims (m = 3.39, sd = 1.7) and male victims (m = 3.60, sd = 1.7), $t(115) = -.655$, $p = .514$. There was, however, a significant difference between female and male victims on facial emotion, with male victims perceived as displaying more facial emotion (m = 2.66, sd = 1.4) compared to female victims (m = 2.19, sd = 1.0), $t(115) = -2.03$, $p = .044$. This was only a slight difference however, with both male and female victim groups receiving low scores for facial emotion.

Overall, these results indicate that the facial stimuli used in the present study were rated equally on most dimensions, except for the intended attractiveness manipulation.

The effects of facial attractiveness group and victim group membership on donation decisions

A 2 (facial attractiveness: attractive vs. unattractive) x 2 (victim group membership: ingroup vs. outgroup) multivariate analysis of variance (MANOVA) was conducted with hypothetical donations and willingness to donate as the dependent

variables. The multivariate effect of facial group was not significant, *Pillai's Trace* = .024, $F(2,112) = 1.37$, $p = .258$, partial $\eta^2 = .024$. The multivariate test for victim group membership demonstrated marginal significance, *Pillai's Trace* = .048, $F(2,112) = 2.82$, $p = .063$, partial $\eta^2 = .048$. The interaction term was not significant, *Pillai's Trace* = .031, $F(2,112) = 1.78$, $p = .173$, partial $\eta^2 = .031$.

Univariate tests indicated that hypothetical donations were significantly higher for ingroup members, $F(1,113) = 4.92$, $p = .028$, partial $\eta^2 = .042$ (supporting *Hypothesis 7.1*); with ingroup members receiving increased donation amounts compared to outgroup victims (see Table 15 below). However, the univariate effect of victim group on willingness to donate was not significant, $F(1,113) = .207$, $p = .650$, partial $\eta^2 = .002$ (see Table 15). The univariate effect of facial group on hypothetical donations or willingness to donate was not significant, $F(1,113) = .008$, $p = .931$, partial $\eta^2 < .001$ and, $F(1,113) = 2.09$, $p = .151$, partial $\eta^2 = .018$; respectively (not supporting *Hypothesis 7.2*). The univariate interaction was not significant for hypothetical donations, $F(1,113) = .546$, $p = .461$, partial $\eta^2 = .005$, or willingness to donate, $F(1,113) = 1.14$, $p = .286$, partial $\eta^2 = .010$ (not supporting *Hypothesis 7.3*).

Table 15

Effects of facial group and victim group membership on donation decisions (study 8)

	Ingroup victim	95% CI	Outgroup victim	95% CI	Marginals
Hypothetical donations					
Attractive face	$\$2.96_{a}$ (1.9)	2.2:3.6	$\$2.46_{a}$ (1.8)	1.8:3.0	$\$2.71_{a}$ (1.8)
Unattractive face	$\$3.17_{a}$ (1.9)	2.5:3.8	$\$2.19_{a}$ (1.3)	1.5:2.8	$\$2.68_{a}$ (1.6)
Marginals	$\$3.06_{a,b}$ (1.9)		$\$2.32_{a,b}$ (1.6)		
Willingness to donate					
Attractive face	5.51_{a} (1.0)	5.0:5.9	5.18_{a} (.99)	4.7:5.5	5.34_{a} (.99)
Unattractive face	4.97_{a} (1.2)	4.5:5.4	5.10_{a} (1.2)	4.6:5.5	5.03_{a} (1.2)
Marginals	5.24_{a} (1.1)		5.14_{a} (1.0)		

Note. Standard deviations in parentheses.

Items that share a subscript are significantly different at $p < .05$.

Effects of facial attractiveness group and victim group membership on empathy and victim identification

Empathy has been demonstrated to be an important helping mechanism in study 4; moreover, it is possible that attractiveness can influence empathic concern for the victim. Therefore, an exploratory analysis was conducted. Victim identification was also included, to assess whether group membership and attractiveness can affect victim identification. Therefore, the above analysis was repeated, but with empathy and victim identification as dependent variables.

The multivariate effect of facial group was marginal, *Pillai's Trace* = .043, $F(2,112) = 2.50$, $p = .087$, partial $\eta^2 = .043$. The multivariate test for victim group membership was not significant, *Pillai's Trace* = .004, $F(2,112) = .217$, $p = .805$, partial $\eta^2 = .004$. The multivariate interaction term was not significant, *Pillai's Trace* < .001, $F(2,112) = .020$, $p = .980$, partial $\eta^2 < .001$.

Empathy. Univariate tests indicated an effect of facial group on *empathy*, $F(1,113) = 4.56$, $p = .035$, partial $\eta^2 = .039$; with attractive victims receiving greater empathic concern than unattractive victims (see Table 16). In contrast to *Hypothesis 7.4.*, the effect of victim group membership on empathy was not significant, $F(1,113) = .425$, $p = .516$, partial $\eta^2 = .004$. The interaction was not significant, $F(1,113) = .007$, $p = .935$, partial $\eta^2 < .001$.

Victim identification. Facial group did not have a significant effect on *victim identification*, $F(1,113) = 1.24$, $p = .267$, partial $\eta^2 = .011$, nor did victim group membership, $F(1,113) = .059$, $p = .808$, partial $\eta^2 = .001$. The interaction was also not significant, $F(1,113) = .038$, $p = .845$, partial $\eta^2 < .001$.

Table 16

Effects of facial attraction and victim group on empathy, donor responsibility, and victim identification (Study 8)

	Ingroup victim	95% CI	Outgroup victim	95% CI	Marginals
Empathy					
Attractive	5.40_a (1.1)	4.9:5.8	5.25_a (1.0)	4.8:5.6	$5.32_{a,b}$ (1.0)
Unattractive	4.95_a (1.0)	4.5:5.3	4.83_a (1.2)	4.4:5.2	$4.89_{a,b}$ (1.1)
Marginals	5.17_a (1.0)		5.04_a (1.1)		
Victim identification					
Attractive	4.23_a (1.6)	3.5:4.8	4.09_a (1.5)	3.5:4.6	4.16_a (1.5)
Unattractive	3.82_a (1.6)	3.1:4.4	3.80_a (1.8)	3.2:4.4	3.81_a (1.7)
Marginals	4.02_a (1.6)		3.94_a (1.6)		

Note. Standard deviations in parentheses.
Items that share a subscript are significantly different at $p < .05$.

Multiple predictors of hypothetical donations and willingness to donate

A hierarchical multiple regression was conducted with *hypothetical donations* as the outcome variable and with empathy, donation effectiveness, donation impact, and victim identification as predictors. The experimental manipulations, facial attractiveness group and victim group membership, were entered in model 1 as control variables. Model 1 had marginal significance, $F(2,114) = 2.49$, $p = .087$, adjusted $R^2 = .025$. Facial group was not a significant predictor, $\beta = .048$, $t = .145$, $p = .885$. Victim group membership was a significant predictor, with ingroup victim membership positively predicting donation amount, $\beta = .742$, $t = 2.23$, $p = .027$. Model 2 was significant, $F(6,110) = 7.69$, $p < .001$, adjusted $R^2 = .257$. Moreover, model 2 was a significant improvement over model 1, $F_{change}(4,110) = 9.90$, $p < .001$. Empathy was positively related with donation amount, $\beta = .571$, $t = 3.29$, $p = .001$. Donation effectiveness was not a significant predictor, $\beta = .036$, $t = .190$, $p = .850$. Donation impact was not significant, $\beta = .225$, $t = 1.27$, $p = .204$; and nor was victim identification, $\beta = .053$, $t = .584$, $p = .560$.

The analysis was repeated with *willingness to donate* as the outcome variable. Model 1 was not significant, $F(2,114) = 1.01$, $p = .365$, adjusted $R^2 = .018$. As would have been expected on the basis of the MANOVA results, facial group was not a significant predictor of *willingness to donate*, $\beta = .291$, $t = 1.36$, $p = .175$; nor was victim group membership, $\beta = .094$, $t = .441$, $p = .660$. Model 2 was significant, $F(6,110) = 29.63$, $p < .001$, adjusted $R^2 = .597$. Moreover, model 2 was a significant improvement, $F_{change}(4,110) = 43.19$, $p < .001$. Empathy was positively related to *willingness to donate*, $\beta = .375$, $t = 4.62$, $p < .001$. Donation effectiveness was a significant predictor, $\beta = .243$, $t = 2.75$, $p = .007$. Donation impact was also significant,

β = .188, t = 2.28, p = .024. Victim identification was not significantly related, β = .025, t = .591, p = .556.

Discussion

The present study investigated whether facial attractiveness group and victim group membership would impact on donations towards a charitable appeal. Contrary to what was predicted by *Hypothesis 7.2.*, there was little effect of facial group on donation amount; however, in line with *Hypothesis 7.1.*, victim group membership did increase donations in the expected direction, with ingroup members benefitting from a shared group membership. This effect was notable for donation amount but not a measure that asked participants how willing they would be to help. Additionally, and in contrast to *Hypothesis 7.3.*, there were no significant interactions between the attractiveness of the victim and their group membership, despite mean levels being generally in the predicted directions.

Also contrary to what was predicted by *Hypothesis 7.4.*, there was no effect of victim membership on empathic concern for the victim. This may be due to the appeal failing to generate sufficient empathic concern, or it could be due to the online participant pool being less prosocial than expected. Both explanations are supported with the understanding that participants engaged in the study for small sums of money.

There were also a number of somewhat exploratory analyses in the present study. There was some evidence to suggest that attractive victims received greater empathy, and although this difference was small, it does suggest an area that may be worth future investigation. There was also little effect of either manipulation on victim identification. Although it is not surprising that facial attractiveness did not affect identification levels, one would expect victim group to have an effect, again

suggesting that the current study failed to generate the empathic concern needed. Finally, a number of predictors of helping were explored. Empathy was a strong predictor of both donation amount and willingness to help, while donation effectiveness and donation impact were significant predictors of willingness to help and not of donation amount. Victim identification was generally a poor predictor of helping in the present sample.

Study 9

Study 9 continues to investigate whether ingroup victims will benefit from increased prosociality *(Hypothesis 7.1)*, whether attractive victims will benefit from increased prosociality *(Hypothesis 7.2)*, and whether attractive ingroup members will inspire the highest levels of generosity *(Hypothesis 7.3).* Moreover, inclusion of an empathy measure again enabled me to also test *Hypothesis 7.4*., that ingroup victims would elicit more empathy. Study 9 also introduces a number of changes.

Firstly, the previous study raised concerns over the online sample used, so the present study uses a traditional student population tested in a laboratory setting. Additionally, the charity appeal now utilises the context of student depression, and refers to a genuine U.K. charity. These changes should hopefully render the charity appeal more relevant to the tested population, as well as more ecologically valid. Study 9 also makes a subtle change to the hypothetical donation measure. Whereas previous studies presented participants with a fixed donation amount, study 9 returns to the open response format first used in study 1. However, in order to avoid the inflated estimates that required a log transformation in study 1, the present study asks participants to contribute an amount of their choice towards a bake sale. This change again improves the validity of the appeal as bake sales are a common method of

soliciting donations in the U.K., while also allowing for a more variable open response format without the issues associated with strongly inflated estimates.

Study 9 also only uses one set of stimuli for male victims. As discussed in the literature in chapter 4, many of the positive effects of beauty on interpersonal helping were found in opposite-sex dyads, so the inclusion of so many same-sex pairings could at least partly explain the null findings in studies 7 and 8. Since the student participant pool is predominantly female, and since the sex of the stimuli is no longer varied, study 9 should benefit from increased power to detect an effect.

Finally, study 9 includes the same manipulation check measures of facial attraction, facial emotion, facial expression (neutral vs. otherwise), and facial neediness. Empathy, donation effectiveness, donation impact, and donation need were also included as exploratory predictors.

Method

Participants

Initially, one hundred and thirty-five undergraduate psychology students (this category was used as the ingroup in the study) participated for course credit. Four participants were excluded as they correctly guessed the purpose of one or more of the experimental manipulations when asked to do so at the end of the study. A further four participants were identified as outliers on the time spent reading the stimulus. More specifically, these four participants spent less than 9.65 seconds reading the charity poster and were identified as unusually quick based on interquartile ranges. Finally, a further ten participants were excluded for lack of attention reading the stimuli, specifically, failing to correctly answer the nationality of the victim in the charity appeal. This left a total of one hundred and seventeen participants (104 female,

13 male; M_{age} = 19.18, sd = 3.5). As noted in the introduction to study 9, the sample is predominantly female; this is a strength for the current design. The few male participants were not removed, however, as it is only presumed that most of the participants were heterosexual (this was not measured), and regardless, removal of these thirteen participants did not meaningfully alter any of the following results. Seventy-one of the participants identified as being of British nationality, with the remaining participants identifying with various world nationalities.

Procedure

Participants were invited to evaluate what was ostensibly a real charity campaign raising money for a male student with depression. Participants were then randomly assigned to one of four experimental conditions: facial attraction (attractive vs. unattractive) and group membership (ingroup psychology student vs. outgroup accounting student). Facial attraction was manipulated using the same averaged male stimuli faces as in the previous two studies. Participants saw a full screen portrait of Thomas and read that he was a psychology student or an accounting student who had developed depression during his course. They were told that Thomas felt suicidal at one point, but that he contacted an organisation called Students Against Depression, which is in fact a genuine U.K. registered charity. The appeal asked for money to help students like Thomas (see appendix I).

Measures

Hypothetical donations were measured by asking participants how much they would contribute towards a hypothetical bake sale in an open response format. Such events are common in the UK, where participants receive a small good in exchange for making a donation towards a charitable cause. Unlike in study 1, it was not necessary to perform a log transformation on this measure, as it did not suffer from

huge inflated estimates. This is likely due to the open response amount being linked to a consumable good that has a fairly circumscribed value (most people have some idea, for example, what they would pay for a piece of cake in a café).

Willingness to donate and *empathy* were identical measures to those used in the previous study, except that they now referred to Thomas and psychology/accounting students with depression, new alphas α = .78 and α = .86; respectively.

Donation effectiveness, donation impact, and *donation need* were measured with the same single items as used in previous studies. The present study also measured strength of *identification* as a psychology student which was taken before the experimental manipulation, 'I strongly identify with being a RHUL student', 'Being a psychology student is important to me', and, 'I feel that I have much in common with psychology students'; α = .80.

As in the previous study, participants were then asked to answer items related to the model used in the charity appeal. *Facial attractiveness* was again measured using the same two items as in previous studies; α = 89. The same single items as in the previous study were included to measure *facial emotion, facial expression,* and *facial neediness*.

Results

Bivariate correlations are presented below in Table 17. All predictors were significant predictors of each other, $p < .05$, with the exception that donation effectiveness was not related to hypothetical donation amount.

Table 17
Zero order correlations (Study 9)

		1.	2.	3.	4.	5.	6.
1.	Hypothetical donation						
2.	Willingness to donate	.303**					
3.	Empathy	.251**	.670**				
4.	Donation effectiveness	.169	.557**	.492**			
5.	Donation impact	.223*	.539**	.470**	.721**		
6.	Donation need	.189*	.398**	.483**	.392**	.317**	
7.	Group identification	.207*	.321**	.207*	.381**	.327**	.394**

*Note. ** p < .001. * p < .05.*

Manipulation check

Independent t-tests were conducted to determine if the facial stimuli differed on key measures. More averaged faces were again seen as more attractive (m = 5.06, sd = 1.0) compared to less average faces (m = 3.19, sd = 1.2), $t(115) = -8.81$, $p < .001$. However, unlike in studies 7 & 8, there were some differences on other facial measures. Attractive faces were seen as less negatively emotional (m = 2.75, sd = 1.4) than unattractive faces (m = 3.95, sd = 2.0), $t(115) = 3.65$, $p < .001$. Attractive faces were also seen as more expressive (m = 5.76, sd = .83) than unattractive faces (m = 5.09, sd = 1.5), $t(115) = -2.87$, $p = .005$. Similar to study 8, there was a tendency to view unattractive faces as needier (m = 3.38, sd = 1.4) compared to attractive faces (m = 2.70, sd = 1.3), $t(115) = 2.31$, $p = .022$. Overall, these results suggest that the facial manipulation was successful. Although there were differences between attractive and unattractive faces on facial emotion and perceived neediness, ratings for both were below the mid-point range, suggesting that neither face was perceived as being particularly emotional or needy. Facial expression was above the mid-point range, but

for both groups. Finally, there was little difference between facial attractiveness ratings for ingroup and outgroup victims, $t(115) = -.213$, $p = .832$.

The effect of facial attractiveness group and victim group membership on hypothetical donations and willingness to donate

A 2 (facial group attractiveness: attractive vs. unattractive) x 2 (victim group membership: ingroup vs. outgroup) multivariate analysis of variance (MANOVA) was conducted, with *hypothetical donations* and *willingness to donate* as the dependent variables. The following results are reported with strength of identification as a psychology student as a covariate; however, the analysis was also run without the covariate, and there were no significant differences with the results reported below. Similarly, all of the following analyses were repeated with perceived level of neediness as a covariate; however, unlike in study 7, perceived facial need was not a significant covariate for either *hypothetical donations*, $p = .957$, nor for *willingness to donate*, $p = .448$.

The multivariate effect of the covariate was significant, *Pillai's Trace* = .116, $F(2,109) = 7.11$, $p < .001$, partial $\eta^2 = .116$. However, the multivariate test for facial group was not significant, *Pillai's Trace* = .029, $F(2,109) = 1.64$, $p = .198$, partial $\eta^2 = .029$; nor was the multivariate test of victim group membership significant, *Pillai's Trace* = .013, $F(2,109) = .719$, $p = .490$, partial $\eta^2 = .013$. The interaction term was close to significance, *Pillai's Trace* = .051, $F(2,109) = 2.94$, $p = .057$, partial $\eta^2 = .051$. These results indicate that there was little effect of facial group or victim group on both hypothetical donations and willingness to donate (not supporting *Hypotheses 7.1 & 7.2)*, although there was a marginal interaction effect *(Hypothesis 7.3)*. Univariate tests were next inspected (see Table 18).

Hypothetical donations. Although identification was a significant covariate, $F(1,110) = 5.32$, $p = .023$, partial $\eta^2 = .046$, there were no significant effects of facial group, $F(1,110) = 1.65$, $p = .201$, partial $\eta^2 = .015$. Victim group was also not significant, $F(1,110) = 1.42$, $p = .235$, partial $\eta^2 = .013$. There was, however, a significant interaction between facial group and victim group, $F(1,110) = 4.33$, $p = .040$, partial $\eta^2 = .038$. Pairwise comparisons with a Bonferroni adjustment indicated that attractive faces encouraged greater donation amounts when they belonged to ingroup victims compared to outgroup victims, $p = .031$. Tested differently, attractive ingroup members resulted in increased donations compared to unattractive ingroup members, $p = .029$. This pattern of results is in line with *Hypothesis 7.3.*, in that attractive ingroup members clearly elicited the most donations.

Willingness to donate. Identification was again a significant covariate, $F(1,110) = 12.29$, $p = .001$, partial $\eta^2 = .101$. Facial group was not significant, $F(1,110) = 2.49$, $p = .117$, partial $\eta^2 = .022$. Victim group was not significant, $F(1,110) = .216$, $p = .643$, partial $\eta^2 = .002$; and, the interaction was not significant, $F(1,110) = .465$, $p = .497$, partial $\eta^2 = .004$.

Table 18

The effects of facial attractiveness and victim group on donation decisions (study 9)

	Ingroup victim	95% CI	Outgroup victim	95% CI	Marginals
Hypothetical donations					
Attractive	£2.83$_{a}$ (2.3)	2.2:3.4	£1.93$_{b}$ (.99)	1.4:2.4	£2.38$_{a,b}$ (1.6)
Unattractive	£1.91$_{b}$ (1.3)	1.3:2.4	£2.14$_{a,b}$ (1.3)	1.6:2.6	£2.02$_{a,b}$ (1.3)
Marginals	£2.37$_{a,b}$ (1.8)		£2.03$_{a,b}$ (1.1)		
Willingness to donate					
Attractive	5.39$_{a}$ (1.4)	5.0:5.9	5.44$_{a}$ (.90)	4.7:5.5	5.41$_{a}$ (1.1)
Unattractive	5.23$_{a}$ (.78)	4.5:5.4	5.00$_{a}$ (1.0)	4.6:5.5	5.11$_{a}$ (.89)
Marginals	5.31$_{a}$ (1.0)		5.22$_{a}$ (.95)		

Note. Standard deviations in parentheses.

Items that do not share a subscript are significantly different at $p < .05$.

Effects of facial attractiveness group and victim group membership on empathy

The above analyses were repeated but with *empathy* as the dependent variable. Means are displayed in Table 19. Group identification was a significant covariate for *empathy*, $F(1,112) = 5.14$, $p = .025$, partial $\eta^2 = .044$. Facial group was not significant, $F(1,112) = .367$, $p = .546$, partial $\eta^2 = .003$; nor was victim group, $F(1,112) = 1.85$, $p = .176$, partial $\eta^2 = .016$. The interaction was not significant, $F(1,112) = .160$, $p = .690$, partial $\eta^2 = .001$. These results contradict *Hypothesis 7.4.*, which had predicted at least an effect of the victim group membership manipulation on empathy. As in the previous set of analyses, removal of the covariate did not alter the significance levels of the above results.

Table 19

The effects of facial attractiveness and victim group on empathy (study 9)

	Ingroup victim	95% CI	Outgroup victim	95% CI	Marginals
Empathy					
Attractive	5.29_a (1.1)	4.8:5.7	5.11_a (1.0)	4.7:5.2	5.20_a (1.0)
Unattractive	5.24_a (.80)	4.8:5.6	4.91_a (1.0)	4.5:5.2	5.07_a (.90)
Marginals	5.26_a (.95)		5.01_a (1.0)		

Note. Standard deviations in parentheses.

Items that do not share a subscript are significantly different at $p < .05$.

Multiple predictors of hypothetical donations and willingness to donate

A hierarchical multiple regression was conducted with *hypothetical donations* as the outcome variable and with empathy, donation effectiveness, donation impact, and donation need as predictors. The experimental manipulations facial attractiveness and victim group membership were entered in model 1 as control variables. Model 1 was not significant, $F(2,112) = .856$, $p = .427$, adjusted $R^2 = -.003$. Neither facial group, $\beta = .267$, $t = .943$, $p = .348$, nor victim group, $\beta = .265$, $t = .931$, $p = .354$, were significant. Model 2 had marginal significance, $F(7,107) = 1.82$, $p = .090$, adjusted $R^2 = .048$, and was an improvement (albeit a non-significant improvement) over model 1, $F_{change}(5,107) = 2.19$, $p = .060$. Empathy was not a significant predictor, $\beta = .249$, $t = 1.45$, $p = .148$. Donation effectiveness was not significant, $\beta = -.131$, $t = -.729$, $p = .467$. Donation impact was not significant, $\beta = .155$, $t = 1.02$, $p = .308$. The perceived need for a donation was not significant, $\beta = .074$, $t = .415$, $p = .679$. Finally, group identification was not significant, $\beta = .261$, $t = 1.40$, $p = .163$.

The above analysis was repeated with *willingness to donate* as the outcome variable. Model 1 was not significant, $F(2,114) = 1.44$, $p = .239$, adjusted $R^2 = .008$.

Facial attractiveness was not a significant predictor, $\beta = .321$, $t = 1.65$, $p = .100$; and victim group membership was not a significant predictor, $\beta = .081$, $t = .420$, $p = .675$. Model 2 was significant, $F(7,109) = 18.95$, $p < .001$, adjusted $R^2 = .520$. Model 2 was a significant improvement over model 1, $F_{change}(5,109) = 25.33$, $p < .001$. Empathy was a significant predictor, $\beta = .512$, $t = 6.07$, $p < .001$. Donation effectiveness was not significant, $\beta = .128$, $t = 1.49$, $p = .139$. Donation impact was not significant, $\beta = .119$, $t = 1.61$, $p = .109$. Donation need was not significantly correlated, $\beta = .128$, $t = 1.43$, $p = .154$. Finally, group identification was not significant, $\beta = .128$, $t = 1.43$, $p = .154$.

Discussion

The present study continued the investigation of the possible effects of facial attractiveness and group membership on charitable donations. Unlike the previous two studies however, and in part due to the null findings in these previous studies, study 9 utilised a more traditional student sample tested in an experimental laboratory rather than online. The use of a student sample was also purposeful in that an attempt was made to increase the similarity of the participants with the victim in the charity appeal.

Contrary to *Hypotheses 7.1 and 7.2*, the main effects of facial attraction and victim group were not significant; however, in line with *Hypothesis 7.3*., the interaction between the two factors had a significant effect on prosociality. Attractive ingroup members benefitted from increased donation amounts compared to unattractive ingroup members, and attractive ingroup members also received greater donations compared to attractive outgroup members. These results are consistent with the theoretical argument made in the introduction to this chapter that attractive ingroup

members will benefit the most from prosociality. Last but not least, once again no support was found for ingroup membership status of the victims affecting empathy (contradicting *Hypothesis 7.4*.).

There were a number of changes to the current study that could help to explain the difference in the current findings from the previous study. One explanation is the change to a student population testing in a laboratory, raising questions over the quality of the data in the previous online studies. Numerous researchers have justified the use of online samples (Buhrmester et al., 2011; Goodman et al., 2013; Riva, Teruzzi, & Anolli, 2003). Online data collection even has the advantage of being associated with less social desirability bias (Evans, Garcia, Garcia, & Baron, 2003), and researchers have stressed the importance of accounting for desirability bias in charity research (Lee & Woodliffe, 2010). Given this background, I attempted to utilise online tools in good faith. However, at least for my samples, the online data obtained was possibly considerably noisier than data obtained with more traditional means. The necessity of a strong salient group membership, something that may be amplified in the presence of a researcher or other participants, may make laboratory settings more suitable in some cases.

The change to a student population may also have resulted in increased similarity with the victim and increased relevance of the charity appeal. The present study also switched from a general hypothetical question of prosociality (how much would you like to donate?) to a more specific question (how much would you donate in a charity bake sale?). This change may have resulted in a more sensitive measure that also has more applied value. Although this latter measure could be partly criticised for anchoring the donation decision to the sale of a product, the use of an

open response format did allow for increased variability while preventing highly inflated donation estimates.

General Discussion

The current chapter consisted of three experimental studies. Each investigated the role of facial attractiveness and donation amount towards a charitable appeal. Although many of the hypotheses were not supported across the studies, overall, the pattern of means across the three studies, and the marginally significant interaction results in study 9, were promising. These patterns suggest that facial attraction may well impact upon helping behaviour in an intergroup context.

No significant support was found for the prediction that attractiveness stimulates donations (*Hypothesis 7.2*., not supported in studies 7, 8, 9); and that ingroup membership of the victims will enhance empathic reactions (*Hypothesis 7.4*., no support in studies 8 and 9). Support for the prediction that ingroup victim status will impact positively on donation proclivity was mixed (*Hypothesis 7.1*., supported in study 8 but not study 9). Finally, evidence that the effect of attractiveness on donations will be moderated by ingroup/outgroup status of the victims was also mixed (*Hypothesis 7.3*, not supported in study 8, but supported in study 9).

Unfortunately, despite interesting mean levels that were often in the predicted direction, many of the effect sizes were too small to pass conventional null hypothesis significance testing (NHST). There are however a number of criticisms with regards to NHST, leading to suggestions that this dichotomous approach is outdated (Fidler & Loftus, 2009; Nickerson, 2000; Trafimow & Marks, 2015). Therefore, the pattern of results does not entirely rule out the effect of beauty on prosociality.

It may be worth considering why the effect sizes in the current studies were not larger. It could be the case that, despite evidence provided by previous research, attraction effects have very small effect sizes. However, there are alternative explanations that bear consideration. First, it may be that prosocial effects of attraction are more likely to manifest in a face-to-face context where the attractive other is physically present. This does not suggest that effects of beauty on prosociality cannot be obtained via the use of photographs, but it does suggest that effect sizes would be larger if the attractive person was physically present. This argument is consistent with previous findings that found the anticipation of socially interacting with the attractive target to drive the positive effect of beauty on interpersonal helping (Agthe et al., 2011; Nadler et al., 1982). Attraction is, after all, presumably linked to sexual selection (Grammer et al., 2003), and any such effects would be stronger in a face-to-face contact. This would suggest that physical attraction plays less of a role in situations where there is no direct contact between helper and helpee, for example on charity appeals. Future research could explore this possibility.

A further consideration relates to the halo effect introduced in chapter 4. One of the key overall findings presented in chapter 4 is that attractive faces are typically viewed as more competent, successful, and more intelligent (Nisbett & Wilson, 1977). Attractiveness may not translate into increased helping if attractive others are seen to be more competent and socially successful. For example, if we want to help others who are less well off, and the target of help is physically attractive, then this could have a deleterious effect since attractive others are perceived to be more successful (Dion, Berscheid, & Walster, 1972; Eagly et al., 1991). Moreover, it has already been established that physical attractiveness is linked to erroneous perceptions of superior health (Kalick et al., 1998), therefore attractive others may be seen as less needy.

A third reason is related to the positive dimensions that relate to the halo effect. Attractive others are seen as more intelligent, successful, socially competent, and gifted (Nisbett, 1980), but they are not seen as being necessarily kinder, less selfish, or more prosocial; in fact, there may be an argument for the opposite. Price, Brown, Dukes and Kang (2015) argue that an evolutionary approach would suggest that there would be less incentive for attractive others to behave fairly and prosocially, mainly due to their ability to find mating partners more easily. They found that 3D scans of attractive body shapes were perceived by others as being less fair and egalitarian in imagined situations, and moreover, that attractive males were indeed less fair in a dictator game. If one also considers that prosociality is often linked to reciprocity and cooperation in both psychology and experimental economics (Holmes, Miller, & Lerner, 2002; Milinski et al., 2002), then donors might be less likely to help attractive others if they believe them to be inherently more selfish. This reasoning is consistent with reciprocal altruism theory (Trivers, 1971; Webster, 2003); after all, why help someone who is extremely beautiful but unlikely to return the favour?

A more practical explanation for the present findings could relate to the type of charitable appeal, and the type of poster used to solicit donations across the three studies. The use of a poster, particularly in a non-disaster context, may be subject to reduced variability in donation amount, where participants feel that a small donation (e.g. £3 or under) is sufficient. Although this explanation is speculative, it is reasonable to assume that different types of charitable appeals will attract different levels of mean donation amounts. The current charitable appeal used a poster format that is consistent with text appeals in public locations, where commuters (at least in the U.K.) are often asked to text a number to make a small set donation amount. If the

stimulus in the present study reminded participants of a text appeal, then it could explain why donation amounts were consistently low across all conditions.

Finally, given that across the three studies average ratings of attraction for the unattractive faces were at the midpoint level, it is more accurate to say that the present studies examined the difference between attractive and 'normal' faces. Future researchers interested in the effects of facial attraction in an intergroup context may benefit from using more unattractive stimuli; particularly as such stimuli may have more profound effects for outgroup members. Overall, the results provided little support for the hypotheses in studies 7 – 9, but they did not entirely disconfirm them either, with a pattern of results that suggests there might be a relationship between physical beauty and group membership in a prosocial context, which potentially could be teased out by further refining the methodology used in the current studies.

Chapter Eight

Discussion Chapter

The current research programme consisted of nine empirical studies that measured donation decisions where a group membership was salient. Research has highlighted the importance of group identities in contexts that relate to helping (Brewer, 1999; Hopkins et al., 2007; van Leeuwen & Mashuri, 2012; van Leeuwen, 2007; Levine, Cassidy, Brazier, & Reicher, 2002; Levine, Cassidy, & Jentzsch, 2010; Levine, Prosser, Evans, & Reicher, 2005; Levine & Thompson, 2004; van Leeuwen & Tauber, 2012; van Leeuwen, van Dijk, & Kaynak, 2013). In doing so, these researchers, and others, have strongly implicated the role that a social identity approach may play in prosocial behaviour (Tajfel, Billig, Bundy, & Flament, 1971). The present research programme continues this tradition by investigating a number of factors that may pertain to group memberships and charitable helping. A novel contribution was made by investigating how the group membership of the perpetrator affected donation decisions for a charitable appeal (studies 1–4). Moreover, group memberships were considered alongside manipulation of reasoning style (studies 5–6), and alongside manipulation of the facial attractiveness of the victim (studies 7–9). Overall, the results suggest that group memberships can and do play a role in determining prosociality; although the more novel aspects of the current studies did not always interact with group memberships as expected.

The remainder of the current chapter provides an overview of the main results for the hypotheses in each study, a summary of the main discussion points surrounding these predictions is provided (with elaboration in some places), and ends with more

general points that are relevant to the hypotheses across the entire thesis. There then follows a discussion of the general strengths and weaknesses of the current research programme, as well as alternative avenues for future research to explore which were interesting but outside the scope of this thesis.

Overview of key findings

Study 1

In study 1 I manipulated the group membership of the perpetrator (which I defined as the person/s held at fault) in a vivid disaster scenario. Participants were told of a plane crash that killed hundreds of victims which was either the fault of an airline belonging to their country, to the victims' country, or to a neighbouring country (third-party). Participants were asked to imagine the scenario without description of the countries involved and without knowledge of any country names. This paradigm allowed the experiment to focus participants on a category relationship (e.g. donor-perpetrator, or victim-perpetrator) in order to examine whether mere category activation could influence donation decisions.

Study 1 found increased prosociality when the donor-perpetrator relationship was made salient, supporting *Hypothesis 5.1*, but the difference was only significant in comparison to the third-party condition where the perpetrator was related to a neighbouring country. This is somewhat illogical, as one may expect donors to attribute increased levels of victim blame if the victim and perpetrator share a salient group membership. However, the findings from study 1 suggested that donors were less prosocial when a third-party outgroup was involved. Admittedly, this interpretation is made tentatively, given that the difference in mean donation amounts between victim-perpetrator and third-party perpetrator was not significant.

Study 2

In study 2, I attempted to replicate the results of study 1, but in a military context. A further aim of study 2 was to include measures of empathy and donor responsibility in order to better understand the processes underlying donation decisions. Contrary to *Hypothesis 5.1*, study 2 did not replicate the perpetrator bias effect, and contrary to *Hypothesis 5.4*, a shared perpetrator group membership did not affect responsibility to help victims in need.

Several possible explanations for the null findings were presented. Firstly, the framing of the disaster scenario may have played a role, as the scenario presented was less vivid than in study 1. Nisbett & Ross (1980) proposed that people are more influenced by vivid and concrete scenarios than abstract or pallid ones. Although evidence for the vividness effect is mixed (Taylor & Thompson, 1982), more recently there has been evidence that vividness can play a role if the message or image is congruent to the task presented to participants (Smith & Shaffer, 2000). Moreover, this has been demonstrated in the context of charitable appeals, particularly when the appeal and vivid image are both negative, and when a smaller number of victims are involved (Chang & Lee, 2010). If this is true, then it could be the case that the vivid and highly negative scenario of a plane crash that affected a few hundred victims may have been easier for participants to visualise, and it might thereby have been more vivid and influential, than the more abstract incident of military action being taken in another country.

Another explanation for the null findings of study 2 may be linked to perceived threat. It may be that participants felt that the military incursion was justified due to the threat of chemical warfare that was specified in the disaster appeal. This interpretation would be in line with research that has found increased anxiety and

negative attitudes towards outgroup members when the ingroup is perceived to be threatened (e.g. threats to the group's core values or threats relating to resources and power) (Stephan, Ybarra, Martinez, Schwarzwald, & Tur-Kaspa, 1998).

It is also possible that participants felt little individual responsibility due to the framing of the military context, which they may have perceived as falling under the jurisdiction of politicians rather than charities. To investigate this possibility, I conducted post hoc analyses on donor responsibility attributions, and found differing levels of responsibility attributions for individuals compared to the victims involved or the state. Individual donor responsibility to help was notably at a mid-point level, with donors indicating that a greater amount of responsibility to help lay with the government and/or the victims directly involved. While the former attribution is perhaps unsurprising, it is interesting that individual donor responsibility to help was lowest when a third-party was implicated, and that victims were held responsible for their plight even when those victims were not related to the perpetrator. These results (admittedly post hoc and thereby made tentatively) suggest that the findings in study 1, where a third-party outgroup perpetrator resulted in low donation amounts, may indeed be indicative of a systematic effect.

Finally, I think it worthwhile to note that there was a degree of intentionality implied in the study 2 context that was not present in study 1. Intentionality has been linked to less favourable attributions (Lagnado & Channon, 2008), and a focus on intentionality has been shown to affect attributions of harm relating to a charitable aid (Ames & Fiske, 2013). Therefore, if participants perceived the context of study 2 to be intentional, as opposed to accidental or due to incompetence as in study 1, then this may at least partly explain the differing results.

Study 3

Study 3 was again a replication of the perpetrator design in studies 1 and 2, however, a number of changes were made. While I consider the abstract nature of the previous studies a strength, it is also true that abstract designs are more difficult for participants to visualise. Therefore, whereas the previous studies used abstract language without country names, study 3 provided names of the countries involved. In order to broaden the target population, study 3 also switched to an adult online population recruited via MTurk. Finally, I changed the context of the appeal to an environmental oil spill, as the framing of the disaster appeal may have played an important role in the null findings in the previous study. Study 3 again did not replicate the effects in study 1 *(Hypothesis 5.1)* and, if anything, the pattern of means in study 3 suggested lower levels of prosociality when the donor-perpetrator relationship was salient. However, empathy was a strong predictor of helping, and was mediated by a sense of responsibility to help the victims *(Hypothesis 5.6).*

In discussing these findings, I noted in both studies 2 and 3 (which had null effects) that the perpetrator was assigned to a large group (the government in study 2 and an international company in study 3), but in study 1 the perpetrator may have been visualised as a person (the pilot). Although the airline was mentioned to be at fault in study 1, this was done briefly, and it is possible that participants may not have focused on the organisation behind the plane crash. It may be that the effects of a salient perpetrator group are somewhat negated in the context of a group level organisation.

Moreover, although I varied the context in study 3, in hindsight framing the appeal as an environmental oil spill may not have been an optimal strategy. A small scale pilot (approx. N = 20) suggested that participants were not reminded of tragic events such as the Gulf of Mexico oil spill, but there are other reasons why the environmental context may have been inappropriate. Perpetrator attributions, and

effects that may pertain to guilt and donor responsibility, are likely to require human involvement and human victims. In study 3, although people were described as victims, it was also the case that emphasis was placed on the damage to local wildlife and to the environment, and these categories cannot be easily assigned to a distinct group membership. Therefore, the processes which were involved in perpetrator group membership affecting donation decisions in study 1 may not have been activated in the environmental context of study 3.

Finally, study 3 also raised concern over the use of an online sample that was incentivised by monetary payments. Paying participants may impact upon their donation amount by making them less prosocial (Vohs et al., 2006, 2008), or even by anchoring their donation decisions, although the anchoring effect has been shown to be most influential when the anchor is provided by a group member (Hysenbelli et al., 2013).

Study 4

Study 4 was the final study to investigate the effects of perpetrator group membership; but it did so in a 2 by 2 design that included victim group membership. Victim helping has been related to emotions such as empathy (Stürmer et al., 2006, 2005), while perpetrator effects have been linked to a negative emotions such as guilt that may activate norms pertaining to fairness and responsibility to help (Basil et al., 2006; Brown et al., 2008; Harvey & Oswald, 2000; Wohl & Branscombe, 2005). I tested the prediction that a salient perpetrator group and a salient victim group could interact to affect donation amounts. Finally, in keeping with the concerns I have previously raised over the context of the appeal, study 4 returned to a vivid crash scenario, this time a coach crash. Moreover, although the appeal placed some fault with the driver's country of origin due to poor driving licence regulations, it is also

true that the focus of the appeal was placed on the driver of the coach and their recklessness.

Study 4 found donation decisions to be driven by ingroup bias *(Hypothesis 5.2),* and also found the predicted interaction between perpetrator group and victim group *(Hypothesis 5.3).* One might expect participants to feel more responsible when the perpetrator was from their own country and when the victim was from a different country, but this was not the case. Participants felt most inclined to help when both perpetrator and victim were from their own country and thereby related to them. Analyses of empathy and responsibility suggested that both of these variables were higher when the perpetrator and victim belonged to the ingroup country, and both variables were implicated in the underlying processes driving the effect on donations. Donor responsibility also mediated the effect of empathy, which was itself again a significant predictor of helping *(Hypothesis 5.6).* These findings support the important role that group memberships play in affecting prosociality. Moreover, they also suggest that different group memberships (in this case victim and perpetrator) can be made salient simultaneously, and that doing so can result in an interaction.

Study 5

In order to further understand the processes that lie behind helping effects due to a salient group membership, I next conducted a study that manipulated how participants reason about donation decisions. In study 5, participants were primed to either a fast intuitive reasoning style where they went with their instinct, or a slower analytical reasoning style which was more deliberate. They then read of a flood disaster that occurred in either their own country or elsewhere in Europe. Although I reasoned that intuitive and deliberate thinking styles would lead to different donation decisions, I was also interested in whether these reasoning styles would interact with

a salient group membership. I predicted that intuitive thinking styles would benefit ingroup victims, while deliberate styles would be less influenced by group memberships.

Study 5 found main effects of group membership and reasoning style on donation decisions. Ingroup members received higher amounts supporting *Hypothesis 6.1* (which was *Hypothesis 5.2* in the previous study), and participants primed to a deliberate style also donated higher amounts. There was no interaction, suggesting that the two effects influence donation decisions relatively independently of each other (although I will discuss reasons shortly as to why this conclusion may be unfounded). The demonstration of an ingroup bias that led to higher donation amounts was predicted, interestingly however, a deliberate reasoning style has largely been linked with deleterious effects on prosociality (Dickert et al., 2011; Small et al., 2007), rather than the positive direction found in study 5.

Small and colleagues have suggested that an intuitive reasoning style is more closely related to affective caring responses (e.g. empathy), while a deliberate style is more likely to lead to a more callous (albeit efficient and perhaps even utilitarian) response. I argued that the positive effect of deliberate reasoning on donation decisions in study 5 was likely due to the targets of help being presented as statistical victims, whereas much of the research previously cited utilised the context of identifiable victims. Small and colleagues did compare statistical victims to identifiable victims in one study, alongside an intuitive or deliberate prime manipulation, and found a null effect of deliberate priming on statistical victims (Small et al., 2007). However, it is worth noting that in their data mean donation levels were slightly higher for statistical victims after a deliberate prime, although the difference was not significant. In the present thesis, study 5 did find a significant difference in

this direction, suggesting that researchers should not automatically accept the conclusion that priming rationality leads to less caring. It would seem that the context matters, or at the very least, how the target of help is framed.

Finally, with regards to the lack of an interaction, I noted that there was a null effect of victim group on empathy levels (not supporting *Hypothesis 6.2* (or *Hypothesis 5.5* in chapter 5)), and also that there was a null effect of reasoning prime on empathy (not supporting *Hypothesis 5.3*). Since empathy is heavily implicated in ingroup helping (see chapter 2), I predicted that reasoning style might affect empathy, and thereby interact with group membership. Specifically, I predicted that an intuitive reasoning style would lead to increased empathic responses, since this reasoning style would encourage participants to trust their feelings, and since empathic concern for victims is considered an affective response that leads to negative arousal that in turn leads to helping (Batson & Shaw, 1991; Toi & Batson, 1982). The operationalisation of empathy in this thesis measured feelings of concern and distress towards the target, and I reasoned that these feelings would be more accessible and perhaps even amplified in individuals who were primed to trust their intuition and 'gut' feelings. By contrast, a deliberate reasoning style should inhibit the tendency to trust one's feelings since Type 2 reasoning styles have been shown to inhibit Type 1 responses (Greene, et al., 2004; Lieberman, 2009). Presumably, a Type 2 reasoning style leads to a more calculated response that is more detached, and this is relevant as past researchers have manipulated detachment as method of indirectly manipulating empathy (study 1: Toi & Batson, 1982).

Based on dual-process theories of reasoning, and in particular the Type 1/Type 2 approach adopted by Evans and colleagues (Evans, 2003; Frankish & Evans, 2009), I consider the intuitive reasoning prime used in study 5 to be a Type 1 form of

cognition, while the deliberate prime to be a Type 2 process. Evans (2007) has stressed that it is intuition and feeling that truly demarcates Type 1 processes from Type 2. I reasoned that participants exposed to a charity appeal, and primed to trust their instincts, would accept the default response to help their ingroup, with this gut response perhaps socially learnt at an early age (see chapter 2). However, the distinction between Type 1 and Type 2 processing may be most evident in situations where complex information is presented, and where Type 1 reasoning is able to draw upon various cues and associations to reach what feels like, to the individual at least, a gut feeling or intuition. In hindsight, I am unconvinced that the flood scenario used in study 5 contained enough complex information to observe an interaction. If the scenario presented had been more complex (e.g. due to the level of statistical information provided, or due to the scenario presented as a dilemma related to helping), then perhaps participants primed to trust their instincts might well have focused upon group membership in order to navigate what they perceived to be a challenging decision.

Finally, there may be a simpler explanation to explain the null interaction. It may be the case that the scenario in study 5 was unable to generate sufficient levels of genuine empathic concern and distress. As I have already discussed (see chapter 3), one of the key characteristics of a Type 2 deliberate thinking style would be the ability to inhibit an automatic response (be it a heuristic or a Type 1 intuition). If empathy levels were not sufficiently generated in study 5, then this could result in a null interaction, since a deliberate reasoning style would not have an intuitive response (in this case empathic concern for the victims) to inhibit.

Study 6

In study 6 I used the same scenario as before, and continued to investigate reasoning prime effects. Instead of manipulating group membership, I instead manipulated anonymity, i.e. whether donation decisions were public or private. I kept the target of help as statistical victims, as there is already much research on identifiable victims (Genevsky et al., 2013; Hsee et al., 2013; Jenni & Loewenstein, 1997; Kogut & Kogut, 2013; Kogut & Ritov, 2007), and also it was the finding for statistical victims that was novel in the previous study. Moreover, the manipulation of anonymity has been demonstrated to be an effective way of assessing reputational effects in donation behaviour (Alpizar et al., 2008; Bereczkei et al., 2007; Feinberg, Willer, Stellar, & Keltner, 2012; Haley & Fessler, 2005; Milinski et al., 2002; Reyniers, 2013). The manipulation of anonymity offers a practical method of affecting reputational concerns while avoiding the obvious problem of social desirability bias. In study 6, I combined an anonymity manipulation with a reasoning style manipulation. In doing so I wished to explore whether reasoning style would interact with reputational concerns and thereby affect donation decisions. Study 6 failed to replicate the reasoning prime effects in study 5. Surprisingly, there was a null effect of the anonymity manipulation (contrary to *Hypothesis 6.5*), and there was again a null interaction between reasoning style and anonymity (contrary to *Hypothesis 6.6*).

It is difficult to reconcile the lack of an effect of anonymity with previous findings (e.g. Alpizar et al., 2008; Haley & Fessler, 2005; Reyniers, 2013). However, it could simply be the case that the anonymity manipulation in study 6 did not have sufficient strength to generate reputational concerns. I assumed that many of the student participants would care about presenting a positive donation decision before other students, but I may have been mistaken. Even more likely, I suspect that the default response when reading about a charitable appeal overseas is to *not* help. If this

is true, then participants were already demonstrating a reputational effect by upping their donation decision from £0 (which would be the default response) to around £2-£4. Why would students up their donation decision even in an anonymous condition? This may happen if student participants are conscious of taking part in an experiment in their department (they were), or if they had reason to care about the impression they gave to the researcher (who was a member of staff), or if they did not feel that the experiment was truly anonymous (they were batch tested in a laboratory), of if they knew that their data would be analysed for helping responses despite being anonymous (they were aware of this). If these are valid concerns, then donation decisions were already affected by reputational concerns, and this would explain why there was no further effect of the anonymity manipulation.

Study 7

In study 7 I wanted to continue to investigate factors that may interact with a salient group membership or otherwise influence how donors reason when solicited for a charitable appeal. I also wished to frame victims as identifiable for the first time. Previously, researchers have demonstrated that physical beauty can affect interpersonal helping behaviour, and I reasoned that this effect would be more demonstrable in the context of an identifiable victim. Therefore, in study 7 I investigated whether beauty would increase donation decisions to a charitable appeal by manipulating the facial attractiveness of an identifiable victim. Male and female participants randomly saw an attractive or unattractive face of either gender and were asked to make a donation decision, as well as rate the stimuli on facial attributes that may explain helping effects, e.g. facial emotion.

Results indicated that the manipulation was successful, but *Hypothesis 7.2* was not supported as there was little effect of facial beauty on donation decisions.

Moreover, the pattern of results was unexpected, with male participants donating more to an unattractive male victim, and female participants donating more to an attractive female victim. Previous researchers have found helping effects due to physical attraction to be stronger in opposite-sex dyads (Maria Agthe et al., 2011; Nadler et al., 1982), presumably due to most participants identifying as heterosexual and wanting to impress and/or help a healthy potential mate (Grammer et al., 2003). However, Agthe and colleagues have suggested that the effect is due to higher levels of self-threat when one is asked to help an attractive victim of the same-sex, with self-esteem moderating the effect of beauty on same-sex helping behaviour (Agthe, Sporrle, & Maner, 2010).

Finally, I noted that the online sample used may have had little in common with the younger victims on the charity poster, and that the average age of the sample was older than the young persons depicted in the appeal. This may be important, as similarity has been linked with prosociality in a number of studies (Bal & van den Bos, 2010; Chandler et al., 2008; DeBruine, 2002; Jones, Pelham, Carvallo, & Mirenberg, 2004; Mackinnon, Jordan, & Wilson, 2011), and if participants felt little similarity with the victim, or little relevance of the charitable context presented to them, this could results in the low donation amounts (around $2) in study 7.

Study 8

In study 8 I continued to investigate the effects of facial attractiveness on donation decisions, but also manipulated victim group membership in order to test for an interaction effect. I also measured identification with the victim, as this was a potential issue in the previous study. Victim group membership affected donation decisions in the expected direction, with ingroup members benefiting from greater amounts (supporting *Hypothesis 7.1*). There was no effect of facial attractiveness on

donation decisions (again, contrary to *Hypothesis 7.2*), and no interaction between the two variables *(Hypothesis 7.3)*. There were no significant effects of either variable on empathy levels, and although victim identification levels were higher for attractive victims, the difference was not significant *(Hypothesis 7.4)*.

Given that victim group membership did not affect victim identification, it is questionable as to whether the online participant sample truly felt connected to the victims in study 8. Mean victim identification levels were generally at mid-points, perhaps suggesting a certain degree of ambivalence from participants towards the charity appeal.

Study 9

Due to the above criticisms, in study 9 I utilised a more traditional student population. Study 9 also changed the context to a charity appeal from homelessness to helping students with depression. Additionally, the target was presented as from the same university or a different one, making the scenario more relevant to the participant population, and the appeal was ostensibly on behalf of a real charitable organisation (Students Against Depression). Finally, as the majority of the sample was female in study 9, the target of help was fixed to male gender. This was due to previous research identifying stronger effects of facial attractiveness on helping in opposite-sex dyads (Maria Agthe et al., 2011), thus increasing the power of the design.

Study 9 found no main effects of either victim group membership *(Hypothesis 7.1)* or facial attraction *(Hypothesis 7.2)*, on donation decisions. However, there was a significant interaction effect between victim group and facial attractiveness *(Hypothesis 7.3)*. Attractive students from the same university received greater donation decisions compared to unattractive students from the same university. Attractive ingroup members also received greater donation decisions in comparison to

attractive outgroup members. Finally, there was again a null effect of victim group on empathy *(Hypothesis 7.4).*

In discussing the reasons for the significant interaction in this study when previous attempts were null, I noted that the changes in context combined with the switch to a more traditional sample may have been explanatory. In particular, researchers have noted that group membership effects depend on salience (Levine et al., 2005), and testing in a laboratory may result in participants attending to the stimuli more carefully. This may be due to the presence of an experimenter, who in turn may serve to amplify the effects of a salient group membership.

Finally, (Nadler, 1980) suggested that whether attractiveness would result in prosociality depends on whether a face-to-face meeting is expected, i.e. the possibility of meeting the attractive/unattractive target may drive helping effects. It is notable that in the present study, unlike studies 7 and 8, there was at least the potential for the female students in the current study to meet the male target in the appeal (assuming they believed the person depicted to be real, which I assume they did).

Strengths and limitations

In this section, I discuss some of the strengths and limitations of the current research programme. Although the points covered below are not exhaustive, they do serve to discuss several issues which are relevant across the studies. I begin with an issue that can be interpreted to be both a strength and a weakness, i.e. the hypothetical nature of many of the contexts I have used. From an applied perspective, charities are interested in boosting mean donation levels, and although donation levels can be inferred from several of the studies I have conducted, I believe that experimental field studies serve this purpose far better. Laboratory settings are never fully representative

of real life, but this controlled environment is useful for experimental testing. Regardless, from an applied perspective the use of hypothetical donation amounts and abstract group representations might be seen as problematic. However, these same 'weaknesses' enable the findings from the present research programme to be applied to different theoretical domains. For example, in studies 1 and 2, I began by investigating helping due to perpetrator group membership, but the use of abstract perpetrator groups and the inclusion of a third-party perpetrator make the results interesting to researchers in other fields, e.g. bystander intervention.

Similarly, the priming of reasoning style in order to affect prosociality in studies 5 and 6 may be of theoretical interest to researchers in a number of fields, as is the manipulation of facial attractiveness on prosociality. I believe that even with the use of abstract and hypothetical scenarios, the present research still has some applied value, which will be commented on later. However, I accept that including an actual monetary measure of donations would be beneficial. In a similar vein, the use of an implicit or indirect measure (e.g. the Affect Misattribution Test (Payne, Cheng, Govorun, & Stewart, 2005), or the IAT (Greenwald, McGhee, & Schwartz, 1998) would allow for greater confidence that responses were not overly influenced by social desirability factors.

Another strength of the present research relates to the variety of contexts used. The current research programme assessed donation decisions in the context of a plane crash, a military incursion, an environmental disaster, a coach crash, flooding, domestic violence and homelessness, and student depression. In using a variety of settings, I acknowledge the importance of the context in prosocial research, and I attempt to identify boundary conditions for the significant results which were obtained. However, I acknowledge that the use of varied contexts is a potential

weakness when discussing null findings. A change in context can often provide a plausible explanation as to why effects were not observed. For example, in study 2, I argued that null effects may have been partly due to the change from an accidental disaster to that of a military context. Similarly, in study 3, I suggested that an environmental disaster was in hindsight not the optimal context in which to study perpetrator attributions. There is a danger then that null findings can always be explained via the context, thereby allowing the hypothesis in question to always be defensible. However, when discussing the role of the context in explaining null findings I have focused on underlying processes which are based on existing theory. For example, in study 2, it was not the military context per se that was problematic, but rather the lack of perceived individual responsibility when the government is involved and the role of perceived threat. The former is an obvious issue in hindsight, while the latter is a process that has gathered much theoretical attention (Hewstone et al. 2002; Stephan et al., 1998). Similarly, in study 3, I argue that the processes inherent in bystander behaviour, blame, and responsibility, are less likely to occur when non-human victims are involved; and this is supported by research that has shown a more positive helping response when a disaster is perceived to have a natural cause (Zagefka et al., 2011). It's important to note then, that the number of theoretical underlying processes linked to a context are limited. To illustrate, there is little reason to suspect that the underlying processes involved in helping flood victims overseas would differ substantially from that of helping drought victims overseas. By focusing on the theoretical processes inherent in a context, one can prevent a hypothesis from becoming irrefutable.

My next point refers to the general strength of the results obtained. Although the results could have been stronger in several studies (there were several hypotheses

that were not supported or supported only inconsistently), it is also true that significant results were obtained and that interesting patterns were observed. Table 20 below shows which hypotheses were supported across studies. It is evident that across the relevant studies there was some support for the prediction that perpetrator group would affect donation decisions, but strong evidence for a similar prediction based on victim group. Surprisingly, only one study found support of a victim group effect on empathy, despite this being the most tested hypothesis, but all relevant studies found empathy to be mediated by a sense of donor responsibility. Study 5 found reasoning style to affect donation decisions, and although a null effect was found in study 6, the same pattern was evident. However, neither studies found evidence to support the hypothesis that reasoning style would affect empathic concern. Finally, one study out of three found facial attractiveness to influence donor amounts.

Table 20

General pattern of support across studies for predictions relating to hypothetical donation decisions

Summary of hypotheses	Study 1	Study 2	Study 3	Study 4	Study 5	Study 6	Study 7	Study 8	Study 9
H5.1 (perpetrator group bias)	Yes*[1]	No	No	Yes*	-	-	-	-	-
H5.2/6.1/7.1 (ingroup victim bias)	-	-	-	Yes*	Yes*	-	-	Yes*	Yes*
H5.3 (perpetrator-victim interaction)	-	-	-	Yes	-	-	-	-	-
H5.4 (perpetrator effect on responsibility)	-	Yes*	No	Yes*	-	-	-	-	-
H5.5/6.2 (victim group effect on empathy)	-	-	-	Yes*	No	-	-	No	No
H5.6 (empathy mediated by responsibility)	-	Yes*	Yes*	Yes*	-	-	-	-	-
H6.3 (reasoning style effect on empathy)	-	-	-	-	No	No	-	-	-
H6.4 (reasoning style-victim group interaction)	-	-	-	-	Yes[2]	-	-	-	-
H6.5 (anonymity effect on donation amounts)	-	-	-	-	-	No	-	-	-
H6.6 (anonymity and reputation interact)	-	-	-	-	-	No	-	-	-
H7.2 (facial attractiveness effect on donations)	-	-	-	-	-	-	No	No	No
H7.3 (attractiveness-victim group interaction)	-	-	-	-	-	-	-	No	Yes*
H7.4 (facial attractiveness to effect empathy)	-	-	-	-	-	-	-	No	Yes[3]

Note: Yes/No indicates that mean levels were/were not in the predicted direction.

** indicates that mean levels were significant at $p < .05$. A hyphen indicates that the study did not test that hypothesis.*

[1] *Study 1 found an effect in comparison to a third-party perpetrator group but not in comparison with a victim perpetrator group.*

[2] *Although not statistically significant, intuitive donation decisions to outgroup victims were considerably lower than in other cells.*

[3] *Although not statistically significant, empathy levels to attractive ingroup victims were slightly higher than in other cell.*

Although many of the tests conducted were statistically significant, in some respects observing similar patterns of data across studies is more important than obtaining a significant *p* value. There is a long running and lively debate with regards to the weaknesses of null hypothesis significance testing (NHST), which I do not have the scope to elaborate upon here. Nonetheless, numerous researchers have pointed out that NHST does not offer the logical proof that we desire, and that researchers should instead focus on whether a consistent pattern of means is obtained with an adequate sample size (c.f. Fidler & Loftus, 2009; Nickerson, 2000). One journal, Basic and Applied Social Psychology, has recently banned the reporting of *p* values, only permitting tables of means to be reported (or Bayesian methods where appropriate) (Trafimow & Marks, 2015). While this decision may represent an extreme approach, it does suggest that there is some value in considering whether a predicted pattern is evident across studies, rather than focusing on isolated *p* values.

Finally, I consider the exploratory aspects of the current research programme a strength. I started in study 1 by investigating a perpetrator effect that I believed to be well-supported in other psychological domains (e.g. forensic psychology), but which had been neglected in prosocial research. However, in each study I attempted to explore an interesting aspect which may pertain to donation decisions. For example, in studies 1 to 3 I nuanced the outgroup perpetrator. Furthermore, several of the studies presented attempted to investigate underlying processes, e.g. by considering potential effects on empathy. Despite this, there were of course many interesting avenues of research which I did not explore or include in the present research programme. I did not, for example, test the identifiable victim effect, nor did I look to test scope insensitivity, as these related areas have received considerable attention.

Moreover, I did not consider interesting concepts such as Belief in a Just World (Lerner, 1980), Social Dominance Orientation (Pratto et al., 1994), Mortality-Salience (Jonas, Schimel, Greenberg, & Pyszczynski, 2002), or even demographic demarcations relating to religion or political orientation. All of these areas are potentially of interest to the present line of research. However, prosocial research is a very broad field, and by necessity I focused on areas that I found particularly novel and especially relevant. In doing so, I was forced to focus on a selection of variables of interest, and to neglect other extremely interesting and promising areas.

Future research directions

Given the point I have just made, I would like to acknowledge several interesting avenues of research that were beyond the scope of the current programme but may be of interest in the future. Consideration of perpetrator groups may yield more interesting results, particularly if intentionality was manipulated alongside group membership. Framing a negative event as intentional has been shown to negatively impact upon prosociality towards a charitable appeal (Ames & Fiske, 2013), but I am not aware of the deleterious effects of intentionality having been investigated alongside group memberships. Yet, it is likely that shared group memberships will colour judgements that are affected by the intentionality of the agent involved. For example, would the negative effects of intentionality on donations be amplified or mitigated by the donor having a shared group membership with the perpetrator? This could be a promising line of research.

Another interesting avenue for future research relates to donor attributions of the perceived scale and perceived harm associated with charitable appeals. In studies

1, 4, and 5, I found that group memberships affected the scale of the disaster, which I measured in terms of physical and psychological harm. Ames and Fiske (2013) found intentional harms to magnify the harm associated with an event; however, they did not consider how the group memberships of those involved would affect judgments. Moreover, they measured only financial harm, whereas the current programme included a measure of psychological harm. Would participants yield different estimates of psychological harm surrounding a disaster due to the group memberships of those involved? Again, I believe this would be an interesting avenue to explore in the context of group effects and prosociality.

There are also a number of interesting potential studies that may relate to the underlying processes of group memberships. An interesting question is whether perpetrator group membership can affect how psychologically close a group member feels to their ingroup. It is possible that donors may wish to either distance themselves from a perpetrator ingroup, and it is this distancing that may lead to increased prosociality towards another group. Alternatively, donors may wish to reaffirm their group membership with the ingroup in question, triggering a black sheep effect that places the perpetrator as a deviant (Marques et al., 1988). I suspect that the importance of the group in question to the individual's self-identity, as well as the entitativity and distinctiveness of the group would play a role in either process.

Finally, I noted in study 1 that the significant results obtained were in comparison of the ingroup to a third-party outgroup, i.e. significant results were obtained only when the outgroup was nuanced into two distinct categories. It would be interesting to demonstrate that bystander effects can be extended from an interpersonal emergency helping situation to a charitable helping context that involves

intergroup helping. It may be the case that merely making salient the intergroup dimension in a charitable appeal results in less prosociality, but I suspect that the relationship between the donor, the victim group, and the perpetrator group is more likely to drive helping intentions. If this is the case, then in situations where a country commits an offence against a neighbouring country (e.g. Russia against Ukraine), then this may affect the helping intentions of donors who are not from either country. I made this argument previously, when discussing the findings in study 1 with reference to Staub's work on genocide, but I can only make a tentative suggestion as this was not the focus of the present research programme. Nonetheless, I believe the interest and relevance of this line of work to be obvious.

Practical considerations

Although I see the present contribution as of more theoretical value than of applied value, I believe that the results of the studies would be of interest to practitioners. Many of the ideas and theories that I have investigated could be further explored in field settings or focus groups, in order to find practical methods of increasing donation amounts. I begin with consideration of the perpetrator group membership effect on donation decisions.

Charities have inferred the importance of how the victim is presented on a charitable appeal and informal observation suggests that many charities focus on the victim, on their need, on their suffering, and perhaps on their lack of blame. This approach may be less persuasive if donors do not believe that they are responsible in any way for situations that occur overseas. Some donors may feel disconnected, for example when they learn of military strife in Syria. However, even in examples like Syria, western nations such as the U.K. may be involved in the antecedents leading to

military action. For example, the U.K. government was heavily criticised for allowing British firms to sell chemical war agents (capable of creating the deadly sarin nerve agent) while a civil conflict was raging in the Syrian capital (Milmo, McSmith & Kumar, 2013). Distressingly, traces of the sarin nerve agent were reportedly found in blood samples of the victims. One can only assume that U.K. donors would feel a greater degree of guilt and responsibility were they to learn of their shared relationship with the perpetrator. In scenarios like this, charities may wish to consider making such a relationship salient. At the very least it would combat indifference from donors who feel that the situation is 'not our problem'.

With regards to victim group membership, charities may wish to consider focusing appeals locally where possible. This is a fairly straightforward comment as charities (and journalists) have perhaps known for some time the benefit of reporting local news. Where the issue is not isolated to a local community, emphasising a shared group membership where possible may be effective. For example, Levine and Thompson (2004) found that a salient European group membership resulted in increased donations from U.K. participants to a European cause. Group memberships need not be limited to nationality, however. For example, stressing that a victim is a football fan may result in increased donations from football supporters. If charities can target appeals to relevant group memberships, this should increase donation amounts, possibly via encouraging empathy from the donor (although I found little support for this hypothesis myself, there is still considerable evidence in the field cf. chapter 2). Moreover, given how heavily empathy has been implicated in helping behaviours, charities may wish to focus their marketing teams on campaigns that are particularly adept at encouraging empathy. This may involve campaigns that

encourage a greater degree of perspective taking. Rather than tell a potential donor of a victim's plight, it may be better to encourage them to engage in a 'thought exercise' where they take the perspective of the victim.

With regards to reasoning style, this may represent a novel avenue for charities to explore. For charity workers, the real benefit of recognising reasoning style as a donation factor may lie in being able to avoid inadvertently activating a particular style. When the appeal focuses on an identifiable victim, it may be wise to avoid an analytical style, e.g. by emphasising cost-benefits or by making the financial sum needed salient. By contrast, the studies I have conducted suggest that when the appeal involves a large number of statistical victims, it may be wiser to encourage a more analytical thinking style so that donors do not intuitively feel that their donation will not make a difference.

Finally, with regards to facial attractiveness, charity 'chuggers' who raise money at street level will likely be more successful if they are attractive. This claim is largely based upon findings in business and marketing research (cf. chapter 4) which show that attractive others are more persuasive. With regards to online and print campaigns, the role of attractiveness is more nuanced. If possible, charities may depict attractive victims, in order to assess if this increases donation amounts. However, charities may wish to take care that, in using an attractive victim, this does not impact upon perceived neediness. If attractive victims are considered more healthy and successful, then this could counter any prosocial effects encouraged due to beauty.

Concluding comment

I began with a simple question. Given the vast sums donated in the charity sector, and the number of lives that desperately depend upon such aid, why do we give so much less to other nationalities that need our help? In order to better understand the underlying reasons behind this question I drew upon a social identity approach. This led me to conduct further research into how a salient group membership can impact upon donation decisions. In order to build upon work by past researchers I considered the perpetrator group in a charitable context, investigated how perpetrator groups and victim groups may interact, and considered for the first time how factors such as reasoning style and attractiveness may interact with salient group memberships. The research I have conducted does not authoritatively settle any questions in the field of prosociality, nor was that my aim. However, I believe I have provided at least some evidence that the variables I have manipulated are important; particularly if we want to more fully understand donation behaviour that is so vital in our society.

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Appendix A: Study 1 vignettes with manipulations in bold and underlined

Donor perpetrator IV

There has been a disaster in another country caused by a cargo plane crashing into a large nuclear facility. The plane was from a national airline from ***your*** country, and although the plane had no passengers and the pilots evacuated safely, the crash caused a huge explosion which killed hundreds of workers. Media reports also show that the initial blast set off a chain of smaller explosions, and that thousands of local residents need urgent medical treatment as fires continue to spread. The inhabitants of one nearby city have been forced to evacuate the region due to the threat of radiation and experts estimate that hundreds of thousands will never be able to return to their homes. An official spokesperson from ***your*** country has said, "We have to accept that our safety procedures did not work. It's clear that our government needs to accept responsibility - not only right now when aid is needed the most, but also in the future to ensure that correct safety regulations are in place to ensure that such a tragedy never happens again."

Victim perpetrator IV

There has been a disaster in another country caused by a cargo plane crashing into a large nuclear facility. The plane was from a national airline from ***the same*** country, and although the plane had no passengers and the pilots evacuated safely, the crash caused a huge explosion which killed hundreds of workers. Media reports also show that the initial blast set off a chain of smaller explosions, and that thousands of local residents need urgent medical treatment as fires continue to spread. The inhabitants of one nearby city have been forced to evacuate the region due to the threat of radiation and experts estimate that hundreds of thousands will never be able to return to their homes. An official spokesperson from ***the*** country has said, "We have to accept that our safety procedures did not work. It's clear that our government needs to accept responsibility - not only right now when aid is needed the most, but also in the future to ensure that correct safety regulations are in place to ensure that such a tragedy never happens again."

Third party IV

There has been a disaster in another country caused by a cargo plane crashing into a large nuclear facility. The plane was from a national airline from ***a different*** country, and although the plane had no passengers and the pilots evacuated safely, the crash caused a huge explosion which killed hundreds of workers. Media reports also show that the initial blast set off a chain of smaller explosions, and that thousands of local residents need urgent medical treatment as fires continue to spread. The inhabitants of one nearby city have been forced to evacuate the region due to the threat of radiation and experts estimate that hundreds of thousands will never be able to return to their homes. An official spokesperson from ***the*** country has said, "We have to accept that our safety procedures did not work. It's clear that our government needs to accept responsibility - not only right now when aid is needed the most, but also in the future to ensure that correct safety regulations are in place to ensure that such a tragedy never happens again."

Appendix B: Study 2 vignettes with manipulations in bold and underlined

A humanitarian appeal has been called after bombs were dropped in another country. They were dropped by **your country's** government after they received threats involving the use of chemical weapons. The threats were made by an extremist rebel group after ongoing political conflict. Media reports show that the initial bombings killed hundreds, and that thousands of local residents need urgent medical treatment. The inhabitants of one town, where the rebel groups were thought to have been hiding, have been forced to evacuate the region. Experts estimate that thousands will never return to their homes. An international charity has urgently requested aid to help provide food and medical supplies.

A humanitarian appeal has been called after bombs were dropped in another country. They were dropped by **that country's own** government after they received threats involving the use of chemical weapons. The threats were made by an extremist rebel group after ongoing political conflict. Media reports show that the initial bombings killed hundreds, and that thousands of local residents need urgent medical treatment. The inhabitants of one town, where the rebel groups were thought to have been hiding, have been forced to evacuate the region. Experts estimate that thousands will never return to their homes. An international charity has urgently requested aid to help provide food and medical supplies.

A humanitarian appeal has been called after bombs were dropped in another country. They were dropped by **a neighbouring country's** government after they received threats involving the use of chemical weapons. The threats were made by an extremist rebel group after ongoing political conflict. Media reports show that the initial bombings killed hundreds, and that thousands of local residents need urgent medical treatment. The inhabitants of one town, where the rebel groups were thought to have been hiding, have been forced to evacuate the region. Experts estimate that thousands will never return to their homes. An international charity has urgently requested aid to help provide food and medical supplies.

Appendix C: Study 3 vignette with manipulations in bold and highlighted

An environmental disaster has occurred off the coast of Estonia, a small European country. The disaster was caused by an oil spill which resulted in over a million barrels of crude oil polluting the local sea. The disaster was the fault of Venoco Oil Industries, a successful **U.S./Estonian/Latvian** company. Venoco has created thousands of jobs in the **U.S./Estonia/Latvia**, but today they are accused of destroying wildlife and plunging Estonia into economic crisis. Media reports show that the oil spill has killed thousands of animals and destroyed local fishing communities. Experts estimate that it will take 10 years before waters are clean again, with the damage estimated at over $1 billion. Venoco, which had previously created over 22,000 jobs in the **U.S./Estonia/Latvia**, has been accused of taking short cuts which led to lapses in safety procedures. A spokesperson has said, "A disaster like this destroys **American/Estonian/Latvian** reputation as a country with responsible business practices." A local charity, based in Estonia, are asking for donations to help save the lives of thousands of animals affected by the spill.

Appendix D: Study 4 news report with manipulation in bold and underlined

PLEASE READ THE FOLLOWING NEWS REPORT:

Horrific coach crash affects [ingroup/Esturian] families

A coach carrying nearly 100 **[ingroup/Esturian]** tourists crashed earlier today leaving few survivors. Witnesses say that the driver, who was **[ingroup/Esturian]**, was speeding and lost control of the vehicle in bad weather conditions.

A similar accident happened last year after a **[ingroup/Esturian]** driver lost control of a truck. Experts say that the death toll was higher this time due to the number of passengers and delays in the emergency services arriving.

An official **[ingroup/Esturian]** spokesperson has said, "We have to toughen up our driving licence requirements or there will be future tragedies. It's too easy to get a licence for passenger vehicles in this country."

Local charities are asking for donations to support the surviving victims, especially those who lost their families in the accident.

Caption: Coach crash kills **[ingroup/Esturian]** tourists

Appendix E: Study 5 and study 6 deliberate prime and instructions

Please answer the following six questions carefully. Try to answer every question correctly.

You are not allowed to use a calculator.

Think carefully and take your time.

1. If an object travels 5 metres in 60 seconds, how many metres will it travel in 360 minutes?

2. If a number is divided by 4 and then 3 is subtracted, the result is 0. By your calculation, what is the number?

3. If a plane flies at 35,000 feet and descends at a rate of 2,500 feet per minute, how long will it take to reach 20,000 feet?

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4. If team A scored twice as many points as team B, and team A scored 28 points, by your calculation how many points did team B score?

5. A restaurant has 30% of its tables outside. If the restaurant has 40 tables, how many tables are outside?

6. A business makes £42 profit on each television set it sells and £25 profit on each DVD player it sells. If the business sold 15 television sets and 25 DVD players, would they make more profit from television sets or from DVD players?

Appendix F: Study 5 and study 6 intuitive prime and instructions

Please answer the following six questions as quickly as possible. Use one word to describe your feelings, there is no right or wrong answer.

Go with your gut feeling and trust your first instinct.

1. When you hear the word 'failure', what do you feel?
2. When you hear the word 'baby', what do you feel?
3. When you hear the word 'disaster', what do you feel?

[page break]

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4. When you hear the word 'love', what do you feel?
5. When you hear the word 'infection', what do you feel?
6. When you hear the word 'happy', what do you feel?

Appendix G: Study 6 anonymity manipulation in bold and underlined

On the next page you will read about a disaster which happened in another country. You will be **[asked to discuss the disaster with another student / tested at the end of the study on how much you remember]**.

Please indicate to the researcher that you have finished. The researcher will ask you to wait a minute before pairing you with another student to discuss why you donated the way you did.

If you would like to change your donation amount, please do so now in the box below:

Appendix H: Study 5 and study 6 vignette with manipulation in bold and underlined (study 6 had only an outgroup target)

Devastating floods affect **[ingroup/Esturian]** families

Devastating floods continue to affect many **[ingroup/Esturian]** cities. Authorities announce that at least 2,100 people have been killed, and thousands more are believed to be injured and left homeless.

The **[ingroup/Esturian]** government has been criticised for not investing in flood barriers despite early warnings. Although some critics say that the victims reacted slowly and many lived on a riverside and should have been more prepared for bad weather.

As Christmas approaches, survivors are left struggling to salvage their few possessions from the wreckage. The lucky ones are facing financial ruin. Those not so fortunate, will have to cope with the loss of loved ones.

Charities are asking for donations in order to help **[ingroup/Esturian]** survivors with food, better temporary accommodation and bereavement support.

Appendix I: Study 7 and study 8 charity posters (study 7 did not display a flag, study 8 displayed a U.S. or E.U. flag)

Thomas has no home

For young people like Thomas, home wasn't a safe place.

He was abused everyday, but no one knew — because they never left marks on his face.

Be a good citizen. And make a donation today so we can help Thomas find a new home.

Thomas has no home

For young people like Thomas, home wasn't a safe place.

He was abused everyday, but no one knew — because they never left marks on his face.

Be a good citizen. And make a donation today so we can help Thomas find a new home.

Appendix J: Study 9 charity posters

Feeling low?

1 / 10 people suffer from depression or anxiety.

Unfortunately, you can't tell just by looking at them.

Thomas is a Psychology student who felt fine when he first started his course, but shortly after his first exam he began to feel depressed, anxious and lonely.

He continued to study Psychology but his grades suffered and his condition became worse.

"I would stay at home for days and not talk to anyone." Thomas said. "I thought if I talked to someone I would look weak or something. At one point I felt suicidal."

Then, Thomas contacted Students Against Depression, an organisation committed to helping students who feel depressed and alone. With our help, Thomas started studying Psychology again and feels that he can cope with his condition.

Feeling low?

1 / 10 people suffer from depression or anxiety.

Unfortunately, you can't tell just by looking at them.

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