

Restoring order through helping others:
Compensatory control and prosocial intentions

by
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Abstract

Acting altruistically is one of humanity's most praised, yet most puzzling behaviours. The aim of the present research is to examine the possibility that increased prosocial intentions can result from attempts to compensate for threats to perceptions of order. Previous research has found that people compensate order threats by increasing perceptions of control in external sources (Kay et al, 2008). Several competing theories on the origins of prosocial behaviour exist, such as the debate between Daniel Batson, advocating altruism, and Robert Cialdini, advocating an egoistic explanation. However, thus far no research has been published concerning the possibility of prosocial intentions acting as a compensatory mechanism to restore a sense of order in the world. In Study 1 perceptions of order were manipulated through writing about a time when participants did or did not have control over a positive outcome, followed by measurements of intentions to donate blood at an upcoming blood drive. In Study 2 participants read of a fake Harvard conference suggesting that the world was random. Participants then had an opportunity to restore control or did not have this opportunity, followed by a measurement of intentions to help solve problems in the world. Results of these studies support the hypothesis that intentions to act prosocially increase following threats to perceptions of order and control. Implications of these findings are discussed.

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CHAPTER 1

INTRODUCTION

Why do people make personal sacrifices to benefit others? Although this type of behaviour is beneficial to society, it appears to go against people's individual interests. This problem of prosocial behaviour has perplexed philosophers and theorists for many years, generating many possible solutions. At the same time, world history, current affairs, and the daily news tend to show us that people most certainly do not always act altruistically. The variability in the prosocial responses of people begs the question, what makes someone want to help others? Put another way, under what circumstances will an individual forgo their own personal interests and act on behalf of the welfare of others?

Overview of Theories of Prosociality

Although there are many proposed answers to the question of why people engage in prosocial behaviour, they tend to fall into two broad camps. One camp, championed by Daniel Batson, has made the argument that true altruism exists, and that through empathy people are able to take on the views of others, and help them for the sole sake of helping the other person (e.g. Batson, Dyck, Brandt, Batson, Powell, McMaster, Griffit 1988). This research tested hypotheses that empathy related helping was due to self-rewards (such as praise), or self-punishments (such as guilt), and found that across five studies, empathy wasn't related to either subset of self motivations, but was instead consistently related to empathy (i.e., genuine altruism). Other research demonstrates that personal distress when observing others in need leads to less helping when people believe that they can easily escape their negative mood, compared to when people were empathic, or when their moods could not change (Schroeder, Dovidio, Sibicky, Matthews, & Allen 1988). This provides further evidence for genuine altruism through empathy, as personal distress is alleviated by responses other than helping, but empathic concern is not.

In contrast, theorizing by Cialdini and his colleagues has argued that the source of seemingly altruistic behaviour is people's own egoistic motivations (e.g. Cialdini, Schaller, Houlihan, Arps, Fultz, Beaman 1987). This research replicates Batson et al.'s finding that heightened empathy leads to more helping. It demonstrates, however, that increased empathy leads to increased personal sadness, and that it is personal sadness that mediates helping, and not empathetic concern. The argument behind this school of thought is that personal sadness accompanies empathic concerns, and that people are helping to relieve their personal sadness. Another paper presents evidence that empathy increases self-other overlap, and that "oneness" is one way that helping others may be seen as helping the self (Cialdini, Brown, Lewis, Luce, & Neuberg 1997). Thus Cialdini argues that the "altruism" of people is only superficial, and that the true motivations for helping are self-serving. Both of these schools of thought have generated valuable research in understanding the basis for prosocial behaviour.

There are many other possible reasons for prosocial behaviour. We are socialized to engage in prosocial behaviour, as our society rewards those who are acting for the sake of others (Krebs, 1970). The concept of kin selection predicts that animals will help their relatives, as this helps propagate the shared genes they have in common, even at the expense of the individual (Hamilton 1963-1964, Smith, 1964). Religions and philosophers have advocated prosocial behaviour, and putting the interests of the community ahead of the self for thousands of years. These concepts have shaped and expanded our understanding of prosocial behaviour, but still can be divided into theories that argue for the existence of true altruism, and theories based on the idea that people are gaining something for themselves from their prosocial actions.

This thesis proposes a novel motivation for why people help others: to reassert order and control in order to meet their general level of need for perceptions of control in the world. As a motivation that serves the self, this motivation to reassert order and control is an egoistic mechanism

for prosocial action (i.e. people are getting something out of helping the people around them). This research is not designed, however, to address the genuine altruism versus egoistic helping debate. Rather, it presents a new (albeit egoistic) mechanism that promotes helping in an effort to more fully understand the basis for people's helping behaviors.

Compensatory Control Model

The theoretical framework on which this new account of prosocial intentions is grounded is the Compensatory Control Model (Kay, Gaucher, Napier, Callan, Laurin, 2008; Kay, Whitson, Gaucher, Galinsky, 2009). According to this theory, people need to have a certain level of order and control that they perceive in the world. The importance of order and control is widely recognized throughout social psychology as a key motive people seek to fulfill (Kelly, 1955; Perkins, 1968; Seligman, 1975, 1976; Deci & Ryan, 1985; Skinner, 1995; White, 1959; Presson & Banassi, 1996). Without order and control, we are unable to plan for the future, our consequences do not follow from our actions, and goal-directed behaviour becomes impossible.

People are motivated to perceive a certain level of order and control in order to manage their day-to-day lives. There are often times, however, when we are unable to assert personal control over our lives or the situations around us. In these circumstances, research done on the Compensatory Control Model has found that people attain their desired level of order and control in the world by exporting it to various external sources, such as God or the Government (Kay et al, 2008). Other research further supports these findings and shows that after control threats people are more likely to perceive patterns in static, and to believe in superstitions of false cause and effect relationships (Whitson, Galinsky, 2008). When people experience a threat to control, they will take the first feasible possibility to restoring a sense of control. After threat, participants have been shown to believe more strongly that the government is in control, or to believe more strongly in the existence of a controlling

God (but not a non-controlling creator God) (Kay et al., 2008). The theoretical reasoning behind these substitutions is that personal and external perceptions of control both function to serve the same underlying motivation of perceiving order and control to buffer against perceptions of chaos. Thus, to the extent that these various sources of order and control are fulfilling a core motive, they can be replaced among each other if a particular source of control is no longer functioning. The primary metaphor that has been used to describe this process is a glass of water – everyone wants to have a certain amount of order and control in their glass. When something happens to lower that level, people are able to fill it back up with different sources (such as God or the government). It is the level in the glass that is psychologically fundamental, not the various sources that have been used to fill it.

Compensatory Control and Prosocial Intentions

Much of the previous work on the Compensatory Model of Control has focused on the external systems people rely on after control threats to bolster their perceptions that the world is orderly and controllable. This research tests the opposite end of the phenomenon by examining if people increase their own personal intentions of exerting control as one way to restore belief in an orderly and controllable world. The Compensatory Model of Control posits that perceiving personal control and believing in external sources of control are both specific instances of a general need to defend against perceptions of randomness and chaos. To the extent that various beliefs defend against perceptions of randomness and chaos, they will be substitutable. Prosocial behaviours are one possible way that people may maintain their sense of control over the world.

Why would prosocial behaviours bolster self-perceptions of order and control? Others are often in need of assistance in response to unexpected, seemingly chaotic events that occur in the world and interfere with their lives. By helping others in need, we reduce this chaos and return our social worlds to a state of order and control. Moreover, helping others requires us to take action (exerting control) and

having things go as planned (demonstrating order). Prosocial behaviours provide an opportunity to be efficacious during difficult circumstances. By increasing our intentions to act prosocially, we show that we are willing to meet the challenge of restoring order to the world through our own actions. This should be a powerful way of decreasing perceptions of randomness and chaos.

The hypothesis that people might respond with increased intentions to act prosocially in response to control threats is particularly relevant to real-world phenomenon, since many of the threats people are exposed to lend themselves to prosocial action. Each year, much media time is spent on natural disasters, shootings, human conflict, and a variety of other stories which likely threaten perceptions that the world is an orderly and controllable place. Many of these types of threats lead to calls for prosocial responses, whether it is donating money to help rebuild Haiti after an earthquake, to volunteering time, food, or clothing to philanthropic organizations closer to home. Other daily threats to control may make people feel like their life is spiraling out of their hands – a feeling which could be alleviated by spending some time to help the people around us. Even positive experiences that highlight our lack of control may be threatening in the overall sense of calling into question how much control we really have over our lives.

Overview of Studies

In this paper I will present two studies. Study 1 demonstrates a connection between threatened perceptions of control and increased intentions to act prosocially. Study 2 conceptually replicates the findings of Study 1 with a different threat, while also showing that increased prosocial intentions are no longer high when participants are first provided an alternate way of reasserting order and control.

In both studies, participants experience a control threat. According to our theoretical reasoning, after experiencing this threat, participants will need to restore perceptions of order and control, which they can do through increased intentions to act prosocially. Study 2 builds on the findings from Study 1,

by testing our hypothesis that if people are first provided with an alternative means of restoring perceptions of order and control, they no longer need prosociality to return to their desired level of perceived order and control in the world, and will therefore no longer have heightened prosocial intentions.

These studies test our prediction that one reason people are acting prosocially is as a means of reasserting order and control over the world. They also expand the work on Compensatory Control and show that personal control is one way people compensate for perceptions of decreased order and control in the world at large.

CHAPTER 2

TWO STUDIES INVESTIGATING THE COMPENSATORY CONTROL ORIGINS OF PROSOCIAL INTENTIONS

Study 1: Compensatory Control and Prosocial Intentions

This first study tested whether people might respond to control threats by increasing intentions to engage in prosocial behaviour. Participants were recruited in the Student Life Centre a week before a blood drive was to take place. Participants were first asked to write about a time when they experienced positive outcomes that were the result of their own actions, or had nothing to do with their own actions. This manipulation has been used effectively in previous research (Kay et al, 2008), and doesn't produce mood or self-esteem effects. Participants who wrote about a time when they had no control should experience this as a control threat, and will try to find a way to get back up to the level of order and control that they need to perceive in the world. Participants who wrote about a time when they did have control should experience no enhanced desire to return to baseline, as they never left it.

After participants engaged in the manipulation, they answered a number of questions designed to tap into their intentions to donate blood in the following week. Blood donations are one way people may act prosocially, providing people with an opportunity to exert personal control, and restore their perceptions of order in the world. Through donating blood, people are actively engaging in a behaviour that helps restore order and control to the world through helping injured or sick individuals. Thus, we should expect to see heightened intentions to donate blood in participants after they recall a time when they had no control, compared to when they recall a time when they did have control.

Method

Participants. Thirty-nine participants were recruited from the Student Life Centre at the University of Waterloo. Students participated in exchange for a chocolate bar. Participants who knew

they were ineligible to donate blood were excluded, as our proposed mechanism relies on people believing that the prosocial behaviour in question is one in which they could exert control over the world.

Procedure and Materials. Participants were recruited for a study on “Factors that Affect Donating Blood” one week before a blood drive was to take place on campus. Participants were first asked to write about a time when they experienced a positive outcome. In one condition, they wrote about a positive outcome that was the result of their own actions. This condition served as the control threat. In another condition, they wrote about a positive outcome that had nothing to do with their own actions. The manipulation read

Please try and think of something positive that happened to you in the past few months that was/was not your fault (i.e., that you had control over/absolutely no control over). Please describe that event in no more than 100 words.

This manipulation has been used effectively in previous research (Kay et al, 2008), and doesn't produce mood or self-esteem effects.

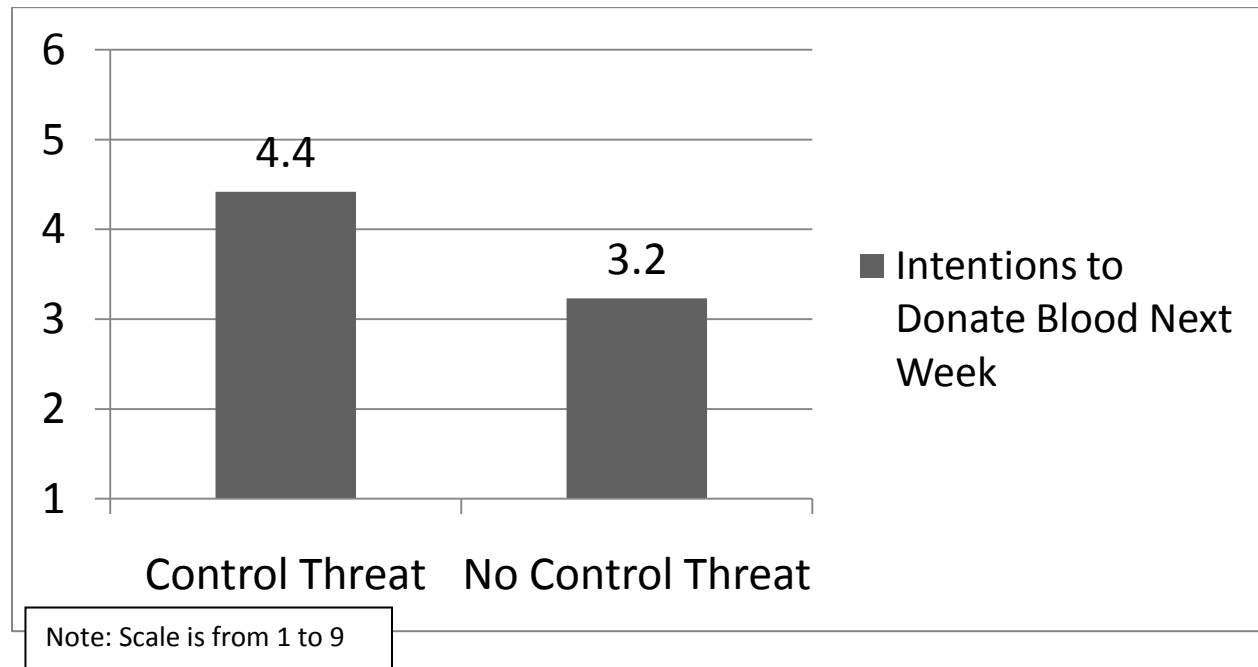
Following the control manipulation, participants completed a 5-item scale to measure their intentions of donating blood in the blood drive taking place the following week ($\alpha = .80$, Appendix A). This measure included items such as “I want to give blood next week” and “I will sign up for a time to give blood”.

Results

Analyzing the effect of our control-threat manipulation on intentions to donate blood in the following week yielded significant results in the expected direction, $F(1, 38) = 5.25, p = .03$. Participants

who wrote about a time when they did not have control exhibited increased intentions to donate blood ($M = 4.36$) compared to participants who wrote about a time when they did have control ($M = 3.23$).

Figure 1: Results from Study 1. Effects of a control threat on intentions to donate blood next week.



Discussion

Study 1 found that participants who wrote about a time when they did not experience control had increased intentions to donate blood at an upcoming blood drive, compared to participants who wrote about a time when they did experience control. In other words, participants who experienced a control threat subsequently had increased intentions to act prosocially.

Study 2: Compensatory Control, Prosocial Intentions and Alternative Sources of Control

Our first study provided initial evidence that prosocial intentions can act as one way that people are able to restore their perceptions of order and control after a threat. This provides evidence for our first two predictions, that prosocial behaviours are one way people exert order and control over their

environment and that following a control threat, prosocial intentions should be higher. However, our first study did not provide evidence for our third prediction: that following a threat, if people are first provided with an alternative means of restoring their perceptions of order and control, they should no longer have increased intentions to act prosocially. Our second study was designed to test this hypothesis as well as further test our first two predictions.

Method

Participants. Forty participants were recruited through the undergraduate participant pool in exchange for course credit.

Procedure and materials. Participants were recruited for a study on “Memory, Problem Solving & Personal Opinions”. Participants were first asked to read a passage on a Harvard Conference. Participants were told that they would be tested on this material later on, in order to ensure they paid close attention to the passage. The passage presented the world as a very random place, in order to threaten people’s perceptions of order and control in the world:

Is Everything Under Control? A Harvard Conference Reveals the Answer

“The world really is a random place,” said Thomas Cornwallis, a statistics professor at Oxford. Cornwallis made the comments at a conference hosted by Harvard University in January. The conference, titled “Understanding the world” was aimed at trying to understand the causes of events in the world. Cornwallis was one of several panelists who agreed that the world mostly operates in erratic, unpredictable ways.

At the same conference, Marten Keese, a professor at Utrecht University in the Netherlands, spoke about an article he published in the renowned journal *Science*. Keese claimed that people’s behaviour does not have clear causes. Although people may believe that the world is orderly and non-random, Keese says our perceptions are flawed. “Unperceived factors determine what happens to us. Most people believe their outcomes are under control, but our data suggest that random fluctuations have greater effects.”

Participants then either immediately filled out a six-item questionnaire ($\alpha = .85$, Appendix B), or completed one of two different computer tasks before proceeding to the questionnaire. The

questionnaire was designed to tap into general intentions to help make the world a better place, and included items such as “I like to help when I know it will help solve a problem” and “I would like a career where I get to make a positive difference in the world”.

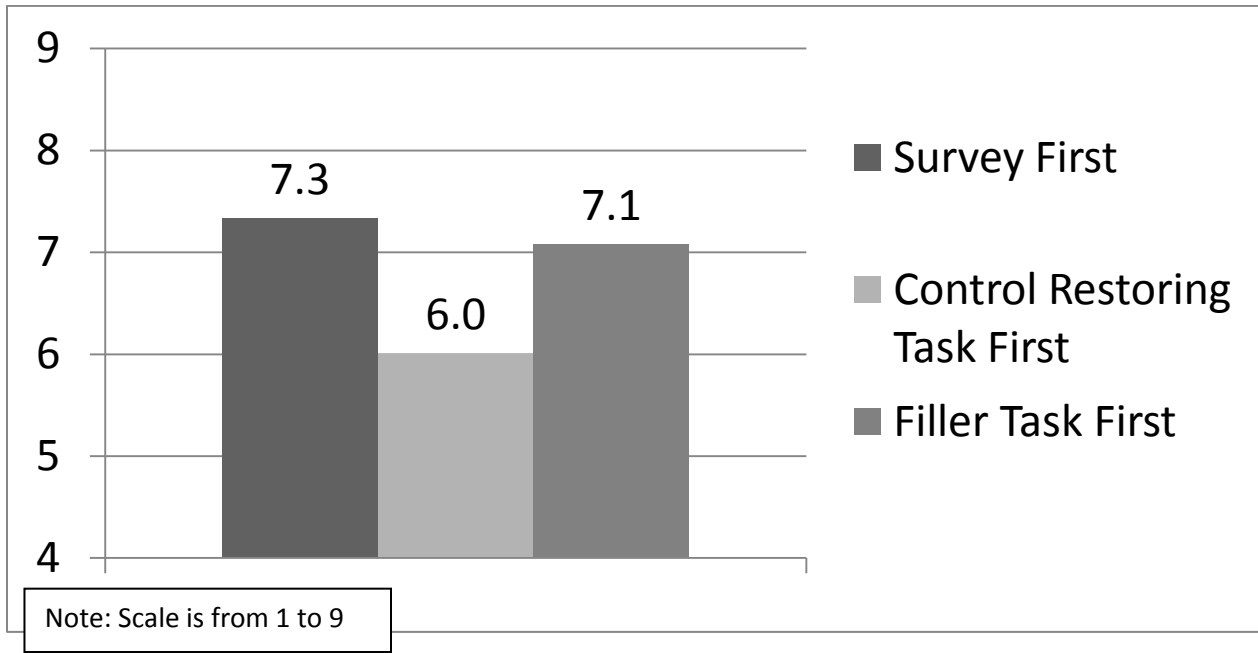
The computer tasks were designed to either provide an alternative means of exerting control, or act as a neutral condition which would only take up time. The control-affirming computer task provided participants with an opportunity to restore the perceptions of order and control. A green circle would repeatedly appear and disappear from the computer screen. Participants were told to try to control the onset of the green circle by pressing the space bar. The other computer task was a filler task. The green circle was still appearing on the screen, but participants were merely to indicate which area of the screen, left, centre or right, that the green circle appeared.

Results

Analyzing the effect of our control-threat passage and opportunities to restore control (or not), yielded significant results, $F(2,37) = 3.38, p = .05$. We then used pairwise comparisons to examine specific differences among the conditions in order to test our specific hypotheses.

Participants who had engaged in the control-affirming green circle task before answering our DVs had lower intentions to help solve problems ($M = 6.00, SD = 1.97$) compared to those who immediately answered our DVs after experiencing the control threat ($M = 7.33, SD = .87$), $p = .04$, and compared to those who completed the filler task prior to answering our DVs ($M = 7.08, SD = 1.09$), $p = .07$. The filler task and survey first task did not significantly differ from each other, $p = .50$, again in-line with our predictions.

Figure 2: Results from Study 2. Effects of a control threat and opportunities to restore perceptions of control on intentions to help solve problems.



Discussion

Participants who experienced a control threat through our Harvard Conference Passage had heightened intentions to help solve problems in the world, unless they were first provided with an alternative means of regaining their perceptions of order and control through the green circle control affirmation task. These results build off of our first study, and provide further evidence that prosocial intentions are one way that people can respond to control threats. Since heightened intentions to act prosocially no longer are present if participants are first provided with a different way to restore perceptions of order and control, we have good evidence for our proposed effect.

CHAPTER 3

GENERAL DISCUSSION

Both studies provide evidence that people may act prosocially in order to restore their perceptions of order and control in the world. In Study 1, participants who experienced a control-threat by writing about a time when they did not have control then had heightened intentions to donate blood in the following week, compared to participants who wrote about a time when they did have control. In Study 2, participants who experienced a control threat by reading about a fake Harvard conference had increased intentions to help solve problems in the world, unless they were first given an opportunity to restore their perceptions of order and control in the world.

Some may see this work as providing evidence that all helping is ultimately related to egoistic motivations. However, I am not advocating a position that true altruism doesn't exist. This research identifies one reason that people act prosocially, but I am not claiming that this is *the* reason people act prosocially. Some might argue that identifying egoistic motivations to act prosocially cheapens prosocial acts. I do not believe this to be the case. There is enough variability in human behaviour to have room for altruistic and egoistic motivations to exist, side by side. There are incredible acts of altruistic self-sacrifice that stand out from the fabric of history, and continue to inspire us today. At the same time, helping someone else to improve your own mood results in a positive outcome for both individuals which is no less real than had it been a purely altruistic act. My hope is that by understanding the circumstances that promote prosocial behaviour, we have the possibility to help foster these actions in the world at large.

Understanding the antecedents of prosocial intentions is increasingly important in a world facing challenges that are growing in their magnitude and complexity. For example, global food insecurity is one such growing problem, yet according to the UN Food and Agriculture Organization, only

\$30 billion a year is needed to create a world where no individual goes hungry. Environmental degradation is another major problem, as we continue to change our climate, destroy the natural environment, and participate directly and indirectly in the extinction of millions of species. By learning the factors that lead people to have prosocial intentions, we may be able to encourage prosocial behaviour. Although many of the large-scale problems existing today require more resources than ever before, by acting en masse, people are able to do incredible things. It is my hope that this work will eventually lead into interventions that promote helping behaviour.

The conclusions that can be drawn from this research run counter to what current organizations and governmental bodies often do. Frequently, people in power do what they can to assure the general population that things are going according to plan, or that government, market forces, or large organizations will be able to solve the major problems of the world. Our research suggests that this approach may ultimately backfire. Allowing people to see the risk, randomness, and chaos that are the concomitants of these large problems may serve to motivate people to actually try and solve them.

Contributions to Compensatory Control Theory

This work has contributed to our theoretical understanding of prosocial behaviour, but it has also helped expand our understanding of the Compensatory Control model. Most of the work on the Compensatory Control model has examined how external sources are used to substitute for decreased perceptions of order and control. This work shows that internal sources, such as prosocial intentions, are also an effective way that people can compensate for losses in perceived order and control. Although control threats may often lead to support for the status quo, increasing belief in the ability of the government or religious organizations to take care of their respective citizens and members, there are other ways people may respond to control threats. Our research shows that people may react to these threats by actively reasserting order and control, and solving the problems of the world.

Future work

Future research should explore possible moderators of our effect. For example, the Harvard passage control threat was a very broad threat. This means that people could interpret the threat so as to decrease perceptions of order and control in external sources (leading to increased personal perceptions of order and control, and higher intentions to act prosocially), or it could decrease perceptions of order and control internally (leading to increased perceptions of order and control in external systems). Since both of these effects appear plausible, determining what causes the threat to act one way or another would add to our theoretical understanding of Compensatory Control mechanisms, as well as provide important information if this work is ever to be applied to increase intentions for prosocial behaviour.

Additionally, there is nothing inherent in the theory that says that reactions to control threats must necessarily be prosocial in order to serve their psychological function of restoring perceptions of order and control. Engaging in antisocial behaviour may also effectively serve to restore threatened perceptions. For example, the news is all too often filled with examples of people who engage in terrible actions, such as spousal abuse, major and minor acts of vandalism and physical assault, and a host of other antisocial behaviours. It is my belief and hope that people will naturally gravitate toward prosocial actions over antisocial actions. These antisocial examples, however, are a clear warning that the unseemly side of behaviours must also be studied for a complete understanding of order, and control. Finding non-destructive ways to increase perceptions of control in individuals who engage in antisocial actions may help to decrease these types of behaviours.

Conclusion

Reasserting order and control over the world is one reason why people help one another. It certainly is not the only reason. By using this knowledge, however we may be able to foster the kind of

prosocial actions that are required for us, as a species, to rise up and meet the challenges that increasingly threaten our wellbeing and continued existence.

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APPENDICES

APPENDIX A

Intentions to Donate Blood Next Week

We're interested in your beliefs and opinions about giving blood. According to Canadian Blood Service, approximately every minute of every day, someone in Canada needs blood. In fact, according to a recent poll, 52 per cent of Canadians say they, or a family member, have needed blood or blood products for surgery or for medical treatment.

Using the following scale, please place a number next to each item to indicate your level of agreement.

Strongly Disagree				Neither agree or disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

___ I want to give blood next week.

___ I have no interest in giving blood. (reverse scored)

___ I plan to give blood next week.

___ I will sign up for a time to give blood.

___ When I am done this study, I will go to the Turnkey desk to sign up for a time to give blood.

APPENDIX B

Intentions to Help Solve Problems in the World

In this part of the study, we ask about your thoughts and opinions.

Please rate to what extent you agree/disagree with each of the following statements. Using the following scale, place a number next to each statement to indicate your opinion.

Strongly agree				Neither agree nor disagree				Strongly Disagree
1	2	3	4	5	6	7	8	9

_____ I like to help when I know it will help solve a problem.

_____ It is important to me to help others in need.

_____ I strive to make the world a better place.

_____ If I see someone in distress, I will try to help them.

_____ If I think there is a problem in the world, I do everything I can to fix it.

_____ The best way to solve a world problem is to take action myself.