

Indirect Relief, Negative State Relief, and Helping

Larissa Schyrokyj

Carnegie Mellon University

Dr. Chante Cox-Boyd (advisor)

Abstract

The effect of guilt on helping behavior was determined by inducing guilt in participants, and then providing relief, either direct (praise to the participants), or indirect (praise given to the experimenter). Sixty-one Carnegie Mellon undergraduates participated. It was hypothesized that when relief was given, participants would be less likely to help, and that when indirect relief was given, participants would be somewhat less likely to help. Results indicated that when relief was given, participants were less likely to help. Guilt was induced by harm which was caused either by the experimenter or by the participant. A measure of helping was assessed after the relief condition occurred. A control relief condition was used for comparative purposes. When relief did not occur, participants helped more. This finding is consistent with Cialdini's Negative State Relief theory.

Indirect Relief, Negative State Relief, and Helping

Larissa Schyrokyj

Research on helping has focused on the motivations behind the behavior. Social psychologists have shown that people are more willing to help dependant on such factors as mood, reward, and personal beliefs. People are disposed to help when the rewards of helping outweigh the costs (Kenrick, Newberg, & Cialdini, 1999). People in negative moods will be more likely to help when they think that their own moods will be improved by helping. Guilt is one factor that induces negative moods (Manucia, Baumann, & Cialdini, 1984). Research on the relationship between mood and helping behavior suggests that empathic concern (feeling empathy towards someone in need) and Negative State Relief (getting rid of negative emotions) influences our helping behavior (Batson, 1987; Cialdini Darby & Vincent., 1973).

Guilt is a common emotion that many influencers use to gain compliance. In fact, many false confessions have been made in the name of guilt (Kassin & Kiechel, 1996). Are people also more likely to help others when they are feeling guilty? Guilt has been shown to increase helping behavior. We feel guilty about an act when it has negative connections or outcomes and we are forced to accept responsibility for the outcomes. One inherent way of relieving this guilt is by offering assistance to someone, even though the individual may not have been affected by the negative act which created the guilt.

Although some theorists argue that the experience of guilt toward others leads to altruistic actions (Batson, 1997), others believe that taking the viewpoint of the other leads to a greater sense of self-other overlap (Cialdini, Brown, Lewis, Luce, C. & Neuberg, 1997). Helping others under these conditions would not be selfless, but instead

would be directed towards the self, because it leads to a more favorable mental state. The participant gains something from the act of helping (an improved positive mental state), therefore the act cannot be described as selfless or wholly altruistic. Cialdini argues that we engage in helping to improve our own mental states. Are we more likely to help for self centered purposes or for others (i.e. altruistic acts)?

Batson's Empathy-Altruism hypothesis

Batson et. al (1997) investigated this question with an experiment that discounted the influence of self identification. In the study, female participants listened to a story of a female college student whose parents were killed in a car accident. This student needed financial assistance because her parents did not have life insurance and, in addition, she had to care for her siblings.

In one condition, the student attended the same university as the participant; in the other, the student attended a rival university. Participants indicated the degree to which they had experienced feelings related to empathy by using bipolar scales to rate the adjectives: sympathetic, softhearted, warm, compassionate, tender, and moved. The experimenters instructed some participants to be objective, while others were instructed to imagine how the target felt. The researchers reported a significant effect for the level of perspective taking on empathy, although this effect was weaker than previous findings. When participants felt that they could personally help, or were made to feel negative emotion/ empathy about another person's plight, they were far more likely to volunteer to help that person. The level of empathy and negative emotion experienced was found to have a significant effect on the number of hours the participant volunteered to help.

Negative State Relief Model

According to Cialdini's Negative State Relief Model, people help for selfish reasons. Specifically, we help only if we decide that there is no other way to relieve a negative state and we believe that helping will allow us to relieve the negative state. Cialdini et. al (1987) provided a gratifying event (money or praise) to some high empathy participants before they are given an opportunity to help. Participants helped more in the high empathy conditions. Cialdini's Negative State Model has received a good deal of support through more than a dozen experimental tests of the negative mood-helping relation (Baumann, Cialdini, & Kenrick, 1981, Cialdini, Darby, & Vincent, 1973; Cialdini & Kenrick, 1976; Manucia, Baumann, & Cialdini, 1984). Negative feelings have been shown to elicit positive behavior towards others. Carlson and Miller (1987) found an association between negative emotion and helping, which varied with the degree to which attention was focused on the self. When we feel guilty, we are more likely to engage in helping behavior (McMillen & Austin, 1971).

Robert Cialdini et. al., performed a study to determine the effects of guilt on helping (1973). The researchers induced guilt in the participants by having a large stack of paper be knocked over. In one condition, the participants knocked over the papers, while in the other, the experimenter knocked over the papers. The paper was designed to appear to be a person's master's thesis. In this case, the harm was direct, but it was caused to an anonymous Master's student. When a person was put into a negative mood via guilt from the papers being knocked over, and then given relief in the form of praise or monetary compensation, he/she was less likely to help another person. The direct

relief brought the participants from a negative affective state to a neutral one. Cialdini called this phenomenon Negative State Relief.

In another study testing his model, 60 male and female undergraduates were exposed to the act of transgression (a situation in which harm occurs); 31 performed the act themselves while 29 only witnessed it. Cialdini believed that those who caused the harm would feel more personally responsible and therefore guiltier than those that just witnessed the harm occur. As predicted, participants who received positive relief were significantly less helpful than those who did not. Cialdini argued that this was support for a clear relationship between mood state and helping behavior. He asserted that people in a transgression situation would behave in a helpful manner in order to reduce a general, negative affective state which is induced by exposure to harm-doing. In addition, he claimed that if the negative state is relieved by some other means, benevolent behavior will be unnecessary and will be less likely to occur.

Using Cialdini's negative-state relief model (Cialdini, Baumann, & Kenrick, 1981; Cialdini, Darby, & Vincent, 1973), it appears reasonable to some that individuals who experience a mood change when witnessing another person's problems are in a negative affective state – a state of temporary sadness or guilt. These individuals help in order to relieve this negative state: "Because helping contains a rewarding component for most normally socialized adults ... it can be used instrumentally to restore mood" (Cialdini et. al., 1987, p. 750). If the Cialdini et. al. (1987) argument is correct, then helping is not motivated by altruistic desire to relieve the victim's distress, as argued by Batson but by "an entirely egoistic reason: personal mood management" (p. 750).

Both Cialdini's negative-state relief model and Batson's empathy-altruism explanations agree that negative emotion leads to increased helping. They also agree that a person feeling empathy for another in distress is likely to feel sadness and temporary depression, and that helping may dispel this type of sadness and depression. The theories, however, disagree about the nature of the motivation that is evoked by feeling empathy for another in distress. The negative-state relief explanation claims that the motivation is self centered, directed at gaining mood-enhancing self-rewards. The empathy-altruism hypothesis believes that the motivation is directed at least in part toward the altruistic goal of relieving the other's distress, although it allows for some self motive as well.

Moods and Helping

In addition, other research also supports the idea that guilt and negative moods lead to helping behavior. By providing help to others, we can experience rewards; we feel good about ourselves (internal reward). Helping others can also aid us in escaping a bad mood. McMillen and Austin (1971) designed an experiment that compared the helping behavior after people lied to after they had told a truth. The experiment found that when participants lied, which induced a negative mood, they were more likely to agree to help. On average, those who told the lie donated 63 minutes of their time. Those participants that had not lied, and had not been put into a negative state, on average only donated two minutes of their time.

In general, when people are in good moods, they are more likely to exhibit helping behavior (Isen & Levin, 1972). Cunningham (1979) designed a study using the general correlation between sunny days and good moods. The results of the experiment

indicated that the amount of sunshine on a given day is correlated with the amount of tips left by patrons in restaurants. Researchers also looked at when people in good moods are likely to help. They found that if the activity that was asked of the participants was one that could potentially destroy a good mood, helping was less likely to occur. In a similar experiment, Isen and Simmonds (1978) have shown that people who were induced into a positive mood by receiving coins in a coin-return slot of a public telephone were less likely compared to control participants to help a stranger, when the helping behavior was portrayed as an action that would make them feel depressed.

In addition, other research supports the idea that guilt and negative moods lead to helping behavior. Cunningham, Steinberg, and Grev (1980) showed that 80% of participants who were led to believe that they had broken the experimenter's camera helped a female confederate pick up dropped papers. Only 40% of the participants who had not broken the camera helped. In essence, when guilt was induced in the participants, they helped more. This finding supports Cialdini's Negative State Relief model.

Another study supporting the model was an experiment conducted by Regan et. al (1972) with 40 adult females in a shopping center. The researchers tested the hypothesis that harm-doers are more likely than controls to respond favorably to a naturally occurring opportunity for aid, even in the absence of a direct request. Each participant was approached by a male experimenter and asked to take his picture for a project. The camera would not work, and the experimenter either implied that the participant had broken the camera (guilt condition) or said that the malfunctioning was not her fault (control condition). Soon after, a female experimenter crossed the subject's path carrying

a broken grocery bag from which candy fell. Fifty-five percent of the participants in the guilt condition informed the 2nd experimenter of the camera mishap, compared with only 15% of the control subjects. Results were interpreted as showing voluntary expiation of guilt.

A further example supporting this idea was an experiment by Harris, Benson, and Hall (1975). In their study, Catholics were asked to donate to the March of Dimes either before going to confession or afterwards. The results showed that before confession, 40% of the Catholics donated to the charity, while only 17% donated when they were asked after confession. Mood had a significant effect on helping behavior. When the participants were feeling guilt, they donated to the charity in order to relieve that guilt. However, after their guilt was relieved in confession, subjects were significantly less likely to engage in helping behavior.

Cialdini's idea that negative moods will increase helping behavior has been replicated by numerous researchers, as evidenced. However, it is possible that the measure of helping in Cialdini's work might suffer from social desirability issues. Because helping occurs during the experiment, the participant cannot leave the experiment at that time, and may feel excessive pressure to help.

The current research has two primary purposes. First, it is an attempt to replicate Cialdini's findings. Additionally, it attempts to correct the potential social desirability flaw in Cialdini's methodology. In this study, the measure of helping will occur after the experiment is "over" which, in turn, should eliminate the social desirability problem. The participant views the experiment as being finished, and they therefore feel free to leave. The helping measure will take place in a setting removed from the original study.

Additionally, this study examines the effect of indirect relief on helping. There has been little to no previous research devoted to the effect of indirect relief on helping, therefore study in this area is warranted.

The specific predictions are made about the current study:

1. Relief Condition Hypotheses:

Helping will occur in the No Relief Condition in order to mitigate the negative affect state that was induced in the participant. Participants in the Direct Relief condition will be less likely to help than those in the Indirect Relief condition because the Direct Relief will impact the participant's negative state more than the Indirect Relief. Given that this is true, it is predicted that:

- a. The amount of helping behavior will occur most frequently in the No Relief condition
- b. Participants will engage in helping behavior in the Indirect Relief condition, but to a lesser extent than in the No Relief condition.
- c. Participants will be significantly less likely to help in the Direct relief condition than in the other conditions.

2. Harm Hypotheses

Helping will also occur more often with Subject Harm because the participant's feeling of responsibility for the harm will make them feel guilty, and thus they will be more likely to help. Helping will occur less in the Experimenter Harm condition because the participant will not have caused the harm, and therefore will feel less guilty about it

having occurred. Using these assumptions, it is predicted that: Helping will occur more often with Subject Harm than with Experimenter Harm.

Methods

Participants

Participants were 30 undergraduate males and 31 undergraduate females who participated for course credit. Each participant was randomly assigned to one of the six conditions. In order to conceal the identities of individuals, the participants were assigned code numbers. The code numbers identified only the conditions of the experiment and gender of the participant (i.e. DR1F, Direct Relief, participant number 1 in this condition, female).

Materials

A helping questionnaire was used to record participants condition(s) and response to the helping manipulation (refer to Appendix A). The participants were given an informed consent sheet at the start of the session (refer to Appendix B), and a debriefing sheet at the end (refer to Appendix C). The Word distractor program was run on a ThinkPad 600E. The task was programmed in Visual Basic. The distractor list consisted of 150 randomly chosen words (refer to Appendix D).

Design

This study involved a 3 x 2 between subject design (relief x harm). The dependant variable in this experiment was the outcome of the helping behavior. The independent variables were harm and relief.

There were a total of 6 conditions. The type of harm varied between two conditions. Experimenter harm was the condition that occurs when the experimenter caused the harm, and subject harm happened when the subject caused the harm. The type of relief varied among three conditions. Direct relief was given to the subject through praise when harm was caused. Indirect relief was given through a confederate who gave the experimenter relief (a piece of good news, the good news being an A on a test); the participant saw something negative occur to the experimenter, and then saw something positive occur to the experimenter. In the no relief condition, harm was caused, but no relief was given to the participant.

Procedure

At the start of an experiment session, the experimenter greeted the participant. The participant was then instructed to sit down in front of the computer. At this point, the harm occurred. The participant or the experimenter (depending on condition) entered the subject's code number and gender. The computer program then generated the error message, which stated that because of this data entry, the previous data file had been deleted. In the experimenter harm condition, the experimenter clicked "Continue" causing the message to show; for the subject harm conditions, the subject did this. In the former condition, the experimenter entered the data, causing the error message to pop up (thus causing harm to occur). In the subject harm condition, the participant was instructed to enter their code number and gender. Once the participant made the entry, the error message was shown. The participant had entered the data that caused the message to occur, thus causing harm to occur. Upon seeing the message appear, the experimenter said, "Oh, no, the data from the previous session has been deleted. There is no way to

retrieve it. Oh well, let's continue on with the experiment." The subject then played a computer-based word game for 10 minutes. The word game was a cognitive task that allowed the participants to feel that there was a practical purpose for the experiment. During the word game, in the Indirect Relief condition, the confederate entered the room and delivered the good news to the experimenter ("You got an A on the test that I picked up for you!"). No interruptions occurred in the other relief conditions. In the Direct Relief condition, the participants were told that they had received the highest score yet after the experimenter "analyzed" a data file. Nothing occurred in the No Relief condition. The participants were then thanked by the experimenter, and were told that they would be credited for their participation. They were asked to go with the confederate, who gave them the standard experiment card (green card) which is used by the Psychology department to collect feedback about the experiment. The department uses them to find out how the experiment went, and whether any problems occurred. The confederate gave the participant the green card, and then told the participant that they needed more people to fill out a one-page survey for a class, and asked if the participant would help. Because the measure of helping was perceivably distinct from the experiment in the participants mind, there was less pressure to comply. The participant was taken to a different setting in order to eliminate some social desirability effects involved with the request being made in the same experimental setting. The participant either agreed or disagreed to help. After the response was given, the confederate then brought the subject back to the experimenter for a full debriefing. The participants were then thanked for their participation.

Results

Overall, 51% of participants chose to help the confederate. Results indicated a difference in helping behavior among conditions. There were 21 participants in the Indirect Relief condition, 21 in the No Relief condition, and 19 in the Direct Relief condition (n=61). Because all of the data were independent of each other, a chi-squared test was used for the analysis. In the Direct Relief condition, 2 out of 19 participants helped (11%) while 17 did not. In the Indirect Relief condition, 11/21 participants helped (52%), and 10 did not. In the No Relief condition, 18/21 participants helped (86%), and 3 did not (summary in Table 1). There was a significant difference between all three conditions $X^2(2, N= 61) = 22.60, p < .0001$. Results of the analysis can be found in Table 2.

Relief Conditions:

According to the hypotheses for the Direct Relief and No Relief conditions, it was predicted that the amount of helping behavior would be greatest in the No Relief condition and that participants would be significantly less likely to help in the Direct Relief condition. The results of the chi-squared analysis indicated that there was a significant difference between the No Relief and the Direct Relief condition $X^2(1, N= 40) = 22.56, p < .0001$. Results of the analysis can be found in Table 3. Significantly more people helped when guilt was not relieved than when it was.

It was predicted for the Indirect Relief condition that participants would engage in helping behavior in the Indirect Relief condition, but to a lesser extent than in the No Relief condition. There was a significant difference between the No Relief and the Indirect Relief condition $X^2(1, N= 42) = 5.46, p = 0.019$. When guilt was partially

relieved, people were significantly less likely to help. However, there was also a significant difference between the Direct Relief and the Indirect Relief condition $X^2(1, N= 40) = 7.97, p = .005$. This result shows that participants helped the most when they were left in a negative state, and engaged in helping behavior part of the time when guilt was indirectly relieved. However, the Indirect Relief was not strong enough to completely counter the negative state. Participants in the Indirect Relief condition helped more than those who were given relief. Refer to Tables Four and Five for the complete results.

Harm Results

The predictions for different responsibility of harm were that helping would occur more often with Subject Harm and helping would occur less often in the Experimenter harm condition. There was no significant difference for Experimenter versus subject harm for any of the Relief conditions (Please refer to Table 6).

Conclusion

The current study was designed to clarify the relationship between negative mood and helping behavior. These findings suggest that when guilt is induced in a participant, he or she is more likely to engage in helping behavior. Participants appeared to help in order to relieve the negative state that the guilt manipulation had created. Participants who were put in slightly negative moods, helped more when they were not given relief, but did not help as much when the moods were relieved. This finding adds support to Cialdini's theory of Negative State Relief. When guilt was partially induced in a participant (Indirect Relief), he or she engaged in helping behavior to a lesser extent.

One possible explanation for this finding is that when guilt is induced, the participant is put into a negative state. When partial relief is given, the participant moves from a negative state to a slightly positive one, although the slightly positive state is not comparable to the highly positive one brought on by giving the participant praise. The participant helped in order to move from a slightly positive or neutral state to a solidly positive one. These findings parallel Cialdini's and other researchers. Harris et. al (1975) performed an experiment in which there was a natural level of guilt (in Catholics attending confession). He found that people donated more money before confession than after it. This supports the current research's findings, as well as Cialdini's results by having Negative State Relief occur in a more generalizable environment. The findings of Harris et. al add particular credence to Cialdini's theory.

In addition, the findings add another dimension to the research on guilt and helping behavior. Indirect relief is something that could be researched further, due to the lack of information available on this topic. There are a couple of reasons why significant results were not obtained for the relief conditions. The fact that no significant difference occurred between any of the experiment or participant conditions for all relief conditions may simply be due to a limited sample size. However, the fact that no significant differences were found may also suggest that participants feel enough guilt upon seeing the error message appearing, that the instigator of the harm does not matter. The harm has occurred, the participant is in a negative state, and, unless given some form of relief, will offer assistance in order to move to a more neutral or positive state.

Feeling empathy for a person who is suffering involves a state of temporary sadness or depression, which can be relieved by any mood-enhancing experience,

including obtaining the social and self-rewards that accompany helping. This research contributes to an ever-growing body of literature that provides fairly convincing evidence that helping can improve people's moods and relieve guilt. As for the question of whether helping can lead to improvement in guilt and mood, the results of the study, along with others (Baumann, Cialdini, & Kenrick, 1981.; Cialdini, Darby, & Vincent, 1973; Cialdini & Kenrick, 1976; Cialdini et. al., 1987) suggest that the answer is yes. In addition, the present results expand upon previous research in several ways. The data add evidence in support of the idea that providing help can improve moods by replicating a previous study. The data also helps by ruling out alternative explanations such as Batson's empathy theory.

However, additional explanations may also exist. One is that anticipating the other's positive reaction causes moods to improve and guilt to disappear. Also, the fact that the participant knows that the other person has received a benefit (help) makes the participant feel good. In contrast, if the participant knows that they could have helped and that the other person's needs were not met, they might feel badly as a result. Perhaps one or more of these explanations are responsible for the plethora of literature supporting negative moods and helping behavior. It is difficult to isolate which parts of providing help are responsible for the effects of providing help on guilt. Future research should address this issue.

In the current study, in light of the fact that the effect of negative mood on helping behavior has been replicated both in more natural environments and with larger samples, the current results add to the body of literature on Negative State Relief.

References

- Batson, C. (1997). Self-other merging and the empathy-altruism hypothesis: Reply to Neuberg et. al. *Journal of Personality and Social Psychology*, 73, 517-522.
- Batson, C. D., Dyck J. L., Brandt J. R., Batson J. G., Powell A. L., McMaster, M. R., & Griffitt, C. (1988). Five studies testing two new egoistic alternatives to the empathy-altruism hypothesis. *Journal of Personality and Social Psychology*, 55, 52-77.
- Batson, C. D. (1987). Prosocial motivation: Is it ever truly altruistic? *Advances in experimental social psychology*, 20, 65-122.
- Batson, C. D., Bolen, M. H., Cross, J. A., & Neuringer-Benefiel, H. E. (1986). Where is the altruism in the altruistic personality? *Journal of Personality and Social Psychology*, 50, 212-220.
- Batson C. D., Duncan B., Ackerman P., Buckley T., & Birch K. (1981). Is empathic emotion a source of altruistic motivation? *Journal of Personality and Social Psychology*, 40, 290-302.
- Batson, C. D., Dyck, J. L., Brandt, J. R., Batson, J. G., Powell, A. L., McMaster, M. R., & Griffitt, C. (1988). Five studies testing two new egoistic alternatives to the empathy-altruism hypothesis. *Journal of Personality and Social Psychology*, 55, 52-77.
- Batson, C. D., O'Quin, K., Fultz, J., Vanderplas, M., & Isen, A. (1983). Self-reported distress and empathy and egoistic versus altruistic motivation for helping. *Journal of Personality and Social Psychology*, 45, 706-718.
- Batson, C., Sager, K., Garst, E., Kang, M., Rubchinsky, K. & Dawson, K. (1997). Is empathy-induced helping due to self-other merging? *Journal of Personality and Social Psychology*, 73, 495-509.
- Cialdini, R. B., Baumann, D. J., & Kenrick, D. T. (1981). Insights from sadness: A three-step model of the development of altruism as hedonism. *Development Review*, 1, 207-223.
- Cialdini, R., Brown, S., Lewis, B., Luce, C. & Neuberg, S. (1997) Reinterpreting the empathy-altruism relationship: When one into one equals oneness. *Journal of Personality and Social Psychology*, 73, 481-494.
- Cialdini, R. B., Darby, B. L., & Vincent, J. E. (1973). Transgression and altruism: A case for hedonism. *Journal of Experimental Social Psychology*, 9, 502-516.

- Cialdini, R. B., & Kenrick, D. T. (1976). Altruism as hedonism: A social development perspective on the relationship of negative mood state and helping. *Journal of Personality and Social Psychology*, 34, 907-914.
- Cialdini, R. B., Schaller, M., Houlihan, D., Arps, K., Fultz J., & Beaman, A. (1987). Empathy-based helping: Is it selflessly or selfishly motivated? *Journal of Personality and Social Psychology*, 52, 749-758.
- Cunningham, Michael R. (1979). Weather, mood, and helping behavior: Quasi experiments with the sunshine samaritan. *Journal of Personality & Social Psychology*, 37(11), 1947-1956.
- Cunningham, M. R., Steinberg, J., & Grev, R. (1980). Wanting to and having to help: Separate motivations for positive mood and guilt-induced helping. *Journal of Personality & Social Psychology*, 38(2), 181-192.
- Harris, Mary B., Benson, Sheldon M., & Hall, Carroll L. (1975). The effects of confession on altruism. *Journal of Social Psychology*, 96(2), 187-192.
- Kassin, S., & Kiechel, K. (1996). The Social psychology of false confessions: Compliance, internalization, and confabulation. *Psychological Science*, 7, 125-128.
- Kenrick, D., Neuberg, S., & Cialdini, R. (1999). Social psychology: Unraveling the mystery. Allyn and Bacon: Boston, 403-406.
- Isen, A. M., & Levin, P. F. (1972). Effect of feeling good on helping: Cookies and kindness. *Journal of Personality & Social Psychology*, 21(3), 384-388.
- Isen, A. M., & Simmonds, S. F. (1978). The effect of feeling good on a helping task that is incompatible with good mood. *Social Psychology*, 41(4), 346-349.
- Manucia, G. K., Baumann D. J., & Cialdini R. B. (1984). Mood influences on helping: Direct effects or side effects? *Journal of Personality and Social Psychology*, 46, 357-364.
- McMillen, D. L., Austin, J. B. (1971). Effect of positive feedback on compliance following transgression. *Psychonomic Science*, 24(2), 59-61.
- Miller, N., & Carlson, M. (1990). Valid theory-testing meta-analyses further question the negative state relief model of helping. *Psychological Bulletin*, 107, 215-225.
- Regan, W. & Sparling, S. (1976). Voluntary expiation of guilt: A field experiment. *Journal of Personality & Social Psychology*, 24(1), 42-45.

Tables

Table 1

Measure of Helping Behavior for Participants across the Relief Conditions

	Helped	Did Not Help
Direct Relief	2	17
Indirect Relief	11	9
No Relief	18	3

Table 2

Chi-Squared for Direct, Indirect and No Relief conditions

Chi-Square	dir	ind	no
help	2	11	18
	9.66	10.67	10.67
not	17	10	3
	9.34	10.33	10.33

Chi-Squared for Direct, Indirect and No Relief conditions = 22.594

DF = 2, $p < 0.001$

Table 3

Chi-Squared for Direct v. No Relief

Chi-Square	dir	no
help	2	18
	9.5	10.5
not	17	3
	9.5	10.5

Chi-Squared value for Direct Relief versus No Relief = 22.56

DF = 1, $p < 0.001$

Table 4

Chi-Squared for Direct Relief v. Indirect Relief

Chi-Square	dir	ind
help	2	11
	6.18	6.83
not	17	10
	12.8	14.18

Chi-Squared value for Direct Relief versus Indirect Relief = 7.97

DF = 1, $p = 0.005$

Table 5

Chi-Squared for Indirect v. No Relief

Chi-Square	ind	no
help	11	18
	14.5	14.5
not	10	3
	6.5	6.5

Chi-Squared value for Indirect relief versus No Relief = 5.6

DF = 1, $p = 0.019$

Table 6

Chi-Squared for Participant and Experimenter harm for all Relief conditions

Direct	Chi-Square	P	E
Relief	help	1	1
		0.95	1.05
	not	8	9
		8.05	8.95

Indirect	Chi-Square	P	E
Relief	help	7	4
		5.24	5.76
	not	3	7
		4.76	5.24

No	Chi-Square	P	E
Relief	help	10	8
		9.43	8.57
	not	1	2
		1.57	1.43

Note. P refers to the Participant harm condition, and E refers to the Experiment harm condition.

Chi-Square Test for P, E Direct = 0.006, DF = 1. One or more cells with expected count less than 5, therefore, a p-value cannot be calculated.

Chi-Square Test: P, E Indirect = 2.376, DF = 1, p = 0.123

Chi-Square Test: P, E No Relief = 0.509, DF = 1, p = 0.476

Appendix A

Experimenter Coding Sheet:

Participant number:

Gender:	M	F	
Harm:	Experimenter	Participant	
Relief:	No Relief	Direct Relief	Indirect Relief

Did the participant help?

Was the offer to help reluctant?

Describe reasons given, if any, for helping or not helping:

Appendix B

Consent Form

PSYCHOLOGY DEPARTMENT

CONSENT TO PARTICIPATE IN A STUDY

Title of Study: Decision Making Processes

I agree to participate in the above named research study. I understand that I will be asked to: play a computer based word game and fill out a questionnaire. The study should take about an hour.

The procedures used in this study pose no more than minimal risk. I will receive one credit toward the psychology department research requirement for my participation in this study. If I object to any part of the study or become uncomfortable for any reason, I may discontinue my participation at any time without penalty.

I understand that my name will not be associated with any information I provide in this study, and that my identity will not be revealed in any description or publication of this research.

At the end of this study, I will receive a full description of the research, including a discussion of its scientific purpose. Any future questions I have about this research will be answered by Larissa Schyrokyj at larissa@andrew.cmu.edu or Dr. Chante Cox-Boyd at cox-boyd@andrew.cmu.edu or at 268-2801. Any questions that I have about my rights as a research participant will be answered by Dr. Vicki Helgeson at 268-2624, or Dr. Ann Baldwin Taylor, IRB Chair, at 268-1498.

By signing this form, I agree to participate in this study. I acknowledge that a copy of this form has been given to me.

Printed Name

Signature

Date

Appendix C

Debriefing Sheet

Debriefing: Decision Making Processes

The purpose of the study is to determine the effects of a person's mood on their willingness to help, specifically how feelings of guilt influence this behavior. Previous research has shown that individuals are more willing to help when they are in negative moods (guilt, sadness, etc). Negative moods enhance helping behavior, since helping is seen as a way to alleviate the negative mood. A person is in a negative mood, they help someone, and then they will be more likely to be in a positive mood.

In this experiment, guilt was induced by the error message appearing on the screen. The error message was programmed to appear regardless of participant or experimenter entry. Guilt being induced also induced a slightly negative mood. Once the slightly negative mood had occurred, willingness to help was assessed. Willingness to help was assessed by the question, "Would you be willing to help me by completing a methods survey for me?" This experiment examines responses to guilt in three different ways. First, when guilt is induced, and something is given that directly alleviates that guilt (praise), theoretically, a person's mood is elevated; which makes a person less likely to help. This is called Negative State Relief. Second, when guilt is induced, and then indirectly alleviated (a person indirectly caused something slightly negative to happen to someone else, but then saw something good happen to that same person), the person's mood (the guilt induced mood) may also become elevated, making them less likely to help. Third, when guilt is induced but not alleviated, the person still feels badly, therefore they are more likely to help. They will behave in a manner that relieves that guilt. Not helping after being given praise or relief is a natural, expected response for this experiment.

This experiment involved deception. The purpose of the experiment (the effect of mood on helping) was not explained at the beginning of the experiment. Deception is necessary in this experiment because in order to assess helping behavior (whether you agreed to help or not), you could not be told that the experiment involved helping. Determining whether or not helping will occur means determining a social phenomenon that has to occur without prompting. Deception was used because true helping behavior cannot be assessed with the knowledge that the behavior is being assessed. It is explained here to give a full informed debriefing of the purpose of the experiment, and to re-establish trust. Because deception was used, it is vital that you understand the reason for using it.

Negative State Relief occurs often in everyday life. It is helpful to understand these everyday processes since we experience small amounts of guilt on a daily basis. This guilt influences our social interactions. If we feel guilty over something, we will try in some way to make it better. We might help someone by running an errand for him or her, or by giving him or her praise. We feel guilty, and then once relief (direct or indirect) is given, we feel better. For example, if you're walking down the street, and you bump into a friend who you've been meaning to talk to for months, you feel slightly guilty when approaching them. If your friend tells you that they've been doing badly,

you feel even worse, because they could have potentially used your help, and you weren't there for them. If your friend tells you that things are wonderful, you feel better, since you know they didn't need your help. Guilt was induced by seeing them and knowing you didn't call them, but indirectly relieved when they said they were great. You didn't get any specific direct relief, but you feel better because of what they told you.

If you are interested in reading more about Negative State Relief and helping, please refer to: Cialdini, Robert. B, Darby, D.L, & Vincent, J. E. (1973). "Transgression and Altruism: A Case for Hedonism." Journal of Experimental Psychology, 9. 502-516.

The data from this project will be analyzed by April 2003. In the meantime, if you have any questions or comments about the study, or if you want to find out the results, please feel free to contact Larissa Schyrokyj at larissa@andrew.cmu.edu or Dr. Chante Cox-Boyd at coxboyd@andrew.cmu.edu or at 268-2801. Please do not discuss the goals of this study to friends or classmates: It is important that participants in this project remain unaware of the experiment's objectives/research goals prior to participation. Thank you very much for participating in this study.

Appendix D

Word List for Distractor Task:

1	scoreboard	wedge
2	nail	taxi
3	flag	receipt
4	composer	acorn
5	boiler	blanket
6	ladder	dinosaur
7	patient	soccer
8	eye	belt
9	vaccine	subway
10	pin	spoon
11	caravan	ape
12	magician	onion
13	airman	raffle
14	space	rally
15	ink	paint
16	revolver	monument
17	cheese	reporter
18	rubber	refugee
19	handbag	camera
20	match	sad
21	photograph	menu
22	rocket	heart
23	tree	kitchen
24	ice	sink
25	alphabet	green
26	marsh	phone
27	frog	lead
28	drink	cloth
29	gene	crystal
30	dirt	candle
31	television	saw
32	baby	window
33	piano	car
34	mouse	page
35	door	cat
36	smell	person
37	hat	nice
38	seat	building
39	sheet	berry
40	excel	line
41	book	coffee
42	clothing	soup
43	balloon	secretary
44	word	help
45	praise	dirt
46	help	knife

47	girl	fly
48	chew	cloud
49	fan	mirror
50	sheep	plastic
51	bone	morning
52	bend	hand
53	point	shoe
54	fur	blood
55	potion	key
56	work	brown
57	pillow	dose
58	mop	robe
59	candle	nose
60	slime	hour
61	game	diary
62	shabby	cover
63	funny	caution
64	wing	less
65	harp	kidney
66	sugar	blow
67	shoe	niece
68	pink	eatery
69	planet	reform
70	deep	congress
71	dentist	shy
72	favor	attack
73	beard	auburn
74	dungeon	moose
75	passage	box
76	hairy	doll
77	house	teapot
78	echo	dark
79	cheerful	continue
80	visit	habit
81	option	community
82	business	type
83	alley	silent
84	voice	knot
85	pale	cross
86	breath	pressure
87	spider	cupboard
88	flame	protect
89	breakfast	exam
90	wand	scared
91	chamber	tremble
92	pillar	shadow
93	awl	memory
94	earth	misty
95	transform	blunder
96	careless	search

97	angry	roosters
98	shiny	fashion
99	mercury	orphan
100	trace	frozen
101	window	work
102	wedge	word
103	type	wing
104	tremble	wand
105	teapot	voice
106	taxi	visit
107	subway	vaccine
108	spoon	tree
109	soup	transform
110	soccer	trace
111	sink	television
112	silent	sugar
113	shy	spider
114	shoe	space
115	shadow	smell
116	secretary	slime
117	search	shoe
118	scared	shiny
119	saw	sheet
120	sad	sheep
121	roosters	shabby
122	robe	seat
123	reporter	scoreboard
124	refugee	rubber
125	reform	rocket
126	receipt	revolver
127	rally	praise
128	raffle	potion
129	protect	point
130	pressure	planet
131	plastic	pink
132	phone	pin
133	person	pillow
134	paint	pillar
135	page	piano
136	orphan	photograph
137	onion	patient
138	nose	passage
139	niece	pale
140	nice	option
141	morning	nail
142	moose	mouse
143	monument	mop
144	misty	mercury
145	mirror	match
146	menu	marsh

147 memory
148 line
149 less
150 lead

magician
ladder
ink
ice