NORMS, PERSONALITY TRAITS, VALUES, AND GENDER: THE USE OF INJUNCTIVE AND DESCRIPTIVE NORMS IN A PUBLIC GOODS DILEMMA

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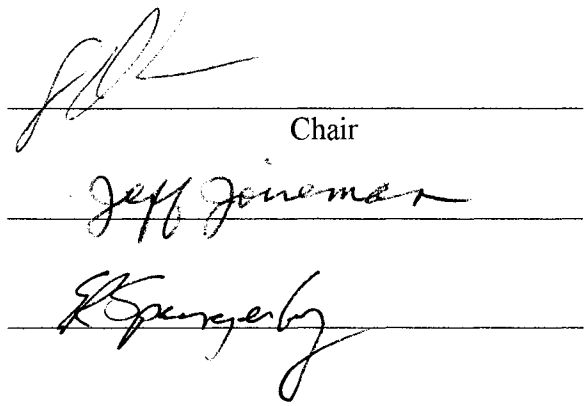

Chair

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NORMS, PERSONALITY TRAITS, VALUES, AND GENDER: THE USE OF INJUNCTIVE AND DESCRIPTIVE NORMS IN A PUBLIC GOODS DILEMMA

Abstract

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Social norms influence many behaviors, including cooperation. This study examined the use of Prosocial and Proself Injunctive and Descriptive norms in a public goods dilemma. The Big Five personality dimensions, Schwartz's (1992) 4 universal value domains, gender, and social responsibility were also examined. 333 undergraduate students were exposed to purported data for the norm manipulation. They next played a single trial of a public goods dilemma in groups of 5, and responded to a series of questionnaires related to the individual difference variables already listed.

Only the Descriptive norms influenced contribution amount. Although the Injunctive manipulation appeared unsuccessful, the Injunctive norms seem to have some influence on the data, particularly with social responsibility. When looking at solely the Descriptive norm conditions, some regression models change in significance from when the broad Proself and Prosocial categories are used. In particular, significance is lost for Extraversion and Neuroticism with contribution amount as the criterion, and with social responsibility as the criterion significance is lost for Extraversion, Agreeableness, self-transcendence, and openness to change. At no point does any model change from nonsignificant to significant when only the Descriptive

conditions are considered. This pattern indirectly suggests the role of the Injunctive norms. Openness to experience, Conscientiousness, and conservation maintain significance regardless of condition when amount of contribution is considered.

Those high in Extraversion and low in Agreeableness made contributions that varied by condition (Proself, Control, Prosocial). With both, they gave the least in the Proself conditions and the most in the Prosocial conditions. Women had a higher sense of social responsibility, overall, but there was no gender difference related to contribution behavior. Despite some previous findings, social responsibility did not correlate with contribution behavior.

This study lends support for the use of social norms in soliciting donations for non-profit organizations, and caution in utilizing uncooperative social norms. A field study should be conducted in the future to increase external validity. Additionally, it seems likely that the norms will be more influential in a natural setting with a concrete situation. Additional findings are presented and further discussed.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Introduction

Few would dispute the importance of social service organizations and charities, and the behavior of citizens toward such entities reinforces this notion. In 2001, 44% of American adults donated their time to organizations devoted to the welfare of society. These 83.9 million volunteers gave the equivalent of over 9 million full-time employees and $239 billion worth of work. The average yearly contribution from households that donate their money to these organizations is $1620, and 89% of households in the United States gave in 2001 (Independent Sector, 2001). Without this type of support, these social service organizations would not be able to operate and provide those in need with assistance (Cheung & Chan, 2000).

Despite such seeming generosity, ensuring support for socially beneficial entities is a continual challenge. This is because such entities can be described as a type of "social dilemma." This proposal presents a study designed to help understand why people might not, from a social dilemma perspective, contribute to a social organization, and how a normative approach might help overcome such reluctance.

Social Dilemmas

A social dilemma has two opposing aspects: a person may act in his/her self-interest and be better off than if they had given up some of their resources to the collective; however, if everyone does so, the entire group is worse off than if individuals were to cooperate (e.g., Biel & Garling, 1995; Dawes, 1980). There are two main categories of social dilemmas, a resource dilemma and a public goods dilemma (e.g., Biel & Garling, 1995; McCusker & Carnevale, 1995; van Dijk & Wilke, 1995; van Dijk & Wilke, 1997), both of which are common in society. An example of a resource dilemma is a forest of trees. Many people rely on that resource to provide them with necessities; however, there is only a finite amount and the replenishment rate does not

always keep up with demand. If all people behave selfishly, the resource becomes depleted and everyone has lost that resource. If all cooperate and control their harvesting, they will be more likely to meet their needs and allow for replenishment. However, if one cooperates and no one else does, then that person loses out on both obtaining the resource in the present and future; on the other hand, if one is selfish when all others cooperate, then one can realize a substantial outcome, relative to what is received by cooperators. This is the essence of the dilemma. A resource dilemma is also referred to as a take-some game because the individual determines how much of the resource he or she will take. This creates a gain frame in that anything the person does results in a gain from the original reference point (e.g., McCusker & Carnevale, 1995; van Dijk & Wilke, 1995; van Dijk, Wilke, & Wit, 2003).

A public goods dilemma can be exemplified by the continual need for support that charitable organizations face. The provision of public goods, such as charitable organizations, is typically only possible if some people give up a little of their own possessions (e.g. time, money, energy) in order to enhance the collective good. It is in the individual's best interest to utilize an organization's services without contributing to their operations. However, if everyone acted in this manner, then these organizations would not be in existence and the group as a whole would be worse off than if each person had made a contribution. "Give-some" games is another term for public goods dilemmas because an individual must choose how much of his/her resources to give to the collective good. Give-some games induce a loss frame, such that any provision to the public good results in a loss from the individual's starting point, although a gain for the collective (e.g., McCusker & Carnevale, 1995; van Dijk & Wilke, 1995).

Some believe a social dilemma is a situation that is doomed to lead to failure for the collective, a "tragedy of the commons" (Hardin, 1968). However, many studies offer hope and

the possibility of overcoming social dilemmas (e.g., Biel & Garling, 1995; Martichuski & Bell, 1991; McCusker & Carnevale, 1995; Ostrom, 1998). Indeed, even the participants themselves feel responsibility and that they and others can act to change the situation and the outcome (Gifford & Hine, 1997). Many believe that humans are capable of, must, and do engage in prosocial behaviors for the survival of human society (e.g., Cheung & Chan, 2000; Graziano, Hair, & Finch, 1997; Koole, Jager, van den Berg, Vlek, & Hofstee, 2001; Ostrom, 1998).

Although all social dilemmas involve conflict between individual and group interests, numerous studies show there are differences in cooperation in resource and public goods dilemmas (e.g., Biel & Garling, 1995; McCusker & Carnevale, 1995; van Dijk & Wilke, 1995, 1997). In particular, these studies suggest that people are more cooperative when they are taking from a resource rather than giving, although the opposite has also been found (van Dijk & Wilke, 1995). Additionally, social responsibility appears to be triggered in public goods dilemmas more easily than in resource dilemmas (van Dijk & Wilke, 1997). Social responsibility is a belief that a person should act in ways to help the group, without requiring or expecting an extrinsic reward for doing so (e.g., Berkowitz & Lutterman, 1968; Parks & Huntoon, submitted).

Norms in Social Dilemmas

Social norms can be a viable method of increasing prosocial behavior. The choices made in a social dilemma can be largely influenced by norms (Bratt, 1999; McCusker & Carnevale, 1995). Often, communication in a social dilemma, especially face-to-face communication, can increase the rate of cooperation. This is, in part, due to the creation and reinforcement of the norms (Ostrom, 1998). Norms need to be salient in order to have subsequent influence on behavior (Cialdini, Kallgren, & Reno, 1991; Kallgren, Reno, & Cialdini, 2000). If the saliency of norms can be raised, it is likely that the rate of cooperation will also rise (Cialdini, 2003; Kerr,

1995). Of course, social norms can also decrease prosocial behavior. When a lot of people are doing something that is not desirable, it should not be focused upon because it can influence people in an undesirable direction (Abrams, Marques, Bown, & Dougill, 2002; Cialdini, 2003; Cialdini et al., 1991).

In general, the research emphasis in this area has been on increasing the rate of group-regarding behaviors among group members. One technique that holds promise is to make salient social norms that relate to cooperation (e.g., Bator & Cialdini, 2000; Cialdini et al., 1991; Jonas, Schimel, Greenberg, & Pyszczynski, 2002; Kallgren et al., 2000; Ostrom, 1998). For example, Bell, Cholerton, Fraczek, Rohlfs, and Smith (1994) examined the foot-in-the-door technique and pregiving, which is a form of reciprocity (a social norm), as methods for obtaining donations for an AIDS-related charity. Each was more effective than the control at obtaining donations. Next, Cheung and Chan (2000) developed a causal model of the intention to donate to a charitable organization. Included among several variables was moral obligation, a type of norm, as a mediator. The moral obligation felt by the benefactor was found to be very important for donating money because the act of donation itself is considered a moral act. Reingen (1982) manipulated the amount of previous donations given by similar others. This norm, demonstrated by others' behavior, influenced the amount that the participants gave. If they thought previous donations were large, they tended to give large donations, and if the norm consisted of small donations, the participants tended to provide smaller monetary amounts.

In the preceding examples, social norms were important factors in donation behavior. People tend to imitate what the people around them are doing (Oskamp, 1995; van Baaren, Holland, Kawakami, & van Knippen, 2004), especially when the situation is ambiguous (Bratt, 1999; Hodson, Maio, & Esses, 2001). Normative social influence may affect the rate of

cooperation because rewards and punishments (which can be social) typically increase the likelihood of cooperation (Biel & Garling, 1995; Martichuski & Bell, 1991; McCusker & Carnevale, 1995), although this is not always the case (Parks, 2000). Those who deviate from the group norm are often evaluated negatively by the other members (Abrams et al., 2002; Devos-Comby & Devos, 2001). Social norms can help people better understand the world around them and create expectations, as well as aid in avoiding social rejection and obtaining social approval (Hodson, Maio, & Esses, 2001). Having expectations of others' actions can influence the decisions that are made in social dilemmas (Gifford & Hine, 1997). Social norms are, in a sense, just that – expectations (Kerr, 1995).

The effect of norms may be stronger when the choices made are not anonymous, through an increase in social pressure and possible sanctions imposed by other group members (Kerr, 1995; McCusker & Carnevale, 1995). The finding that public decisions tend to be more cooperative than private choices suggests normative pressure (Kerr, 1995). However, many social dilemmas are large scale and are characterized by anonymity, low group identification, and little, or no, communication (Biel, von Borgstede, & Dahlstrand, 1999; Kerr, 1995). In these types of conditions, norms can have a small influence (Kerr, 1995) and may be most impactful via social duty, or social responsibility (Biel et al., 1999).

Injunctive and Descriptive Social Norms

There are two major categories of social norms, injunctive and descriptive (Cialdini et al., 1991). An injunctive norm is that which prescribes what a person should do (Cialdini, 2003; Cialdini et al., 1991; Kerr, 1995). It is based on the morals of the group. People tend to do what is approved of by society, particularly their ingroup (e.g. Jetten, Spears, & Manstead, 1997), to obtain social rewards and avoid social punishments (even of imaginary audiences; Cialdini et al.,

1991). When an injunctive norm is perceived and strong, it can increase cooperation in a social dilemma. Injunctive norms can weaken and make less salient the self-serving tendencies that might otherwise lead to noncooperative choices (Biel et al., 1999). It appears that an activated injunctive norm can be more influential than a descriptive norm across situations because the moral component transcends situations (Cialdini et al., 1991; Kallgren et al., 2000). A descriptive norm is more specific to the situation and setting (Cialdini et al., 1991). Descriptive norms are based on what people actually do (Cialdini, 2003; Cialdini et al., 1991; Kerr, 1995). People also tend to do what other people seem to favor, and by doing so learn what an appropriate and adaptable response would be (Cialdini et al., 1991; van Baaren et al., 2004). Many studies have found that focusing participants on descriptive and injunctive norms produces norm- consistent behavior (Cialdini, 2003; Cialdini et al., 1991; Kallgren et al., 2000; Hodson et al., 2001).

Injunctive Norms in Social Dilemmas

There have been a number of studies that examined the effect of injunctive norms in a social dilemma context. Biel, von Borgstede, and Dahlstrand (1999) have even suggested that an injunctive norm may be quite influential within large group social dilemmas because it can instill a sense of duty, morality, or responsibility in an otherwise anonymous situation. Martichuski and Bell (1991) found cooperation increased in a resource dilemma when participants were given instructions that included a "moral" standard. They were instructed to make choices based on the way they would prefer others did. This is similar to an injunctive norm, in that an injunctive norm also contains the "morality" of society. Similarly, Lee, Piliavin, and Call (1999) found that moral obligation was a factor for donation behavior, particularly blood donors. Knowing information about a person's morality can affect expectations about how that person will act in a

mixed-motive situation (DeBruin & van Lange, 1999). People will respond based on these expectations. If they expect pleasant interactions, they are likely to respond with more cooperation than if they expect negative behavior. However, if they have expectations of interacting with a highly moral person who is likely to cooperate, they also have a tendency to take advantage of that cooperative individual to heighten their self-interests (DeBruin & van Lange, 1999). Although not a social dilemma, Fekadu & Kraft (2002) found in a correlational study that injunctive norms were the most important predictor of intending to use contraception among adolescent girls. The descriptive norm was also influential. Due to their examination in a collectivistic culture (Ethiopia), the social norms were stronger predictors than even personal aspects.

Descriptive Norms in Social Dilemmas

Descriptive norms can also influence and encourage prosocial behavior in a social dilemma. Parks, Sanna, and Berel (2001) found that participants made cooperative choices if they learned that similar others had done so. People look to others for information when they need to make a decision, and these others' responses can serve as a norm. Bratt (1999) found that curbside recycling programs serve as a descriptive norm and help increase recycling rates. Hodson, Maio, and Esses (2001) manipulated attitudinal consensus information about the social welfare of citizens and found corresponding changes in attitude by the participants. However, this change in reported attitude only affected those who were ambivalent or already agreed with the consensus information. Those initially opposed to the information demonstrated reactance and opposed the consensus information. This exemplifies the importance of individual characteristics and shows that some individuals are more influenced by norms than others (Hodson et al., 2001). In a field study on recycling behavior, sign messages were manipulated

(Werner, Stoll, Birch, & White, 2002). A sign that included the phrase "it is the 90's" to encourage recycling appeared to serve as a descriptive norm. The participants exposed to this message believed that there was more recycling occurring, but this did not increase their recycling behavior immediately. It did, however, sustain their recycling rates over time compared to other messages. The frequency of prorecycling messages also increased the amount recycled in other studies (Martinez & Scicchitano, 1998; Schultz, 1998). Media effort seemed to indicate a norm in those communities with heavy exposure and increased recycling above and beyond simply being exposed to the information provided (Martinez & Scicchitano, 1998). Schultz (1998) found that leaving weekly door hangers with normative feedback about either the neighborhood's recycling (social norm) or an individual household's recycling (personal norm) increased curbside recycling rates over an extended period of time.

Some social dilemma game instructions have included the phrase that "most subjects participating so far decided to contribute" (McDaniel & Sistrunk, 1991). (Typically, social dilemma game instructions provide a motive of self-interest; Kerr, 1995). This appears to be a descriptive norm blatantly stated at the beginning of the game, and it influenced the findings – it increased cooperation (De Dreu & McCusker, 1997). However, it also may have induced experimental demand. Lee, Piliavin, and Call (1999) and Piliavin and Libby (1985/1986) found that modeling, which in a sense serves as a social norm, affects donation behavior, although it may be stronger for blood donors than those donating time or money.

Utility of Social Norms in Social Dilemmas

The use of social norms in social dilemmas has been suggested as a means to increase health-related behaviors (e.g., Bracht, 2001; Fekadu & Kraft, 2002; Lederman, 2001) as well as prosocial behaviors (e.g., Bratt, 1999; Cialdini et al., 1991; DeCremer & van Lange, 2001;

Follows & Jobber, 2000; Martinez & Scicchitano, 1998; Oskamp, 1995; Ostrom, 1998; Pillutla & Chen, 1999; Putnam, 2000). In discussing the need for the public to engage in prosocial collective behavior, Putnam (2000) believes, "social norms and the networks that enforce them provide such a mechanism" (p. 288). Despite this support of the possibility of normative pressure to change behaviors of groups, it has long been underrepresented in the literature (Biel, von Borgstede, & Dahlstrand, 1999; Kerr, 1995; Ostrom, 1998). Part of the seeming neglect is that some researchers view social norms as very broad and vague explanations for behavior that are difficult to assess experimentally and are brought in to provide a rationale for a finding after the fact (Cialdini et al., 1991; Kerr, 1995; Samuelson & Allison, 1994). Some contend social heuristics, such as equal sharing, are better at accounting for behavioral differences in social dilemmas (Samuelson & Allison, 1994). It should be noted, though, that van Dijk and Wilke (1995), when systematically manipulating symmetry of the resource and amount of thought needed to make a decision, found results that were inconsistent with an "equal division" explanation. They found that participants did not take the cognitive shortcuts, but made careful calculations to adhere to the norms of the situation. Of late, there has been an increase in the examination of cognitive and motivational mediators in social dilemmas (e.g., De Dreu & McCusker, 1997; Garling, 1999; Gifford & Hine, 1997; Graziano et al., 1997).

Individual Difference Variables

Not everyone cooperates to the same degree in all situations. Participants in social dilemmas believe that their own and others' choices are due to internal, or personal, characteristics more so than situational factors (Gifford & Hine, 1997). Although structural changes, broadly defined, within social dilemmas have altered the rate of cooperation (e.g., Biel & Garling, 1995; Martichuski & Bell, 1991; McCusker & Carnevale, 1995), characteristics of

the individuals making the choices have also been contributing factors in cooperation and often show interactions with the situation (e.g., Bratt, 1999; De Dreu & McCusker, 1997; Koole et al., 2001; Lee et al., 1999; Parks et al., 2001).

When instructions for the social dilemma game emphasize a motive more characteristic of one personality variable than another, it influences the rate of cooperation (De Dreu & McCusker, 1997). Typically, such instructions emphasize self-interest. However, personal characteristics such as values and personality traits can affect how much consideration is given to the collective, rather than just the self. These attributes can be influential because they are related to motives and goals. Norms can be very stable in their influence, yet vary greatly in their impact from individual to individual. It is also possible that highly cooperative individuals may be more sensitive to social norms than less cooperative individuals, and that this is partially due to moral obligation and conscience (Kerr, 1995).

The Five-Factor Model of Personality

One broad theoretical conceptualization is that there are five personality dimensions (e.g., Benet-Martinez & John, 1998; John & Srivastava, 1999; McAdams, 2001; McCrae & Costa, 1989a/b, 1999). Researchers have begun to look into the "Big Five," as they are commonly known, and how they serve as moderators in social dilemmas (e.g., Graziano et al., 1997; Koole et al., 2001; McAdams, 2001). The Big Five consist of Agreeableness (warm, sympathetic), Extraversion (sociable, energetic), Openness to experience (imaginative, unconventional), Conscientiousness (efficient, not careless), and Neuroticism (tense, moody). Each dimension is composed of six facets, which are further comprised of traits. Refer to Table 1 for a listing of the Big Five and their facets.

Extraversion and Agreeableness have received most of the attention in the social dilemma literature (Graziano et al., 1997; Koole et al., 2001). They have an interpersonal component that impacts behavior in interdependent situations, and are related to goals and motives in social dilemmas (John & Srivastava, 1999; McCrae & Costa, 1989a, 1999). In a resource dilemma, Koole, Jager, van den Berg, Vlek, & Hofstee (2001) reported that individuals low in Extraversion and high in Agreeableness cooperated and adapted their responses in order to maintain the resource. It seems that those low in Extraversion (introverts) prefer to distance themselves from the arousal produced by competition. Highly agreeable individuals expect more cooperation and prefer to cooperate in order to maintain harmony with others (Graziano et al., 1997). Those low in Agreeableness expect unpleasantness in group situations. The differing expectations could create different situations, and they may be responding differently to their cognitively constructed situations (Graziano et al., 1997). Due to the adaptability of these individuals to varying situations in the resource dilemma, it appears that they are more sensitive to their environment and adapt accordingly. Thus, those high in Agreeableness and low in Extraversion may be more influenced by social norms than high Extraversion and low Agreeableness individuals, particularly if it confirms their initial predisposition for cooperation (McCrae & Costa, 1989b). Those high in Extraversion and low in Agreeableness harvested based on self-interest, and exposure to proself norms will likely encourage their uncooperative inclinations. Because resource dilemmas and public goods dilemmas do not always produce similar results, the loss frame of a public goods dilemma may lead to poor cooperation levels with low Extraversion participants if in fact they respond to avoid a negative outcome (Koole et al., 2001).

Conscientiousness, Openness to experience, and Neuroticism are typically ignored because they lack a strong connection to interpersonal relations. Koole, Jager, van den Berg, Vlek, & Hofstee (2001) still included them in their study; however, they did not find any differences within the resource dilemma framework. They are worth examining in the current study, as they have not been examined within a public goods dilemma context, and they may respond differentially to social norms.

Universal Value Types

Values are another individual difference variable that can influence decision-making and behaviors in mixed motive situations. Schwartz (1992) and other theorists define a value as "the criteria people use to select and justify actions and to evaluate people (including the self) and events" (p. 1). Values influence peoples' behavior. Because value priorities are unique to each individual, it is likely that these differences can partially account for differences in cooperation.

Schwartz (1992) has identified ten universal value types in 20 countries that fall into four value domains, although the relative importance of these values varies among countries and individuals. The self-transcendence domain consists of benevolence and universalism and its polar opposite, the self-enhancement domain, is made up of power, achievement, and hedonism. Tradition, conformity, and security are the conservation domain, which opposes self-direction, stimulation, and hedonism in the openness to change domain (for a schematic, see Figure 1). Benevolence and universalism are motivated by the concern for others, either the ingroup or all life, respectively. It is inherent that the outcome of others is considered and appears to be related to cooperation (Joireman & Duell, 2005). Security, tradition, and conformity all contain interpersonal components. It is of importance that there is no disruption to society; norms should not be violated and harmony should be maintained. Power, achievement, hedonism, self-

direction, and stimulation are motivated by personal goals and needs, and would suggest cooperation only if it benefited the self.

In 2000, Follows and Jobber compared the four value domains with proenvironmental behavior. Those high in self-transcendence acted prosocially, while those high in conservation had the opposite response. They did not want to be involved in something that required change and was not normative (using cloth diapers). Those high in self-enhancement values were primarily concerned with their own outcomes and acted in a self-interested manner, while those open to change did not reveal any significant differences. Joireman and Duell (2005) discovered prosocials endorse self-transcendent values. Although atypical, proselfs may do so as well, under certain conditions of mortality salience. This study did not examine actual behavior, however, it seems plausible that self-transcendent values can operate as a mediator between an alteration in the situation and group regarding behaviors in proselfs. Garling (1999) found that value priorities for benevolence, universalism, and those related to individualism (power, achievement, hedonism, stimulation, self-direction) accurately predicted cooperation in a matrix dilemma. The values do not seem to have been examined in the context of a public goods dilemma.

Social Responsibility

Social responsibility is yet another variable that differs among individuals. Social responsibility is a normative motive that is based in morality and concern for others, especially those suffering or needy (Berkowitz & Daniels, 1963, 1964). The connection between social responsibility and prosocial action has been shown in a number of studies over the years, with a wide variety of helping behaviors in the lab and everyday activities (e.g. Berkowitz & Daniels,

1963, 1964; Berkowitz & Lutterman, 1968; DeCremer & van Lange, 2001; Murdoch, 1968; Parks & Huntoon, under revision; Witt & Silver, 1994).

Social interest, a concept very similar to social responsibility, was highly correlated with sustained cooperation in a Prisoner's dilemma and the propensity to volunteer one's time (Crandall & Harris, 1976). Berkowitz and Lutterman (1968) also found those that scored high in social responsibility were more likely to participate in volunteer work, as well as to donate money to nonprofit organizations, and to generally be more involved in their communities than those individuals that scored low on the scale. DeCremer and van Lange (2001) found that more cooperative individuals have a stronger sense of social responsibility. They also tend to cooperate more in a give some game if their partner is cooperative. Parks and Huntoon (under revision) found that social responsibility could be increased through priming and modeling of prosocial behavior. A corresponding increase in cooperation in a public goods dilemma was observed, although the modeled behaviors were not identical to the giving behaviors required in the give some game. This suggests that exposure to a dissimilar prosocial norm can heighten social responsibility and increase prosocial behavior. Social responsibility may also be influenced by the exposure to injunctive and descriptive norms that parallel the behavior in a public goods dilemma context. Social responsibility may be an effective mediator in increasing charitable behavior.

Gender

Role schemas influence information processing and suggest social responsibility. Those in superior roles tend to feel entitlement in a social dilemma (Samuelson & Allison, 1994), and high status individuals tend to cooperate less in bargaining (Murdoch, 1968) and a public goods dilemma (van Dijk & Wilke, 1995). Some have suggested that males experience a superior role

in society compared to women (e.g. Brannon, 2002), and this may lead to different rates of cooperation in social dilemmas. Additionally, a strong stereotype exists that men compete and women cooperate (e.g. Walters, Stuhlmacher, & Meyer, 1998), and it is perceived that women's social role exemplifies relational concern and group harmony (Stockard, Van de Kragt, & Dodge, 1988). However, integrations of the literature on gender and cooperation in give some and matrix games have identified, at best, minimal gender differences in cooperation (Stockard et al., 1988; Walters et al., 1998).

Clarke, Bell, and Peterson (1999) found men to be more concerned with monetary aspects of public goods influencing the self than women did, and women tended to have somewhat stronger proenvironmental attitudes than men did, although ultimately gender did not influence the placing of values on public goods. Stern, Dietz, and Kalof (1993) found women to be more involved in environmental issues than men, due to their being more likely than men to link the environment with personal values.

In mixed sex interactions, men usually take on more responsibility than women to provide for the group, especially if it is for a typically masculine task. The specific task, or method of assistance, affects how much help men offer (Kerr, 1995). There were no sex differences found in agreeableness and cooperative behavior (Graziano et al., 1997). However, in the same study men reported themselves and their group mates as more competitive in the group task than women did. This is a demonstration of the stereotype and perception that men are more competitive than women being unrelated to actual behavior.

A study by Stockard, van de Kragt, & Dodge (1988) found that, behaviorally, women tended to cooperate slightly more than men in a public goods dilemma, though many situational variables interacted with gender. Ultimately, situational variables mattered more than gender in

determining cooperation. At the end of the game, the participants were asked what choices they would make if they were to replay the game. There was no difference in cooperation reported by men and women. A meta-analysis on gender and negotiation had similar results (Walters et al., 1998). This study found that, overall, women were slightly more cooperative than men. Again, there were many structural variants that changed this overall finding, and often there were cases reporting the opposite. Both studies found the inclusion of discussion to increase cooperation for women, but not men. Discussion produces commitment and increases cooperation because it operates as a personal norm (Kerr, Garst, Lewandowski, & Harris, 1997). Women may be more sensitive to maintaining consistency with their personal norms, similar to their linkage of personal values to proenvironmental behavior (Stern et al., 1993). It appears that gender produces inconsistent findings related to cooperation, and that the situation is a stronger factor and likely to interact with gender. Normative motives may be a situational factor that interacts with gender to affect cooperation.

Hypotheses

The present study will examine injunctive and descriptive norms in a single trial public goods dilemma. In order to have the experiment most adequately mimic a real life public goods dilemma, it will meet the characteristics of a large-scale social dilemma. There will be anonymity of choices, minimal group identification and no communication (Biel et al., 1999). Most real life donations benefit unknown recipients (Cheung & Chan, 2000). Although cooperation tends to be greatest at the first trial in an iterated game (Komorita & Parks, 1995; Parks et al., 2001), one trial most closely mimics an actual donation request (although it is noted that people receive many requests throughout the year, and many make multiple contributions).

Additionally, the Big Five personality dimensions, four universal value domains, social responsibility, and gender of the participant will be examined.

Hypothesis 1

> Hypothesis 1: Compared to the Control condition, exposure to Prosocial (high contribution amounts) Injunctive and Descriptive norms will increase the amount given to the collective in a single trial public goods dilemma, and exposure to Proself (low contribution amounts) Injunctive and Descriptive norms will decrease the amount given to the collective.

Injunctive norms appear to be more impactful because they are able to transcend situations. Also, with a high descriptive norm in a giving situation, diffusion of responsibility may play a part and people will become less cooperative. If they see others are giving, then they may believe there are enough donations and one more is not necessary. The social dilemma game should be new to the participants and they may not have clear expectations about how others, or they, should play the game. It is likely they will use this information in making their choices, regardless if injunctive or descriptive. The participants will be in the same setting that they are exposed to the norms in, and there does not seem to be much evidence in the literature that diffusion of responsibility causes the descriptive norm to backfire; therefore, I do not expect that specific type of norm (injunctive or descriptive) will impact this first prediction.

All personality dimensions in the Big Five will be examined. Although previous research has shown only Agreeableness and Extraversion to be related to differences in social dilemmas (Graziano et al., 1997; Koole et al., 2001), they have not been examined in the context of a public goods dilemma. As noted previously, caution must be taken in generalizing from one type of social dilemma to another (Biel & Garling, 1995; van Dijk & Wilke, 1995, 1997).

Although generalizability is not always possible, it may be that in this case Agreeableness and Extraversion will be the only personality variables that affect cooperation in the give some game. As pointed out earlier, these are the two traits that have relational components. High Agreeableness individuals like to avoid conflict with others and maintain harmony. Those low in Extraversion prefer to avoid any negative arousal, as well, that is associated with conflict. It also appears that the highly Agreeable and low Extraversion individuals are more responsive to their social environment, and the personality dimensions may interact with the situation – in this case, the social norm presented (McCrae & Costa, 1989b).

Hypothesis 2

Hypothesis 2a: The more agreeable a person is, the more they will contribute to the group account.

Hypothesis 2b: Agreeableness will interact with norm condition, in that a Prosocial norm may make a highly agreeable person's disposition more salient and increase giving, and a Proself norm may make a low agreeable person's disposition salient and lower cooperation.

Hypothesis 2c: The less extraverted a person is, the more they will contribute to the group account.

Hypothesis 2d: Extraversion may interact with norm condition, in that a Prosocial norm may make an introverted disposition more salient and increase giving, and a Proself norm may make an extraverted person's disposition salient and lower cooperation.

Schwartz's (1992) value structure should produce interesting interactions with the social norms. The self-transcendence domain has some evidence (Bardi & Schwartz, 2003; Garling,

1999; Joireman & Duell, 2005) that those high in this domain should respond in a cooperative manner. Response to prosocial norms may be more pronounced than to proself norms because these people are more conscious of how their actions affect others and are more concerned for others' outcomes. The self-enhancement domain should produce less cooperation, but this may be more pronounced with the proself norms. It may be that those high in self-enhancement respond more to the norms indicating self-interest is acceptable. Those high in the conservation domain prefer to follow the norms of the group. They do not like to break from conformity, so it would seem that they would follow the norms, regardless of the direction of cooperation. There is no clear indication what, if anything, will occur with those high in the openness to change domain.

Hypothesis 3

Hypothesis 3a: The higher a person is in self-transcendence, the more giving they will be in the public goods dilemma.

Hypothesis 3b: Self-transcendence will interact with the cooperativeness of the norm, with Prosocial norms heightening cooperative behavior for those high in self-transcendence more so than for those low in self-transcendence.

Hypothesis 4

Hypothesis 4a: The higher a person is in self-enhancement, the less cooperative the person will be.

Hypothesis 4b: Self-enhancement will interact with the cooperativeness of the norm, with Proself norms lessening cooperative behavior for those high in self-enhancement more so than those low in self-enhancement.

Hypothesis 5

> Hypothesis 5: High conservation participants will follow what the norms prescribe or describe, for both Prosocial and Proself norm conditions. They will consistently deviate from the Control condition more so than those low in conservation. In other words, there will be an interaction between conservation and normative condition.

Participants' exposure to the prosocial norm information will likely affect their response to the subsequent social responsibility measure. In Parks and Huntoon (under revision), priming with prosocial words and modeling of prosocial behaviors boosted the self-reported levels of social responsibility compared to control.

Hypothesis 6

> Hypothesis 6: Exposure to either the Prosocial Injunctive norm or the Prosocial Descriptive norm will increase the participants' level of social responsibility compared to the Control condition and Proself conditions.

Sometimes there are slight gender differences in the social dilemma literature, sometimes there are no differences, and oftentimes gender effects are not examined at all. Because the differences tend to be slight at best, it is not likely that there will be a large difference in this single trial public goods dilemma. Thus, gender is a variable of interest and will be examined, although no hypotheses are proposed.

Method

Participants

333 psychology students, 221 female and 122 male, at Washington State University participated in partial fulfillment of course credit, or to earn extra credit. The experimental

sessions were conducted with mixed-sex groups of five participants that were randomly assigned to condition. Two sessions utilized a confederate.

Measures

The norm manipulation consisted of participants viewing handwritten data that was allegedly derived from previous sessions of the experiment; in fact, these data were standardized across each condition. In the Prosocial Descriptive condition, the amounts listed on the sheet averaged a contribution of seven tokens (in other words, a large contribution[1]) to the collective account. In the Proself Descriptive condition, the amounts listed on the sheet averaged a contribution of three tokens (a small contribution[1]) to the collective account. In the Injunctive conditions, the sheets contained amounts purportedly recording what previous participants thought should be given to the collective account. For the Prosocial Injunctive condition, the average expected contribution was shown to be seven, and in the Proself Injunctive condition, it was three. The Control condition had "Experiment 21" written on the sheet. This served as the control because it contained visible writing (21 was the experiment's listing number), but did not give any indication as to how people should behave during the game. See Appendices A and B for a summary of the norm manipulations and for examples of the sheets, respectively.

For the public goods dilemma, white poker chips served as the tokens that needed to be divided between the personal and group accounts. The number of tokens given to the group account was recorded. All surveys used paper and pen, and are included in Appendix C. The Big Five personality dimensions were measured using the Big Five Inventory (BFI), a 44-item questionnaire (John, 1991). Respondents assess statements of how they view themselves, such as "is outgoing, sociable," on a 1 - 5 scale of agreement. The BFI has good psychometric properties, and has shown good convergent validity (mean r = .66) and high reliability (mean r =

.80; Gosling, Renfrow, & Swann, 2003). Schwartz's (1992) universal value survey contains 56 values. The respondent indicates how important each of the values is to him/her, using a scale ranging from −1 ("opposed to my values") to 7 ("of supreme importance"). Examples of some values included on the survey are "a world at peace – free of war and conflict" and "wealth – material possessions, money." This instrument has shown good validity and reliability, although some studies have found internal reliability as low as .58 (e.g., Garling, 1999; Joireman & Duell, 2005). The Social Responsibility Scale is an eight-question measure (Berkowitz & Daniels, 1964). The respondent indicates on a 7-point scale degree of agreement with a series of statements that reflect various aspects of socially responsible behavior (e.g., "Letting your friends down is not so bad because you can't do good all the time for everybody"). Although one study found low reliability for this scale (Parks & Huntoon, under revision), others have found it to have good validity and reliability (Berkowitz & Lutterman, 1968; Parks & Huntoon, under revision). In order to maintain the soundness of the Injunctive manipulations, an item was included to assess what the participants believed was "the appropriate amount (0 to 10 tokens) to contribute to the group account." Their responses to this measure were not included in the analyses, but only to provide a reason to expose participants to the Injunctive norm. They were also asked to indicate their gender on this short form. There were also manipulation and suspicion checks (see Appendix C).

Design

This study had five norm conditions for the independent variable, to which groups of participants were randomly assigned: Prosocial Descriptive, Proself Descriptive, Prosocial Injunctive, Proself Injunctive, and Control (see Appendix A for a summary of these conditions). The Big Five personality dimensions (Extraversion, Agreeableness, Conscientiousness,

Openness to experience, Neuroticism), the four universal value domains from Schwartz (1992; openness to change, conservation, self-enhancement, self-transcendence), and gender were included as classification variables so that their relations to cooperation and potential interaction with norm type could be examined. The number of tokens given in a single trial of a public goods dilemma, and feelings of social responsibility, were the dependent variables.

Procedure

Participants entered in groups of five. Upon arrival, they were seated together at a small round table with the experimenter and received consent information. A public goods dilemma game instruction sheet was given to each participant (see Appendix D), along with an envelope containing the tokens. In four of the envelopes, all ten tokens were enclosed. In the fifth envelope, only nine tokens were enclosed. This was to assist in the norm manipulation, as will be described below. A token had the value of fifty cents if kept by the participant, and one dollar if given to the collective account. A group member's share of the collective account was one-fourth of the total amount given by all other group members; in this way, an individual did not receive back any portion of the amount s/he contributed to the collective account. An individual's per-trial outcome was the sum of his/her share of the collective account plus the amount kept. For example, if a participant put five points into her/his personal account and five points into the group account, and everyone else put a total of 20 points into the group account, the participant's share of the group account would be five points (20/4). Her/His total payoff would then be 5 points x \$0.50 = \$2.50 from her/his personal account, plus 5 points x \$1.00 = \$5.00 from the group account, for a total of \$7.50. If all participants kept all of their tokens, then each person's payoff would be \$5.00 (10 points x \$0.50). If they all gave all 10 tokens to the collective account to be split among everyone else, then each would receive \$10.00 (40/4 x

$1.00). However, if a participant gave all of his/her tokens to the collective, but no one else did, then s/he would receive nothing and everyone else would split his/her 10-point contribution. By contrast, if the participant contributed nothing to the group account and everyone else gave everything, the person's total payoff would be 10 x $0.50 = $5.00 from the personal account + 40/4 x $1.00 = $10.00 from the group account = $15.00 total payoff. This is the greatest personal payoff value and illustrates the dilemma aspect of the paradigm—the incentive is to give nothing to the group account, but if everybody behaves in this way, then everyone ends up with a relatively small total payoff.

The participant needed to decide how many tokens to keep (proself choice), and how many to deposit in the collective account (prosocial choice), with the goal to maximize own outcome. The experimenter explained that a choice was to be made by placing the number of tokens to be contributed to the collective account into the envelope. The experimenter would collect all envelopes after everyone had made an allocation decision. The experimenter next explained that total contribution to the group account would be recorded onto a sheet. At this point, the Norm Type manipulation was introduced (see Appendices A and B). In both Descriptive conditions, the experimenter briefly showed a recording sheet containing "data" from a previous session, with specific amounts corresponding to the specific condition as noted above. The experimenter then went on to say that after the game, participants would be asked to indicate an amount which represented, in their opinions, how much <u>should be</u> given, and their responses would be recorded on a similar sheet. In the Injunctive conditions, the participants were then briefly shown a data sheet containing hand-written, purported responses to the question from previous experimental sessions. Higher amounts were shown in the Prosocial condition, lower amounts in the Proself condition.

After the game instructions were read, the experimenter answered any questions to clarify the game. The experimenter then asked the participants to open their envelopes and count all of their tokens to make sure everyone was beginning with ten tokens. In each session, the person with one token missing told the experimenter that they only had nine. At this point the experimenter commented that this was why the participants needed to count before beginning. S/he then left the table to retrieve the token, "inadvertently" leaving a clipboard with the mock data sheet (corresponding to the experimental condition) in the middle of the table so as to more fully expose participants to the independent variable. With the experimenter's back turned to the participants, s/he went through a lengthy process to produce another token. At this point, the participants were exposed to the normative information corresponding to their condition. This method of norm manipulation is similar to that used by Hodson, Maio, and Esses (2001). After providing the missing token, each participant was then randomly assigned a private cubicle, to which they brought their envelope of tokens and remained for the rest of the experiment to ensure privacy in responses.

One game of the public goods dilemma was played, after which participants responded to the "moral" and gender questions, which they placed in a large envelope inside of their cubicle. The experimenter then handed each person a file folder with instructions on the front (see Appendix E), which contained the Social Responsibility Scale (note that measuring social responsibility before contribution may increase its salience; DeCremer & van Lange, 2001), Big Five Inventory (John, 1991), Schwartz's (1992) universal value scale, and suspicion/manipulation checks. Once all of the surveys were completed, participants were debriefed, thanked, and dismissed.

Results

The following results are based on the responses of 330 participants. One participant was excluded from analyses, as he falsely reported only having nine tokens in order to gain more points for himself. Another participant reported suspicions of the importance of norms and was excluded from analyses. A third participant participated in the experiment twice. While all sessions were conducted with five members, two sessions included a confederate as the fifth member.

Hypothesis 1

In order to test Hypothesis 1, the Prosocial Injunctive and Descriptive conditions were combined to form a single "Prosocial" category, and the Proself Injunctive and Descriptive conditions were combined to form a single "Proself" category. A one-way ANOVA compared the Prosocial, Proself, and Control conditions on the amount given to the group account. There were no significant differences, $F(2, 327) = 1.16, p = .32$.[2] Thus, Hypothesis 1 was not supported, and I conclude that the Prosocial norms did not generate larger group accounts than the Control and Proself conditions, and the Proself conditions did not significantly decrease contributions.

I conducted some additional tests of the normative conditions and amount given in which all five conditions were individually compared. This one-way ANOVA was also nonsignificant, $F(4, 325) = 1.51, p = .20$ (see Figure 2 and Table 2).

Upon examination of the means for amount given in each of the conditions (Figure 2 and Table 2), it seems that there may be a significant interaction, with the Descriptive norms influencing amount given, more so than the Injunctive norms. To further test for this possible

interaction, a 2 (Valence: Prosocial, Proself) x 2 (Type of norm: Injunctive, Descriptive) ANOVA was conducted. This interaction was not significant, F (1, 264) = 1.45, p = .23.

Hypothesis 2

To examine the relationship of Agreeableness with contribution amount, the two variables were correlated. The Pearson coefficient (r = .11, p = .06) was not significant. Hypothesis 2a was not supported.

It is still possible that Agreeableness interacted with the normative conditions. Due to hypothesis 2b assuming quadratic relationships, it is inappropriate to use a linear regression model. Instead, two trend tests were conducted to determine the form of the relationships between mean amount given and all three conditions (Proself, Control, Prosocial) for those high (the upper third) in Agreeableness and for those low (the lower third) in Agreeableness. Those low in Agreeableness produced a positive linear relationship, F (1, 114) = 4.07, p = .05. They had the lowest average contribution in the Proself condition, and increased through the Control to the Prosocial condition. The data for those high in Agreeableness did not take on any form, linear (F (2, 123) = .30, p = .59) or quadratic (F (2, 123) = .25, p = .62). While these trend tests demonstrate an interaction in the data, it is not as hypothesized in 2b (see Figure 3).

A main effect for Extraversion and an interaction with norm type were also predicted (hypotheses 2c and 2d, respectively). Extraversion was correlated with amount contributed. Although a significant negative correlation was predicted, the Pearson r was not significant (r = .06, p = .27) and hypothesis 2c was not supported. Trend tests were conducted for the interaction between Extraversion and norm condition as were done for the Agreeableness x Norm interaction, as quadratic relationships were again predicted. The data did not take on a linear (F (2, 113) = .00, p = .98) or quadratic (F (2, 113) = .08, p = .78) form for those low in

Extraversion. However, the data was linear (F (2, 106) = 4.47, p = .04) for those high in Extraversion. High extraverts (upper third) gave the least in the Proself condition, and linearly increased through the Control to the Prosocial condition where contribution was highest (see Figure 4). Although not as predicted in hypothesis 2d, an interaction was present for Extraversion. See Table 3 for a summary of the hypothesis 2 trend tests.

Hypothesis 3

It was hypothesized that self-transcendence would have a positive relationship with cooperation (hypothesis 3a). This hypothesis was not supported (r = .03, p = .61). Additionally, two trend tests were conducted to discover if those high in self-transcendence would be differentially affected in the Prosocial condition than those low in self-transcendence (hypothesis 3b). The data do not take on linear or quadratic forms for either those low (lower third) or high (upper third) in self-transcendence (see Table 4). Thus, hypothesis 3b was not supported.

Hypothesis 4

Individuals high in self-enhancement should show self-interested behavior and limit the amount given to the group. Proself norms should make this behavior more acceptable and salient, and thus increase uncooperative behavior, particularly for those high in self-enhancement. Pertaining to hypothesis 4a, self-enhancement did not show a significant, negative relationship with amount of contribution to the group account (r = -.09, p = .13). Additionally, the interaction proposed in hypothesis 4b was not supported, as there were no formative relationships detected in trend tests between the Proself, Control, and Prosocial conditions and amount given for self-enhancement (see Table 4).

Hypothesis 5

The conservation domain was expected to interact with the normative condition in a linear manner. Normative condition (Proself, Control, Prosocial), conservation, and their interaction were entered hierarchically into a regression equation and the interaction was not significant ($\beta = -.19$, $t\,(315) = -0.58$, $p = .57$).

Hypothesis 6

A one-way ANOVA examined the three norm categories (Proself, Control, Prosocial) and the resulting level of social responsibility. The results were not significant, $F\,(2, 329) = .19$, $p = .83$. As with Hypothesis 1, the norm categories were separated and all five normative conditions were compared in a one-way ANOVA. This result was significant, $F\,(4, 325) = 2.44$, $p = .05$. A Tukey HSD post hoc test revealed that the difference was between the Proself Descriptive ($M = 43.46$, $SD = 6.65$) and Proself Injunctive ($M = 46.69$, $SD = 6.31$) conditions (see Figure 5). It is not surprising that the Proself Descriptive condition decreased level of social responsibility, as it is an uncooperative norm and there was a corresponding decrease in contribution. However, the increase in social responsibility for those in the Proself Injunctive condition was unexpected. I will address this in more detail in the Discussion section.

A look at the relationship between social responsibility and amount given was examined with a two-tailed Pearson correlation. Although previous research has found a significant relationship between reported social responsibility and cooperative behavior in a public goods dilemma (Parks & Huntoon, under revision), such was not observed in the current study, $r = .09$, $p = .12$.

Manipulation Checks

The manipulation check shows that the Descriptive norm conditions were perceived by the participants, in that those in the Proself Descriptive condition reported lower supposed contributions by others ($M = 4.60$, $SD = 1.24$) than those in the Prosocial Descriptive condition ($M = 5.18$, $SD = 1.54$). A two-tailed t-test comparing the Descriptive norm conditions approaches significance $t\ (86) = 1.94$, $p = .06$. Although this does not meet the criteria of $\alpha = .05$, for the purposes of checking the adequacy of the Descriptive manipulation it is near enough to the cut off point that it speaks to the sufficiency of these conditions. It appears that the Injunctive manipulation may not have been successful. Those exposed to the Prosocial Injunctive norm thought others were advocating about the same to give ($M = 5.95$, $SD = 1.76$) as did those exposed to the Proself Injunctive norm ($M = 5.80$, $SD = 1.83$), $t\ (84) = 0.37$, $p = .71$.[3] Table 5 provides the means and standard deviations for each norm condition on the manipulation checks.

Reanalysis of the Descriptive Conditions

Due to the apparent failure to instill an Injunctive norm, previously reported results may in fact be significant for the Descriptive conditions, but obscured by the failed Injunctive norm induction. Thus, a two-tailed t-test was run to compare the amount contributed for only the Prosocial and Proself Descriptive conditions, and the result is significant, $t\ (128) = 2.00$, $p = .05$. The Prosocial Descriptive group gave significantly more ($M = 6.08$, $SD = 1.94$) than the Proself Descriptive group ($M = 5.31$, $SD = 2.39$). There was no significant difference in resulting social responsibility score, $t\ (129) = 1.73$, $p = .09$ (see Table 2).

Because of the unsuccessful Injunctive manipulation, it is worth examining only the Descriptive norms. Hierarchical regression analyses including norm condition and gender were

run for each of the Big Five dimensions and the four universal value domains to discover their relationship with contribution and social responsibility. Gender was entered on the first step, followed by norm condition, and then the personality/value variable. On the fourth step, the two-way interactions were entered. The fifth step was the three-way interaction. The determination of significance was based on the most complete model whose change in R^2 was significant. If it was not significant at any step, the full model was reported. These exploratory functions were run with norm condition conceptualized in two ways. In one set of analyses, norm condition consisted of the broad Proself and Prosocial categories. In the other set, norm condition was only the two Descriptive conditions. This change in conceptualization of normative condition does produce a number of changes. Some previously significant results (with the broad categories) become nonsignificant. For amount of contribution, Extraversion and Neuroticism models became nonsignificant with the Descriptive categories. When the criterion is social responsibility, Extraversion, Agreeableness, self-transcendence, and openness to change lose significance. The rest of the models do not change significance when the norm condition predictor changes. At no point does a model gain significance when only the Descriptive norms are considered. Table 6 provides a summary of the analyses with the Big Five personality dimensions. The regression analyses for the four value domains are summarized in Table 7. With the Descriptive analyses, it appears that the Descriptive norms did not influence actual donation behavior or social responsibility when other variables (i.e., gender, personality dimensions, value domains) are added. It also suggests an *effective* Injunctive manipulation in promoting contribution and social responsibility for some of the personality and value predictors, although it did not appear in the manipulation check. This is considered further in the Discussion section.

Gender Main Effects

A basic examination of possible gender differences was conducted for amount contributed and social responsibility. Two-tailed t-tests compared males and females. The mean amount contributed was 5.89 for women, and 5.97 for men. The difference is not significant, t (328) = -0.20, p = .77. However, there was a significant difference on social responsibility, t (328) = 3.53, $p < .001$, with women (M = 46.14, SD = 5.29) scoring higher on social responsibility than men (M = 43.66, SD = 7.25). See Figure 6 for a comparison of women and men on social responsibility.

Discussion

The Injunctive and Descriptive norms did not impact charitable behavior as hypothesized. However, the Descriptive norms did produce significant differences when the Prosocial Descriptive and Proself Descriptive conditions were compared against each other for amount of contribution. Previous findings suggest social norms are effective in ambiguous situations, thus they were hypothesized to be influential in the novel situation presented in this experiment. This lack of an impact may be due to the fact that their choices were made anonymously. Most social norms work because of social sanctions, although they can be self imposed. Additionally, it may be that this research used a task that was too artificial and the norms, in particular the Injunctive norms, did not have a bearing on the situation for the participants. The manipulation check showed that the Injunctive manipulation was unsuccessful. It utilized the same technique as the Descriptive manipulation; however, it was not attended to by the participants. The situation may not have been concrete enough for the participants to mind what others thought. Knowledge of behavior was much more informative and important, thus readily a point of focus and directly applicable to the public goods dilemma.

Due to the seeming lack of an Injunctive manipulation, analyses were conducted with only the Prosocial and Proself Descriptive conditions. When this change in norm conceptualization occurred, none of the previously nonsignificant models gained significance. In fact, some of the models lost significance of change in R^2 with the more specific norm categories, although most maintained their status. It appears that the Descriptive conditions, although manipulated successfully and produced a main effect for contribution, does not better describe the data for contribution or social responsibility when other predictors are also considered. This implies that the Injunctive conditions had an effect, despite the seemingly unsuccessful Injunctive norm induction.

With regards to amount of contribution, only Openness to experience maintained significance with both norm conceptualizations. Although Openness to experience was not hypothesized to be of importance based on previous findings, new findings suggest that maybe it should have been considered originally. Wright and Funder (2005) found that, in addition to Agreeableness and Extraversion, Openness to experience was related to interaction with strangers, suggesting that it may have a stronger interpersonal component than formerly thought. It is unclear why the disposition involving independence, originality, artistic ability, and adventurousness affected cooperation in this ambiguous social dilemma.

Switching norm conceptualization from two broad categories (Proself, Prosocial) to simply the Prosocial and Proself Descriptive conditions also affected results for social responsibility. With the original broad categories, most personality dimension and value domain models demonstrated significance. Examining only the Descriptive norms, all models lost significance except for Conscientiousness and conservation. The fact that significance was lost when the Injunctive conditions were removed from analyses suggests the influence of the

Injunctive norm on social responsibility, an effect that was not recognized by the manipulation check. Those high in conservation consistently scored higher in social responsibility across all conditions, particularly in the Descriptive conditions. It is surprising that those high in conservation did not conform with the social norms, as conformity is related to this value domain. However, in light of the variable under consideration, social responsibility, this is to be expected. Individuals high in conservation value politeness, honoring parents, maintaining social order, and being devout. These factors can all be readily placed onto a high sense of social responsibility, regardless of what norm was presented. The results for Conscientiousness mimic that of conservation. Those high in Conscientiousness scored higher in social responsibility in all conditions. Conscientiousness is the personality dimension most closely related to conservation ($r = .29$, $p < .01$) and consists of dutifulness and competence facets, easily translated onto the concept of social responsibility. Thus, conservation and Conscientiousness related to social responsibility as should be predicted.

Social responsibility was unrelated to contribution amount. This is surprising based on previous findings (e.g. Berkowitz & Lutterman, 1968; Huntoon & Parks, under revision), although it may not be with this unique examination of both social responsibility and cooperation utilizing two types of social norms. The Descriptive norm is related to actual behavior, and seems to have influenced behavior. The Injunctive norm is related to morals, as is social responsibility, and seems to have impacted social responsibility despite what appears to have been a failed Injunctive orientation. The Injunctive conditions may not have greatly impacted behavior, or even recall during the manipulation check, but it seems to have influenced reported level of social responsibility. Unfortunately, this did not translate into behavior. Again, the

public goods dilemma used may have required a behavior that was too artificial for social responsibility to connect with the situation, and the norm may have been too subtle.

Those low in Extraversion were hypothesized to contribute more in order to avoid any negative arousal from competition; however, there was no main effect for Extraversion. The situation may not have been concrete enough to be perceived as potentially producing negative arousal through competition. There was, however, an interaction. Those high in Extraversion appeared to be affected by norm condition, but norm condition did not influence those low in Extraversion. This is contrary to what was expected. It appears that those high, rather than low, in Extraversion were more sensitive to their social cues and responded accordingly. Additionally, a look at the data shows those high in Extraversion tended to give a bit more than introverts, although not a statistically significant main effect. The Proself condition affected the high extraverts by decreasing their contribution to levels consistent with those low in Extraversion. The public goods dilemma used in this study may not have been viewed as a competition, and thus not relevant to potential arousal and its effects on introverts, as found previously in Koole et al. (2001). Related to Extraversion is warmth, and this may have been part of the driving force behind those high in Extraversion demonstrating more sensitivity to the condition. An outgoing, confident nature is typical of those high in Extraversion and this may also be part of their greater susceptibility to the norm. They may have been more likely to look at the normative information presented and fully process it, rather than introverts that would keep to themselves. A closer look at the facets, may give a clearer picture as to what aspects of Extraversion are impacting this finding. While this study does not provide conclusive reasons for this finding, it does raise a number of questions that warrant further research.

There was no main effect for Agreeableness, although there was an interaction with norm type and contribution amount. Those low in Agreeableness responded according to the condition. They gave less in the Proself condition, and more in the Prosocial condition. The low Agreeableness individuals in the Prosocial and Control conditions gave roughly the same as high Agreeableness individuals, regardless of condition. The Proself condition decreased the amount given by almost one token. A visual inspection shows the Proself condition, compared to the other conditions, had a somewhat stronger impact on those low in Agreeableness. This uncooperative normative information seems to have affected those that are less agreeable, making that trait more salient – and the corresponding behavior more acceptable – and affected behavior by decreasing amount of contribution. This difference between the Proself and other conditions lacks statistical significance, however, if the number of tokens contributed were translated into thousands of dollars, that produces a practical significance. This demonstrates the potential downfall of presenting an uncooperative norm ("support has fallen, we need your help") in a solicitation and suggests caution in making salient uncooperative individual differences, as that may decrease helping behavior. It is interesting that those less agreeable, those lower in compliance (a facet of Agreeableness), would show compliance. It may be the mistrusting disposition of those low in Agreeableness that made them more alert to their situation, and thus they paid more attention to the laboratory situation. Examining the Agreeableness facets may help better understand this contradictory finding.

The universal value domains do not appear to have strong relationships with contribution amount, and they did not interact with norm condition to influence giving behavior. It may be that this aspect of the self was not salient, and valuing care and equality for others was not connected to their behavior in this artificial social dilemma. It may be that the public goods

dilemma task was too abstract for the participants' to tap into and relate to their underlying values. It may also be that using the value domains may have been too broad, and the underlying value types may be more predictive of cooperative behavior. Garling (1999) found that prosocials scored higher on universalism than proselfs, but not on benevolence. These two value types comprise the self-transcendence value domain. It seems that, although they are both in the same category, they are defined by different motives and have differential relations with cooperation.

With norm condition conceptualized as Prosocial, Proself, and Control, there were no significant differences in social responsibility, just as there weren't with amount of contribution. However, when the five conditions were analyzed separately, there was a significant difference. The Proself Descriptive norm had the lowest social responsibility mean. This is expected. It follows with the drop in contribution amount with this condition, and the uncooperative nature of the norm likely taps into a lower sense of social responsibility. Significantly different from the Proself Descriptive condition was the Proself Injunctive condition with the highest average social responsibility score. This result is initially surprising. It was unexpected that an uncooperative condition would produce a high level of social responsibility. There are two viable explanations for this finding. The first is that the participants in this condition noticed a lack of cooperation from previous participants, which gave them a sense of moral superiority. This inflated their sense of social responsibility, although it did not affect their anonymous contribution amount. The more parsimonious explanation is that it was a spurious result. The injunctive norm manipulation did not appear effective in one instance (behavior), yet appeared to be influential with social responsibility. If in fact the participants did not attend to the injunctive norm presented, the heightened social responsibility would not be due to the Proself Injunctive

condition. Although, this affect on social responsibility may be another indication that the participants did attend to the information on some level, just not enough to influence behavior or for recollection.

Gender did not produce any significant main effects for amount of contribution to the collective. This is not surprising based on previous data lacking consistency (Stockard et al., 1988; Walters et al., 1998). Gender did have a significant difference with reported social responsibility. Women had higher scores compared to men. Once more, this result is not unexpected. Previous studies have found higher social responsibility scores for women, in comparison to men (Berkowitz & Lutterman, 1968; Huntoon, 2005).

Descriptive norms may prove useful, and potentially fatal, in campaigns to raise donations. The Proself Descriptive norm produced significantly lower contribution amounts than the Prosocial Descriptive norm. They did not affect participants' sense of social responsibility. The fact that behavior did change is of worthy note, as that it ultimately what this study was examining. Although a method of increasing donations was not uncovered, there is practical significance for the type of information to exclude from messages presented by nonprofit organizations when they are trying to generate support. If there is a suggestion in their messages that their organization is lacking support from the public, it is not likely to encourage others to begin their support. For example, many nonprofit organizations concerned with the homeless pet population provide alarming statistics of how many animals are put to sleep in shelters each year. This may inadvertently suggest that no one is concerned and doing their part to work on this problem, that is why it is so large. In essence, an uncooperative descriptive norm. This may actually work against efforts to obtain funds for the support of their program. This should serve

as a caution against using a descriptive norm demonstrating the opposite of the desired behavior (Cialdini et al., 1991).

It appears descriptive norms are useful in influencing cooperative behavior, and have been suggested as producing long-term change in behavior (Schultz, 1998). Injunctive norms have been promoted as more generalizable (Cialdini et al., 1991; Kallgren et al., 2000); however, they did not directly impact behavior in this study, although they did influence reported social responsibility. It may be that they were less effective because the situation was too ambiguous. Participants did not pay direct attention to them, and thus did not have great recall in the manipulation check. Piliavin and Libby (1985/6) believed that the poor results from studies on social norms in helping behavior were a result of "highly artificial laboratory situations, using subjects with no prior acquaintance" (p.160), and that social norms are more important in real life helping situations.

Although not greatly effective for behavior change, the injunctive norms seem to have been relevant for reported social responsibility that did not translate into behavior. Much as Kallgren, Reno, and Cialdini (2000) have noted, descriptive and injunctive norms create different sources of motivation, which result in different conduct patterns. If the participants were focused inward, the results may have been different. A strong self-focus would have made personal norms (social responsibility) and values more likely to be predictive of behavior (Kallgren et al., 2000). Many have suggested that personal norms may be easier to activate (Schultz, 1998) and more important in altruistic behavior (Kerr et al., 1997) than social norms. Perceived social norms are involved in the development of personal norms, more so than the reverse (Piliavin & Libby, 1985/6).[4] This suggests an efficient method of behavior change by presenting a prosocial

norm, and then utilizing a method to increase focus on the self, in order to better nurture and uncover prosocial personal norms that can be influential in a giving situation.

It was a possibility that participants would have seen that others in the past gave a lot (Prosocial Descriptive) and that they would take advantage of what they expected others to do (DeBruin & van Lange, 1999; Piliavin & Libby, 1985/6; Pillutla & Chen, 1999). However, that was not the case. The participants did not exhibit any diffusion of responsibility or free riding effects in this study.

This study adds to the lack of reliable personality effects in social dilemma behavior (Koole et al., 2001). Agreeableness was, again, related to cooperation, although only as an interaction with the normative conditions for those low in Agreeableness. The impact of Agreeableness and cooperation has now been a finding in a public goods dilemma (present study), resource dilemma (Koole et al., 2001), and triad tasks (Graziano et al., 1997), although with diverse findings.

Those high in Extraversion showed an interaction with the condition to influence amount of contribution. These findings are inconsistent with that found by Koole et al. (2001). Their study used a resource dilemma, which has a gain frame. Public goods dilemmas create a loss frame, and this may be related to the different findings. Additionally, specific facets of Extraversion may be related to the differential effects for those low and high in Extraversion. This warrants more study.

Extraversion and Agreeableness have long been the "interpersonal" personality dimensions. In light of Openness to experience's seeming interpersonal relationship found in Wright and Funder's (2005) work, as well as the current study, it might be useful to more closely

examine this dimension on a theoretical level, to better understand why there was a significant finding for Openness to experience and amount of contribution.

It is possible that Conscientiousness could become an important predictor for cooperative behavior if those high in Conscientiousness are focused internally. It was strongly related to social responsibility in this study, however, did not translate into charitable contributions to the group. The use of self-focus may lead Conscientiousness to be more predictive of helping behavior.

While the use of the Big Five is informative for the effects of personality in a public goods dilemma, conceptualizing personality at its broadest level loses specificity of an individual's personality (John & Srivastava, 1999). Examining the more specific facets, or personality traits, may produce stronger results than shown in this study. However, it is important to keep in mind that "personality profiles are more useful in understanding a life than in making specific predictions about what a person will do" (McCrae & Costa, 1999, p. 149).

The four universal value domains were not influential as expected. The situations may have been too artificial and not linked to the participants' underlying value systems. Utilizing an internal focus technique may trigger their use and affect the cooperativeness of their behavior. Additionally, as suggested earlier, examination of the ten value types increases the specificity of the value system and may be more predictive of behavior in a public goods dilemma.

Gender results, although not hypothesized, are congruent with that of previous studies. Women scored higher in social responsibility (Berkowitz & Lutterman, 1968; Huntoon, 2005) and this adds yet another result to the inconsistent findings in cooperative behavior (Stockard et al., 1988; Walters et al., 1998). The situation was a stronger factor than gender for contributions. While not a meta-analysis of gender in public goods dilemmas, Walters et al. (1998) concluded

that although "matrix games possess some qualities that are similar to actual bargaining, they are fundamentally different than explicit negotiation" (p. 22). What if this task involved actual money that participants' possessed? Despite the fact that women typically score higher in social responsibility, men feel the need to provide for the group more strongly than women do, in particular financially (Huntoon, 2002; Kerr, 1995). It may be that men would be more cooperative and donate more money than women. However, the situation may again be a more important factor, such as the specific aims of the nonprofit organization requesting donations.

The current experiment is the first examination of injunctive and descriptive norms in a public goods dilemma. The descriptive norms may be more applicable to actual giving behavior, while the injunctive norms influence sense of social responsibility, which may or may not transform into helping actions. It is also an original contribution with the examination of the personality dimensions and all four of the universal value domains within a public goods dilemma, and their potential interaction with injunctive and descriptive social norms.

The study included a methodologically sound norm induction, and a controlled public goods dilemma task. However, this may be partially responsible for the lack of findings consistent with the hypotheses. The task required artificial behavior that the participants were unfamiliar with in a sterile laboratory setting. At the end of each experimental session participants were asked "was there anything about this study that struck you as unusual, confusing, or odd?" The most common response after "nothing" was that the public goods dilemma was strange and perplexing. Examples of some responses are "I didn't really understand the actual 'game'", "the poker chip part", and "the game-very confusing and odd." In efforts to reduce the chance of experimental demand, the norms were not directly presented. A more direct approach in a real life setting may produce a stronger focus on the norms, and create

an impact on donation behavior. Additionally, more precise personality traits and value types may have provided more fruitful results than those seen in this study.

Future direction for this line of research should begin with a more familiar and natural task, such as a field study that utilizes a nonprofit organization and incorporates normative messages into the campaign. Social norms may have more impact in this natural setting because the behavior is familiar and concrete. Even though this situation is less ambiguous than the public goods dilemma, commodities are valued for their use, rather than having an intrinsic value (Pillutla & Chen, 1999). The social norm can be suggestive of a value, as people don't have preconceptualized notions of what a nonprofit organization is worth to them personally. Additionally, the injunctive norm may be more relative to the situation and more effective, and possibly more generalizable to other times or organizations, as suggested by earlier work (Cialdini et al., 1991; Kallgren et al., 2000). Personal norms, values, and personality dimensions may be effective if they are inclined to be cooperative and have concern for group welfare. Focusing individuals on these internal aspects of the self may be an effective means of increasing group regarding behavior.

While short term giving behavior towards an organization is wanted, making multiple contributions is also desirable. A long-term effect of social norms is worthy of study. If an organization were able to utilize a technique that enticed initial donations, but then built that activity into part of the person's set of personal norms, it would produce benefits over an extended period of time. It may also transfer to others in the community, creating an invested community that shows concern for each other and support for providing group benefits.

Descriptive and injunctive norms may be viable methods of garnering support for nonprofit organizations. However, caution should be taken to avoid the use of proself social

norms that can backfire and actually reduce the amount of public support. A focal, strongly stated prosocial descriptive norm is likely to influence immediate behavior, although a prosocial injunctive norm followed by an internal focus may be more effective in the long-term, and increase prosocial behavior in general.

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Footnotes

[1]This is in comparison to previous findings (e.g. Parks and Huntoon, in revision) that the average contribution in the control condition of a public goods dilemma centers around half of the tokens; in this case, five tokens.

[2] Combining the two conditions created unequal cell counts, with the control condition roughly half the size of the other two conditions. The SPSS program accounts for this inequality

[3] The lower number of participants used to check the manipulation of the social norms is due to a large number of participants reporting a range of numbers, rather than a single value. Those participants that provided a value range were not included in these analyses.

[4]Piliavin and Libby (1985/6) found that personal norms influence blood donation directly, not social norms. However, this finding is not readily applicable to donation of money (as with the tokens in the public goods dilemma). Blood donation has been found unique compared to donation of time or money (Lee, Piliavin, & Call, 1999).

Figure 1. Model of the relations among value types and domains from Schwartz (1992) p.45.

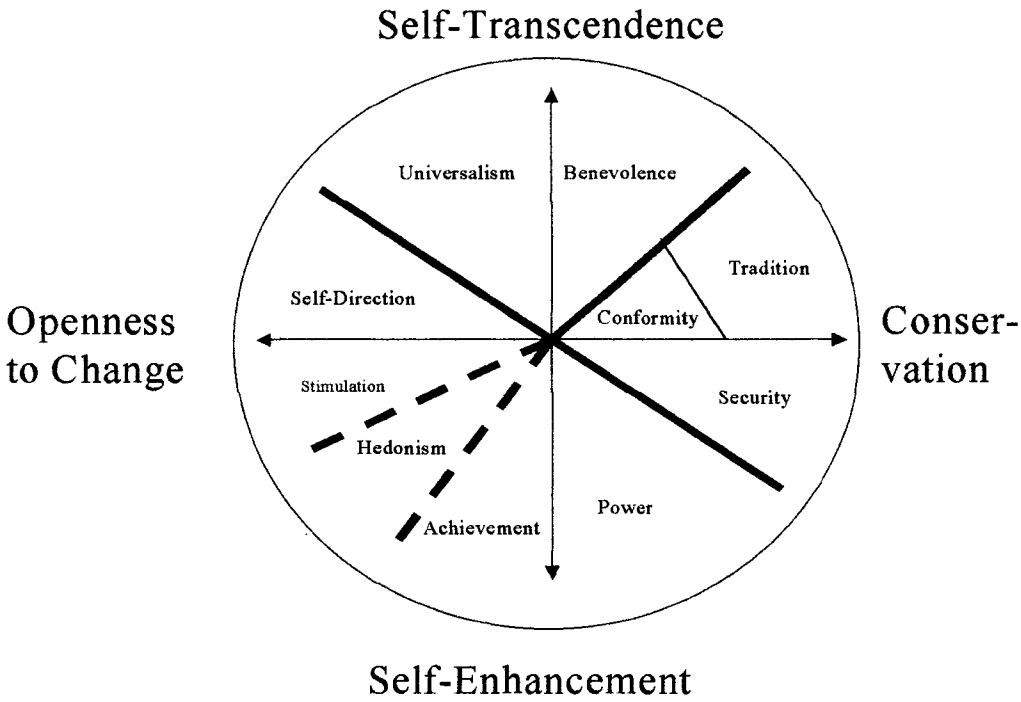

Figure 2. Amount of Contribution as a Function of Normative Condition

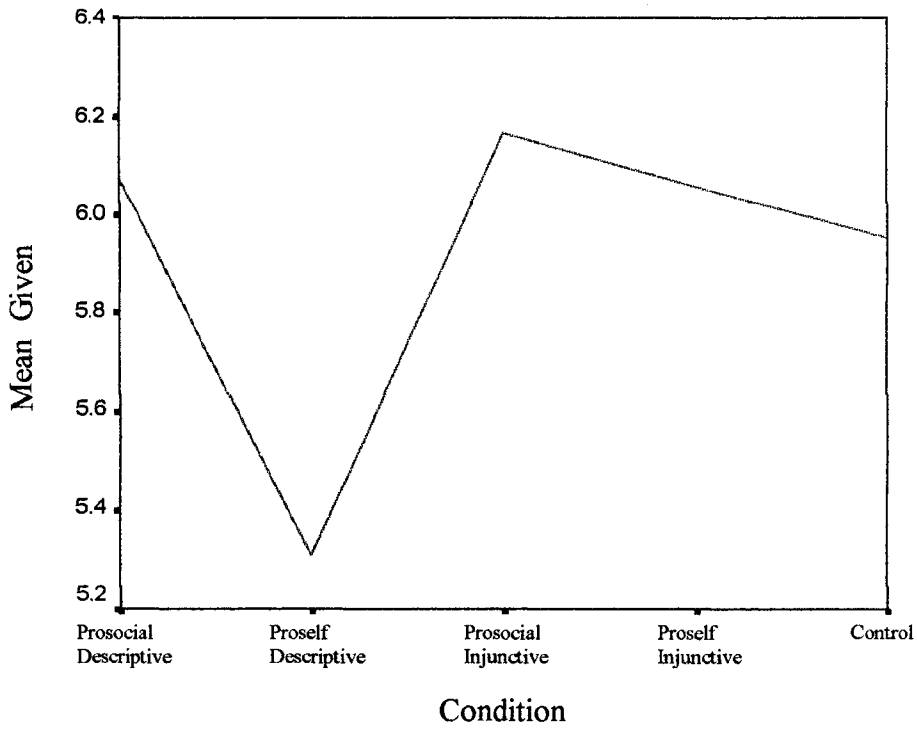

Figure 3. Trend tests for Agreeableness x Norm Condition on Amount of Contribution

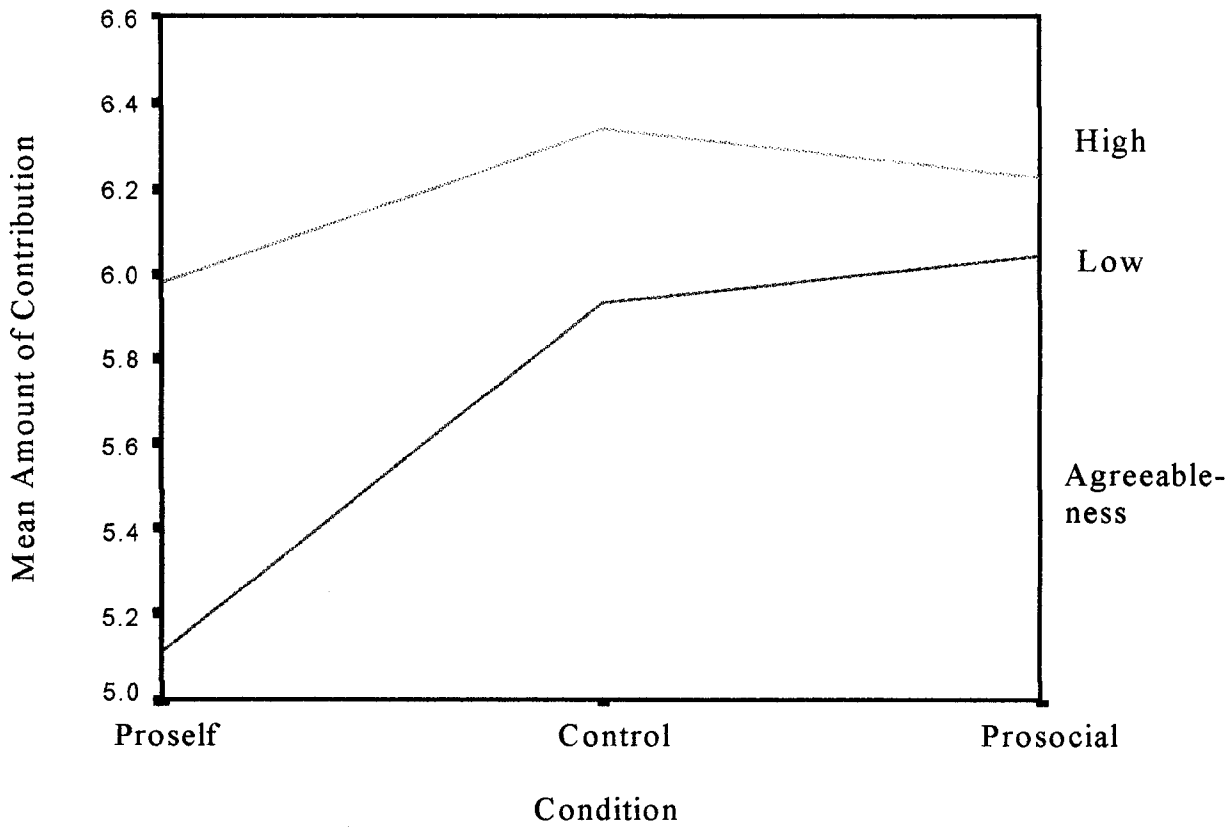

Figure 4. Trend tests for Extraversion x Norm Condition on Amount of Contribution

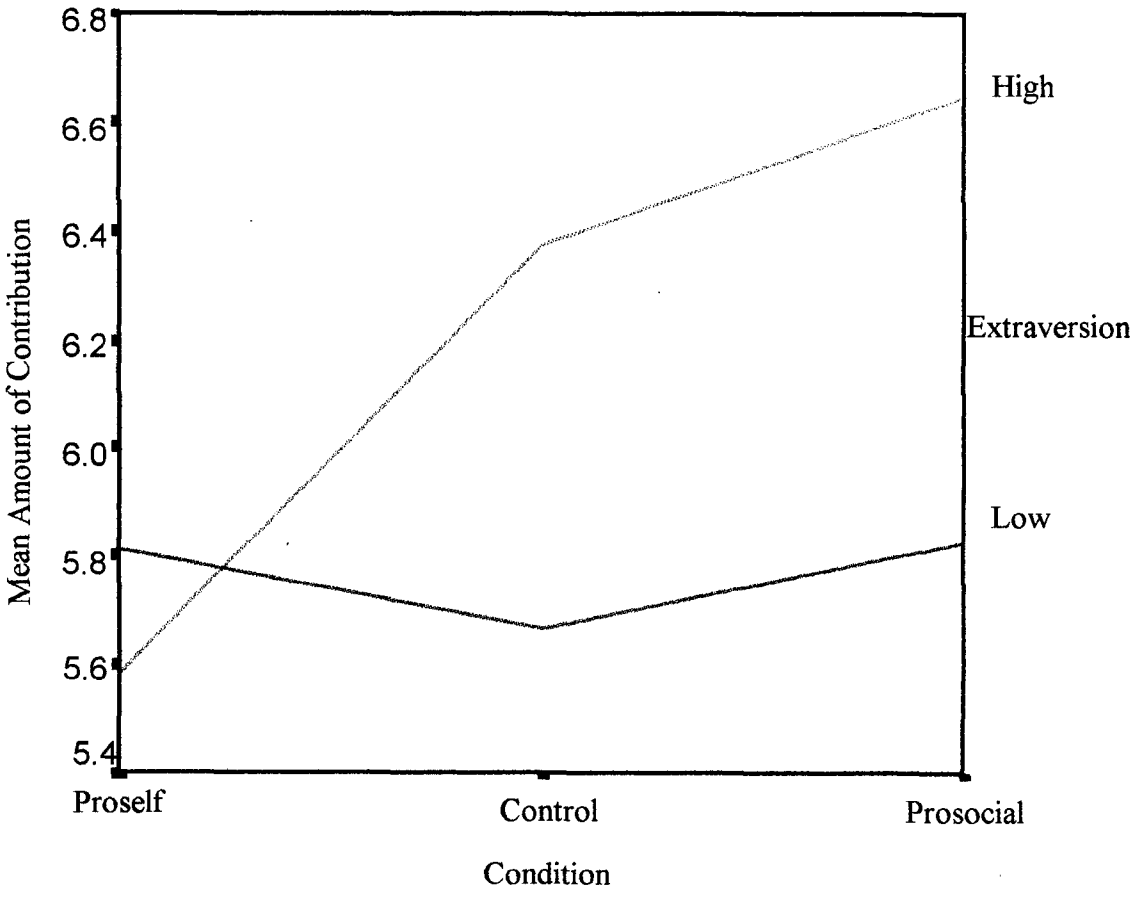

Figure 5. Social Responsibility as a Function of Normative Condition

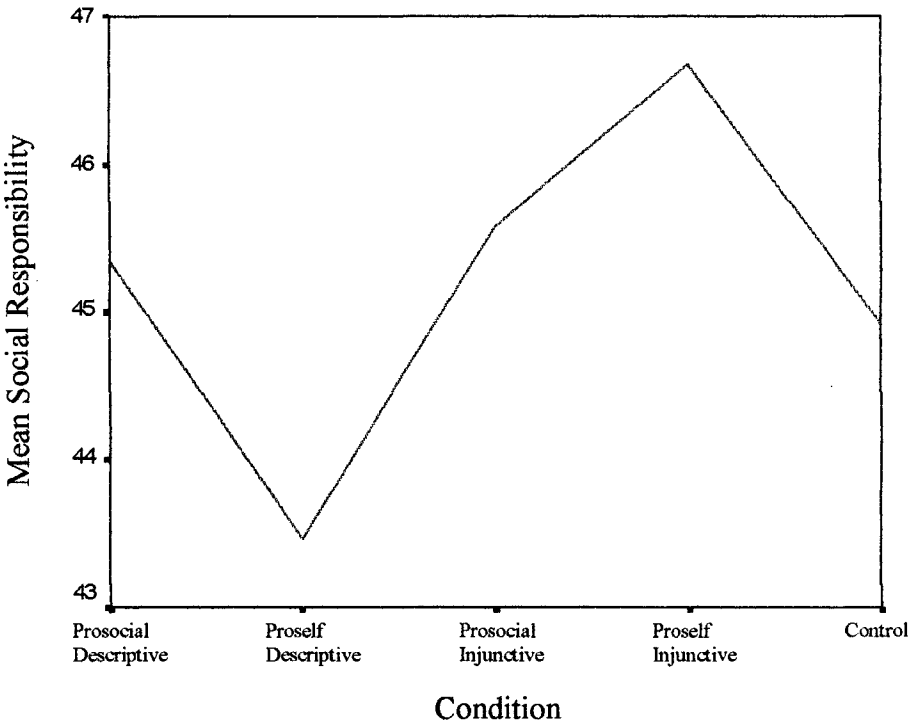

Figure 6. Social Responsibility as a Function of Gender

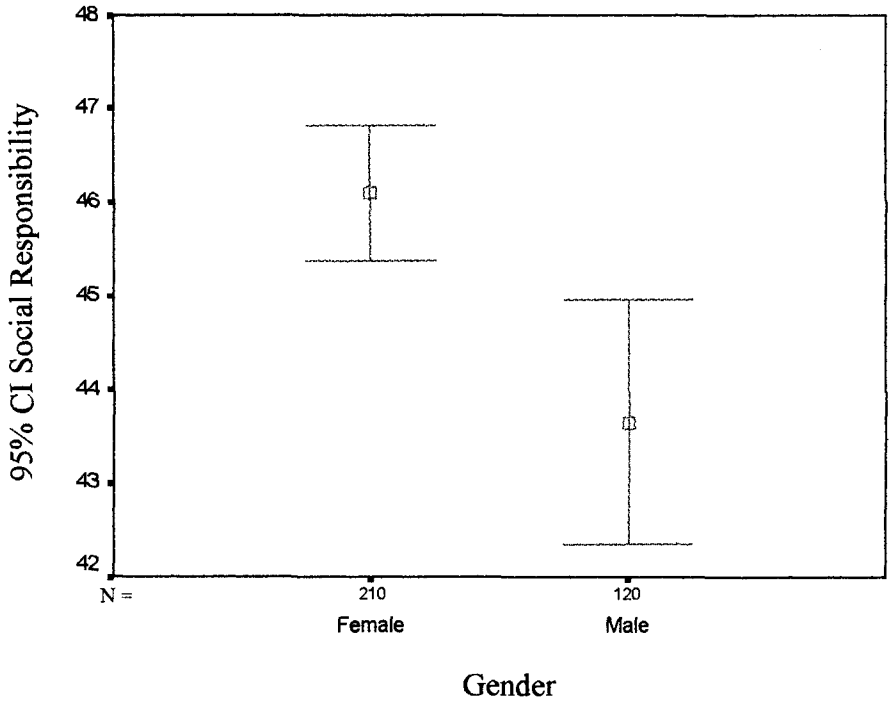

Table 1

The Big Five Dimensions and their Corresponding Facets Adapted from Costa and McCrae (1992) in John and Srivastava (1999, p. 110)

Dimension	Facets
Extraversion	Gregariousness, Assertiveness, Activity, Excitement-seeking, Positive Emotions, Warmth
Agreeableness	Trust, Straightforwardness, Altruism, Compliance, Modesty, Tender-mindedness
Conscientiousness	Competence, Order, Dutifulness, Achievement striving, Self-discipline, Deliberation
Neuroticism	Anxiety, Angry Hostility, Depression, Self-consciousness, Impulsiveness, Vulnerability
Openness to Experience	Ideas, Fantasy, Aesthetics, Actions, Feelings, Values

Table 2

Means and Standard Deviations of Contribution and Social Responsibility as a Function of Normative Condition and Gender

	Contribution			Social Responsibility		
Predictor	N	M	SD	N	M	SD
Prosocial Descriptive	66	6.08	1.94	66	45.35	5.82
Proself Descriptive	64	5.31	2.39	65	43.46	6.65
Prosocial Injunctive	65	6.17	2.43	64	45.58	5.87
Proself Injunctive	70	6.06	2.03	70	46.69	6.31
Control	65	5.96	2.47	65	44.92	5.93
Female	210	5.89	2.03	210	46.11	5.29
Male	120	5.97	2.63	120	43.66	7.25

Table 3

Trend Tests for Linear and Quadratic Relationships Between Amount of Contribution and Condition (Proself, Control, Prosocial) for Agreeableness and Extraversion

Personality Dimension	Standing	Relationship Form	F	Sig.
Agreeableness	Low 1/3	Linear	4.07	.05
Agreeableness	Low 1/3	Quadratic	0.31	.58
Agreeableness	High 1/3	Linear	0.30	.59
Agreeableness	High 1/3	Quadratic	0.25	.62
Extraversion	Low 1/3	Linear	0.00	.97
Extraversion	Low 1/3	Quadratic	0.08	.78
Extraversion	High 1/3	Linear	4.47	.04
Extraversion	High 1/3	Quadratic	0.23	.63

Table 4

Trend Tests for Linear and Quadratic Relationships Between Amount of Contribution and Condition (Proself, Control, Prosocial) for Self-Transcendence and Self-Enhancement

Value Domain	Standing	Relationship Form	F	Sig.
Self-transcendence	Low 1/3	Linear	3.60	.06
Self-transcendence	Low 1/3	Quadratic	0.62	.44
Self-transcendence	High 1/3	Linear	2.30	.13
Self-transcendence	High 1/3	Quadratic	2.86	.09
Self-enhancement	Low 1/3	Linear	0.11	.74
Self-enhancement	Low 1/3	Quadratic	0.11	.78
Self-enhancement	High 1/3	Linear	1.74	.19
Self-enhancement	High 1/3	Quadratic	0.18	.68

Table 5

Manipulation Check for Descriptive Norm and Injunctive Norm: What Participants Reported They Believed Others Contributed and Thought Should Be Contributed

	Descriptive			Injunctive		
Predictor	N	Mean	SD	N	Mean	SD
Prosocial Descriptive	44	5.18	1.54	47	5.55	2.07
Proself Descriptive	44	4.60	1.24	40	5.83	2.11
Prosocial Injunctive	40	5.00	1.26	38	5.95	1.76
Proself Injunctive	45	4.58	1.25	48	5.80	1.83
Control	47	4.51	0.98	44	5.73	2.13

Table 6

Gender, Norm Condition, Big-Five, and Their Interactions: Significance for Amount Contributed and Social Responsibility Summarized

	Contribution				Social Responsibility			
	Broad		Descriptive		Broad		Descriptive	
Personality Dimension	ΔR^2	Sig.	ΔR^2	Sig.	ΔR^2	Sig.	ΔR^2	Sig.
Agreeableness	.00	.79/5	.01	.41/5	.03	.01/3	.01	.40/5
Extraversion	.02	.02/5	.03	.06/5	.02	.03/3	.00	.77/5
Openness to Experience	.03	.00/3	.07	.00/3	.00	.95/5	.01	.38/5
Conscientiousness	.00	.75/5	.00	.47/5	.06	.00/3	.07	.00/3
Neuroticism	.02	.01/5	.01	.19/5	.00	.43/5	.00	.75/5

Note: Broad refers to analyses with the Proself and Prosocial conditions. Descriptive refers to analyses with only the Prosocial Descriptive and Proself Descriptive normative conditions considered. The model considered is indicated behind the slash after the level of significance. 3 refers to the model with only the main effects (gender, norm condition, personality dimension) entered, 4 also contains 2-way interactions, and 5 is the full model with the 3-way interaction. The last model is listed if none of the models are significant.

Table 7

Gender, Norm Condition, Universal Value Domains, and Their Interactions: Significance for Amount Contributed and Social Responsibility Summarized

	Contribution				Social Responsibility			
	Broad		Descriptive		Broad		Descriptive	
Value Domain	ΔR^2	Sig.	ΔR^2	Sig.	ΔR^2	Sig.	ΔR^2	Sig.
Self-Transcendence	.00	.38/5	.02	.10/5	.05	.00/3	.00	.94/5
Self-Enhancement	.01	.08/5	.01	.36/5	.01	.20/5	.00	.46/5
Conservation	.00	.30/5	.02	.17/5	.03	.01/3	.07	.00/3
Openness to Change	.00	.77/5	.00	.58/5	.02	.04/3	.02	.15/5

Note: Broad refers to analyses with the Proself and Prosocial conditions. Descriptive refers to analyses with only the Prosocial Descriptive and Proself Descriptive normative conditions considered. The model considered is indicated behind the slash after the level of significance. 3 refers to the model with only the main effects (gender, norm condition, universal value domain) entered, 4 also contains 2-way interactions, and 5 is the full model with the 3-way interaction. The last model is listed if none of the models are significant.

Appendix A

Experimental Conditions and Corresponding Norm Manipulations

Condition	Norm Manipulation
Prosocial Descriptive	Previous contribution amounts; $M = 7$ tokens, $SD = 1.76$
Proself Descriptive	Previous contribution amounts; $M = 3$ tokens, $SD = 1.76$
Prosocial Injunctive	Amounts that "should be" given; $M = 7$ tokens, $SD = 1.76$
Proself Injunctive	Amounts that "should be" given; $M = 3$ tokens, $SD = 1.76$
Control	Exposure to sheet stating "Experiment 21"

Appendix B

Written on the Prosocial Descriptive sheet

GAME RECORDING SHEET Experiment 21 – 2004

Tokens actually given to the group account

Date 10/1/2004

Session 1 7

9

6

5

7

Date 10/1/2004

Session 2 7

8

4

7

10

Written on the Proself Descriptive sheet

GAME RECORDING SHEET Experiment 21 – 2004

Tokens actually given to the group account

Date _____10/1/2004_____

Session 1 _____3_____

_____1_____

_____4_____

_____5_____

_____3_____

Date _____10/1/2004_____

Session 2 _____3_____

_____2_____

_____6_____

_____3_____

_____0_____

Written on the Prosocial Injunctive sheet

GAME RECORDING SHEET Experiment 21 – 2004

Tokens believed should be given to the group

Date _____10/1/2004_____

Session 1 _____7_____

_____9_____

_____6_____

_____5_____

_____7_____

Date _____10/1/2004_____

Session 2 _____7_____

_____8_____

_____4_____

_____7_____

_____10_____

Written on the Proself Injunctive sheet

GAME RECORDING SHEET Experiment 21 – 2004

Tokens believed should be given to the group

Date _____10/1/2004_____

Session 1 _____3_____

_____1_____

_____4_____

_____5_____

_____3_____

Date _____10/1/2004_____

Session 2 _____3_____

_____2_____

_____6_____

_____3_____

_____0_____

Written on the Control sheet

Experiment

21

Appendix C

Injunctive/Gender Questionnaire

1. What do you believe is the appropriate amount (0 to 10 tokens) to contribute to the group account? That is, how much do you think people ought to contribute?

2. What is your gender? (Circle one): Female Male

Social Responsibility Scale
Modified from Berkowitz and Daniels (1964)

Instructions: Please respond to the following statements by circling the number that best reflects your degree of agreement with the statement. Circle just one number per statement.

1) It is no use worrying about current events or public affairs; I can't do anything about them anyway.
Strongly agree 1------2------3------4------5------6------7 Strongly disagree

2) Every person should give some of his/her time for the good of his/her town or country.
Strongly agree 1------2------3------4------5------6------7 Strongly disagree

3) Our country would be a lot better off if we didn't have so many elections and people didn't have to vote so often.
Strongly agree 1------2------3------4------5------6------7 Strongly disagree

4) Letting your friends down is not so bad because you can't do good all the time for everybody.
Strongly agree 1------2------3------4------5------6------7 Strongly disagree

5) It is the duty of each person to do his/her job the very best he/she can.
Strongly agree 1------2------3------4------5------6------7 Strongly disagree

6) People would be a lot better off if they could live far away from other people and never have to do anything for them.
Strongly agree 1------2------3------4------5------6------7 Strongly disagree

7) At school I usually volunteer for special projects.
Strongly agree 1------2------3------4------5------6------7 Strongly disagree

8) I feel very bad when I have failed to finish a job I promised I would do.
Strongly agree 1------2------3------4------5------6------7 Strongly disagree

The Big Five Inventory (BFI)

Modified from John and Srivastava (1999)

Instructions: Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

1. Disagree strongly
2. Disagree a little
3. Neither agree nor disagree
4. Agree a little
5. Agree strongly

I See Myself as Someone Who...

_____ 1. Is talkative
_____ 2. Tends to find fault with others
_____ 3. Does a thorough job
_____ 4. Is depressed, blue
_____ 5. Is original, comes up with new ideas
_____ 6. Is reserved
_____ 7. Is helpful and unselfish with others
_____ 8. Can be somewhat careless
_____ 9. Is relaxed, handles stress well
_____ 10. Is curious about many different things
_____ 11. Is full of energy
_____ 12. Starts quarrels with others
_____ 13. Is a reliable worker
_____ 14. Can be tense
_____ 15. Is ingenious, a deep thinker
_____ 16. Generates a lot of enthusiasm
_____ 17. Has a forgiving nature
_____ 18. Tends to be disorganized
_____ 19. Worries a lot
_____ 20. Has an active imagination
_____ 21. Tends to be quiet
_____ 22. Is generally trusting
_____ 23. Tends to be lazy
_____ 24. Is emotionally stable, not easily upset
_____ 25. Is inventive
_____ 26. Has an assertive personality
_____ 27. Can be cold and aloof
_____ 28. Perseveres until the task is finished
_____ 29. Can be moody
_____ 30. Values artistic, aesthetic experiences
_____ 31. Is sometimes shy, inhibited
_____ 32. Is considerate and kind to almost everyone
_____ 33. Does things efficiently
_____ 34. Remains calm in tense situations
_____ 35. Prefers work that is routine
_____ 36. Is outgoing, sociable
_____ 37. Is sometimes rude to others
_____ 38. Makes plans and follows through with them
_____ 39. Gets nervous easily
_____ 40. Likes to reflect, play with ideas
_____ 41. Has few artistic interests
_____ 42. Likes to cooperate with others
_____ 43. Is easily distracted
_____ 44. Is sophisticated in art, music, or literature

Value Survey (Schwartz, 1992)

Directions: Shown below are a number of things people might value. Using the scale shown below, please rate the extent to which each value is important to you. Please place your rating in the space provided to the left of each item. For each value, complete the following sentence: **As a guiding principle in my life _____ is:**

-1	0	1	2	3	4	5	6	7
Opposed to My Values	Not Important			Important			Very Important	Of Supreme Importance

____ 1. **equality** – equal opportunity for all
____ 2. **inner harmony** – at peace with myself
____ 3. **social power** – control over others, dominance
____ 4. **pleasure** – gratification of desires
____ 5. **freedom** – freedom of action and thought
____ 6. **a spiritual life** – emphasis on spiritual not material matters
____ 7. **sense of belonging** – feeling that others care about me
____ 8. **social order** – stability of society
____ 9. **an exciting life** – stimulating experiences
____ 10. **meaning in life** – a purpose in life
____ 11. **politeness** – courtesy, good manners
____ 12. **wealth** – material possessions, money
____ 13. **national security** – protection of my nation from enemies
____ 14. **self-respect** – belief in one's own worth
____ 15. **reciprocation of favors** – avoidance of indebtedness
____ 16. **creativity** – uniqueness, imagination
____ 17. **a world at peace** – free of war and conflict
____ 18. **respect for tradition** – preservation of time-honored customs
____ 19. **mature love** – deep emotional and spiritual intimacy
____ 20. **self-discipline** – self-restraint, resistance to temptation
____ 21. **detachment** – from worldly concerns
____ 22. **family security** – safety for loved ones
____ 23. **social recognition** – respect, approval by others
____ 24. **unity with nature** – fitting into nature
____ 25. **a varied life** – filled with challenge, novelty, and change
____ 26. **wisdom** – a mature understanding of life

As a guiding principle in my life _____ is:

-1 Opposed to My Values	0 Not Important	1	2	3 Important	4	5	6 Very Important	7 Of Supreme Importance

____ 27. **authority** – the right to lead or command
____ 28. **true friendship** – close, supportive friends
____ 29. **a world of beauty** – beauty of nature and the arts
____ 30. **social justice** – correcting injustice, care for the weak
____ 31. **independent** – self-reliant, self sufficient
____ 32. **moderate** – avoiding extremes of feeling and action
____ 33. **loyal** - faithful to my friends, group
____ 34. **ambitious** – hardworking, aspiring
____ 35. **broad-minded** – tolerant of different ideas and beliefs
____ 36. **humble** – modest, self-effacing
____ 37. **daring** – seeking adventure, risk
____ 38. **protecting the environment** – preserving nature
____ 39. **influential** – having an impact on people and events
____ 40. **honoring of parents and elders** – showing respect
____ 41. **choosing own goals** – selecting own purposes
____ 42. **healthy** – not being sick physically or mentally
____ 43. **capable** – competent, effective, efficient
____ 44. **accepting my portion in life** – admitting to life's circumstances
____ 45. **honest** – genuine, sincere
____ 46. **preserving my public image** – protecting my "face"
____ 47. **obedient** – dutiful, meeting obligations
____ 48. **intelligent** – logical, thinking
____ 49. **helpful** – working for the welfare of others
____ 50. **enjoying life** – enjoying food, sex, leisure, etc
____ 51. **devout** – holding to religious faith and belief
____ 52. **responsible** – dependable, reliable
____ 53. **curious** – interested in everything, exploring
____ 54. **forgiving** – willing to pardon others
____ 55. **successful** – achieving goals
____ 56. **clean** – neat, tidy

Suspicion and Manipulation Checks

Using the blank, lined sheet of paper provided, please answer the following questions in order (do not write on this sheet). Please write the question number next to your answer.

1. Please describe, in your words, your understanding of the purpose of the study.

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2. Was there anything about this study that struck you as unusual, confusing, or odd?

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3. On average, how many tokens/chips (0 to 10) do you believe other participants actually contributed to the group in the game you played at the beginning of the experiment?

---

4. How do you think other participants felt about how much people ought to contribute? That is, on average, how many chips (0 to 10) do you think participants thought was the amount people should give because it was the right thing to do?

Thank you. Please place your responses in the "completed" envelope. You may leave this sheet and the folder on the desk. At this point, indicate to the experimenter that you have finished all questionnaires, and that you are ready for your debriefing.

Appendix D

Public Goods Dilemma Game Instructions

TASK INSTRUCTIONS

At the start of the game you will have 10 points, and your task will be to allocate the points among two accounts: a **personal** account and a **group** account. Points that you place in your personal account are yours to keep and are worth the equivalent of **50 cents**. Points that you place in the group account are points that will be distributed among the other group members. You will receive an equal share (one fourth) of all of the points that the other group members put into the group account (i.e., the total minus your own contribution, divided by 4). Every point that you receive from the group account will be worth the equivalent of **one dollar**. Your total payoff for that trial will be the total amount you earned from your personal account and the group account. For example, imagine that you put 5 points in your personal account and 5 points into the group account, and that everyone else put a total of 20 points into the group account. Your share of the group account would be 20 / 4 = 5 points. Your total payoff would thus be 5 points x $0.50 = $2.50 from your personal account, plus 5 points x $1.00 = $5.00 from the group account, for a total of $7.50.

You can put any amount from 0 to 10 points into either account. Thus, you can put all of your points into one account and nothing in the other account if you wish, or you can put something in both accounts. I am not going to tell you how much each person put into the group account until the end of the game. Thus, you will not know how much or how little any one person put into the group account, and no one will know how much you put into the group account.

I will keep track of how much "money" you accumulate. Everyone who accumulates a sufficient amount of money by the end of the trials will be entered into a lottery that will be conducted after the entire study is complete. For purposes of the study, it is important that you not know exactly how much you need to accumulate.

To make your choice, I want you to use the chips that I gave you. You'll see that you have 10 of them. Once the game begins, I want you to put the number of chips you want to contribute to the group account into the envelope that I gave you. I will then pick up everyone's envelope. We use the envelopes so that nobody can see how much anyone else is putting into the group account. If you decide to put no chips into the group account, just leave the envelope empty, though I will pick up the envelope even if it is empty. Once I collect the envelopes, I will record everyone's contribution amount to the group account onto a data recording sheet.

When the game is finished, I will then ask everyone to answer a question regarding how much you think is the appropriate amount that <u>should be</u> given. I will then record those amounts onto another data recording sheet.

Appendix E

Instructions

Please complete this packet in the following order:

1. Take out Questionnaire 1
2. Fill out Questionnaire 1 (8 statements)
3. Place completed Questionnaire 1 in the "completed" envelope in your cubicle

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4. Take Questionnaire 2 out of this folder
5. Fill out Questionnaire 2 (44 statements)
6. Place completed Questionnaire 2 in the "completed" envelope in your cubicle

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7. Take Questionnaire 3 out of this folder
8. Fill out Questionnaire 3 – **note** that there is a front and back to this survey, please fill out responses for all 56 statements
9. Place completed Questionnaire 3 in the "completed" envelope in your cubicle

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10. Take Questionnaire 4 and the blank, lined paper out of this folder
11. Respond to the four questions on Questionnaire 4 by writing the answers on the blank, lined paper (be sure to indicate the question number you are answering on the blank paper)
12. Place Questionnaire 4 in the "completed" envelope

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13. Leave everything else on your desk as is
14. Signal to the experimenter that you have finished with the folder