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by
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Abstract

Although researchers have shown how the need to reduce internal discrepancies between one's current level of morality and one's moral standard and the need to reduce negative social judgment drive prosocial behaviors, it remains unclear if the presence of both these motivations has additive effects on prosocial behaviors. I propose that the answer is no: people operate on a sufficient motivation principle when deciding to behave prosocially, that is, they should be equally prosocial whether one or both motivations are present. I further argue that individual differences in public (PUSC) and private (PRSC) self-consciousness affect people's attention to the two types of motivations. High PUSC people are concerned about what others think of them. So, when social judgment is present, they should be equally prosocial regardless of internal discrepancies. High PRSC people are aware of their internal attitudes and moral standards. So, whether social judgment is present, they should be more prosocial in the presence than absence of internal discrepancies.

To test these hypotheses, the presence of internal discrepancies and social judgment was manipulated and their effects on money allocation in a Dictator Game examined. Results did not support the sufficient motivation principle. However, a PUSC x Internal Discrepancies x Social Judgment interaction was observed. Contrary to predictions, high PUSC people were not uniformly prosocial in the presence of social judgment. Instead, they were less prosocial in the presence than absence of internal discrepancies. These findings suggest that

mechanisms other than those hypothesized may have influenced people's prosocial behavior.

Although the sufficient motivation principle and the expected moderating effects of PUSC and PRSC were not supported, this could be due to the many limitations of the study. Future studies should take these limitations into account to provide a more conclusive finding.

Keywords: prosocial behavior, social judgment, moral compensation, private self-consciousness, public self-consciousness

Table of Contents

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Chapter 1: Introduction

Prosocial behavior, or voluntary behavior meant to benefit others (Eisenberg, Fabes, & Spinrad, 2006), occurs in every society. There are many reasons for prosocial behavior but two key ones are the need to reduce internal discrepancies between one's current level of morality and one's moral standard, and the need to reduce negative social judgment by meeting external societal expectations (Batson & Powell, 2003; Nisan, 1991; Penner, Dovidio, Piliavin, & Schroeder, 2005). Although evidence exists to show that these two motivations lead to prosocial behavior, it remains unclear if people are more prosocial in the presence of *both* than in the presence of either one. The purpose of this thesis, therefore, is to address the gap in the literature by proposing the sufficient motivation principle: people are equally prosocial whether one or both motivations are present. I further propose that individual differences affect people's attention to the two types of motivations: those high on public self-consciousness (PUSC), thus concerned about how others perceive them, are more likely to reduce negative social judgment by conforming to societal expectations than those low on PUSC, and those high on private self-consciousness (PRSC), thus more aware of their internal attitudes and values, are more likely to reduce internal discrepancies than those low on PRSC. Therefore, for high PUSC people, when social judgment is present, they should be equally prosocial regardless of the internal discrepancies. When social judgment is absent, they should be more prosocial when internal discrepancies are present than absent. For high PRSC people, when internal discrepancies are present, they should be equally prosocial regardless of the social judgment. To test these predictions, I manipulated the presence of internal discrepancies and social judgment and examined their

independent and joint effects on a specific type of prosocial behavior—money allocation, or generosity, in a Dictator Game.

The structure of the thesis is as follows. Chapter 2 provides an overview of the literature (i) on the effects of internal discrepancies and social judgment on prosocial behaviors, and (ii) on PUSC and PRSC. It also introduces the sufficient motivation principle and describes the specific hypotheses derived from the principle. Chapter 3 details the study design and Chapter 4 the results. Chapter 5 concludes the thesis with a discussion of the results and the limitations in the study.

Chapter 2: Literature Review

Effects of internal discrepancies on prosocial behaviors

People have internal expectations about how they should behave; these are usually experienced as moral obligations and are backed by self-administered rewards and punishments (Schwartz, 1977). When people deviate from their moral expectations, that is, when they experience internal discrepancies between their current level of morality and their moral standard, they feel guilty, which drives them to engage in reparative actions such as prosocial behaviors (Nelissen & Zeelenberg, 2009; Nisan, 1991; Tangney, Stuewig, & Mashek, 2007; Wallington, 1973).

Support for this comes from studies on moral cleansing, which is the perception that one has to act morally to reaffirm one's morality after a transgression (Tetlock, Kristel, Elson, Green, & Lerner, 2000). Participants who were led to believe that they had harmed a confederate through poor performance were more willing to donate blood to a local hospital than those who believed that their poor performance had no consequences for the confederate (Darlington & Macker, 1966). Similarly, those induced to administer painful electric shocks to a confederate in the role of a "learner" were more likely to comply with a request to call people to convince them to sign a petition in support of saving redwood forests than those who signaled the "learner's" errors through a buzzer or witnessed somebody else administer the shocks (Carlsmith & Gross, 1969). More recent studies showed that participants played more cooperatively in a Prisoner's Dilemma game after writing about a time they felt guilty or ashamed than after writing about a typical day (Ketelaar & Au, 2003). People also reported greater prosocial intentions after writing about an immoral deed than after writing about a

typical Tuesday (Jordan, Mullen, & Murnighan, 2011). Finally, in another study on moral cleansing, Tetlock and colleagues (2000) had participants recommend insurance premiums for a homeowner from a high-risk zone. They were later told that the insurance premiums they had recommended were based on the neighborhood's racial composition. Self-professed liberals morally cleansed by decreasing their premium recommendations and by indicating greater interest in attending African American cultural events and rallies for racial equality. In sum, there is a body of literature showing that people are motivated to engage in reparative actions such as prosocial behaviors when they experience internal discrepancies.

Although people are motivated to behave prosocially in the presence of internal discrepancies, in the absence of internal discrepancies, they may stop behaving prosocially. This is because prosocial behavior is sometimes costly. So, people engage in a balancing act to both maintain an acceptable level of moral self-regard and to benefit from minor misdemeanors (Nisan, 1991).

Support for this balancing act comes from research on moral licensing, which is the perception that one can transgress without discrediting oneself after doing good (for reviews, see Merritt, Effron, & Monin, 2010; Miller & Effron, 2010; Zhong, Liljenquist, & Cain, 2009). For example, people who behaved in a non-prejudiced manner initially, thus presumably reducing their internal discrepancies, ironically behaved in a prejudiced manner subsequently (Effron, Cameron, & Monin, 2009; Monin & Miller, 2001). Those who voiced their support for Barack Obama (an African American presidential candidate) prior to the 2008 elections were more likely to say that a police job is less suitable for an African American (Effron, et al., 2009). Participants who had selected a female

candidate for a job instead of a man were also more likely to deem a construction job as less suitable for a woman (Monin & Miller, 2001). In addition, compared to people who wrote stories about themselves using morally negative trait words (e.g., disloyal, mean), those who wrote stories about themselves using morally positive trait words (e.g., caring, generous) donated less to a charity of their choice and acted less ethically in a business scenario (Sachdeva, Iliev, & Medin, 2009). Finally, those who recalled past moral deeds reported less prosocial intentions (e.g., charity donation, volunteering) than those who wrote about a typical Tuesday (Jordan, et al., 2011).

Taken together, research shows that in the presence of internal discrepancies, people behave prosocially; in the absence of internal discrepancies, they may stop behaving prosocially.

Effects of social judgment on prosocial behaviors

When deciding how to behave, people are guided not only by their need to reduce internal moral discrepancies but also by their need to reduce negative social judgment. Because humans' biological success depends on other people in the society, there is a need to adhere to others' expectations (Boksem & De Cremer, 2009). Selfish behavior leads to reputational loss, which in turn increases ostracism from others in the society; conversely, prosocial behavior leads to reputational gain, which in turn increases greater cooperation from others in the society (e.g., Alexander, 1987, as cited in Nowak & Sigmund, 2005) Therefore, to maximize chances of survival and procreation, it is in the interest of people to take into account societal expectations and behave prosocially, especially when others are around to judge them.

Research has shown that when people are aware that their behaviors are being judged, they increase cooperation. For example, Milinski and colleagues (2002) had participants play a game in which they were alternately exposed to a public goods condition and an indirect reciprocity condition. In the public goods condition, players had a choice whether they wanted to donate money to a group fund. In the indirect reciprocity condition, participants had a choice whether they wanted to donate money to a specific player. Each participant could be a potential donor and a potential receiver once in each round of the indirect reciprocity condition. The potential receivers' history of giving to other players and donating to the group fund was displayed prominently for every player to see. No direct reciprocity was allowed in the round; that is, if Bob refused to donate money to Lisa, Lisa was not given a chance to retaliate in that round. After 16 rounds of alternating between the conditions, one group was told that from Round 17 onwards, they would be playing only the public goods game. The other group was not given this information and so expected more indirect reciprocity games. Findings revealed that those who expected future indirect reciprocity games donated more in the later public goods rounds (Rounds 17-20), and across the two conditions, players who contributed to the group fund were more likely to receive money in the indirect reciprocity rounds than those who did not. This provides evidence that people tend to behave cooperatively in the presence of social judgment and that cooperative behavior is rewarded.

People are also more likely to behave prosocially in the presence of cues that activate the sense of being judged. For example, when participants were given a sum of money to allocate between themselves and their partners, those who saw eye-like spots on the computer desktop background gave 31.4% more money to

their partners compared to those who saw the name of the laboratory (Haley & Fessler, 2005). Male participants who saw three spots arranged in a face-like pattern on the background of an answer sheet similarly allocated more money than those who saw three spots arranged in a triangle (Rigdon, Ishii, Watabe, & Kitayama, 2009). Field experiments showed that posters of eyes placed on the cupboard door above an honesty box stimulated more giving (Bateson, Nettle, & Roberts, 2006) and similar posters reduced littering in the cafeteria (Ernest-Jones, Nettle, & Bateson, 2011). Like posters of eyes, social norms can also serve as cues for potential social judgment. In the presence of social norms, people reduced littering (Cialdini, Reno, & Kallgren, 1990; Reno, Cialdini, & Kallgren, 1993) and increased volunteerism (Greenslade & White, 2005; Warburton & Terry, 2000).

Altogether, these studies confirm that social judgment can be a powerful motivator for prosocial behaviors: in the presence of both actual and perceived social judgment, people tend to behave prosocially.

Sufficient motivation principle

The need to reduce internal discrepancies and the need to reduce negative social judgment may be viewed as two types of motivations. The former is a form of internal motivation: people behave prosocially because they are attempting to adhere to internal moral standards, whereas the latter is a form of external motivation: people behave prosocially because they are attempting to adhere to external societal expectations.

Despite the abundance of research on the effects of internal discrepancies and social judgment on prosocial behaviors, there has not yet been an explicit comparison between the effects of having only one or both motivations on prosocial behaviors. The purpose of this thesis, therefore, is to address this gap in

the literature by proposing the sufficient motivation principle: the presence of either motivation is enough to motivate people to behave prosocially, therefore, there should be no difference in people's prosocial behaviors in the presence of one or both motivations.

Although no evidence currently exists to provide direct support for the sufficient motivation principle, the principle can be used to explain the equivocal findings from studies examining the impact of personal and social norms (i.e., internal and external motivations respectively) on altruism (Schwartz, 1977) and environmentally-friendly behaviors (Bamberg & Schmidt, 2003; Harland, Staats, & Wilke, 1999; Thøgersen, 2006). Harland and colleagues (1999) measured people's personal and social norms and found that when the effect of personal norms was controlled for, social norms no longer predicted four out of five types of environmental behavior. However, Bamberg and Schmidt (2003) found the exact opposite: once the effect of social norms was controlled for, the direct effect of personal norms on the intention to use public transport instead of driving disappeared. These equivocal findings can be explained by the sufficient motivation principle: either motivation may have been enough to lead to prosocial intentions and behaviors. So, when one is controlled for, the effect of the other vanishes. More direct support for the sufficient motivation principle comes from a study investigating the effectiveness of different types of persuasive messages on shoppers' plastic bags usage (de Groot, Abrahamse, & Jones, 2013). Shoppers were exposed to one of the following four types of appeals: (a) non-normative appeal; (b) personal normative appeal; (c) social normative appeal; and (d) combined personal and social normative appeal. Contrary to the researchers' predictions, shoppers did not use significantly fewer plastic bags in the combined

normative appeal condition compared to the personal normative appeal and social normative appeal conditions. However, all three types of normative appeals were more effective than a non-normative appeal. The sufficient motivation principle may be used to explain this surprising finding: the appeals activated internal or external motivations, and either motivation was enough to encourage people to behave prosocially. In sum, there appears to be some evidence supporting the sufficient motivation principle in the context of prosocial behaviors.

Therefore, I propose that people should be equally prosocial when either motivation or both are present. I hypothesize that:

H1: When social judgment is present, people will be equally prosocial regardless of internal discrepancies. When social judgment is absent, people will be more prosocial in the presence than in the absence of internal discrepancies (see Figure 1).

I further propose that this prediction is qualified by individual differences in public self-consciousness (PUSC) and private self-consciousness (PRSC).

Effects of public self-consciousness on prosocial behaviors

People with high levels of PUSC are acutely aware of the self as a social object (Fenigstein, Scheier, & Buss, 1975). As such, they are concerned about how others perceive them and try hard to manage impressions by regulating their behaviors in line with the expectations of people around them. For example, high PUSC women tended to agree with the group's erroneous estimates of the number of metronome clicks more so than low PUSC women (Froming & Carver, 1981) and high PUSC men expressed more moderate attitudes toward using punishment as a parenting technique when they had to express it to a confederate than their low PUSC counterparts (Scheier, 1980). PUSC also predicts sensitivity to social

rejection (Fenigstein, 1979) and accuracy in gauging people's impressions of one's behavior (Tobey & Tunnell, 1981). These studies suggest that when high PUSC people are aware that they are being judged, they should be more likely to behave in accordance to societal expectations than low PUSC people.

Effects of private self-consciousness on prosocial behaviors

People with high levels of PRSC are more self-aware (Fenigstein, et al., 1975). They tend to be more attuned to their current attitudes and values (Smith & Shaffer, 1986) and are therefore more sensitive to personal moral transgressions (Lu & Chang, 2011). When participants' self-awareness level was manipulated (e.g., by asking them to look into a mirror), they behaved more in line with their moral values and helped more (Berkowitz, 1987; Gibbons & Wicklund, 1982). They also chose lower levels of shock for their partners in the role of a "learner" compared to those who sat in front of a blank wall (Froming, Walker, & Lopyan, 1982). People with dispositionally high levels of PRSC were also more likely than those with low levels to help a second experimenter with another task for free (Smith & Shaffer, 1986). Due to their sensitivity to moral transgressions, when high PRSC people behave selfishly, they are also more likely to engage in self-deception to restore moral self-regard (Lu & Chang, 2011). These studies suggest that when high PRSC people are aware of their moral transgressions, they should be more likely to take action to restore their moral self-concept than low PRSC people.

Expected moderating effects of PUSC and PRSC

Because high PUSC people are more sensitive to social judgment, they are more likely to attend to it. So, based on sufficient motivation principle, the presence of social judgment is enough to motivate them to behave prosocially.

However, this does not mean that they will completely stop behaving prosocially in the absence of social judgment. Because PUSC and PRSC have very correlations and are seen as orthogonal (Fenigstein, 1987), high PUSC people can still be sensitive to internal discrepancies, which would provide sufficient motivation for them to behave prosocially. Therefore, I propose that:

H2a: When high PUSC people are in the presence of social judgment, they will behave prosocially regardless of internal discrepancies. In the absence of social judgment, they will behave more prosocially in the presence than absence of internal discrepancies (see Figure 2).

Because low PUSC people are not as sensitive to social judgment as their high PUSC counterparts, they should not be affected by the presence of social judgment. However, they should still be sensitive to internal discrepancies, which would provide sufficient motivation for them to behave prosocially. Therefore, I propose that:

H2b: Low PUSC people will behave more prosocially in the presence than absence of internal discrepancies, regardless of social judgment (see Figure 3).

Because high PRSC people are more sensitive to internal discrepancies, they are more likely to attend to it. Therefore, based on the sufficient motivation principle, the presence of internal discrepancies is enough to motivate them to behave prosocially. Therefore, I propose that:

H3a: High PRSC people will behave more prosocially in the presence than absence of internal discrepancies, regardless of social judgment (see Figure 4).

Finally, because low PRSC people are not as sensitive to internal discrepancies as their high PRSC counterparts, they should not be affected by the presence of internal discrepancies. However, they should still be sensitive to the

presence of social judgment, which would provide sufficient motivation for them to behave prosocially. Therefore, I propose that:

H3b: When low PRSC people are in the presence of social judgment, they will behave prosocially regardless of internal discrepancies (see Figure 5)[1].

Public self-consciousness vs. self-monitoring

Although this study focuses on PUSC, there is a conceptually similar scale—the self-monitoring scale (Gangestad & Snyder, 2000; Snyder, 1974). Both high PUSC people and high self-monitors calibrate their actions to cultivate good impressions (Tobey & Tunnell, 1981). Despite the apparent conceptual similarity, the correlation between the two is relatively small, ranging from .18 to .30 (Briggs, Cheek, & Buss, 1980; Turner, Carver, Scheier, & Ickes, 1978), suggesting that they are distinct constructs. Items on the self-monitoring scale relate more to impression management skills (e.g., "I would probably make a good actor" and "I find it hard to imitate the behavior of other people") and items on PUSC relate more to concern for negative social evaluation. Furthermore, it is suggested that high self-monitors are driven by status-oriented impression management concerns than by general concern about others' judgment (Gangestad & Snyder, 2000). Because this study examines how fear of negative social judgment motivates one's prosocial behavior, and PUSC more directly measures one's concern for social judgment, PUSC was selected instead of self-monitoring.

[1] High PUSC is not equivalent to high PRSC. High PUSC people move their attention from social judgment toward internal discrepancies in the absence of social judgment, so they should be more prosocial when internal discrepancies is present than absent. Low PRSC people on the other hand are not affected by internal discrepancies because they are expected to be unaware of their internal attitudes and feelings. Therefore, low PRSC people should be less prosocial in the absence than presence of social judgment, regardless of internal discrepancies.

Theoretical and practical implications

Support for the sufficient motivation principle has important theoretical implications for models of prosocial behaviors. Currently, two models are used to explain prosocial behaviors: the Theory of Planned Behavior (TPB; Ajzen, 1991) and the Norm Activation Model (NAM; Schwartz, 1977). TPB focuses on subjective social norms and does not account for personal norms, whereas NAM focuses on personal norms to the exclusion of subjective social norms. Findings from studies establishing the predictive validity of TPB and the NAM have been equivocal (Bamberg & Schmidt, 2003; Harland, et al., 1999; Schwartz, 1977). This could be because researchers have not managed to tease apart the internal and external motivations. Examining the independent and joint effects of internal and external motivations on prosocial behaviors can help researchers better understand the equivocal results on personal and social norms and also why persuasive messages with only personal or social normative elements may work as well as persuasive messages with both normative elements.

Furthermore, research has hitherto looked at agreeableness and other prosocial dispositions, such as other-orientedness and helpfulness (Penner, et al., 2005), but has yet to examine the effects of PUSC and PRSC on prosocial behaviors. If it is shown that high PUSC people are more likely to attend to societal expectations than low PUSC people, and high PRSC people are more likely to attend to internal expectations than low PRSC people, it would suggest that even if one does not have a helpful disposition, if one is attentive to societal expectations, one may act prosocially whereas even if one has a helpful disposition, if one is not attentive to one's inner moral values and attitudes, one may not act prosocially.

Finally, the study also has some practical implications for crafting persuasive communications. Although de Groot and colleagues' (2013) study may suggest that combined personal and social normative messages do not have significantly more persuasive powers than separate normative messages, the present study may suggest two reasons to continue crafting messages with combined normative elements. First, if it is shown that individual differences lead to attention for different types of motivations, then to maximize persuasive utility, such messages should contain both elements to reach out to the different audiences. Second, even if people slacken in their efforts to behave prosocially due to moral licensing, the social elements in the message may persuade them to redouble their prosocial efforts to meet social expectations.

In sum, this study has great theoretical and practical implications for different domains of psychology if the hypotheses are supported. A study was conducted to test the hypotheses. The procedures and measures are detailed in the next chapter.

Chapter 3: Study Design

Experimental paradigm

To study the independent and joint effects of internal discrepancies and social judgment on prosocial behavior, I examined money allocation in a Dictator Game.

In a Dictator Game, there are two players: the Giver and the Recipient. In this study, the Giver was given SGD$1 to decide how much to allocate to the anonymous Recipient. The Recipient was not allowed to respond; the Giver's decision was final. Money allocation in a Dictator Game loosely mimics charitable giving: the Giver has a sum of money and may choose how much to give to the Recipient, with no fear of retaliation. Therefore, it was taken as a proxy to prosocial behavior.

The presence and absence of internal discrepancies was manipulated by assigning participants to recall and write either an immoral or a moral deed they did in the past week. This manipulation was chosen instead of having participants actually behave immorally or morally because there may be a difference between what the researcher and the participants think is a moral behavior. In the recall task, participants themselves identify the moral deed. Furthermore, this manipulation has been successfully used by several researchers (e.g., Conway & Peetz, 2012; Jordan, et al., 2011). Therefore, it was adopted for this study.

The presence of social judgment was manipulated by assigning participants to either a social judgment (SJ) or a no judgment (NJ) condition. In the SJ condition, participants were told that after they made their allocation decision in the Dictator Game, a peer in the room (i.e., another participant) would form impressions of them based on the amount they allocated. In the NJ condition,

experimenters stressed that participants' allocation amount was secret and that nobody would be able to link the allocation amount to their identity.

Therefore, based on the two manipulations, there were a total of four conditions: (a) internal discrepancies-SJ; (b) no internal discrepancies-SJ; (c) internal discrepancies-NJ; and (d) no internal discrepancies-NJ.

Overview of procedure

The procedure was as follows. Participants first completed the self-consciousness scale. They were then assigned to either the SJ or NJ condition and led to their respective rooms. There, participants completed the recall task and played the Dictator Game. Finally, they answered a demographics and suspicion-probing form before being paid, debriefed, and dismissed.

Participants

One hundred and seventy one Singapore Management University (SMU) students were recruited from the SMU human subject pool to take part in this 30-minute study for one research credit. In addition to the research credit, participants were allowed to keep any amount they received from the Dictator Game. Five participants failed the attention check and were excluded from analyses. Nineteen participants who did not believe that they were partnered with an anonymous participant in the other room were also excluded. One participant did not report level of belief and was also excluded, leaving a total of 146 participants ($\bar{X}_{age}$ = 20.54, SD_{age} = 1.57; 43 males).

Procedure

Each session, six or eight participants reported to a waiting room. They first read and signed the informed consent form (Appendix A). Then, they rated their familiarity with the other people in the group (Appendix B). Based on these

familiarity ratings, the experimenter assigned participants to either the SJ or NJ condition. The main rule the experimenter used in the assignment was that participants who were mutual friends should be assigned to different conditions. A second rule was that if a group of participants were friends with one another, then they should be assigned to the NJ condition. These rules were established to avoid response bias that might have arisen if participants in the SJ condition had friends as their judges.

While waiting for the experimenter to assign them to their conditions, participants completed the self-consciousness scale, composed of the PUSC and the PRSC (Appendix C; Fenigstein, et al., 1975). The PUSC comprises seven items tapping on one's awareness of the self as a social object, such as "I usually worry about making a good impression", while the PRSC comprises ten items tapping on one's awareness of the private aspects of the self, such as "I am always trying to figure myself out". Both scales are rated on a 5-point Likert scale from 0 (*not at all characteristic of me*) to 4 (*extremely characteristic of me*), with higher means indicating higher levels of self-consciousness. The items constituting the scales were averaged to obtain a mean PUSC and a mean PRSC score. The Cronbach's alphas were acceptable, at .78 for PUSC and .65 for PRSC. Upon completion of the self-consciousness scale, participants were each given a table number and led to separate rooms, one for the SJ and one for the NJ condition.

In the SJ condition, to heighten the sense of being judged, participants were seated in the first row, facing one another. In the NJ condition, to minimize the sense of being judged, participants were seated in the last row, far away from one another, facing the front of the room. In both conditions, there were conspicuous labels in front of the seats indicating the participants' table numbers.

After participants had taken their seats, they did the recall task for five minutes, where they described an immoral or moral behavior that they did within the past week (Appendix D; adapted from Conway & Peetz, 2012). The experimenter then had participants fold their answer sheets in half and drop them into a sealed box. The sealed box served to reassure participants that nobody would be able to see their answers, not even the experimenter. This has been used as a manipulation in other studies (see for e.g., Gollwitzer, Sheeran, Michalski, & Seifert, 2009). Participants then completed a filler task, the Neutral Objects Questionnaire (Appendix E; Judge & Hulin, 1993). After collecting the questionnaires, again in the sealed box, the experimenter read out the instructions for the Dictator Game. Because the procedures for the SJ and NJ conditions differ, they are detailed separately below.

SJ condition. After reading out the instructions for the Dictator Game, the experimenter went on to tell participants that they would be forming impressions of one of their peers based on the amount they allocated. Similarly, one of their peers would be forming impressions of them based on the amount *they* allocated. Participants were given the impression rating form (Appendix G) and given one minute to read. Next, the experimenter gave each participant an envelope containing ten 10-cent coins to allocate between themselves (i.e., the Giver) and a randomly assigned partner in the other room (i.e., the Recipient). These envelopes were marked with the Giver's table number to reduce the Giver's sense of anonymity. Participants took the amount they wanted, closed the flaps of the envelopes, and passed them to the experimenter. Once all participants were done with the task, the experimenter redistributed the envelopes such that each participant received an envelope belonging to someone *other than themselves*.

Participants then counted out the amount in the envelopes, wrote down their impression of the Giver before sealing the envelopes and passing them back to the experimenter. The experimenter then handed the collected envelopes to the researcher stationed outside, who passed them to the experimenter in the other room to disburse to the Recipients.

NJ condition. After reading out the instructions for the Dictator Game, the experimenter gave each participant an envelope containing ten 10-cent coins to allocate between themselves (i.e., the Giver) and a randomly assigned partner in the other room (i.e., the Recipient). Participants took the amount they wanted, sealed the envelopes, and passed them to the experimenter. Once all participants were done with the task, they did a one-minute filler word scramble task (Appendix F) to ensure that they spent the same amount of time as those in the SJ condition (above). The experimenter then handed the collected envelopes to the researcher stationed outside, who passed them to the experimenter in the other room to disburse to the Recipients.

After the Dictator Game, participants in both conditions answered the demographic questionnaire (Appendix H) and a funnel suspicion probing form (Appendix I; adapted from Chartrand & Bargh, 1996). Experimenters then disbursed the envelopes to the participants, who wrote down the amount they received from their Givers. Finally, participants were debriefed, thanked, and released.

Chapter 4: Results

Manipulation check

Two coders, blind to conditions and hypotheses, rated the morality of the recalled behaviors on a 7-point Likert scale from -3 (*very immoral*) to +3 (*very moral*). Interrater reliability was high (ICC = .82), so the ratings were averaged to obtain a mean morality rating. The recall manipulation had the intended effect: stories in the moral condition were rated as more moral ($\bar{X}$ = 1.27, *SD* = .63) than those in the immoral condition ($\bar{X}$ = -.77, *SD* = .58), $t(144) = 20.12$, $p < .001$, d = 3.23, and stories in the moral condition, $t(68) = 16.63$, $p < .001$, and immoral condition, $t(76) = 12.59$, $p < .001$, were significantly different from the neutral midpoint.

Preliminary analyses

The mean amount allocated to the Recipient across all conditions was SGD$0.56 (*SD* = .24). Table 1 shows the mean amount allocated for each condition. The correlation between PUSC ($\bar{X}$ = 2.72, *SD* = .65) and PRSC ($\bar{X}$ = 2.56, *SD* = .48) was $r = .25$, $p = .003$, close to correlations reported in the literature (Fenigstein, et al., 1975; Turner, et al., 1978).

A meta-analysis on Dictator Game studies showed that older people and women were more generous than younger people and men (Engle, 2011). In this study, there was no effect of age on amount allocated ($r = .13$, $p = .11$) because of range restrictions on age, that is, participants were all college students. However, there was an unexpected effect of gender: men ($\bar{X}$ = .65, *SD* = .30) were more generous than women ($\bar{X}$ = .52, *SD* = .20), $t(58.22) = 2.64$, $p = .01$, $d = .44$. Therefore, for the main analyses, gender was included as a covariate[2].

[2] The interpretation of the analyses did not differ whether the covariate was included or excluded.

Hypothesis 1

H1 states that when social judgment is present, people should be equally prosocial regardless of internal discrepancies, and when social judgment is absent, people should be more prosocial in the presence than in the absence of internal discrepancies. This hypothesis was not supported. There were no main effects of internal discrepancies, b = .006, $t(137)$ = .32, p = .75 or social judgment, b = .007, $t(137)$ = .36, p = .72. There was also no interaction effect, b = -.006, $t(137)$ = -.29, p = .78. However, these null effects were moderated by PUSC (below).

Hypotheses 2a and 2b

H2a states that for high PUSC participants, when social judgment is present, people should be equally prosocial regardless of internal discrepancies, and when social judgment is absent, people should be more prosocial in the presence than in the absence of internal discrepancies. H2b states that low PUSC participants should behave more prosocially in the presence than absence of internal discrepancies, regardless of social judgment.

The three-way PUSC x INTERNAL DISCREPANCIES x JUDGMENT interaction testing H2a and H2b was significant, b = .07, $t(137)$ = 2.24, p = .03[3]. The three-way interaction was then broken down into two two-way interactions: INTERNAL DISCREPANCIES x JUDGMENT interaction at high PUSC (+1*SD* above mean PUSC) and INTERNAL DISCREPANCIES x JUDGMENT interaction at low PUSC (-1*SD* below mean PUSC). At high PUSC, the

[3] Because gender influenced the amount given to the Receiver, a four-way interaction (PUSC x INTERNAL DISCREPANCIES x JUDGMENT x GENDER) was tested to ensure that Gender did not interact with the three-way interaction. The four-way interaction was not significant, b = -.09, $t(130)$ = -1.36, p = .18, and the PUSC x INTERNAL DISCREPANCIES x JUDGMENT interaction remained significant after including the four-way interaction, b = .12, $t(130)$ = 2.20, p = .03. Furthermore, a three-way chi-square test of independence (GENDER x INTERNAL DISCREPANCIES x JUDGMENT) showed that gender was equally distributed across the conditions χ^2 (1, N = 146) = .72, p = .40), suggesting that gender was not confounded in any of the conditions.

INTERNAL DISCREPANCIES x JUDGMENT interaction was marginally significant, $t(137) = 1.82$, $p = .07$. Therefore, the simple slopes for INTERNAL DISCREPANCIES at SJ and NJ were probed to get a fuller picture of the results. Results were not in the expected direction (see Figure 6). In the SJ condition, immoral participants were less generous than moral participants, $b = .06$, $t = 1.86$, $p = .07$. In the NJ condition, immoral and moral participants were equally generous, $b = -.02$, $t(137) = -.63$, $p = .53$. At low PUSC, the INTERNAL DISCREPANCIES x JUDGMENT was significant, $t(137) = -2.49$, $p = .01$. Therefore, the simple slopes for INTERNAL DISCREPANCIES at SJ and NJ were probed. Again, results were not in the expected direction (see Figure 7). In the SJ condition, immoral participants were more generous than moral participants, $b = -.06$, $t(137) = -2.31$, $p = .02$. In the NJ condition, immoral and moral participants were equally generous, $b = .04$, $t(137) = 1.33$, $p = .19$.

Hypotheses 3a and 3b

H3a states that high PRSC people should behave more prosocially in the presence than absence of internal discrepancies, regardless of social judgment. H3b states that low PRSC people in the presence of social judgment should behave prosocially regardless of internal discrepancies. These hypotheses were not supported; the PRSC x INTERNAL DISCREPANCIES x JUDGMENT interaction was not significant, $b = .002$, $t(137) = .05$, $p = .96$ (see Figures 8 and 9).

Additional analyses

Because PUSC and PRSC are hypothesized to be orthogonal, people with different combinations of levels of PUSC and PRSC may be sensitive to different motivations. For those with high levels of PUSC and PRSC, either social judgment or internal discrepancies may suffice to induce prosocial behaviors, but

for those with low levels of PUSC and PRSC, neither motivation may induce them to behave prosocially. Likewise, those with high levels of PUSC and low levels of PRSC may be only susceptible to social judgment whereas those with low levels of PUSC and high levels of PRSC may be only susceptible to internal discrepancies. Therefore, a four-way interaction (PUSC x PRSC x INTERNAL DISCREPANCIES x JUDGMENT) was tested. This four-way interaction was not significant, $b = .004$, $t(129) = .07$, $p = .94$.

Chapter 5: Discussion, Limitations, and Conclusion

Discussion

In this study, no support was found for the sufficient motivation principle that the presence of two motivations has non-additive effects on prosocial behavior. Neither was there support for the expected moderating effect of PRSC. Although moderating effects of PUSC were found, the results were not in the expected directions.

It was expected that for high PUSC people, social judgment would provide sufficient motivation so that they would be equally prosocial regardless of internal discrepancies. However, in the SJ condition, high PUSC people were not uniformly generous. Instead, they were more generous when they felt they were moral than immoral. It was also expected that for low PUSC people, regardless of social judgment, those who experienced internal discrepancies would be more generous than those who did not. However, the expected pattern was only observed for those in the SJ condition. Finally, for both high and low PUSC people, there were no effects of internal discrepancies in the absence of social judgment.

The above pattern of findings suggests that participants may not have experienced internal discrepancies as expected. That the differences between the moral and immoral conditions were only observed in the presence of social judgment suggest that some mechanism, other than the ones hypothesized, may be operating. One possibility is that social judgment activated consistency concerns, with high and low PUSC people reacting differently to the consistency motive.

Since people do not look upon inconsistent behavior favorably, if one thinks that others may be in a position to detect one's inconsistent behaviors, one

is less likely to behave inconsistently (Schlenker, 1975). Because high PUSC people are concerned about others' perceptions of them, when consistency concerns are activated, they may try to behave consistently. Support for this comes from Doherty and Schlenker (1991), who showed that when high PUSC people were told that their scores on a Social Sensitivity test would be made available to their partners, those with high scores rated themselves as having better social sensitivity on a subsequent questionnaire than those with low scores, presumably because they wanted to appear consistent. Due to their tendency to feel that others are constantly observing their behaviors (Fenigstein & Vanable, 1992) and that others' behaviors are somehow caused by their actions (Fenigstein, 1979), high PUSC people might be hypersensitive to the possibility that others will know that they have behaved inconsistently and ostracize them. Therefore, it seems plausible that high PUSC participants acted in line with their consistency concerns, such that moral people were more generous than immoral people.

On the other hand, low PUSC participants may have experienced some form of psychological reactance. According to Schlenker and Weigold (1990) and Tunnell (1984), low PUSC people tend to endorse autonomy. Therefore, it is plausible that low PUSC participants try to assert their autonomy by reacting against the consistency concerns, such that moral people were less generous than immoral people.

No moderating effects of PRSC were found. One possibility is that temporary manipulations of internal discrepancies do not affect how high PRSC people view themselves. Because they are aware of their "true" self, for example, they are more likely to offer self-descriptions that are consistent over time (Nasby, 1989). So even if they are aware of how the recall task is making them feel guilty,

they may still act in accordance with their "true" moral identity. On the other hand, the temporary manipulations of internal discrepancies also did not affect low PRSC people because by definition, low PRSC people are inattentive to their moods and thoughts (Fenigstein, 2009). Therefore, they were probably not even aware of how the recall task made them feel.

The low reliability for PRSC in this study may be a cause for concern. Other studies using PRSC have also reported similarly low reliabilities (Lu & Chang, 2011; Penner & Wymer, 1983), leading some researchers to suggest that instead of one dimension, as previously hypothesized, PRSC may comprise two dimensions (e.g., Burnkrant & Page, 1984). It is therefore possible that the null findings regarding PRSC may be due to the psychometric properties of the scale.

Some of the above explanations are speculative. Future research is required, for example, to clarify if it is indeed that social judgment activated the consistency motive.

Limitations

It was surprising that internal discrepancies did not affect participants' prosocial behavior, especially when the manipulation had been successful in other studies. One reason could be that the amount of time participants had for recalling the moral behaviors was too short (5 minutes). To test this, 92 SMU students were asked to complete the recall task without time limit. Participants took an average of 5.04 minutes (SD = 2.43), which was not significantly different from 5 minutes, $t(92) = .17$, $p = .86$. Therefore, the non-significant effect was not due to the time issue.

Another possibility is that participants might have been concerned about how Recipients would think of them, leading them to be generous regardless of

morality. If this were true, then those who did not believe that there was a Recipient should be less generous than those who believed that there was a Recipient. A *t*-test did not support this. Participants who did not believe that there was a Recipient actually gave more ($\bar{X}$ = .65, *SD* = .29) than those who believed that there was a Recipient ($\bar{X}$ = .56, *SD* = .24), although this difference was not significant, $t(21.25) = -1.32$, $p = .20$. Therefore, participants' allocation decisions were not due to their concerns about how Recipients would perceive them. In future studies, however, to reduce perceived judgment from the Recipient, researchers should inform participants that the Recipient would not know the full amount they had at the beginning of the study.

One other potential reason, as mentioned earlier, is that the manipulation did not lead to internal discrepancies. Although the story codings suggest that people followed the instructions and recalled immoral or moral behaviors, it is not certain that their state morality was affected. A pilot should be conducted to verify that the manipulation changed people's state morality. In addition, the recall manipulation could be improved by having more specific questions to guide participants to relive their memories more vividly.

It was also surprising that the presence of social judgment did not affect participants' prosocial behavior. This could be due to two related issues. First, participants in the NJ condition were seated in a room with other people. It is possible that simply the presence of other people could have made them feel as if they were being judged, so that they behaved as prosocially as those in the SJ condition. Second, there were minimal consequences for those in the SJ condition for acting selfishly: only one of the peers was judging them and there was no "punishment" for behaving less prosocially. Therefore, participants in the SJ

condition could have easily dismissed the presence of social judgment. Future studies could rectify these issues in the following way. First, participants should be seated individually in separate rooms, thereby decreasing social judgment cues for those in the NJ condition. Second, participants in the SJ condition should be told that their allocated amounts will be made public to the group. They should also be told that they would be doing a team task in the second part of the study and would be given a choice as to who they wanted to pair up with after the allocation task. Therefore, for those in the SJ condition, behaving selfishly in the allocation task could lead to social exclusion. As a result, participants in the SJ condition may allocate more generously. These changes to the study design can address the study limitations.

A final possibility for the lack of effects is that the amount allocated to the Recipients did not truly reflect participants' generosity. First, participants were given ten 10-cent coins to allocate between themselves and their partners. During the debrief sessions, some participants highlighted to the experimenter that coins are a hassle, so they may give away all of it to avoid having to deal with the coins. Also, because coins have weight, some participants in the NJ condition were concerned that the experimenter would know how generous they were when the experimenter handled their envelopes. So, even though it was hoped that social judgment would be minimized in the NJ condition, participants were still not comfortable with being selfish. The small stake of $1 may also have been meaningless to the participants; 15.8% of the participants gave away the full amount. Raihani and colleagues (2013) suggested that when the amount is meaningless, participants have no problems being fair. It is only when the stakes are high that participants would see a cost in behaving generously. Finally,

although participants were told that the norm is 30 cents, in general, they allocated significantly more than 30 cents ($\bar{X}$= 56.2) to their partners, $t(145) = 13.27$, $p < .001$, suggesting that participants may have followed a different norm, one that is closer to 50 cents. The impression formation sheets that judges in the SJ conditions completed provided some indication of this. On average, the judges viewed those who allocated 50 cents positively: about 76% thought the participant was fair or endorsed ideals of equality; they viewed those who allocated 30 cents negatively: about 67% thought the participant was a conformist and 33% thought the participant was ungenerous[4]. This provides preliminary evidence that the amount allocated is not reflective of participants' generosity but rather an adherence to a perceived norm of fairness. These limitations (i.e., the coins, small stakes, and adherence to a norm) cause problems for the interpretations of this study. Future research should take into account the possibility of using other modes of payment, such as paper money or lottery tickets, and to increase the stakes. Researchers could also get participants to donate their time instead of using money as there is an established norm for money allocation but not for time.

Conclusion

Although the sufficient motivation principle was not supported in this study, a review of the limitations in the study suggests that the hypotheses could be more strongly tested with improvements in the procedures. Such improvements would strengthen the ability to conclude whether the sufficient motivation principle is or is not supported.

[4] A small pilot study (n = 7) showed that when participants were given $2 to allocate between themselves and their partner, they gave their partners an average of 43.2%, suggesting that the norm of fairness may be driving people's allocation decisions.

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Table 1

Number of Participants and Mean Amount Allocated in Each Condition

Condition	Number of participants	Mean (SD) amount allocated
Int-SJ	37	.59 (.24)
NoInt-SJ	38	.58 (.23)
Int-NJ	40	.53 (.26)
NoInt-NJ	31	.55 (.22)

Note. Int = presence of internal discrepancies; NoInt = absence of internal discrepancies; SJ = presence of social judgment; NJ = absence of social judgment.

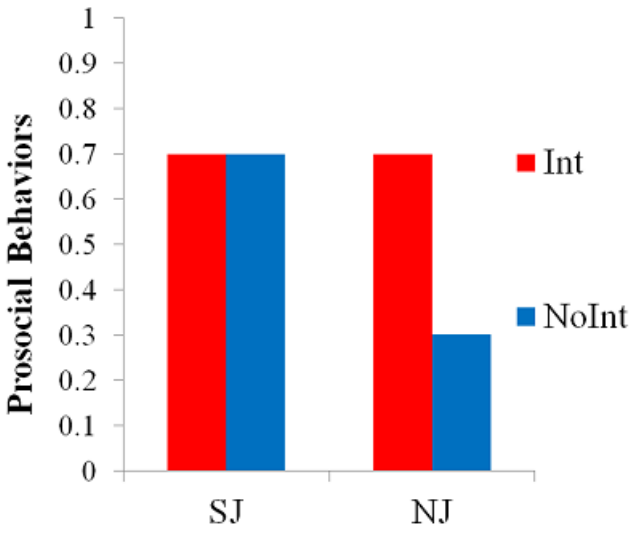

Figure 1. Expected levels of prosocial behavior in the presence and absence of internal discrepancies and social judgment (Hypothesis 1). When social judgment is present, people should be equally prosocial regardless of internal discrepancies. When social judgment is absent, people should be more prosocial in the presence than in the absence of internal discrepancies. SJ = presence of social judgment; NJ = absence of social judgment; Int = presence of internal discrepancies; NoInt = absence of internal discrepancies.

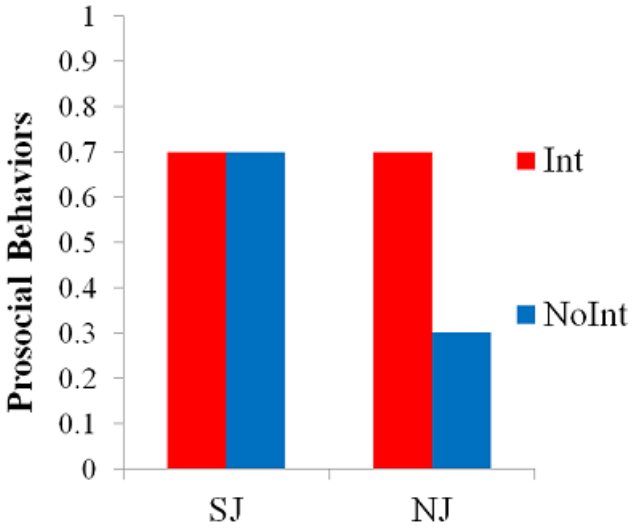

Figure 2. Expected levels of prosocial behavior for people with high levels of public self-consciousness in the presence and absence of internal discrepancies and social judgment (Hypothesis 2a). When social judgment is present, people should be equally prosocial regardless of internal discrepancies. When social judgment is absent, people should be more prosocial in the presence than in the absence of internal discrepancies. SJ = presence of social judgment; NJ = absence of social judgment; Int = presence of internal discrepancies; NoInt = absence of internal discrepancies.

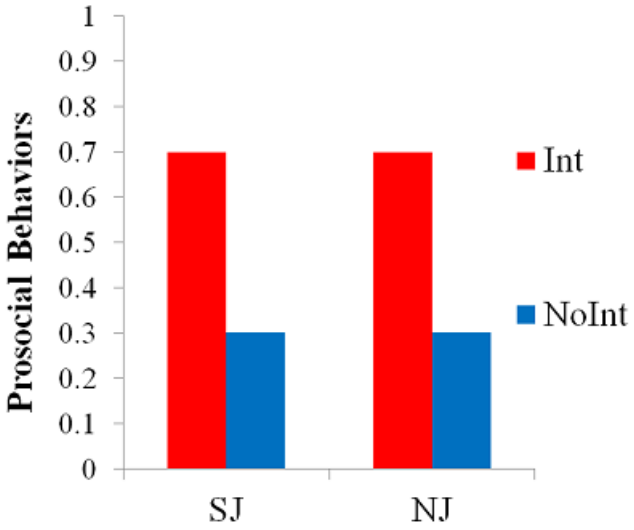

Figure 3. Expected levels of prosocial behavior for people with low levels of public self-consciousness in the presence and absence of internal discrepancies and social judgment (Hypothesis 2b). Regardless of social judgment, people should be more prosocial in the presence than absence of internal discrepancies. SJ = presence of social judgment; NJ = absence of social judgment; Int = presence of internal discrepancies; NoInt = absence of internal discrepancies.

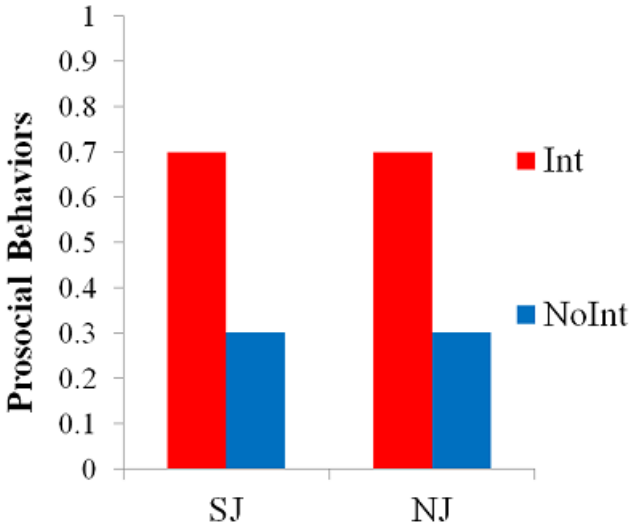

Figure 4. Expected levels of prosocial behavior for people with high levels of private self-consciousness in the presence and absence of internal discrepancies and social judgment (Hypothesis 3a). Regardless of social judgment, people should be more prosocial in the presence than absence of internal discrepancies. SJ = presence of social judgment; NJ = absence of social judgment; Int = presence of internal discrepancies; NoInt = absence of internal discrepancies.

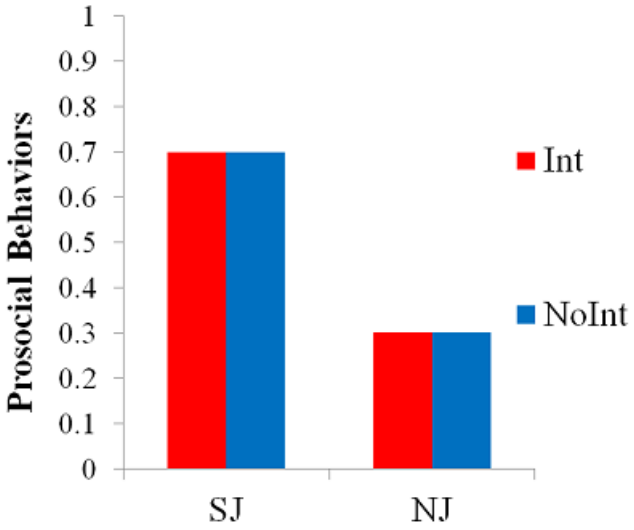

Figure 5. Expected levels of prosocial behavior for people with low levels of private self-consciousness in the presence and absence of internal discrepancies and social judgment (Hypothesis 3b). People in the presence of social judgment should be more generous than those in the absence of social judgment, regardless of internal discrepancies. SJ = presence of social judgment; NJ = absence of social judgment; Int = presence of internal discrepancies; NoInt = absence of internal discrepancies.

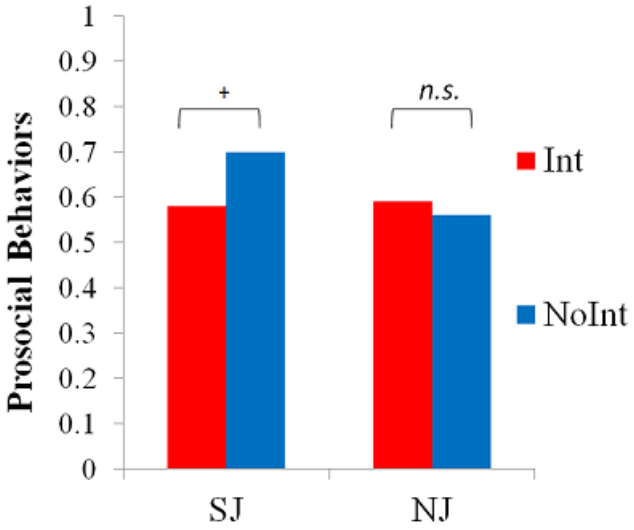

Figure 6. Actual levels of prosocial behavior for people with high levels of public self-consciousness in the presence and absence of internal discrepancies and social judgment. When social judgment is present, participants were less generous in the presence than in the absence of internal discrepancies. When social judgment was absent, participants were equally generous in the presence and absence of internal discrepancies. SJ = presence of social judgment; NJ = absence of social judgment; Int = presence of internal discrepancies; NoInt = absence of internal discrepancies.

$^{+}p = .07$

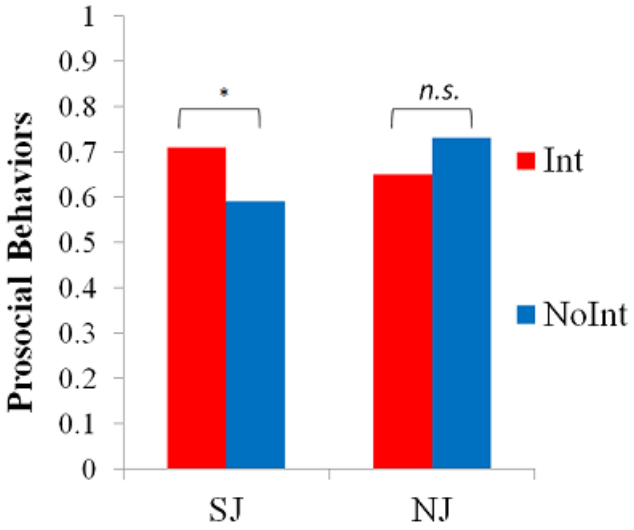

Figure 7. Actual levels of prosocial behavior for people with low levels of public self-consciousness in the presence and absence of internal discrepancies and social judgment. When social judgment was present, participants were more generous in the presence than in the absence of internal discrepancies. When social judgment was absent, participants were equally generous in the presence and absence of internal discrepancies. SJ = presence of social judgment; NJ = absence of social judgment; Int = presence of internal discrepancies; NoInt = absence of internal discrepancies.

* $p = .02$

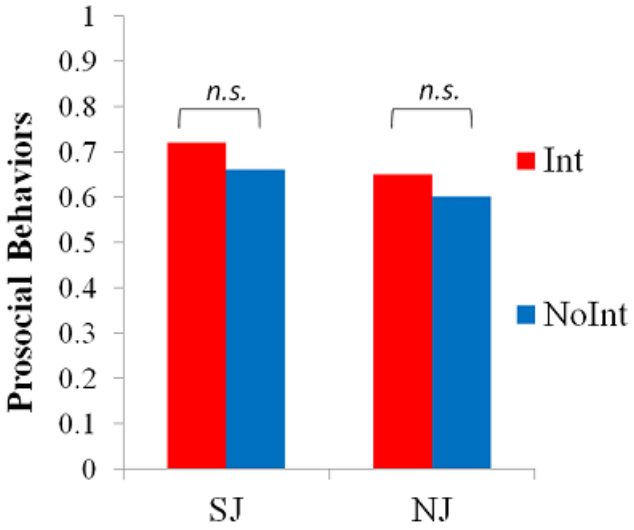

Figure 8. Actual levels of prosocial behavior for people with high levels of private self-consciousness in the presence and absence of internal discrepancies and social judgment. Whether social judgment was present or absent, participants were equally generous in the presence and absence of internal discrepancies. SJ = presence of social judgment; NJ = absence of social judgment; Int = presence of internal discrepancies; NoInt = absence of internal discrepancies.

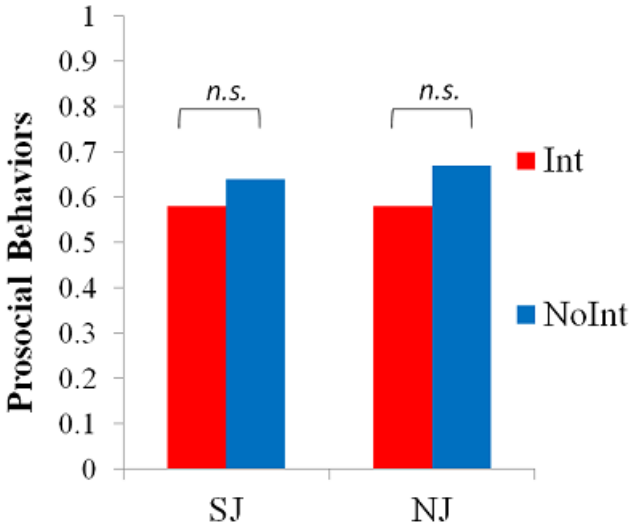

Figure 9. Actual levels of prosocial behavior for people with low levels of private self-consciousness in the presence and absence of internal discrepancies and social judgment. Whether social judgment was present or absent, participants were equally generous in the presence and absence of internal discrepancies. SJ = presence of social judgment; NJ = absence of social judgment; Int = presence of internal discrepancies; NoInt = absence of internal discrepancies.

Appendix A

Informed Consent Form: Past behavior and Decision-making Study

Associates from the School of Social Sciences at the Singapore Management University are conducting this study. The Principal Investigator of this study is Lee Huey Woon and the Co-Principal Investigator is Assistant Professor William Tov.

This study will take thirty minutes to complete. The purpose of this study is to examine people's past behavior and their decision-making. To this end, you will be doing a variety of different tasks. You will be asked to answer survey questions about your personality, write a short paragraph about an action that you did in the past week, and play a decision-making game known as the money allocation task. To our knowledge, there are no risks in this study that are greater than those of ordinary daily life. It is hoped that the experience will be educational and that you will learn more about the research methods in psychology by participating.

For thirty minutes of participation, you will receive one research participation credit and a certain amount of money, ranging from $0 to $2, depending on how much is allocated in the money allocation task. Please understand that all data collected is anonymous and will not be linked to your identity. At the end of the study, you will be asked to provide your name, NRIC/FIN, and sign an acknowledgement form so that you can be properly credited for your participation. The acknowledgement form is stored separately from your responses to the study in a secured locker and will be disposed of once we have credited you for your participation.

Please understand that your participation in this study is voluntary. You may withdraw from the study at any time. Regardless of your decision to participate, decline, or withdraw from participation, it will have no effect on your status at or future relations with Singapore Management University. However, if you choose to withdraw from the study, please understand that you will be paid in proportion to the amount of study completed.

You can ask any questions you have concerning this study any time before and during the study itself. If you have any questions later, please contact Lee Huey Woon at hueywoon.2012@phdps.smu.edu.sg. In addition, if you have questions about your rights as a participant, you may contact the Secretariat from the Institutional Review Board Office at 6828 1925 or irb@smu.edu.sg.

FOR PARTICIPANTS:

I understand that participation is voluntary. Refusal to participate will involve no penalty. I may discontinue participation at any time without penalty or loss of accrued benefits (benefits are accrued in proportion to the amount of study completed or as otherwise stated by the researcher) to which I am otherwise entitled. I declare that I am at least 18 years of age.

_____	_____	_____
Name	*Signature*	*Date*

FOR PRINCIPAL INVESTIGATOR:

I have explained and defined in detail the research procedures in which the subject (or legal representative has given consent) has consented to participate.

_____	_____	_____
Name	*Signature*	*Date*

You may request a copy of this consent form at the end of the study.

Appendix B

Friendship rating form

Instructions: Below is a list of the names of participants in today's session. Please circle your name. Then, indicate how well you know the other participants. Do not rate yourself.

		Don't know	Acquaintance	Classmate	Friend
1	PERSON A	☐	☐	☐	☐
2	PERSON B	☐	☐	☐	☐
3	PERSON C	☐	☐	☐	☐
4	PERSON D	☐	☐	☐	☐
5	PERSON E	☐	☐	☐	☐
6	PERSON F	☐	☐	☐	☐
7	PERSON G	☐	☐	☐	☐
8	PERSON H	☐	☐	☐	☐

Appendix C

Self-consciousness scale (Fenigstein et al., 1975)

Instructions: The following is a series of statements about you. Please read each statement and decide how much that statement is characteristic of you. Then write your response in the space next to the statement using the following scale:

0 = not at all characteristic of me
1 = slightly characteristic of me
2 = somewhat characteristic of me
3 = moderately characteristic of me
4 = extremely characteristic of me

1 _____ [a]I'm always trying to figure myself out.

2 _____ [b]I'm concerned about my style of doing things.

3 _____ [a]Generally, I'm not very aware of myself.

4 _____ [c]It takes me time to overcome my shyness in new situations.

5 _____ [a]I reflect about myself a lot.

6 _____ [b]I'm concerned about the way I present myself.

7 _____ [a]I'm often the subject of my own fantasies.

8 _____ [c]I have trouble working when someone is watching me.

9 _____ [a]I never scrutinize myself.

10 _____ [c]I get embarrassed very easily.

11 _____ [b]I'm self-conscious about the way I look.

12 _____ If you are reading this, skip this line.

13 _____ [c]I don't find it hard to talk to strangers.

14 _____ [a]I'm generally attentive to my inner feelings.

15 _____ [b]I usually worry about making a good impression.

16 _____ [a]I'm constantly examining my motives.

17 _____ [c]I feel anxious when I speak in front of a group.

18 _____ [b]One of the last things I do before I leave my house is look in the mirror.

19 _____ [a]I sometimes have the feeling that I'm off somewhere watching myself.

20 _____ [b]I'm concerned about what other people think of me.

21 _____ [a]I'm alert to changes in my mood.

22 _____ [b]I'm usually aware of my appearance.

23 _____ [a]I'm aware of the way my mind works when I work through a problem.

24 _____ [c]Large groups make me nervous.

[a] refers to private self-consciousness scale (9 items); [b] refers to public self-consciousness scale (7 items); [c] refers to social anxiety scale (7 items)

Appendix D

Moral/Immoral behavior recall manipulation (Conway & Peetz, 2012)

Moral behavior recall condition instructions

All of us, at some point, behaved in a way that we felt **righteous** or **honorable**.

Perhaps you were loyal to a friend, were generous when you could have been selfish, were kind to someone for no particular reason, or caring toward someone who needed you.

In the space below, please **describe in detail** such a time **within the past week** when you acted in this way.

Immoral behavior recall condition instructions

All of us, at some point, behaved in a way that we felt **guilty** or **ashamed**.

Perhaps you were disloyal to a friend, were greedy when you should have shared, were mean to someone for no particular reason, or uncaring toward someone who needed you.

In the space below, please **describe in detail** such a time **within the past week** when you acted this way.

Appendix E

Neutral objects satisfaction questionnaire (Judge & Hulin, 1993)

Instructions: The following questions ask about your degree of satisfaction with several items. Consider each item carefully. Circle the numbered response that best represents your feeling about the corresponding item.

	Dissatisfied	Neutral	Satisfied
1. The city in which you live	1	2	3
2. The residence where you live	1	2	3
3. The neighbors you have	1	2	3
4. The secondary school you attended	1	2	3
5. The climate where you live	1	2	3
6. The movies produced today	1	2	3
7. The quality of food you buy	1	2	3
8. Today's cars	1	2	3
9. Local newspapers	1	2	3
10. Your relaxation time	1	2	3
11. Your first name	1	2	3
12. The people you know	1	2	3
13. Television programs	1	2	3
14. Local speed limits	1	2	3
15. The way people drive	1	2	3
16. Advertising	1	2	3
17. The way you were raised	1	2	3
18. Telephone service	1	2	3
19. Public transportation	1	2	3
20. Restaurant food	1	2	3
21. Yourself	1	2	3
22. Modern art	1	2	3
23. Popular music	1	2	3
24. A4 size paper	1	2	3
25. Your telephone number	1	2	3

Appendix F

Word Scramble Task

Instructions: The following sentences have been scrambled out of order. Please unscramble them in a way that makes sense.

Q1: the take train to today did you school (Did you take the train to school today?)

_____

Q2: they that carrots told he sold me (He told me that they sold carrots.)

_____

Q3: we night see can stars at (We can see stars at night.)

_____

Q4: morning every drinks juice a glass she of (She drinks a glass of juice every morning.)

_____

Q5: zoo monkeys the in are there (There are monkeys in the zoo.)

_____

Appendix G

Impression formation sheet

You will be asked about your impression of the person seated at Table _____.

Please open up the envelope and count the amount allocated to the partner. Write the amount below:

Amount allocated : $_____

Please put the coins back into the envelope and seal the envelope.

Based on the **amount allocated**, please write down your impression of the person in the space below. You have **1 minute** to complete this task.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Appendix H

Demographics

This final section provides us with helpful demographic information. For each question, please circle the option that best applies to you.

1. What is your sex? 0 = Male 1 = Female

2. What is your age? _____

3. Were you born in Singapore? 0 = No 1 = Yes (skip to #5)

4. If you were NOT born in Singapore, how long have you lived here (in years and months)? ____ years and ____months

5. What year are you currently in at SMU?
1 = First year
2 = Second year
3 = Third year
4 = Fourth year or greater

6. Which school are you primarily affiliated with?
1 = Accountancy
2 = Business
3 = Economics
4 = Information Systems
5 = Law
6 = Social Sciences

7. Have you ever taken a research methods course before?
0 = No
1 = Yes

8. What is your ethnicity (e.g., Chinese, Malay, etc.)? _____

9. Was at least one of your friends assigned to the **SAME** group as you during the session?
0 = No 1 = Yes

10. Was at least one of your friends assigned to the **OTHER** group during the session?
0 = No 1 = Yes

Appendix I

Funnel Suspicion Probing Form

Thank you for participating in today's session! Before we end the session proper, please take some time to help answer the following questions.

Q1: What do you think is the purpose of the experiment?

_____

_____

Q2: Do you think that any of the different tasks are related? If so, which ones and how?

_____

_____

Q3: Do you think your answers on one task affected what you did on the other tasks? If so, which one(s) and how?

_____

_____

Q4: Have you ever completed any of the scales presented in this study? If so, which one(s)?

_____

_____

Q5: Do you think that recalling your behavior had any effect on your actions subsequently? If yes, how so?

_____

_____

Q6: Please rate how much you believe that you were randomly paired with someone in the other group.

Don't believe at all						Completely believe
1	2	3	4	5	6	7