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# The Influence of Social Norms on Moral Self-Regulation

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### Abstract

The aim of this study was to investigate the influence of social norms on the effect of (im)moral behaviour recollection on pro-self and pro-social decisions in the present (Hypothesis 1 and Hypothesis 2). Additionally, social anxiety was hypothesised to be a moderator of the effects of social norms and (im)moral recollection on pro-self/pro-social decisions. Four-hundred and four participants (211 female / 193 male) were asked to recollect either a moral, immoral or neutral act in the past. After completion, \$0.50 were awarded to participants, who were asked to allocate the money in virtual \$0.10 coins into two jars; the jars represented a pro-social cause (charity) or a pro-self cause (entering a lottery). Social norms (injunctive and descriptive) were manipulated by presenting different amounts of money in two jars that simulated money allocation decisions of previous participants. It was found that participants across the conditions allocated more money to the lottery than to charity. It was shown that (im)moral recollections, social norms, and social anxiety did not have a significant effect on pro-self and pro-social decisions (i.e., the money allocation across jars).

*Keywords:* social norms, moral recollection, social anxiety.

### The Influence of Social Norms on Moral Self-Regulation

Our past behaviour influences us in present decisions. We might, for example, feel that a past behaviour entitles or restricts us to engage in certain behaviour in the present. Research has shown that our past moral or immoral behaviour can have such entitling or restricting impact on our future moral behaviour (Monin & Jordan, 2009). The definition of (im)moral behaviour is subject to society's concept of morality, which grows and develops with the experiences society makes and could thus be considered as a guide for enhancing the societal standard (Campbell, 1957; Codol, 1975; Smith, 1759/1790). According to the moral self-regulation theory, people who engaged in immoral behaviour are likely to engage in moral behaviour in a future situation, while people who engaged in moral behaviour are likely to act immorally in a future situation (Sachdeva, Iliev, & Medin, 2009). Past research has referred to these two consecutive behaviours as *moral licensing* (past moral behaviour, followed by immoral behaviour; Merritt, Effron, & Monin, 2010; Monin & Miller, 2001) and *moral cleansing* (past immoral behaviour, followed by moral behaviour; Sachdeva, Iliev, & Medin, 2009; Zhong & Liljenquist, 2006). Moral licensing and moral cleansing can be summarised to *moral self-regulation*, for indicating a balancing (i.e., inconsistent) behaviour (Sachdeva et al., 2009). In three studies, Sachdeva et al. (2009) show that threat and affirmation to one's moral identity can cause a balancing effect: moral threat leads to the motivation of re-establishing one's moral identity, while moral affirmation leads to a perceived entitlement for immoral behaviour without threatening one's moral identity. However, regulatory behaviour does not always occur, as people might also be consistent in their behaviour, so that a past moral behaviour is followed by another moral behaviour (Reed, Aquino, & Levy, 2007), and past immoral behaviour is followed by another immoral behaviour (Conway & Peetz, 2012).

The present study investigated when past moral or immoral behaviour leads to balancing and when to consistent behaviour. We expect that experiencing a threat to or an

affirmation of one's moral identity, paired with social norms, could discriminate between balancing and consistent moral behaviour. In what follows, the introduced ideas are explained in more detail.

### **Moral Identity**

Most people want to be a moral person (Ellemers, Pagliaro, Barreto, & Leach, 2008; Mazar, Amir, & Ariely, 2008), and they want others to perceive them as such (Blanken, Van de Ven, & Zeelenberg, 2015). Furthermore, morality seems to be the most important factor in the evaluation of others (Brambilla & Leach, 2014). Thus, people have a moral identity, i.e. people have a moral self-concept with an associated set of values and traits (Aquino & Reed, 2002). Our moral identity might be challenged when we behave inconsistently to it. These inconsistencies can lead to a feeling of uneasiness (Festinger, 1954). As a result, individuals have the need to be consistent in their moral behaviour, and thus avoiding challenges to their moral self-concept (Jordan, Mullen, & Murnighan, 2011). Moral affirmation and moral threat can influence this need for consistency.

**Moral affirmation.** Individual receiving an affirmation to their moral identity might perceive the affirmation as evidence of having a strong moral identity; this in turn might motivate individuals for further moral behaviour (Reed et al., 2007). Instead, moral self-regulation theory suggests that people who feel affirmed in their moral identity are likely to behave inconsistently, as they are inclined to engage in moral licensing (Sachdeva et al., 2009). In fact, people might feel that, after a moral behaviour, their moral identity is strong enough to justify little deviations from moral behaviour. Consequently, immoral behaviour, which preceded moral behaviour, would not change a person's moral self-concept, as this behaviour might be seen as within the borders of their affirmed moral identity (Khan & Dhar, 2006). After having achieved a moral identity, strengthened through affirmation, individuals are merely interested in maintaining this moral identity, instead of striving for a stronger moral identity (Jordan et al., 2011). This might lead to a reduction in moral behaviour. Thus,

moral behaviour might lead to balancing behaviour in the future, because it serves as affirmation for one's moral identity.

**Moral threat.** In opposition to moral affirmation stands moral threat. The feeling of uneasiness that derives from a feeling of dissonance is likely to arise when people, who perceive themselves to have a strong moral identity, behave in an immoral fashion. According to Festinger (1954), people who feel dissonance will engage in regulatory measures like changing behaviour, cognition, or engage in denial. Thus, when experiencing a threat to one's moral identity, it is theorised that individuals are most likely to change their behaviour, and engage in moral behaviour (moral cleansing): deviations from their moral identity are seen as temporary and moral behaviour is able to reduce the identity threat to one's moral identity (Jordan et al., 2011). This is in line with the Social Identity Theory: when individuals feel threatened in their identity, they cling harder to this identity and engage in identity affirming actions (Tajfel & Turner, 1979). As a result, individuals that experience a threat to their moral identity would be most likely to engage in moral behaviour, i.e. in balancing behaviour, in order to reaffirm to themselves and to their group, to be a moral person.

This implies that individuals have the same moral standards as their group. However, it can be the case that individuals' idea of morality deviates from the group they are in. In this case, individuals could perceive their own idea of morality as the *objectively* better one and thus prefer it over the group's standard of morality (Peterson, Smith, Tannenbaum, & Shaw, 2009). Consequently, individuals evaluate decisions and actions on their own standards alone, regardless of what the moral standards of the group are. In this situation, a threat to one's moral identity is a very personal one and individuals might be more concerned with reaffirming their own moral standards to themselves than to their group. On the other hand people might also engage in self-deception, when evaluating their moral behaviour, and thus do not acknowledge or see their own wrong doing (Vecina, Chacón, & Pérez-Viejo, 2016). In this case it is likely that individuals do not experience a threat to their moral identity that

easily. As a result, individuals' initial immoral behaviour could be followed by another immoral behaviour, thus being consistent in their behaviours.

### **The Role of Social Norms**

If individuals, however, experience a threat and acknowledge the moral standards of their own group as their standards, then the need of reaffirmation to the group might be stronger than the reaffirmation to the self. Hence, individuals might not only be anxious to jeopardize their own moral identity, but also to lose their group and thus be deprived of a source of self-esteem and feeling of belongingness (Knowles & Gardner, 2008). In this case, social norms are expected to have a strong impact on deciding whether to act consistently or inconsistently after a moral threat. Social norms can be divided in injunctive and descriptive norms. Injunctive norms are what people ought to do, what is commonly seen as the right thing to do (Cialdini, Kallgren, & Reno, 1990). The concept of morality is created on the base of our social experiences (Smith, 1759/1790), i.e. our concept of morality grows and develops with the experiences our society makes (Campbell, 1957). Thus, behaviour could be seen as moral when it is in line with the injunctive norm, as it represents society's ideal behaviour that should prevail as it adds positively to the standards of society (Codol, 1975). Thus, an injunctive norm can be seen as pro-social. Descriptive norms on the other hand are norms that represent how the majority of people actually behaves, which can be both pro-social and pro-self (Cialdini et al., 1990). Pro-self behaviour is not necessarily an immoral behaviour. However, if one chooses to engage in pro-self behaviour over pro-social behaviour, it might be seen as immoral behaviour. Conflicts between injunctive and descriptive norms can especially be observed, when the injunctive norm is tending towards pro-social interests, while the descriptive norm tends towards pro-self interests (Bicchieri, 2006). When experiencing the fear of social rejection, one might adhere to the descriptive norm, as it represents the group more clearly in the situation than the injunctive norm.

Basing on the overview above, we expect that moral threat or affirmation, as well as descriptive norm or injunctive norm, could explain the tendency towards balancing or consistent behaviour. The present study investigates this expectation by assessing how past moral or immoral behaviour, in the presence of either a descriptive and/or an injunctive norm, influences choosing either a pro-social or pro-self option.

**Impact on moral identity threat and affirmation.** Experiencing a threat to one's moral identity is likely to lead to regulatory behaviour in the form of cleansing (Sachdeva et al., 2009). However, people who engage in immoral behaviour might fear negative reactions from the group, as morality is one of the major person evaluation factors (Brambilla, Rusconi, Sacchi, & Cherubini, 2011). Thus, it is most likely that people, who feel their moral identity threatened, will adhere to the descriptive norm given by the group, to repair the damaged self-image, but also to avoid negative feedback from the group. As a result, we do not expect people to engage in moral cleansing as a straight result of the felt dissonance, but rather that people act in line with the dominant tendency in society, because of their fear for rejection. This choice should be independent of the nature of the norm; as it can be pro-social, or pro-self, i.e. following one's self interest. This leads to the following hypothesis.

Hypothesis 1: When recalling immoral behaviour, that is, when one experiences a moral threat, an individual chooses to behave in accordance with the descriptive norm, independently of being pro-self or pro-social. In the absence of a descriptive norm, an individual will choose a pro-social option over a pro-self option, as the injunctive norm is the only information one has available to infer which option is more approved by society.

Affirming one's moral identity is likely to strengthen one's identity to such an extent that small deviations can be justified. Additionally, it might be that this affirmation to one's moral identity is that strong that it will also boost one's self-esteem, leading to a stronger independence of the support by others; this leads to the following hypothesis.

Hypothesis 2: When recalling moral behaviour and being presented with a pro-self and pro-social option, an individual chooses the pro-self option, independent of the present norms.

### **The Influence of Social Anxiety**

The decision to follow or to disregard social norms might be affected by social anxiety: Socially anxious individuals have the fear of humiliation and embarrassment when feeling observed by others (American Psychiatric Association, 1994). This might lead to a greater attendance to social cues, like facial cues but also to a greater avoidance of eye contact, especially when being confronted with angry faces (Horley, Williams, Gonsalvez, & Gordon, 2003; Horley, Williams, Gonsalvez, & Gordon, 2004; Sachdeva, Iliev, & Medin, 2009). Furthermore, Horley et al. (2003) found the tendency of individuals with strong social anxiety to avoid social situations in general. Together, these studies show that people high in social anxiety are exceedingly conscious about their surroundings, and extremely careful to avoid any action that might result in negative feedback (Van Dillen, Enter, Peters, van Dijk, & Rotteveel, 2017). Thus, it is theorised that socially anxious people more strongly influenced by a descriptive norm than are people low in social anxiety, as the anxiety might increase the experienced threat of exclusion. Furthermore, even though individuals experience an affirmation in their moral identity, individuals high in social anxiety, could be still likely to experience a strong need of acceptance by the group. As a result, when experiencing a moral affirmation it is expected that individuals high in social anxiety will adhere to the descriptive norm to a greater extent than individuals with low social anxiety, who might disregard social norms altogether. This leads to the following hypothesis.

Hypothesis 3: Both when experiencing a moral threat and a moral, individuals high in social anxiety will adhere stronger to the descriptive norm than individuals low in social anxiety.



The three hypotheses were investigated by assessing how recalling of past moral (moral affirmation condition), immoral (moral threat condition), and neutral (control condition) behaviour affect current pro-self and pro-social decisions, in the presence of an injunctive norm and a descriptive norm. Moral threat/affirmation was manipulated by asking participants to recollect one of the three behaviours (moral, immoral, neutral), while current pro-self and pro-social decisions were assessed by asking participants to either donate money to charity or to contribute to an amount of money that can be won in a lottery, when contributing to it. Furthermore, social norms were manipulated by providing an indication of how many people previously have taken each decision.

## Method

### Participants and Design

Four-hundred and fifty-two participants took part in the experiment. Forty-eight participants were excluded from all analyses, as they failed the manipulation check: participants, who did not score an average of 3 or higher on a 7-point scale, with (1) *not at all* and (7) *very much* (cf. Van Dillen et al., 2017) on negative emotion items in the moral threat condition and on positive emotion items in the moral affirmation condition, were excluded. The remaining 404 participants (211 female / 193 male) had a mean age of 39 ( $SD = 11.7$ , range 19 to 76). All participants had a high school education or higher (31.2 percent high school, 58.7 percent college, 10.1 percent graduate school). With a mean of 4.71 ( $SD = 1.62$ , range 1 to 8), participants reported to perceive themselves be on the lower spectrum of socio-economic-status (SES); 1 being the lowest, 10 being the highest SES). The participants were recruited from the U.S. website MTURK.

The design was a 3 (morality) x 3 (social norm) experimental design. Participants were randomly assigned to either the moral affirmation condition (moral affirmation,  $N = 131$ ), the moral threat condition (moral threat,  $N = 118$ ) or the control condition (neutral control,  $N = 155$ ). In addition, participants were randomly assigned to a match condition (i.e.,

the descriptive norm coincides with the injunctive norm;  $N = 135$ ), mismatch norm condition (i.e., the descriptive norm opposes the injunctive norm;  $N = 131$ ) or baseline condition (i.e., no descriptive norm is present;  $N = 138$ ). Furthermore, two continuous variables were assessed: participants' social anxiety and self-monitoring skills. The latter will be discussed by collaborators in another thesis using a self-monitoring scale by Snyder (1974).

## Measures

**Moral threat and affirmation.** Participants engaged in an autobiographic recall task (Zhong & Liljenquist, 2006). In this task participants were asked to write down a detailed description of an act of past immoral (threat condition) or moral (affirmation condition) behaviour. In addition, as neutral control condition, participants were asked to recall their last visit to a supermarket (Rucker & Galinsky, 2008). Furthermore, participants were asked to report emotions that they felt in the recalled situations, in order to induce threat or affirmation to their moral identity more strongly. Participants were randomly assigned to one of the three mentioned conditions.

To ensure a successful manipulation of moral identity threat or affirmation, i.e. compared to the control condition, a manipulation check was included. The manipulation check was administered by asking Participants to indicate their current emotional state by rating the extent to which they feel five positive emotions (happiness, good feelings about the self, pleasure, satisfaction, pride), and seven negative emotions (sadness, guilt, disgust, shame, bad feelings about the self, anger, fear), on a 7-point scale, with (1) *not at all* and (7) *very much* (cf. Van Dillen et al., 2017). The check was considered successful if participants experienced more negative than positive emotions in the threat condition and more positive than negative emotions in the affirmation condition.

**Balancing versus consistency.** For assessing whether participants engage in balancing behaviour (i.e., self-licensing, moral cleansing) or are consistent in their behaviour, we provided participants with the opportunity to either engage in pro-social behaviour by

donating to charity, and/or to engage in pro-self behaviour by contributing to a lottery, and thus acquiring the chance of winning it. To this end, participants received \$0.50, in form of virtual \$0.10 coins, and were asked to allocate this money over the two virtual jars<sup>1</sup> (Charity<sup>2</sup>, Lottery). To note is that with \$0.50 participants were not being able to split the money equally between the two jars. Furthermore, the more money participants placed into the Lottery Jar, the higher were their chances to win the lottery: for every \$0.10 allocated to the Lottery Jar, the identification number of participants was added to the pool of numbers from which the winner of the lottery was drawn. The amount of money that participants put in the jars provided a measure for moral consistency and moral balancing, as well as adherence to the injunctive and descriptive norm, as the jars represent a pro-self (Lottery Jar) and a pro-social (Charity Jar) option. Consistent behaviour was present, if participants experiencing a moral affirmation gave more money to charity (Pro-social) than lottery (Pro-self), and if participants experiencing a moral threat placed more money to lottery (Pro-self) than to charity (Pro-social). Instead, balancing behaviour was present, if participants, who experienced a moral affirmation, allocated more money to the lottery (Pro-self) than to charity (Pro-social), and if participants, who experienced a moral threat, and gave more money to charity (Pro-self) than lottery (Pro-social).

**Norms.** The norms were manipulated in three conditions. In the first condition, the match condition, more money was shown to be placed in the Charity Jar than in the Lottery Jar in order to create a descriptive norm for donating to charity, which coincides with the injunctive norm, see Appendix Figure 1a for the visualisation of the jars. In the second condition, the mismatch condition, more money was shown to be placed in the Lottery Jar than in the Charity Jar, in order to create the descriptive norm on giving the money to the lottery, see Appendix Figure 1b. In the third condition, the baseline condition, both jars were displayed containing an equal amount of money, in order to avoid creating a descriptive norm,

see Appendix Figure 1c. Participants were informed that the displayed money in the jars was allocated to the jars by previous participants to create a group that provides the social norms.

### **Procedure**

In an online experiment, participants were asked to first provide relevant information, including age, gender, education, and socio-economic-status. This part also contained the 28-item Social Anxiety and Distress scale (Watson & Friend, 1969) with a modified response (High & Caplan, 2009), namely a five-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) for assessing social anxiety. The scale was comprised of negative items like “*I am usually nervous with people unless I know them well.*”, and positive items like “*I don't mind talking to people at parties or social gatherings*”. Second, participants were asked to recall either a moral (moral affirmation), an immoral (moral threat), or a neutral (control) personal behaviour. Following this, a manipulation check was incorporated in form of a questionnaire about the participant's current emotional state. Next, participants were thanked for participation. Afterwards, participants received a chance to participate in the lottery, which had been previously mentioned as an announced incentive to participate. However, only at this moment they were informed that they could choose to participate in the lottery by putting money in a Lottery Jar or to donate the money to a charity, by putting money in a Charity Jar. The money was given additionally to the participation reimbursement. Completed the task, participants were asked about the purpose of the study, thanked, and debriefed.

## **Results**

### **Emotions Following Moral Recollection**

Prior of testing the hypotheses two, repeated-measurement analyses of variances (RM-ANOVA) of the negative and positive emotions, reported by the participants, were performed, to assess whether the manipulation of moral affirmation, moral threat, or the neutral control

condition was successful. The means and standard deviations for the negative feeling items and the positive feeling items are presented in *Table 1*.

The seven negative emotions and their interaction with the moral recollection conditions were significantly different from each other ( $F_{\text{Huynh-Feldt Main-Effect}}(4.62, 1851.86) = 60.30, p < 0.001$ ;  $F_{\text{Huynh-Feldt Interaction-Effect}}(9.24, 1851.86) = 80.50, p < 0.001$ ). It was found that participants in the moral threat condition scored significantly higher on all negative items (i.e., Sadness, Guilt, Disgust, Shame, Bad Feelings About Yourself, Anger, Fear) than participants in the moral affirmation or control condition ( $F_s(2,401) > 10.11, p_s < 0.001, \eta^2_s > 0.05$ ). The strongest effect of the moral threat condition was observed for guilt, shame and bad feelings ( $F_s(2,401) > 319.41, p_s < 0.001, \eta^2_s > 0.61$ ). Participants' ratings on negative items in the control and moral affirmation condition did not differ significantly from each other ( $p_s > 0.074$ , means and standard deviations are presented in *Table 1*). This indicates that the moral threat condition succeeded in inducing negative moral emotions in participants.

The five positive emotions and their interaction with the recollection conditions differed significantly as well ( $F_{\text{Huynh-Feldt Main-Effect}}(3.68, 1473.89) = 48.49, p < 0.001$ ;  $F_{\text{Huynh-Feldt Interaction-Effect}}(7.35, 1473.89) = 25.40, p < 0.001$ ). Participants in the moral affirmation condition were found to score significantly higher on all positive emotion items (i.e., Happy, Good Feeling About Yourself, Pleasure, Satisfaction, Pride) compared to participants in the control condition, and in the moral threat condition, who scored significantly lower on positive emotion items compared to the control condition ( $F_s(2,401) > 61.73, p_s < 0.001, \eta^2_s > 0.24$ , means and standard deviations are displayed in *Table 1*). The strongest effect of the moral affirmation condition was recorded for Good Feeling About Yourself ( $\eta^2 = 0.45$ ) and Pride ( $\eta^2 = 0.45$ ). This shows that the moral affirmation condition evoked the desired positive emotions to a greater extent than the other conditions; accordingly, the manipulation of moral affirmation was successful.

Table 1

*Means and standard deviations for negative and positive feeling items in the three recollection conditions on 7-point scale (1 = not at all, 7 = very much).*

	Moral Affirmation	Moral Threat	Control
Sadness	1.84 (1.51)	3.95 (1.89)	1.52 (1.09)
Guilt	1.47 (1.29)	5.75 (1.40)	1.32 (.83)
Disgust	1.54 (1.43)	3.83 (1.98)	1.53 (1.18)
Shame	1.38 (1.13)	5.22 (1.72)	1.30 (1.00)
Bad feelings	1.31 (.92)	5.19 (1.78)	1.57 (1.29)
Anger	1.62 (1.50)	2.38 (1.67)	1.68 (1.33)
Fear	1.39 (1.05)	2.60 (1.79)	1.47 (1.21)
Happiness	4.69 (2.03)	1.67 (1.28)	3.82 (2.04)
Good Feeling	5.57 (1.74)	1.61 (1.13)	3.97 (2.07)
Pleasure	4.26 (2.19)	1.58 (1.24)	3.54 (2.18)
Satisfaction	5.39 (1.92)	1.69 (1.40)	4.23 (2.29)
Pride	5.21 (1.88)	1.38 (.91)	2.99 (1.93)

*Note.* Brackets show the standard deviations.

### **The Effect of Moral Recollection and Social Norms on Money Distribution**

*Hypothesis 1* and *Hypothesis 2* were tested by performing a 3 (recollection conditions) x 3 (social norm conditions) factorial ANOVA<sup>3</sup> with contribution to the lottery (i.e., pro-self option) as dependent variable.

On average, participants in all three moral recollection conditions, as well as in all three social norm conditions, allocated more money to the Lottery Jar than to the Charity Jar. Participants did not vary in their contribution to the Lottery Jar across the recollection conditions ( $F(2, 395) = 0.17, p = 0.848$ ). Participants who recollected their last visit to the supermarket contributed slightly more money to the lottery ( $M = 3.70, SD = 1.57$ ) than participants who experienced a moral affirmation ( $M = 3.63, SD = 1.59$ ), or moral threat (who

contributed least money to the Lottery Jar;  $M = 3.58$ ,  $SD = 1.61$ ). Furthermore, there was a non-significant main effect for the social norm conditions ( $F(2, 395) = 0.24$ ,  $p = 0.787$ ).

Participants distributed their money over the jars independently of the social norm conditions, but contributed the least money to the lottery in the match condition ( $M = 3.59$ ,  $SD = 1.61$ ). Contribution increased slightly in the baseline condition ( $M = 3.64$ ,  $SD = 1.59$ ). The highest contribution to the Lottery Jar occurred in the mismatch condition ( $M = 3.71$ ,  $SD = 1.56$ ).

**Interaction of moral recollection and social norms.** The first hypothesis aimed to assess, how participants who experienced a moral threat would distribute the five dimes over the two jars (Charity Jar or Lottery Jar), depending on the descriptive norm, presented in three social norm conditions (Match, Mismatch, Baseline). Important for *Hypotheses 1*, there was a non-significant interaction between the moral recollection conditions and social norm conditions ( $F(4, 395) = 0.99$ ,  $p = 0.413$ ). That is, there is no difference in participants' allocation of coins over the jars when jointly considering moral recollection conditions and social norm conditions. Hence, participants in the moral threat condition did not allocate their coins depending on the descriptive norm in the match and mismatch condition. Furthermore participants did not choose the pro-social option over the pro-self option in the baseline condition, where no descriptive norm was present. Thus, *Hypothesis 1* was not supported. The descriptive statistics for the interaction effects are presented in *Table 2*.

Table 2

*Model 1: Means and standard deviations for the main and interaction effects of the moral recollection and social norm conditions.*

	Match	Mismatch	Baseline
Moral	3.36 (1.58)	4.00 (1.62)	3.55 (1.52)
Immoral	3.72 (1.72)	3.52 (1.56)	3.51 (1.60)
Control	3.69 (1.56)	3.62 (1.50)	3.78 (1.65)

*Note.* Brackets indicate the standard deviations.

With the second hypothesis we wanted to test if participants, who recollected past moral behaviour would opt for the pro-self option independently from the presented social norms. In line with *Hypothesis 2*, participants' contribution to the Lottery Jar in the moral affirmation condition did not differ across the social norm conditions: participants allocated more money to the Lottery Jar than to the Charity Jar, regardless of the communicated descriptive norms ( $F(4, 395) = 0.99, p = 0.413$ ). However, as there was no difference in the contribution to the Lottery Jar between the social norm conditions across all three recollection conditions, it is to assume that *Hypothesis 2* was not supported. In addition, participants experiencing a moral affirmation in the match condition contributed marginally less money to the Lottery Jar ( $M = 3.36, SD = 1.58$ ) than participants in the mismatch condition ( $M = 4.00, SD = 1.62, p = 0.06$ ). We hypothesised no difference in the money allocation to the two jars across the social norm conditions; thus it is to conclude that *Hypothesis 2* was not supported.

### **Social Anxiety**

The social anxiety scale showed a high reliability ( $N_{\text{Items}} = 28$ , Cronbach's Alpha = 0.98). With a mean of 2.95 ( $SD = 1.07$ , range 1.91 to 3.33), participants were somewhat low in social anxiety, although 51 percent scored higher than three (scale ranged from 1 *strongly disagree* to 5 *strongly agree*, with 3 being *neither agree nor disagree*). This indicates that most participants, score close to 3 and thus are only somewhat socially anxious. For the analysis social anxiety ratings were standardised.

**Social anxiety and its influence.** In *Hypothesis 3* we tested whether social anxiety can strengthen the adherence to the descriptive norm, which was assessed by including social anxiety as a moderator. To assess the moderating effect of social anxiety on the effect of moral recollection conditions and social norms on choosing pro-social or pro-self, another factorial ANOVA was run, with contribution to the Lottery Jar as dependent variable; recollection conditions and social norm conditions were used as independent variables and social anxiety as continuous variable. Social anxiety was not found to moderate the effect of



the two factors on money distribution: there were no significant main effects of social anxiety ( $F(1,386) = 0.16, p = 0.694$ ), recollection conditions ( $F(2,386) = 0.19, p = 0.829$ ) or social norm conditions ( $F(2,386) = 0.20, p = 0.819$ ), nor were there any significant two-way ( $F_s < 0.95, p_s > 0.437$ ) or three-way interaction effects between the three variables ( $F(4,386) = 0.45, p = 0.772$ ). That is, social anxiety has no influence on the interaction between recollection conditions and social norm conditions on money distribution across the two jars. Thus, *Hypothesis 3* was not supported.

Table 3

*Mean and standard errors for donations to the lottery as a function of social norm conditions and moral recollection conditions for high vs. low social anxiety (estimated for respectively  $\pm 1$  SD from the overall mean of the standardised Social Anxiety and Distress Scale scores).*

	Low Social Anxiety			High Social Anxiety		
	Moral Affirmation	Moral Threat	Control	Moral Affirmation	Moral Threat	Control
Match	3.55 (.23)	3.55 (.23)	3.38 (.24)	3.74 (.24)	3.73 (.22)	3.91 (.24)
Mismatch	3.66 (.25)	3.63 (.21)	3.82 (.24)	3.63 (.25)	3.66 (.22)	3.47 (.25)
Base	3.78 (.25)	3.40 (.28)	3.60 (.24)	3.51 (.25)	3.89 (.24)	3.69 (.24)

*Note.* Brackets indicate the standard errors.

In order to better understand social anxiety in connection with social norms, means and standard errors of the allocated coins to the Lottery Jar across the three moral recollection conditions and the three social norm conditions were assessed for one standard deviation below and one standard deviation above the standardised mean of social anxiety (means and standard deviations are presented in *Table 3*). It can be observed that participants low in social anxiety seem to follow the descriptive norm to a certain extend across the moral recollection conditions: participants allocated slightly more money to the Lottery Jar in the mismatch condition ( $M_s > 3.63, SE_s < 0.25$ ) than in the match condition ( $M_s < 3.55, SE_s < 0.24$ ). On the other hand, individuals high in social anxiety allocated more money across moral recollection

conditions to the Lottery Jar in the match condition ( $M_s > 3.73$ ,  $SEs < 0.24$ ) than in the mismatch condition ( $M_s < 3.66$ ,  $SEs < 0.25$ ). This comparison of the direction of means is contradictory to *Hypothesis 3*.

### Discussion

The aim of this study was to increase our understanding about balancing and consistent behaviour by introducing social norms as a possible determinant and social anxiety as possible moderator of the effect of moral threat/affirmation and social norms on pro-self and pro-social decisions. We could not replicate the moral self-regulation theory (i.e., balancing behaviour; Sachdeva et al., 2009), as the moral recollection conditions did not have an effect on current pro-self and pro-social decisions. Furthermore, we were unable to find an effect of social norms on the effect of moral threat/affirmation on pro-self and pro-social decisions. We expected that when experiencing a moral threat, one would adhere more strongly to the descriptive norm regardless of whether it is on the pro-social or the pro-self option (*Hypothesis 1*). In addition, we hypothesised that experiencing a moral affirmation, one would chose the pro-self option regardless of the present descriptive norm (*Hypothesis 2*). Both hypotheses were not supported. Moreover, the effect of moral threat/affirmation, and social norms on the distribution of coins was not mediated by social anxiety (*Hypothesis 3*).

### Greater Contribution to Lottery Jar

On average, participants allocated more money to the Lottery Jar than to the Charity Jar, across conditions. This might be due to our choice of administering the dependent variable: Participants could not divide the money in half, thus they had to choose one jar to allocate the most money to. According to Loewenstein, Thompson, and Bazerman's (1989) social utility functions, individuals get the most utility (i.e. satisfaction) from dividing the money equally. However, should this option be unavailable, as it is the case in the present study, individuals prefer inequality to their favour over inequality favouring others, i.e. individuals prefer to allocate more money to themselves than to others (Loewenstein et al.,

1989). Such self-favouring inequality was observed in the present study, as three quarters of all participants contributed more money to the Lottery Jar than to the Charity Jar. In addition, according to the prospect theory (Kahneman & Tversky, 1979), individuals are more likely to take high risks with low chance of winning (as in the lottery used in the present study), when the alternative to the risk is a sure loss, namely giving the money to charity. The money initially awarded to the participants is automatically seen as a gain, as participants take psychological ownership of the money (Shu & Peck, 2011). However, participants were immediately asked to distribute the allotted money over the two jars. As a result, participants might see the allocation of money as a loss (Kahneman & Tversky, 1979). Nevertheless, participants had still the chance of gaining a large amount of money by winning the lottery. Consequently, as people are loss averse (i.e., a loss is more upsetting than a gain of the same amount is pleasurable) and the potential gain is large enough to outweigh the negative effect of the perceived loss, participants are likely to be risk seeking (Kahneman & Tversky, 1979). Thus, it is highly likely that participants chose to take the risk of participating in the lottery, and displaying a tendency for risk seeking. Given this, the effects of moral recollection conditions and social norm conditions on pro-social versus pro-self decisions might be much more subtle. Thus, direction of means will be interpreted in addition to the significance tests.

### **Consistency Following Moral Threat**

We were unable to support *Hypothesis 1*, as participants in the moral threat condition did not follow the descriptive norm. On the contrary, participants displayed consistent behaviour, i.e. participants chose the pro-self option following the recollection of immoral behaviour. A reason for this might be that participants were not concerned to be rejected by the group for disregarding the descriptive norm, as they might not have experienced the pressure of the descriptive norm, because of a perceived lack of accountability and consequences. As Tetlock (1985) argues, accountability is crucial to ensure adherence to norms and rules. Hence, participants might have disregarded the descriptive norm, as a result

of not being held accountable for their actions and thus unlikely to face the consequences. However, this argumentation disregards the motivation of participants to mend their threatened moral identity (Jordan et al., 2011; Tajfel & Turner, 1979). Thus, it is unlikely that a lack of accountability alone was the reason for consistent behaviour.

Another reason for participants to allocate more money to the Lottery Jar than to the Charity Jar, after a moral threat, might be mood regulation. Following the recollection of an immoral behaviour, participants reported high level of negative emotions, which evoked the urge to engage in mood enhancement (Isen, 1984). The current study suggests that lottery might be seen as the best way to enhance one's mood after a moral threat. This might be due to the lottery's uncertain, distant outcome, as it leads to high level of construal (temporal construal-level theory, Trope & Liberman, 2000). Trope and Liberman (2000) argue that the greater the temporal distance, the more abstract is the outcome and, most importantly, the greater is the perceived value of the outcome. Furthermore, Sagristano, Trope, and Liberman (2002) show that the value of an outcome increases independently of the probability for this outcome. Thus, although participants are unlikely to win the lottery (as there is only one winner), the lottery is likely to be constructed to have such great value, that the prospect of winning alone increases one's mood.

### **Following the Descriptive Norm after Moral Affirmation**

*Hypothesis 2* was not supported as well: instead of disregarding the social norms and opting for the pro-self choice, participants who experienced a moral affirmation were somewhat following the descriptive norm, considering that effects might be more subtle through the overall tendency of participants to allocate more money to the Lottery Jar, as argued above. Participants in the Match condition allocated less money to the Lottery Jar and more money to the Charity Jar, compared to participants in the Mismatch condition. This could mean that participants in the moral affirmation condition are somewhat influenced or

threatened by group exclusion, instead of being immune as a result of self-affirmation, as hypothesised.

An explanation for this might be the continuation of positive emotions. Positive emotions are highly desired and so is their continuation, especially after being made aware of one's emotional state (i.e., mood maintenance; Caruso & Shafir, 2006; Peters, Västfjäll, Gärling, & Slovic, 2006). Participants were asked to indicate their emotional state and were thus highly aware of it. Hence, it is likely that participants were motivated to maintain their positive emotions. As the direction of means showed, following the descriptive norm could be a valid indication for positive feelings, as social inclusion is a source of self-esteem and sense of belongingness (Knowles & Gardner, 2008). It is to notice that participants experiencing a moral affirmation are avoidant of negative feedback to a greater extent than participants experiencing a moral threat, as negative feedback could endanger their positive mood (Knowles & Gardner, 2008). Participants experiencing a moral threat might be more approach oriented to enhance their negative mood, i.e. participating in the lottery.

### **Counter-Intuitive effects of Social Anxiety**

With respect to the third hypothesis, the present study showed that social anxiety had no influence on the effect of social norms and moral recollection on choosing pro-self or pro-social behaviours. Furthermore, social anxiety somewhat seemed to encourage following the descriptive norm when it is low and disrespecting social norms when it is high. This is interesting, as it was hypothesised the opposite for moral threat and affirmation in the first two hypotheses: when being a moral person is reaffirmed, participants do not follow the social norms, as anxiety to be expelled from the group is likely to be low (*Hypothesis 2*). However, when one's self-concept is threatened by immoral act recollection, participants were expected to follow the descriptive norm, as anxiety to be judged by or expelled from the group is increased (*Hypothesis 1*). The present study has shown that *Hypothesis 1* and *Hypothesis 2* were not supported, but that the observed pattern of means is in reversed

direction of what was hypothesized. Thus, it might be not surprise to observe the reversed effect for social anxiety as well (*Hypothesis 3*).

It might be that high levels of anxiety lead to mood management, in a similar way as moral threat evokes managing negative emotions. In favour of this explanation would be that anxiety is a negative and distressing emotion, and the desire to feel better could possibly prompt people to manage their anxiety by allocating more money to the Lottery Jar to enhance their mood through the prospect of winning the lottery (Isen, 1984; Trope and Liberman, 2000)). As a result, participants high in social anxiety would seem to be more susceptible to the prospect of winning the lottery than participants low in social anxiety, no matter which norm or moral recollection condition they were in. Participants of all moral recollection conditions, who scored low in social anxiety, displayed a pattern of means across social norm conditions, similar to participants in the moral affirmation condition. This indicates that participants low in social anxiety and who experienced a moral threat are not as influenced by the threat as individuals high in social anxiety, because they display the same mood preserving tendency compared to participants who experienced an affirmation to their moral identity. This suggests that predisposed social anxiety might influence coping with emotionally difficult situations.

### **Limitations and Future Research**

One possible limitation was dividing the \$0.50 in \$0.10 coins, in order to prevent participants from dividing their money equally across the two jars. This most likely led to a more selfish money allocation, as mentioned above. In relation to this, a risk seeking tendency might have arisen from first awarding the \$0.50, then asking participants to give up the money, with a chance of winning a large amount of money. Future studies might consider increasing the sample size to confirm empirically the subtle effects observed in the current study. Furthermore, the large win should be divided in several small wins, to decrease risk seeking behaviour. Likewise, the \$0.50 should not be awarded to participants directly. A

possible alternative might be to ask participants to allocate the money owned by the experimenter, but according to their own liking, and still with the chance to win the lottery, should they decide to allocate money to the lottery. This might decrease risk seeking behaviour even further, as it could avoid loss aversion.

Another limitation was the virtual presentation of the jars. It is likely that participants did not perceive the jars as genuine enough: participants might have had struggles to believe that the coins displayed in the jars had actually been allocated by other participants. This could mean that the second independent variable, namely the social norm conditions, did not convey the descriptive norm strongly enough. As a result, participants might have allocated more money to the Lottery than to the Charity Jar, as they did not feel the presence of the group pressure. It is advisable to conduct future studies as laboratory studies, in which material jars and money can be presented.

Following the moral recollection conditions we asked participants to rate their current emotional state for seven negative and five positive items. Given that anxiety might not just have been relevant in a social, dispositional form but also in a general, situational form after the recollection, it could be advisable to include anxiety to the seven negative items.

### **Conclusion**

The presented study was unable to provide empirical support for the effects of social norms and moral recollection on pro-self/pro-social decision making, as well as for influences of social anxiety on this effect. Participants across conditions allocated more money to the Lottery Jar than to the Charity Jar, which might be due to the design of the study, as it might have caused a greater tendency to be self-interested and risk seeking in participants. However, small differences between means were observed, which indicate that participants somewhat disregarded social norms after a moral threat and tended to follow the descriptive norm after a moral affirmation. A similar pattern of means was observed for social anxiety: participants low in social anxiety somewhat followed the descriptive norm across the moral recollection

conditions, while participants low in social anxiety disregarded the descriptive norm across the moral recollection conditions. The differences need to be seen as mere indication, as empirical support is yet to be provided.



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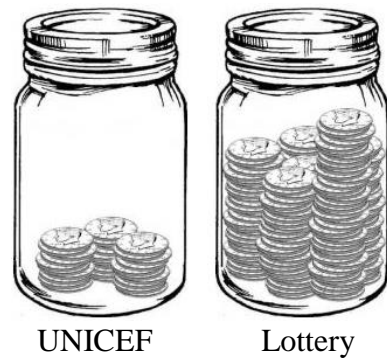
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## Appendix



*Figure 1a.* Social norm condition. *Match*: descriptive and injunctive norm are on the pro-social option, represented by the amount of money in the jars.



*Figure 1b.* Social norm condition. *Mismatch*: descriptive norm is on pro-self option, while the injunctive norm is on the pro-social option, represented by the amount of money in the jars.



*Figure 1c.* Social norm condition. *Baseline*: no descriptive norm is present, as no money is displayed and injunctive norm are on the pro-social option.

## Footnotes

<sup>1</sup> In a pilot study we investigated how best to visualise the jars. Forty-three participants were presented with a shortened form of the final study. With three conditions we wanted to investigate if we should present participants with a photograph of the jars or a drawing of the jars and if the jar, which is without the descriptive norm should be either completely empty or filled a little bit. For this trial we just presented the norm mismatch condition of the final study (i.e., the descriptive norm is on the Lottery Jar). In the first condition participants were presented with the drawing of the jars with money in both jars, in the second condition we presented participants with the drawing of the jars without money in the Charity Jar, and in the third condition we presented participants with a photograph of the jars with money in both jars. Participants were asked to complete the same task of distributing the coins over the two jars as in the grand survey. We asked participants to rate the task and the jars on three criteria: *How real did the donating the UNICEF and take part in the lottery feel to you?*, *How likely did you perceive it that the jars were filled by other participants?*, *How likely is it that the coins that you have assigned to the jars will be visible for other participants?* We found that although there was no significant difference between the criteria, participants rated the first condition generally highest. Thus, we chose to portray the jars with a drawing, filled with money, see Figures 1a-c in the Appendix.

<sup>2</sup> The money raised in the Charity Jar will be donated to UNICEF.

<sup>3</sup> Assumptions were checked for factorial ANOVA: Levene's Test of Equality of Error Variances was non-significant, thus homoscedasticity can be assumed ( $F(8, 359) = 0.30, p = 0.967$ ). No multicollinearity can be assumed as well ( $VIF_{\text{social norm}} = 1.001$ ,  $Tolerance_{\text{social norm}} = 0.999$ ;  $VIF_{\text{recollection}} = 1.001$ ,  $Tolerance_{\text{recollection}} = 0.999$ ).