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## The dark side of donating: how donating may license environmentally unfriendly behavior

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Why people donate to charity or how people may be persuaded to donate to charity is a widely studied topic. What happens *after* people donated to charity, however, is largely understudied. On the one hand, people may be motivated to behave morally in subsequent decisions because of consistency concerns. On the other hand, people may feel licensed to behave less morally in subsequent decisions. In a quasi-experimental field study, we show that donating to charity may have a dark side to it, as it negatively affects subsequent, seemingly unrelated moral behavior. Specifically, our study shows the licensing effect in a real-world setting, as we find that people who donated to charity subsequently show lower intentions to be environmentally friendly.

**Keywords:** donating; licensing effect; consistency; environmental behavior; sequential decision-making

Despite the global recession, the amount of charitable donations grows steadily every year (Charities Aid Foundation, 2013). There are multiple reasons for donating to charity, one of them being that people experience a warm glow of giving when they do so (Andreoni, 1990). Indeed, research has shown over and over again that giving to others makes people feel good (Dunn, Aknin, & Norton, 2008, 2014). This finding is fairly universal and is even found in toddlers (Aknin et al., 2013). Even imagining donating to charity gives people the feeling of being a moral person (Khan & Dhar, 2006). Furthermore, research examining consistency effects also suggests that a moral act, like donating to charity, may increase the likelihood of performing other moral acts (e.g., Benabou & Tirole, 2011; Burger & Caldwell, 2003; Freedman & Fraser, 1966; Gawronski & Strack, 2012; Snyder & Cunningham, 1975; Steele, 1988). These findings suggest that donating to charity is a win-win situation, that does not only help others, but also helps oneself, and stimulates further moral behaviors.

Recent research however suggests that donating to charity may in fact be a double-edged sword, rather than a win-win situation. That is, when people feel morally good about themselves after a moral deed like donating to charity they are likely to behave *less* morally on a subsequent occasion (Jordan, Mullen, & Murnighan, 2011; Khan & Dhar, 2006; Sachdeva, Iliev, & Medin, 2009). This phenomenon is called the licensing

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effect and it entails that by performing moral behavior, people establish moral credentials that license them to subsequently behave immorally (Monin & Miller, 2001; Sachdeva et al., 2009). In the present study, we test whether consistency or licensing effects are more likely after donating to charity in a field setting.

### Licensing effects

Over the past years, numerous studies have documented the existence of licensing effects in a variety of domains. Monin and Miller (2001) were the first to demonstrate the licensing effect in a series of studies showing that people are more likely to behave prejudiced in hiring decisions after they first had the opportunity to behave in non-prejudiced ways. For example, when people were given the opportunity to disagree with racist statements, they were afterwards more likely to indicate that a job was more suitable for a White rather than a Black person (Monin & Miller, 2001). Other research into the licensing effect has shown that these effects also arise across domains: when people imagine donating money to charity, they are subsequently more likely to cheat in order to perform better on an unrelated task (Brown et al., 2011) and when people shop in a webshop with mostly eco-friendly products, they are subsequently more likely to take out more money out of an envelope than they had actually earned (Mazar & Zhong, 2010). Engaging in moral behavior can thus provide people with a psychological license to subsequently behave immorally (Monin & Miller, 2001), either within or across moral domains.

The assumed underlying mechanism is that the first moral behavior provides people with moral credentials that boost their moral self-regard. This boosted moral self-regard subsequently liberates them to behave in morally questionable ways (Jordan et al., 2011; Khan & Dhar, 2006; Sachdeva et al., 2009). In line with this, research shows that boosting people's moral self-regard by reminding them of their (past) moral behavior subsequently leads to immoral behavior (e.g., Sachdeva et al., 2009).

So far, studies concerning the licensing effect are mostly conducted in laboratory settings where people are assigned to conditions motivating them to behave in a specific way. It is therefore uncertain whether these effects also arise in real life (e.g., Mazar & Zhong, 2010; Monin & Miller, 2001; Sachdeva et al., 2009). A notable exception is a field study in which residents received feedback on their water usage. The residents were assigned to a feedback or a non-feedback condition. The study showed that residents who received feedback on their water consumption lowered their water usage. At the same time, however, these residents who lowered their water usage felt licensed to increase their electricity usage (Tiefenbeck, Thorsten, Roth, & Sachs, 2013). In this study, participants were, however, still assigned to conditions. Yet, in real life, people *choose* to behave morally or not (e.g., charitably, environmentally friendly) rather than doing so because they are pushed in that direction by experimental procedures.

As such, it is possible that licensing effects can be (partially) explained by reactance toward the manipulation. When people feel their freedom of choice is being constrained, they may experience a feeling of reactance (Brehm & Brehm, 1981; Dillard & Shen, 2005). As a response to this reduced freedom, people may move into the opposite direction. So, when people feel they are being "forced" to behave in a moral manner by experimental procedures, they may show the exact opposite behavior as a response toward this reduced freedom. It is therefore important to investigate

whether licensing effects indeed occur in real-life settings where people choose to behave morally.

### Consistency effects

This question is especially relevant given the extensive body of research showing that the opposite of licensing effects may be just as likely: after a moral act, people may feel compelled to behave consistently and therefore also behave in a moral manner in subsequent decisions (e.g., Benabou & Tirole, 2011; Burger & Caldwell, 2003; Freedman & Fraser, 1966; Gawronski & Strack, 2012; Snyder & Cunningham, 1975; Steele, 1988). Cognitive dissonance theory (Festinger, 1957), the foot-in-the-door principle (Freedman & Fraser, 1966), and self-perception theory (Bem, 1967) all underline that people want to act and appear *consistent*. In addition, self-affirmation theory posits that people want to view themselves as being moral (Steele, 1988), making continued moral decisions more likely. There is thus also ample research suggesting that a moral act will lead to subsequent moral choices.

In fact, a recent field study showed that people were actually *more* likely to show such consistency effects than licensing effects after an initial moral act (Gneezy, Imas, Brown, Nelson, & Norton, 2012). In the study of Gneezy et al. (2012), visitors of an amusement park had the opportunity to purchase a photograph of themselves. This photograph was either sold with a charitable-giving promotion (i.e., half of the price was donated to charity) or not. When people bought a photo with a charitable-giving promotion, they were subsequently more likely to purchase presents for others rather than for themselves (i.e., display pro-social behavior) than when they bought a photo without such a promotion. The authors suggest that this consistency effect (i.e., behaving pro-socially on two subsequent occasions) was caused by the self-perception mechanism (Bem, 1967). Participants presumably perceived themselves as the “giving-kind” after having purchased the photograph with the charitable-giving promotion and as such were more likely to give again.

### The current study

Overall, there is evidence suggesting that people will behave less morally after donating to charity (i.e., licensing effect) and evidence that people want to be consistent and will display moral behavior again after donating to charity (i.e., consistency effect). We are interested in whether people in real life are more likely either to feel licensed or to behave consistently after an initial, freely chosen moral act (compared to those who did not choose the initial moral act). Therefore, we decided to do a quasi-experimental field study on the effects of one moral behavior (donating) on another moral behavior (environmentally friendly behaviors) to see which of the two predictions prevails. Based on research examining the licensing effect, we would hypothesize that people who donated to charity are more likely to feel licensed and as such report less environmentally friendly intentions compared to people who did not donate. On the contrary, based on research examining the consistency effect, we would hypothesize that people who donated to charity are more likely to be consistent and as such report more environmentally friendly intentions compared to people who did not donate. In sum, if the licensing effect prevails, we expect that donating decreases the chance of reporting environmental intentions, whereas if the consistency effect prevails, we expect that donating increases the chance of reporting environmental intentions. This results in the

following research question: does donating to charity lower environmental intentions (i.e., licensing effect) or does donating heighten environmental intentions (i.e., consistency effect)?

To investigate whether licensing or consistency effects arise, we chose the domains of donating and environmentally friendly behavior, as both behaviors are seen as moral laudable behaviors (Mazar & Zhong, 2010; Reed, Aquino, & Levy, 2007). Environmentally friendly behavior is often motivated by moral concerns (Bratanova, Loughnan, & Gatersleben, 2012), and people who behave in an environmentally friendly way are seen as moral (Mazar & Zhong, 2010). Both donating behavior and environmentally friendly behavior are thus linked to morality, and previous research indeed shows that these behaviors are affected by moral regulation (Khan & Dhar, 2006; Mazar & Zhong, 2010; Sachdeva et al., 2009; Tiefenbeck et al., 2013).

To circumvent the alternative reactance explanation pointed out earlier, we used a quasi-experimental design in which participants choose freely whether or not they donate to charity, as in real life, rather than being assigned to conditions. As far as we know, all other studies that examine licensing encompass experimental procedures, assigning people to conditions. Because we used a naturalistic quasi-experimental design, it is important to control for possible confounding factors such as demographic variables and people's tendency to donate in general.

Additionally, to make sure that the effect on our dependent measure (i.e., environmental intentions) is due to people's donating behavior and not to prior differences in environmental friendliness, we controlled for people's environmental self-identity. A large body of research shows that environmental intentions and behaviors are largely influenced by people's environmental self-identity (Fielding, McDonald, & Louis, 2008; Gatersleben, Steg, & Vlek, 2002; Nigbur, Lyons, & Uzzell, 2010; Sparks & Shepherd, 1992; Van der Werff, Steg, & Keizer, 2013a; Whitmarsh & O'Neill, 2010). So, to prevent distortion of our results, we included environmental self-identity as a covariate in our study.

## Method

We chose the yearly charitable event "Serious Request" to test our research question. Serious Request is one of the largest nationwide charitable events in The Netherlands. The week before Christmas, DJs of a popular radio station are locked in a "Glass house" to raise money for the Red Cross. Each year, the Glass house is situated in a different city and people go visit to donate money and to simply enjoy the atmosphere. Money is donated, for example, by requesting a song for whatever amount. Throughout the country, fund-raising activities are organized by, for example, schools and companies. Moreover, on national television, updates are given twice a day and even the national news covers the event.

### *Participants and design*

During Serious Request, we approached potential participants on the streets with the question whether they were willing to participate in a short survey of the University of Amsterdam. Potential participants were approached in two different cities (one in which the Glass house was situated). If they were willing to participate, the surveyors handed them over a clipboard with a pen and the survey (423 potential participants were approached, 283 participated, making the response rate 66.90%). The surveyors kept at

a distance while the participants filled out our survey in private. When the participants finished the survey, they brought the clipboard and survey back to the surveyor. The surveyor asked whether everything was clear or whether they had any questions and then thanked the participants. After the participants handed over the survey to the surveyor, the surveyors wrote their name on the surveys and in which city they had administered the survey. In this way, we could control for potential city and surveyor effects (see below).

Because we expected that the majority of the people in the city where the Glass house was situated (i.e., the Serious Request city) would have donated, we collected data in an additional city as well to have groups of comparable sizes (donating versus not donating). This city was comparable in size and like the Serious Request city it was a student town with a specialized university. As expected, in the Serious Request city, a majority of the people donated to Serious Request (81.1%), whereas in the other city relatively fewer people donated to Serious Request (22.5%).

Two hundred eighty-three participants filled out our survey. Nineteen participants did not adhere to instructions, for example, they completed the survey with multiple persons or did not fully complete the survey and were omitted from the main analyses. Furthermore, a total of six participants were identified as outliers based on the Mahalanobis Distance method and were omitted from the main analyses. Three participants exceeded the critical value at  $p < .001$  on the covariate (environmental self-identity), and three participants exceeded the critical value at  $p < .001$  on the dependent measure (environmental intentions; Pallant, 2001; Tabachnick & Fidell, 2007). After deletion of outliers, a total of 261 participants ( $M_{\text{age}} = 31.49$ ,  $SD_{\text{age}} = 13.56$ , 53.3% female) remained for our analyses. Please note that inclusion of the outliers resulted in the same results.

### **Procedure**

Participants first read and signed an informed consent. Next, they were asked to indicate whether they just donated to Serious Request or not by answering the question *Have you donated to Serious Request this year? yes/no*. Please note that the entire survey was in Dutch, we report the English translations here. Because our participants may not have been familiar with filling out surveys using a Likert scale, they were shown an unrelated example question illustrating how to answer questions using a Likert scale.

After this, participants indicated their environmental intentions on six items on a scale from 1 (*completely disagree*) to 7 (*completely agree*) (based on Minton & Rose, 1997; see Table 1). Then, participants completed several background questions (i.e., age, education, gender) to be able to control for potential influence on the environmental intentions dependent measure.

Hereafter, they were asked to fill out the following questions: *How often do you typically donate to charity? \_\_\_ per year*, *What is the amount you typically donate to charity? \_\_\_ Euros per year*, and, in case they donated, *What is the amount you donated to Serious Request? \_\_\_ Euros*. Next, to be able to control for participants' environmental self-identity, they completed an environmental self-identity measure consisting of four items measured on a scale from 1 (*completely disagree*) to 7 (*completely agree*), Cronbach's  $\alpha = .86$  (based on Whitmarsh & O'Neill, 2010; Table 1). Finally, participants were thanked for their participation and fully debriefed.

Table 1. Oblimin rotated component matrix of environmental intentions and environmental self-identity.

|                             |  | Component   |               |
|-----------------------------|--|-------------|---------------|
|                             |  | 1           | 2             |
| Environmental intentions    |  |             |               |
| 1                           | I am willing to sign a petition to support an environmental cause  | <b>.698</b> | .000          |
| 2                           | I am willing to join an organization which is devoted to the environment   | <b>.512</b> | -.287         |
| 3                           | I am willing to pay more each month for electricity if it meant cleaner air  | <b>.879</b> | .108          |
| 4                           | I am willing to stop buying products from companies guilty of polluting the environment even though it might be inconvenient for me        | <b>.562</b> | -.238         |
| 5                           | I am willing to pay more taxes to support greater government control of pollution  | <b>.903</b> | .117          |
| 6                           | I am willing to make personal sacrifices for the sake of slowing down pollution even though the immediate results may not seem significant | <b>.716</b> | -.140         |
| Environmental self-identity |  |             |               |
| 7                           | I think of myself as an environmentally friendly consumer  | .127        | -. <b>707</b> |
| 8                           | I think of myself as someone who is very concerned with environmental issues   | .250        | -. <b>656</b> |
| 9                           | I would be proud to be seen as having an environmentally friendly lifestyle  | -.080       | -. <b>939</b> |
| 10                          | I want my family or friends to think of me as someone who is concerned about environmental issues  | -.083       | -. <b>945</b> |

### *Preliminary analyses: covariates*

To control for confounding variables, we checked the correlations between demographics (i.e., age, education, gender), donating behavior in general (i.e., how often and the amount they typically donate to charity per year), the amount donated to Serious Request, environmental self-identity, and the environmental intentions dependent measure (see Table 2). We also investigated whether we needed to control for the surveyor who administered the survey with an ANOVA.

Age ( $r = .13$ ,  $p = .040$ ), how often participants typically donate to charity ( $r = .28$ ,  $p < .001$ ), and environmental self-identity ( $r = .60$ ,  $p < .001$ ) were significantly correlated with the environmental intentions dependent measure.<sup>1</sup> Additionally, surveyor ( $F = 2.14$ ,  $p = .050$ ) had a significant effect on environmental intentions. A *post hoc* test showed that participants surveyed by one surveyor consistently reported higher environmental intentions than the other six surveyors. The variables age, surveyor, how often participants typically donate to charity, and environmental self-identity met the assumptions for taking them into account as covariates (e.g., reliable measurement of covariates, linearity, homogeneity of regression slopes, no multicollinearity, Pallant, 2001). Gender, education, how much participants typically donate to charity, the amount participants donated to Serious Request, and the city in which we collected the data were not correlated with environmental intentions (see Table 2), and therefore were not taken into account as covariates.

### **Results and discussion**

We conducted a multiple regression analysis with donating (yes/no) as a predictor, environmental intentions as the dependent measure, and age, surveyor, how often participants typically donate, and environmental self-identity as covariates,  $F(5, 252) =$

Table 2. Correlations between the variables measured.

|  | Donated<br>Yes/No | Age    | Gender   | Education | How often<br>participants typically<br>donate to charity | How much<br>participants typically<br>donate to charity | Amount<br>participants<br>donated to<br>Serious<br>Request | Environmental<br>self-identity | City of<br>data<br>collection |
|--|-------------------|--------|----------|-----------|--|---|--|--------------------------------|-------------------------------|
| Environmental<br>intentions  | -.026             | .128*  | -.022    | .100      | .279***  | -.017   | .060   | .596***                        | -.019                         |
| Donated Yes/No   |                   | .182** | .057     | -.113     | .123*  | .087  | .114   | .124*                          | .597***                       |
| Age  |                   |        | -.243*** | .109      | .309***  | .235***   | -.030  | .147*                          | .218***                       |
| Gender   |                   |        |          | -.051     | .044   | -.081   | .024   | .005                           | -.023                         |
| Education  |                   |        |          |           | .130*  | .005  | -.069  | .053                           | -.151*                        |
| How often<br>participants<br>typically donate to<br>charity            |                   |        |          |           |  | .306**  | -.063  | .195**                         | .220**                        |
| Amount participants<br>typically donate to<br>charity                  |                   |        |          |           |  |   | .021   | -.020                          | .088                          |
| Amount donated to<br>Serious Request<br>Environmental<br>self-identity |                   |        |          |           |  |   |  | .017                           | .102                          |
|  |                   |        |          |           |  |   |  |                                | .156*                         |

\* $p < .050$ ; \*\* $p < .010$ ; \*\*\* $p < .001$ .

33.24,  $p < .001$ ,  $R^2 = .40$ . In line with the licensing effect, the multiple regression showed that participants who donated to Serious Request had lower intentions to be environmentally friendly ( $M = 4.11$ ,  $SD = .89$ ) than participants who did not donate ( $M = 4.42$ ,  $SD = .95$ ),  $\beta = -.13$ ,  $t = -2.52$ ,  $p = .012$ , Cohen's  $d = -.33$ . Donating to charity may thus subsequently license people to report less environmental intentions.

As expected, the covariate environmental self-identity strongly influenced people's environmental intentions,  $\beta = .56$ ,  $t = 10.90$ ,  $p < .001$ , Cohen's  $d = 1.44$ , which is in line with previous research in the domain of environmental friendliness (Whitmarsh & O'Neill, 2010). The covariate how often participants typically donate also had a positive effect on environmental intentions,  $\beta = .18$ ,  $t = 3.35$ ,  $p < .001$ , Cohen's  $d = .44$ . In line with research stating that the moral domain is multifaceted (Aquino & Reed, 2002), we thus found that participants who frequently behave charitably were also more likely to be environmentally friendly. Surveyor and age did not have a significant effect on environmental intentions,  $\beta = .08$ ,  $t = 1.50$ ,  $p = .136$  and  $\beta < .01$ ,  $t = .39$ ,  $p = .969$ , respectively.

For robustness concerns, it is important to note that when we do not take the covariates age, surveyor, and how often participants typically donate into account, the multiple regression displayed the same pattern, such that participants who donated to Serious Request were subsequently less likely to report environmental intentions ( $M = 4.12$ ,  $SD = .94$ ) than participants who did not donate to Serious Request ( $M = 4.38$ ,  $SD = .94$ ),  $F(2, 256) = 73.24$ ,  $p < .001$ ,  $R^2 = .37$ ,  $\beta = -.11$ ,  $t = -2.10$ ,  $p = .037$ , Cohen's  $d = -.28$ .<sup>2</sup> Taking the covariate environmental self-identity into account is vital due to its large effect on environmental intentions. Importantly, our results also remain when including meaningful interaction terms in the regression. So, when including the interaction term between donated yes/no and age in the regression, the effect of donating on environmental intentions remains ( $\beta = -.14$ ,  $t = -2.62$ ,  $p = .009$ , Cohen's  $d = -.35$ ). The same goes for including the interaction term donated yes/no and identity ( $\beta = -.13$ ,  $t = -2.46$ ,  $p = .014$ , Cohen's  $d = -.32$ ), donated yes/no and how often participants typically donate ( $\beta = -.13$ ,  $t = -2.62$ ,  $p = .009$ , Cohen's  $d = -.35$ ) and including all these interaction terms in the model ( $\beta = -.12$ ,  $t = -2.41$ ,  $p = .017$ , Cohen's  $d = -.32$ ).

### General discussion

In our study, we investigated the research question whether consistency effects or licensing effects are more likely after choosing to behave in a moral way (i.e., donating to charity). The results of our study are in line with the licensing effect rather than the consistency effect. Specifically, our study showed that when people donated to Serious Request, they subsequently reported lower (rather than higher) environmental intentions than people who did not donate. Giving to charity thus seems to provide donors with a license that subsequently frees them to be less environmentally friendly. Donating to charity may thus not always be a win-win situation, and may have negative consequences for people's subsequent moral behaviors. As such, our study shows that donating may have a dark side to it, as donating to charity may subsequently license people to behave less moral in other domains. In what follows, we will discuss what our findings add to current literature, the limitations and alternative explanations, and future directions. In the Future Directions section, we will discuss when licensing and when consistency effects may be more likely after moral behaviors.

The present study adds to the existing literature on both charitable giving and the licensing effect. Our study demonstrates that the licensing effect also emerges when people *choose* to behave morally in the first instance. So far, the licensing effect had been mainly investigated in the lab or by assigning people to behave in a moral way (e.g., Mazar & Zhong, 2010; Monin & Miller, 2001; Sachdeva et al., 2009). This study adds to the previous literature by establishing the ecological validity and robustness of the licensing effect by showing that the effect also emerges in the field when participants *choose* to behave morally rather than being assigned to do so. Licensing effects thus not seem to be merely caused by experiencing a feeling of reactance toward the manipulations used in many licensing studies, but also arise in real life when people choose themselves to behave morally.

### *Limitations and alternative explanations*

It should be noted that the effect size of our finding is relatively small. This is in line with a recent meta-analysis on the licensing effect (Blanken, van de Ven, & Zeelenberg, 2015). Although the effect is relatively small, the effect should not be disregarded. The majority of people in both the US and the UK regularly make donations (Charity Aid Foundation, 2013). Given this prevalence of donating, even a small licensing effect may have substantial consequences.

Furthermore, our choice of using a quasi-experiment has both advantages and limitations. As stated earlier, an important advantage of using a quasi-experimental design is that we can investigate whether licensing effects arise when people choose to behave morally rather than being pushed in that direction by experimental manipulations. In this way, our study complements the many experimental studies examining the licensing effect (e.g., Khan & Dhar, 2006; Monin & Miller, 2001; Tiefenbeck et al., 2013). On the other hand, the use of a quasi-experimental design implies that we cannot be sure about the causal direction of our effects. So, although we first asked participants about their donating behavior before asking them about their environmental intentions, we cannot be sure that this is indeed the causal relationship. Furthermore, there may be other variables explaining the correlation we found between donating yes/no and environmental intentions (the endogeneity problem), which raises the possibility of alternative explanations for our findings.

It could be, for example, that people who did not donate to charity felt guilty about this when they were asked to report whether they donated or not. Consequently, they may want to atone these feelings of guilt by reporting higher intentions to be environmentally friendly. Conversely, it may be the case that donating to a charitable cause may work as a guilt-reducing mechanism, making people feel less guilty about reporting lower environmental intentions (see also Khan & Dhar, 2007; Kivetz & Simonson, 2002; Strahilevitz & Myers, 1998). For future research, it would be interesting to test the role of guilt in licensing effects.

Another limitation of our study is the use of self-report measures. People may report more socially desirable and as such may (unknowingly) overstate their environmental intentions (Paulhus, 2002). Yet, if this would be the case in our study, the licensing effects would in reality be stronger. So, the problem of answering in a socially desirable way is, in this case, more likely to harm than to help finding the licensing effect. Related to this, the licensing effect may have been suppressed by the fact that all participants voluntarily helped us by filling out the survey. Helping others may be seen as a moral act and, therefore, all participants committed a moral act

regardless of whether they donated or not. This may decrease the difference between our two groups (donating vs. not donating).

### *Future directions*

One may wonder whether the amount of the initial donation affected the magnitude of the licensing effect. Previous research suggests that the licensing effect may work proportionally, such that a larger previous moral behavior leads to a larger subsequent immoral behavior (Jordan et al., 2011). We checked whether the amount donated affected the magnitude of the licensing effect, which was not the case. Donating more money did not seem to provide one with a “bigger” license to subsequently be even less environmentally friendly. This is in line with recent research by Meijers (2014), in which it was shown that choosing an organic product over a regular product is seen as a moral act, however, the price of the organic product relative to the regular product did not influence the perceived morality of the purchase. For future research, it may be interesting to investigate whether and how the perceived morality of a donation is dependent on the amount donated (perhaps operationalized as a proportion of the person’s disposable income), and whether this perception predicts the magnitude of the licensing effect.

Furthermore, it may be interesting to investigate the interplay between time, consistency, and licensing effects. Our data show that after donating, people are less likely to report environmental intentions. There is thus a negative correlation between being reminded of having donated and being environmentally friendly. It is important to note, however, that there was also a positive relationship between how often participants typically donate to charity and environmental intentions ( $r = .28, p < .001$ ). Similarly, there was a (weak) positive correlation between donating (yes/no) and environmental self-identity ( $r = .12, p = .045$ ). This is in line with the idea that people who are in general more likely to donate are also more likely to be environmentally friendly, as some people subscribe more to a moral self-identity (influencing both donating and environmental behavior) than others (Aquino & Reed, 2002). These correlations suggest that while in the short-term licensing effects are likely, in the long term consistency effects may occur. Specifically, where initially the donation decision of environmental friendly people licensed them to behave environmentally unfriendly, in the long-term the impact of the donation decision may weaken and their environmental self-identity may predict behavior. For future research, it is therefore important to investigate whether licensing effects are moderated by how far the decisions are separated in time. It is likely that two decisions that are close in time lead to licensing effects, whereas two decisions, that are further in time lead to consistency effects.

This prediction is also in line with findings on the foot-in-the-door technique, showing that making two immediate requests produces smaller effects than two requests further apart in time (Chartrand, Pinckert, & Burger, 1999). The foot-in-the-door technique and moral licensing are, however, quite different as with the foot-in-the-door technique people are *requested* to perform moral behaviors, whereas with the moral licensing effect people are *provided with an opportunity* to do so. Factors like social desirability may therefore play a bigger role in former than in the latter. Investigating how timing may play in the occurrence of licensing versus consistency effects is therefore needed.

Another topic that could be investigated in more detail is the effect of the presence or absence of others when making a donation. Recent research has shown that when people first privately display a token of support for a cause, they are then less likely to

show licensing effects than when people first publicly display a token of support (Kristofferson, White, & Peloza, 2014). It could thus be the case that donating publicly could lead to being less likely to donate again, whereas donating privately could lead to being more likely to donate again. Understanding how participation in large events where people donate publicly affects the chance of becoming a regular donor would therefore be interesting to investigate.

Additionally, it would be interesting to replicate our findings in different domains. Licensing effects have been established in numerous domains, such as racism (Monin & Miller, 2001), environmental behavior (Tiefenbeck et al., 2013), and consumer behavior (Khan & Dhar, 2006), and have been shown both across (Mazar & Zhong, 2010; Sachdeva et al., 2009) and within domains (Khan & Dhar, 2006; Monin & Miller, 2001; Tiefenbeck et al., 2013). The question remains, however, whether within domain licensing effects and across domain licensing effects (other than charity and environmental domain licensing effects) are equally likely to replicate in field settings. Such studies might also address alternative explanations for the observed effects, for example, feelings of guilt (as discussed in the limitations section), or people's misperceptions of their future ethical behavior driving the observed effect rather than the moral licensing (Tenbrunsel, Diekmann, Wade-Benzoni, & Bazerman, 2010).

Finally, future research could investigate how licensing effects may be prevented. Our study shows that compared to a small negative effect of previous moral behaviors (i.e., donating to Serious Request) on environmentally friendly behavior, there is a large positive effect of people's environmental self-identity on environmentally friendly behavior. The magnitude of the positive effect of environmental self-identity is stronger than the magnitude of the negative effects of the licensing effect. This suggests that to stimulate environmentally friendly (moral) behaviors, it would be beneficial to instigate an environmental (moral) self-identity.

One way to achieve this is by the use of a self-perception mechanism. People tend to behave consistently with how they perceive themselves (Bem, 1967), and previous research shows that by using the social labeling technique, people may be stimulated to behave morally consistent through the self-perception mechanism (Allen, 1982). Research, for example, shows that when providing people with the social label 'you are an environmentally friendly person,' they become more likely to see themselves as an environmentally friendly person and behave accordingly than when not being provided with such a social label (Allen, 1982; Cornelissen, Dewitte, Warlop, & Yzerbyt, 2007). This suggests that when people are being actively labeled as a moral person, they may come to see themselves as a moral person and behave accordingly, making it less likely that moral credentials earned in one situation license them to behave immorally in another. In this way, the negative side effects of donating to charity may be prevented.

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No potential conflict of interest was reported by the authors.

## Notes

1. In line with other research, we find that environmental self-identity and environmental intentions are strongly correlated (Van der Werff, Steg, & Keizer, 2013a). However, it is important to note that these are two related but distinct concepts, both conceptually and statistically. Previous research shows that environmental self-identity is a predictor of environmental intentions (Fielding et al., 2008; Nigbur et al., 2010; Sparks & Shepherd, 1992; Van der Werff, Steg, & Keizer, 2013b). Furthermore, one's self-identity can be described as the way people see themselves and the labels they use to describe themselves (Cook, Kerr, & Moore, 2002), whereas intention refers to the probability that one performs a certain behavior (Fishbein & Ajzen, 1975). Lastly, a Principal Component Analysis (Oblimin) showed that environmental self-identity and environmental intentions are two distinct concepts (see Table 1).
2. Because of the high correlation between city and donating yes/no,  $r = .597$ ,  $p < .001$  (see Table 2), city could be seen as a proxy for donating behavior. Therefore, we conducted an extra multiple regression analysis with city as a predictor instead of using a self-report measure (donated yes/no) and age, surveyor, how often participants typically donate, and environmental self-identity as covariates. The results showed that participants approached in the Serious Request city where the festivities were going were less likely to report environmental intentions ( $M = 4.09$ ,  $SD = .94$ ) than people approached in the other city ( $M = 4.52$ ,  $SD = .96$ ),  $F(2, 256) = 34.31$ ,  $p < .001$ ,  $R^2 = .41$ ,  $\beta = -.17$ ,  $t(83) = -3.23$ ,  $p = .001$ .

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