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One person in the battlefield is not a warrior:

Self-construal, perceived ability to make a difference, and socially responsible behavior

Gert Cornelissen

Universitat Pompeu Fabra

Irina Cojuharenco

Catolica Lisbon School of Business and Economics

Natalia Karelaia

INSEAD

Author Note

Gert Cornelissen, Department of Economics and Business, Universitat Pompeu Fabra;

Irina Cojuharenco, Católica Lisbon School of Business and Economics; Natalia

Karelaia, INSEAD.

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Correspondence concerning this article should be addressed to Gert Cornelissen, Department of Economics and Business, Ramon Trias Fargas 25-27, Barcelona 08005, Spain. Phone: (+34) 93 542 2731.

Email: gert.cornelissen@upf.edu

Abstract

We suggest that cultivating an individual's connectedness to others promotes socially responsible behavior both directly and indirectly – through increased perceived ability to make a difference. Individuals whose interdependent self is more prominent feel they have more of an impact on larger scale societal outcomes and, therefore, engage more in socially responsible behaviors than do individuals whose independent self is more prominent. We test these hypotheses in two experiments in which participants make financial contributions or exert an effort for a social cause. In a survey, we find that perceived effectiveness mediates the effect of self-construal on socially responsible consumption.

Keywords: self-construal, interdependent self, independent self, socially responsible behavior, perceived effectiveness.

One person in the battlefield is not a warrior:

Self-construal, perceived ability to make a difference and socially responsible behavior

Current ecological and economical upheaval demonstrates the need for individuals to rethink their behavioral and consumption pattern and its impact on their social, ideological, and ecological environment. Public and private initiatives undertaken with the goal of helping to promote the necessary change have had only limited success (McKenzie-Mohr, 2000). Therefore, further research on the factors associated with socially responsible behavior is warranted. In the current paper, we focus on how individuals view themselves in terms of connectedness with versus separateness from others, a concept known as self-construal (SC; Markus & Kitayama, 1991). We investigate the potential role of SC in the shaping of socially responsible behavior (e.g., purchasing fair trade products, recycling, or exerting an effort for a social cause). In particular, we suggest that SC affects socially responsible behavior both directly and indirectly – through the perceived ability to affect larger scale societal outcomes.

Perceived Effectiveness and Socially Responsible Behavior

The study of the promotion of behavioral change towards more socially responsible and ethical patterns has been a bumpy road. Multiple paradigm shifts later it still presents a challenge for behavioral researchers. The information deficit models formulated in the early 1970s, which assumed that educating people about the consequences of their actions should automatically result in more socially responsible behavior have been dismissed on theoretical and pragmatic grounds (Owens & Driffill, 2008; Sturgis & Allum, 2004). It soon became clear that the inclusion of beliefs and attitudes in choice models was not sufficient for them to become reliable predictors of

behavior (Ajzen, 2001; Kraus, 1995) and that new models have to be advanced (Stern, 2000).

Kollmus and Agyeman (2002) distinguish between direct and indirect socially responsible actions. Direct actions refer to actual changes in one's behavior and consumption patterns, whereas indirect actions refer to ideological support of certain issues and the endorsement of policy changes. They suggest that the effect of knowledge about and attitudes regarding social issues is mostly limited to motivating indirect actions and that other elements are required to translate concern about social issues into behavior change. Along the same lines, Wiener and Doescher (1991) argued that an essential challenge lies in motivating those people who are concerned about a certain social issue to act on that concern. One of the often cited reasons for a divide between attitudes and behavior is people's sense of ineffectiveness, or the feeling that as an individual, one's behavior has a negligible impact on the larger scale (e.g., Ellen, Wiener, & Cobb-Walgren, 1991; Jackson, 2005; Lorenzoni, Nicholson-Cole, & Whitmarsh, 2007; Stoll-Kleemann, O'Riordan, & Jaeger, 2001), so why bother?

A number of models have included the concept of effectiveness or personal control as a moderator of the effect of knowledge, concern, and attitudes surrounding social issues on the one hand, and socially responsible behavior on the other hand (e.g., Axelrod & Lehman, 1993; Bandura, 1986; Grob, 1995; Hines, Hungerford, & Tomera, 1986; Pelletier, Dion, Tuson, & Green-Demers, 1999). For example, in a study on social activism, only those individuals who perceived their actions as effective acted on their beliefs (Hinkle, Fox-Cardamone, Haseleu, Brown, & Irwin, 1996) and perceived effectiveness differentiated inactive versus active participants in an anti-war movement (Fiske, 1987). In a consumption related context the concept has been referred to as Perceived Consumer Effectiveness (PCE; Kinnear, Taylor, & Ahmed, 1974). PCE

captures individuals' perceptions of their ability to do something about a larger scale problem through their consumption choices. Thøgersen (1999) found that PCE, joint with problem awareness, determined individuals' personal norms regarding the reduction of waste production (see also Ölander & Thøgersen, 1995). Personal norms, in turn, had a large bearing on behavior. Similar findings were reported by Webster (1975). Roberts (1996) concludes that "...PCE has been identified as the most promising variable in explaining variation in ecologically conscious consumer behavior" (p. 228).

It is relevant to point out that perceived effectiveness is not to be equated with the "perceived behavioral control" factor in the theory of planned behavior (Ajzen, 1991), which refers to judgments of whether one has the ability to execute goal-directed actions, and not to how effective that action is for goal attainment. PCE is closer related to, although not identical with, the concept of locus of control in the psychology literature (Rotter, 1966). Locus of control refers to a more general sense of the extent to which individuals believe that they can control life events that affect them, or whether others, fate, or chance, are in control. Individuals with a high PCE believe that their behavior can have an impact on social issues, including on a larger scale. However, the effect of a high PCE should be similar to that of an internal locus of control in terms of motivation to engage in an activity that may generate positive outcomes. Consistent with this idea, previous research has shown that internal locus of control is associated with a number of socially responsible behaviors, such as helping, political participation, and ethical behavior (e.g., Midlarsky & Midlarsky, 1973; Newhouse, 1990; Singhapakdi & Vitell, 1991; Trevino & Youngblood, 1990).

Considering the important role that previous research has attributed to perceived effectiveness in shaping socially responsible behavior, from a public policy perspective

it would be interesting to test how this concept can be employed in tools aimed at promoting socially responsible behavior. Nevertheless, research on the antecedents of perceived effectiveness and the nature of its relationship with socially responsible behavior is rather scarce. For example, we are not aware of any previous research that tested the causal role of perceived (consumer) effectiveness by manipulating it. One study that attempted to do so was unsuccessful (Vermeir & Verbeke, 2006). One of the aims of this article is to develop a tool that can successfully affect levels of perceived effectiveness and to test its potential for promoting socially responsible behavior. We suggest that such a tool could be based on affecting individuals' SC.

Self-construal and Perceived Effectiveness

Self-construal refers to the general knowledge repository about the self and self-relevant goals and attitudes that help individuals perceive and process information about the external environment, and organize that information in memory (Markus & Kitayama, 1991; Markus & Wurf, 1987). Social psychologists suggest that this knowledge repository about the self can be studied at three distinct levels of identity: the individual or independent self, the relational self, and the collective self (Brewer & Gardner, 1996). Individuals differ in the extent to which each of these identity levels is prominent in regulating emotion, cognition and behavior. Additionally, situational factors may affect the salience of these identity levels in SC and thus, affect the ensuing emotion, cognition and behavior (Oyserman & Lee, 2008). Therefore, it is important to understand how independent, relational and collective identities differ, and how they relate to beliefs about effectiveness and behavior.

Markus and Kitayama (1991) suggest that the thoughts and actions of individuals with a prominent independent SC emphasize the qualities (e.g., abilities and achievements) that make them unique and different from other people. These

individuals strive to be authentic, to pursue individual goals, and to demonstrate that they are autonomous and separate from others. On the other hand, individuals with a prominent relational or collective self define themselves in terms of relationships and group memberships. Relational and collective SCs are often referred to as the interdependent SC. Individuals with a prominent interdependent SC emphasize their connectedness to others and similarity with others. They strive to fit in social groups and fulfill their social roles. They pursue relational goals, and engage in actions that promote social harmony and respect for social norms (Cross, Bacon, & Morris, 2000; Singelis, 1994).

Recent research has demonstrated that socially responsible behavior, like its ecological counterpart, is an expression of prosocial values, such as connectedness and benevolence (Pepper, Jackson, & Uzzell, 2009). These are the values that are typically associated with the interdependent self, as opposed to the independent self (Triandis, 1995). For example, people with a prominent interdependent self emphasize group goals over personal goals (e.g., Utz, 2004) as a result of an emotionally regulated, and therefore automatic, process (Cornelissen, Dewitte, & Warlop, 2011). Therefore it can be expected that SC influences socially responsible behavior. Some studies have confirmed that relationship in the context of self-report environmental conservation behavior (Arnocky, Stroink, & DeCicco, 2007), and prosocial intentions and donations to charity (Karremans, Van Lange, & Holland, 2005). The implicit or explicit assumption in those studies is that the causal mechanism underlying this effect is the larger commitment of the interdependent self to further the interest of one's social group or society (Kelley & Thibaut, 1978).

We suggest that, other than this commitment to the public good, there is an additional indirect link connecting SC to socially responsible behavior. We propose that

SC is associated with one's perceived effectiveness through projected expectations and a focus on collective action when evaluating the effectiveness of responsible behavior. By analogy with the tendency of people to project their social value orientations on to others (Iedema & Poppe, 1995), we expect that those whose interdependent self predominates (as opposed to the independent self), and who think in terms of collective rationality and similarity with others, expect others to be concerned with social issues as well. As a result, individuals with a prominent interdependent self assume that a larger proportion of the population is willing to pursue societal interests compared to individuals with a prominent independent self. Additionally, in terms of impact on larger scale societal outcomes, the efficacy of a group is by definition larger than that of an individual. Individuals whose interdependent self is prominent, and who interpret the impact of their behavior at the level of the broader social unit, will therefore judge the influence they have to be larger than would be the case for individuals whose independent self is prominent. The latter feel less capable to make an impact through his/her actions, consistent with the proverbial expression "one person in the battlefield is not a warrior." We test this hypothesis about the relationship between SC, PCE, and socially responsible behavior, by means of both lab (Study 1) and field (Study 2) experiments, and mediation analyses using survey data (Study 3).

From a public policy perspective, an interesting aspect of SC is that the independent and the interdependent self represent separate identity levels within the individual (Triandis & Gelfand, 1998). In other words, both levels co-exist within the individual, and situational factors may temporarily activate beliefs and behaviors corresponding to the independent or the interdependent self (Sinha & Tripathi, 1994). In Studies 1 and 2, we test whether a priming procedure can temporarily change SC, successfully activating either the independent or the interdependent self. Using

behavioral measures, we evaluate whether such activation successfully influences an individuals' perceived effectiveness and levels of socially responsible behavior.

Study 1

In a first study we manipulated SC experimentally and evaluated its effect on PCE and on socially responsible behavior. Because we used priming to manipulate SC, the effects on PCE and behavior are examined in separate studies, 1a and 1b, to ensure that the effects can be attributed to the SC prime and not the interaction of the SC prime with PCE measurement (Bargh & Chartrand, 2000). We start by testing whether a manipulation of SC affects participants' PCE in Study 1a. In Study 1b, we examine whether a manipulation of SC affects participants' financial contributions to an organization that promotes ethical business and consumption, and fair trade. Study 1b contributes to the extant research on socially responsible behavior by investigating the effects of SC on actual rather than self-report behaviors.

Study 1a

Method.

Participants and procedure. We invited 39 participants to our lab (59.7% female), and asked them to sit down in front of a computer in semi-closed cubicles. They were paid 9€ to participate in a series of studies. First, they completed a SC manipulation. Participants were randomly assigned to the independent (n = 20) or the interdependent (n = 19) condition. In a later, seemingly unrelated task, we measured participants' PCE. We also administered the inclusion-of-other-in-self (IOS) scale (IOS scale; Aron, Aron, & Smollan, 1992).

Manipulation and measures. We used the SC manipulation developed by Mandel (2003). Participants were asked either to recall a present they recently

purchased for themselves or for a friend or family member, to describe how they (resp. the other person) benefited from receiving this gift, and how they felt about the purchase. Thinking about an episode in which one gives him/herself a treat is supposed to activate the independent self. Thinking about a moment in which one treats those close to him/herself should activate the interdependent self.

To measure PCE we included three items from the perceived consumer effectiveness scale (Roberts, 1996). Items included were “It is worthless for the individual consumer to do anything about pollution” (reverse scored), “Since one person cannot have any effect upon pollution and natural resource problems, it doesn't make any difference what I do” (reverse scored), and “Each consumer's behavior can have a positive effect on society by purchasing products sold by socially responsible companies”. We dropped the fourth item of the original scale, which asks participants to report whether they currently take into account environmental issues when purchasing products. Factor analysis suggested that this item constitutes a separate factor. Moreover, this item is very similar to the items used as a dependent measure and does not ask about perceived effectiveness, but current behavior. The three remaining items formed a reliable scale (*Cronbach's* $\alpha = .80$).

The IOS scale is a measure of perceived closeness to others. In the IOS scale, respondents select the picture that describes their relationship with another person best, from a set of Venn-like diagrams, each representing different degrees of overlap of two circles. One circle represents the self (S) and the other represents the other person or entity (O). The figures are designed so that the degree of overlap progresses linearly, creating a seven-step, interval-level scale. The anchors are, at one end, two circles that touch each other, but do not overlap and, at the other end, two circles that overlap completely. Participants essentially indicate to which extent the “other” is included in

one's definition of the self. We included two similar items. The first item asked participants to indicate how close they felt with respect to the community at large, and the second item asked how close participants felt towards other students at their university. This way we captured participant's sense of closeness both to the broader society and to their immediate surroundings. We calculated the mean of both responses to make up our manipulation check.

As a preliminary test of the mechanism through which we postulate SC to be related to PCE, we additionally asked participants to estimate the proportion of people in general who are willing to exert extra effort to protect the environment with the following item: "Please indicate which percentage of people would be interested in protecting the environment and would be willing to exert extra effort, such as paying more for their regular shopping, to do so? Please give a percent estimate".

Results. The data suggest that the SC manipulation was successful. Participants whose interdependent self was primed indicated that others were included in their self-definition to a larger extent ($M = 4.58$; $SD = .99$) than those whose independent self was primed ($M = 3.80$, $SD = 1.31$, $F(1, 37) = 4.35$, $p < .05$). Next, we analyzed whether activating the independent versus the interdependent self affected PCE. Activating the interdependent self ($M = 4.51$; $SD = .46$) led to participants feeling more effective at influencing large scale societal problems through their consumption choices than activating the independent self ($M = 3.75$, $SD = 1.00$, $F(1, 37) = 9.05$, $p < .01$). Interestingly, participants in the interdependent condition ($M = 46.53$; $SD = 24.41$) also estimated a larger proportion of people to be willing to exert an extra effort for the environment than those in the independent condition ($M = 23.75$; $SD = 14.29$, $F(1, 37) = 12.80$, $p < .01$). Using the bootstrapping procedure developed by Preacher and Hayes (2008), we analyzed whether this difference mediated the effect of SC on PCE, as

expected based on the projected expectations account. The results indicated that the indirect effect of SC on PCE via expectations was significant ($Z = -2.19, p < .03$).

Discussion. The data of Study 1a suggest that it is possible to override trait SC and temporarily induce a focus on one's interdependent versus independent self. Doing so has substantial effects on participants' perceptions of effectiveness. Additionally, the induction of an interdependent focus leads to greater expectations regarding other people's willingness to exert an effort to contribute to the solution of larger scale problems, which, in turn, leads to greater perceptions of effectiveness. This is consistent with our idea that projected expectations partially mediate the relationship between SC and perceived effectiveness.

Study 1b

In Study 1b, we examined the effect of self-construal on socially responsible behavior. We used a behavioral measure of socially responsible behavior to do so. In particular, after priming either the independent or the interdependent self, we observed the magnitude of financial contributions that participants could make to an organization that promotes ethical business and consumption, and fair trade.

Method.

Participants and procedure. We invited 86 undergraduate students (53.5% female) to participate in a series of studies, in exchange for a 9€ payment. Participants were randomly assigned to the independent or the interdependent condition. They were offered the opportunity to make a financial contribution to a fair trade organization. The amount participants decided to pay was subsequently subtracted from their participation fee. All proceeds were donated to the fair trade organization in question.

Manipulation and measures. To manipulate SC, we used the same instructions as in Study 1a. Then, in a task presented as unrelated to the first one, we told our

participants that they will be given a bar of chocolate marketed by an NGO that promotes fair trade. We asked them whether they were willing to contribute part of their participation fee to that NGO. Participants were free to indicate any number from 0 to 9€. This contribution constituted our measure of socially responsible behavior.

Results. Following the inspection of the descriptions written down in response to the instructions of the manipulation task, we discarded the data of 4 participants for not following the instructions. In addition, an outlier analysis of our donation measure suggested to eliminate the data of 2 participants for offering contributions that were more than 3 SD's removed from the mean. This way the data of 80 participants remained for further analysis. An ANOVA revealed that there was a significant effect of the SC manipulation on the contribution made ($F(1, 78) = 6.31, p < .02$). Those whose interdependent self was primed ($M = .80, SD = .71$) made larger contributions than those whose independent self was primed ($M = .44, SD = .59$). Also those whose interdependent self was primed were more likely to contribute (66%) than those whose independent self was primed (44%, $\chi^2(1) = 4.00, p < .05$).

Discussion. Studies 1a and 1b provide evidence for the causal link between SC on the one hand, and perceived effectiveness and socially responsible behavior on the other.

Both relationships were illustrated in separate studies, to shed light on the effect of SC on each of the dependent measures. These data suggest that activating the interdependent self could be a promising tool for use in programs aimed at enhancing perceptions of consumer effectiveness and to affect socially responsible behavior. Although our results are promising, there are several issues that require further research attention. First, our participants were undergraduate students who decided on contributions using the money earned as a participation fee rather than their own

resources earned elsewhere. To increase reliability, the effect should be replicated with a more heterogeneous sample. Second, for purposes of greater generalizability of our results, it would be instructive to conduct experiments with a different operationalization of socially responsible behavior, such as by including a non-financial measure of the effort exerted for a social cause. Finally, although in our experimental design we were able to assess differences in behavior that result from the priming of interdependent versus an independent self-construal, we did not include a control condition. Thus, we lack a benchmark that would allow us to assess whether it was the priming of the interdependent self that raised the likelihood of socially responsible behavior or, whether the priming of the independent self led to lower than usual levels of socially responsible behavior. Study 2 seeks to address these issues.

Study 2

The goal of Study 2 was to examine whether the effect of the SC activation pattern on socially responsible behavior generalizes to an adult population and alternative measures of such behavior. Moreover, the experimental design of Study 2 included a control condition, in order to assess whether changes in the behavior stem from the priming of the interdependent or the independent self. The study was conducted online and included the same manipulation of SC as in Study 1. Key behavior of interest was participants' efforts in providing assistance to an NGO with the mission "to inform and inspire people ... to turn their concern ... into action for a more just, peaceful and sustainable world." (www.earthaction.org)

Method

Two hundred and ninety nine US-based full-time working adults (60.5% female) were recruited online through CT Marketing Group, Inc.¹ to complete a survey. Respondents were assigned randomly to three experimental conditions: the interdependent prime, the independent prime, and the control condition. We manipulated SC using the same instructions as in Study 1a. In the control condition, participants were asked to write down a list of things they bought during their last grocery shopping trip. Next, we told participants: “The researchers conducting this study support the actions of the NGO EarthAction. We took it as our objective to search for firms who want to sponsor the actions of EarthAction. Research has shown that the response to letters inviting for a donation is larger when there is a simple and powerful "punchline" as to why should a donation be given. Good punchlines must be short and give the impression of a more personal request, for example "Help us help them!" In order to not repeat ourselves in the punchlines that we typically use, we would like to ask for your voluntary contribution. If you would like to help us, please write down 1-5 phrases that we could use. All your input is greatly appreciated and will potentially help to gather donations for a good cause.” Respondents could provide punchlines in a specially designated textbox or skip that part of the survey without entering any text. We counted the number of punchlines that each participant came up with, and that made up our dependent variable.

Results

A number of participants failed to follow the instructions of the SC manipulation task. They either did not write anything in response or wrote something irrelevant. The data of 73 individuals (24.4%) were discarded for this reason. The results reported below are based on the final sample of 226 respondents. Our SC manipulation had a

¹ CT Marketing Group works with various panel management companies that provide a mix of study-specific and other incentives (PayPal, cash, gift certificates and products) to survey respondents in exchange for panel membership.

significant effect on the number of punchlines provided ($F(2, 223) = 5.97, p < .01$). As Figure 1 shows, those in the interdependent condition provided more punchlines ($M = 1.54, SD = 1.59$) than those in the independent condition ($M = .79, SD = 1.03, F(1, 223) = 10.83, p < .01$) and those in the control condition ($M = .95, SD = 1.33, F(1, 223) = 7.25, p < .01$). There was no difference in the number of punchlines provided between the independent and the control condition ($F < 1$).

Insert Figure 1 about here

Discussion

Study 2 corroborates the results of Study 1 and provides further evidence for the effect of SC on socially responsible behavior. In Study 2, participants did not make financial contributions but had to exert an effort to help a social cause. Our findings suggest that there is a causal effect of SC on socially responsible behavior. Moreover, comparing the effect of interdependent and independent primes with the control condition suggests that the difference in effort levels was due to the activation of the interdependent self. The activation of the independent self, on the other hand, led to behavior that was comparable to the behavior in the control condition.

Although both Study 1 and Study 2 support our research hypotheses, the test of the effects of SC on perceived effectiveness (Study 1) was separate from the test of the effects of SC on socially responsible behavior (Study 1 and Study 2). The experimental design of these studies did not allow us to conduct a direct test of whether perceived effectiveness mediated the effect of the interdependent self. Study 3 was conducted to address this limitation.

Study 3

In this study, we collected self-report survey data to test the hypothesized relationship between the relative prominence of an individual's independent and interdependent SC (measured as an individual difference variable) and (self-report) socially responsible behavior. In Studies 1 and 2 we established that a SC manipulation affected both socially responsible behavior and perceived effectiveness, and in this study we wanted to directly test whether perceived effectiveness mediates the relationship between SC and socially responsible behavior.

Method

Participants and procedure. Seven hundred and fifty four US-based full-time employees (59.7% female; mean age = 44.2, SD = 11.5) completed a survey containing measures for SC, socially responsible consumer behavior, and PCE, among others. Participants were recruited online through CT Marketing Group, Inc. We included an instructional manipulation check (IMC; Oppenheimer, Meyvis, & Davidenko, 2009) to identify participants who do not follow instructions and do not read the questions carefully. Halfway through the survey, we presented participants with the following item: "Please, check button '2' on the scale below - just making sure that everyone is keeping up with survey instructions". The data of the participants who failed to click the requested button (15.4%) were excluded from further analysis.

Measures.

Self-construal. We assessed participants' SC using the levels of self-concept scale (Johnson & Lord, 2010; Johnson, Selenta, & Lord, 2006). Responses to the items of the self-concept scale (and all of the following measures) were given using a 7-point scale ranging from 1 = strongly disagree to 7 = strongly agree. Items included "I thrive on opportunities to demonstrate that my abilities or talents are better than those of other people" and "I often compete with my friends" (independent), "I value friends who are

caring, empathic individuals” and “Knowing that a close other acknowledges and values the role that I play in their life makes me feel like a worthwhile person” (relational), and “When I become involved in a group project, I do my best to ensure its success” and “When I’m part of a team, I am concerned about the group as a whole instead of whether individual team members like me or whether I like them” (collective). A factor analysis with Varimax rotation suggested that the 15 items made up two subscales, accounting for 62% of total variance. The first component included the 10 items originally intended to measure the relational and the collective self. In line with the results of the factor analysis we joined them together in a measure of the prominence of the interdependent self (*Cronbach’s* $\alpha = .92$). The items designed to measure the independent self formed a second reliable subscale (*Cronbach’s* $\alpha = .86$). We defined the relative prominence of the interdependent self over the independent self as the difference between the mean of the answers to the items probing the interdependent self and the mean of the items of the independent self subscale for each participant.

Socially responsible consumer behavior. To measure socially responsible consumer behavior we used subscales from the socially responsible purchase and disposal (SRPD) scale (Webb, Mohr, & Harris, 2008) and the Consumer Ethics Scale (Vitell & Muncy, 2005). We included the “CSR performance” (CSRP; 13 items, $\alpha = .97$), “consumer recycling behavior” (REC; 6 items, $\alpha = .94$), and “environmental impact purchase and use criteria” (ENVIR; 7 items, $\alpha = .92$) subscales from the SRPD scale and “Actively benefitting from illegal actions” (ACT; 5 items, $\alpha = .92$), “passively benefitting” (PAS; 6 items, $\alpha = .90$), “questionable, but legal actions” (QUEST; 5 items, $\alpha = .88$), “recycling” (RECYCLE; 4 items, $\alpha = .86$), and “doing good” (GOOD; 4 items, $\alpha = .87$) subscales from the Consumer Ethics Scale.

Perceived effectiveness. To measure perceived effectiveness we used the same three items of the PCE scale as in Study 1a. They formed a reliable scale (*Cronbach's* $\alpha = .83$).

Results

Descriptive statistics for key dependent and independent measures in Study 3 are presented in Table 1.

Insert Table 1 about here

First, we verified whether our data replicate the relationship between perceived effectiveness and socially responsible behavior, reported in previous studies. The correlations between both concepts are significant for all measures of socially responsible behavior. Most of them are substantial (all r 's(638) > .24, p 's < .01, see Table 1).

Second, we evaluated the hypothesized relationship between SC and PCE. Our measure for the relative prominence of the interdependent self over the independent self correlates significantly with PCE ($r(638) = 0.33$, $p < .01$). For the two dimensions of SC separately, participants with a more prominent interdependent self had higher levels of PCE ($r(638) = 0.44$, $p < .01$), and participants higher on the independent self reported a lower PCE ($r(638) = -.08$, $p < .05$). The difference in the absolute value of these correlations is statistically significant, *Hotelling's* $t(635) = 7.66$, $p < .01$, suggesting that the overall relationship between SC and PCE is mostly determined by individual differences in the prominence of the interdependent self.

Third, as expected, we found a relationship between the relative prominence of the interdependent self over the independent self on the one hand, and (self-report) socially responsible behavior on the other (see Table 1). We also looked at the correlations of our separate measures for the interdependent and independent self with the measures of socially responsible consumer behavior. For the interdependent self all these correlations were significant.

We then tested our suggested mediation model using the bootstrapping procedure developed by Preacher and Hayes (2008). The results indicated that the indirect effect of SC on socially responsible behavior via PCE was significant for all the measures included in our survey (All Z 's > 3.49 , p 's $< .01$, see Table 2).

Insert Table 2 about here

Discussion

In this study we evaluated the full mediation model proposed. A mediation test based on bootstrapping suggested that PCE is in part responsible for the observed relationship between SC and socially responsible behavior. Moreover, we found that the variation in the interdependent self affected socially responsible behavior more strongly than did the variation in the independent self. This result is consistent with our findings in Study 2, where the effects of SC were shown to be due to the priming of the interdependent self.

General discussion

In three studies, we showed that self-construal affects perceptions of effectiveness of individual actions. In particular, individuals whose interdependent self is more prominent believe to be more effective and, as a result, are more likely to

engage in socially responsible behavior than individuals whose independent self is more prominent. The latter feel that they are less likely to bring about change on a larger scale.

Our results suggest a promising tool for motivating – and actually producing – socially responsible behavior. In particular, previous research suggested that the most important obstacle for socially responsible behavior is the feeling of personal ineffectiveness when considering the impact an individual act would have on the large scale (e.g., Jackson, 2005; Lorenzoni, et al., 2007; Stoll-Kleemann, et al., 2001). Our results show that the feeling of personal effectiveness – and thus socially responsible behavior – can be fostered by emphasizing the collective identity of people, their togetherness, and connectedness. By pointing out the importance of self-construal in affecting perceptions of effectiveness we offer a tool for managing perceptions of effectiveness, a powerful predictor of socially responsible behavior.

In the long term, efforts to promote socially responsible behavior would benefit from cultivating a chronic and culturally promoted sense of connectedness. Substantial research evidence, including the evidence presented in our Studies 1 and 2, shows that situational factors may change the chronic salience of a specific identity level in favor of greater interdependence, thereby jumpstarting the process of promoting connectedness.

The findings in this article are in line with McKenzie-Mohr's (2000) work on community-based social marketing, a framework using insights from multiple areas in psychology to develop programs that foster sustainable behavior. While most traditional programs rely on informing people about positive consequence of socially responsible behavior (or negative consequences of the lack of thereof) to motivate behavior change, previous research clearly indicate the limits of such an – often expensive – approach

(Owens & Driffill, 2008; Sturgis & Allum, 2004). Effective programs should include more subtle elements that do not only increase motivation to engage in socially responsible behavior but also translate that concern in a change in behavioral patterns. Understanding what kind of information to provide in such campaigns is crucial for their success. For example, in a field experiment among hotel guests, Goldstein, Cialdini, and Griskevicius (2008) showed that hotel signs describing the conservation behavior of “fellow guests” were significantly more effective than standard appeals to duty for increasing the rate of towel reuse. Our work suggests that the effect might have occurred because the mention of “guests who previously used this room” inadvertently primed the guest’s interdependent self. Similarly, advertisement slogans such as “We’re all in this together” (as used by Virgin Airlines to promote civic behavior by airplane passengers) might be effective because such slogans make the client’s interdependent self more salient.

It is important to note that the effect of self-construal that we document may operate in addition to the suggested relationship between levels of the interdependent self and commitment to further the goals of one’s social group and society. Future research could investigate the relative importance of these distinct mechanisms linking self-construal and socially responsible behavior. It would be important to identify settings which foster or, on the contrary, hinder either mechanism. Also, future research may examine the exact processes through which SC affects perceptions of effectiveness. We have presently shown that projected expectations partially mediate this relationship, and should therefore be included in the study of such processes. Finally, because self-construal is also related to gender (Cross & Madson, 1997) and cross-cultural differences in emotion, cognition, and behavior (Gelfand, Erez, & Aycan, 2007), future research should explore the mediating role of self-construal in perceptions of

effectiveness underlying socially responsible behavior of men versus women, and in diverse cultural settings.

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Figure captions

Figure 1. The effect of self-construal on the number of punchlines provided (Study 2)

Figure 1

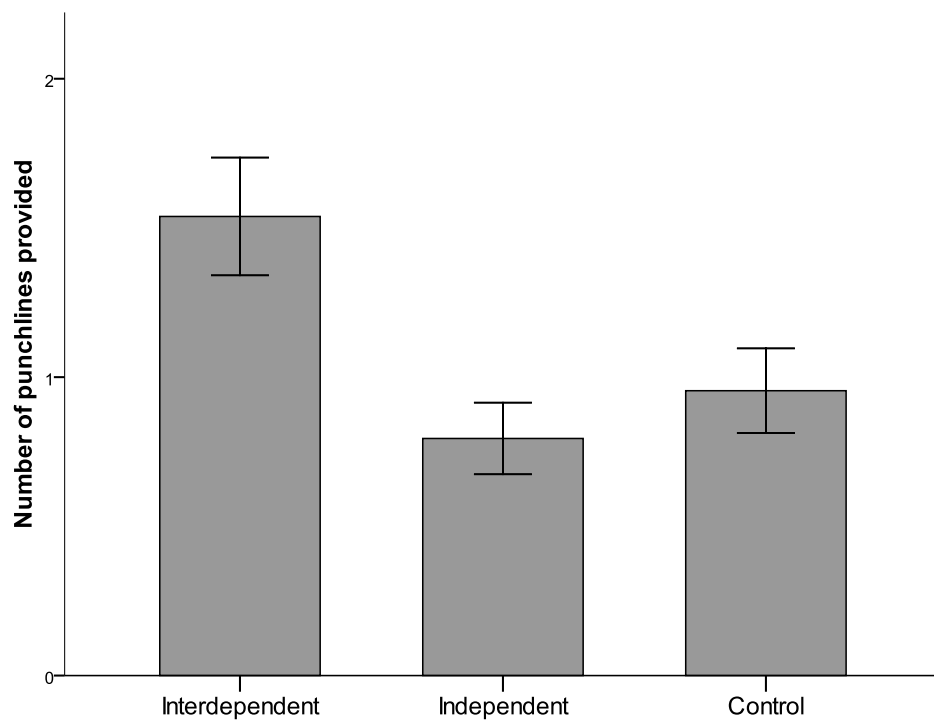


Table 1

Descriptive Statistics for All Study 3 Variables with Internal Reliabilities in Parentheses on the Diagonal

	Descriptives		Correlations											
	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. Self-Construal	1.61	1.51	-											
2. Interdependent Self	5.81	0.88	0.47**	(0.92)										
3. Independent Self	4.19	1.35	-0.82**	0.13**	(0.86)									
4. PCE	5.48	1.31	0.33**	0.44**	-0.08*	(0.83)								
5. CSRP	4.51	1.37	0.10*	0.43**	0.17**	0.42**	(0.97)							
6. REC	5.24	1.67	0.09*	0.19**	0.02	0.32**	0.28**	(0.94)						
7. ENVIRON	4.48	1.37	0.08*	0.31**	0.11**	0.50**	0.70**	0.44**	(0.92)					
8. ACT	2.34	1.56	-0.31**	-0.33**	0.13**	-0.34**	-0.09*	-0.06	-0.09*	(0.92)				
9. PAS	2.86	1.54	-0.29**	-0.30**	0.13**	-0.28**	-0.25**	-0.08*	-0.21**	0.74**	(0.90)			
10. QUEST	2.96	1.54	-0.25**	-0.24**	0.13**	-0.24**	-0.22**	-0.07	-0.17**	0.66**	0.84**	(0.88)		
11. RECYCLE	4.85	1.50	0.14**	0.21**	-0.02	0.45**	0.14**	0.20**	0.22**	-0.01	0.12**	0.14**	(0.86)	
12. GOOD	5.31	1.46	0.30**	0.33**	-0.12**	0.39**	0.15**	0.16**	0.14**	-0.22**	-0.13**	-0.07	0.71**	(0.87)

Note. $N = 638$. * $p < .05$, ** $p < .01$ (two-tailed). PCE = perceived consumer effectiveness; CSRP = corporate social responsibility performance; REC = consumer recycling behavior; ENVIRON = environmental impact and use criteria; ACT = actively benefitting from illegal actions; PAS = passively benefitting from illegal actions; QUEST = questionable, but legal actions; RECYCLE = recycling; GOOD = doing good

Table 2

Evaluation of the indirect effect of SC on socially responsible behavior via PCE

Dependent Variable	Indirect effect	se	Z	p
CSRP	0.13	0.02	6.91	< 0.01
REC	0.12	0.02	5.96	< 0.01
ENVIRON	0.16	0.02	7.48	< 0.01
ACT	-0.07	0.01	-5.40	< 0.01
PAS	-0.06	0.01	-4.53	< 0.01
QUEST	-0.05	0.01	-3.84	< 0.01
RECYCLE	0.15	0.02	7.05	< 0.01
GOOD	0.11	0.02	6.17	< 0.01

Note. PCE = perceived consumer effectiveness; CSRP = corporate social responsibility performance; REC = consumer recycling behavior; ENVIRON = environmental impact and use criteria; ACT = actively benefitting from illegal actions; PAS = passively benefitting from illegal actions; QUEST = questionable. but legal actions; RECYCLE = recycling; GOOD = doing good